MARCH 2017

REPORT TO THE CONGRESS

# Medicare Payment Policy

MEDPAC Medicare Payment Advisory Commission

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The Medicare Payment Advisory Commission (MedPAC) is an independent congressional agency established by the Balanced Budget Act of 1997 (P.L. 105–33) to advise the U.S. Congress on issues affecting the Medicare program. In addition to advising the Congress on payments to health plans participating in the Medicare Advantage program and providers in Medicare's traditional fee-for-service program, MedPAC is also tasked with analyzing access to care, quality of care, and other issues affecting Medicare.

The Commission's 17 members bring diverse expertise in the financing and delivery of health care services. Commissioners are appointed to three-year terms (subject to renewal) by the Comptroller General and serve part time. Appointments are staggered; the terms of five or six Commissioners expire each year. The Commission is supported by an executive director and a staff of analysts, who typically have backgrounds in economics, health policy, and public health.

MedPAC meets publicly to discuss policy issues and formulate its recommendations to the Congress. In the course of these meetings, Commissioners consider the results of staff research, presentations by policy experts, and comments from interested parties. (Meeting transcripts are available at www.medpac.gov.) Commission members and staff also seek input on Medicare issues through frequent meetings with individuals interested in the program, including staff from congressional committees and the Centers for Medicare & Medicaid Services (CMS), health care researchers, health care providers, and beneficiary advocates.

Two reports—issued in March and June each year—are the primary outlets for Commission recommendations. In addition to annual reports and occasional reports on subjects requested by the Congress, MedPAC advises the Congress through other avenues, including comments on reports and proposed regulations issued by the Secretary of the Department of Health and Human Services, testimony, and briefings for congressional staff.

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Francis J. Crosson, M.D., Chairman
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March 15, 2017

The Honorable Michael R. Pence
President of the Senate
U.S. Capitol
Washington, DC 20510

The Honorable Paul D. Ryan
Speaker of the House
U.S. House of Representatives
U.S. Capitol
Room H-232
Washington, DC 20515

Dear Mr. President and Mr. Speaker:

I am pleased to submit the Medicare Payment Advisory Commission's March 2017 *Report to the Congress: Medicare Payment Policy*. This report fulfills the Commission's legislative mandate to evaluate Medicare payment issues and make recommendations to the Congress.

The report contains 14 chapters:

- a chapter that provides a broader context for the report by documenting Medicare and total health care spending and their impacts on federal spending;
- a chapter that describes the Commission's analytical framework for assessing payment adequacy;
- nine chapters that describe the Commission's recommendations on fee-for-service (FFS) payment rate updates and related issues;
- a chapter that considers the costs of post-acute care as a whole;
- a chapter that updates the trends in enrollment, plan offerings, and payments in Medicare Advantage (MA) plans; and
- a chapter that updates the trends in enrollment and plan offerings for plans that provide prescription drug coverage.

In this report, we continue to make recommendations aimed at finding ways to provide high-quality care for Medicare beneficiaries while giving providers incentives to constrain their cost growth and thus help control program spending.

In light of our payment adequacy analyses, we recommend no payment update in 2018 for four FFS payment systems (long-term care hospital, hospice, ambulatory surgical center, and skilled nursing facility) and reductions of 5 percent of the base payment for the home health agency and inpatient rehabilitation facility payment systems. For four of these sectors, we include additional elements beyond the payment update to improve payment accuracy:

- requiring ambulatory surgical centers to submit cost data;
- freezing skilled nursing facility payment rates for two years while the payment system is revised, then having the Secretary report whether any additional adjustments are needed;
- rebasing the home health payment system and eliminating therapy visits as a factor in payment; and
- expanding the inpatient rehabilitation facility outlier pool.

More broadly, changes need to be made in the post-acute care payment systems (i.e., the skilled nursing facility, home health agency, inpatient rehabilitation facility, and long-term care hospital payment systems), and the cost of inaction is mounting. Ideally, the post-acute care sectors would be brought together under a unified payment system that would base payments on patient characteristics. Such a system could both lower costs and ensure access for patients who may be financially less desirable under current payment systems.

In the other sectors (acute care hospital, physician and other health professionals, and outpatient dialysis), we recommend the updates in current law. For the hospital sector, we also recommend tracking claims at off-campus stand-alone emergency department facilities to allow CMS to monitor this growing class of providers. In addition, we recommend calculating benchmarks for the MA program using FFS spending data only for beneficiaries enrolled in both Part A and Part B of Medicare. This change to the calculation should result in greater payment equity among MA plans and between MA and FFS Medicare.

I hope you find this report useful as the Congress continues to grapple with the difficult task of controlling the growth of Medicare spending while preserving beneficiaries' access to efficiently delivered, high-quality care and providing equitable payment for providers.

Sincerely,

Francis J. Crosson, M.D.

Enclosure

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# Executive summary

# Executive summary

By law, the Medicare Payment Advisory Commission reports to the Congress each March on the Medicare fee-for-service (FFS) payment systems, the Medicare Advantage (MA) program, and the Medicare prescription drug program (Medicare Part D). In this year's report, we:

- consider the context of the Medicare program in terms of the effects of its spending on the federal budget and its share of national gross domestic product (GDP).
- evaluate payment adequacy and make recommendations concerning Medicare FFS payment policy in 2018 for acute care hospital, physician and other health professional, ambulatory surgical center, outpatient dialysis facility, skilled nursing facility, home health care, inpatient rehabilitation facility, long-term care hospital, and hospice services.
- consider post-acute care as a whole and note that payment levels in several of the payment systems are too high and the payment systems themselves need to be revised.
- review the status of the MA plans (Medicare Part C) that beneficiaries can join in lieu of traditional FFS Medicare and recommend a change to the calculation of MA benchmarks.
- review the status of the plans that provide prescription drug coverage (Medicare Part D).

The goal of Medicare payment policy is to get good value for the program's expenditures, which means maintaining beneficiaries' access to high-quality services while encouraging efficient use of resources. Anything less does not serve the interests of the taxpayers and beneficiaries who finance Medicare through their taxes and premiums. This report includes a recommendation on MA and provides information on Part D, but most of its content focuses on the Commission's recommendations for the annual payment rate updates under Medicare's various FFS payment systems and on aligning relative payment rates across those systems so that patients receive efficiently delivered, high-quality care.

We recognize that managing updates and relative payment rates alone will not solve what have been fundamental problems with Medicare FFS payment systems to date—that providers are paid more when they deliver more services without regard to the value of those additional services and are not routinely rewarded for care coordination. To address these problems directly, two approaches must be pursued. First, payment reforms such as incentives to reduce excessive hospital readmission rates need to be implemented more broadly and coordinated across settings, and efforts such as a unified payment system for post-acute care must be pursued expeditiously. Second, delivery system reforms that have the potential to encourage high-quality care, better care transitions, and more efficient provision of care need to be enhanced and closely monitored, and successful models need to be adopted on a broad scale.

In the interim, it is imperative that the current FFS payment systems be managed carefully. Medicare is likely to continue using its current payment systems for some years into the future. This fact alone makes unit prices—their overall level, the relative prices of different services in a sector, and the relative prices of the same service across sectors—an important topic. In addition, constraining unit prices could create pressure on providers to control their own costs and to be more receptive to new payment methods and delivery system reforms.

For each recommendation, we present its rationale, its implications for beneficiaries and providers, and how spending for each recommendation would compare with expected spending under current law. The spending implications are presented as ranges over one-year and five-year periods; unlike official budget estimates, they do not take into account the complete package of policy recommendations or the interactions among them. Although we recognize budgetary consequences, our recommendations are not driven by any single budget target, but instead reflect our assessment of the payment rate needed to provide adequate access to appropriate care.

In Appendix A, we list all recommendations and the Commissioners' votes.

## Context for Medicare payment policy

Part of the Commission's mandate is to consider the effect of its recommendations on the federal budget and view Medicare in the context of the broader health care system. To help meet this mandate, Chapter 1 examines health care

spending growth—for the nation at large and Medicare in particular—and considers its effect on federal and state budgets as well as the budgets of individuals and families. The chapter also reviews recent mortality and morbidity trends, profiles the health status of the next generation of Medicare beneficiaries, and reviews evidence of inefficient health care spending, structural features of the Medicare program that contribute to inefficient spending, and the Commission's approach to addressing those challenges.

In 2015, total national health care spending was $3.2 trillion, or 17.8 percent of GDP. Private health insurance spending was $1.1 trillion, or 5.9 percent of GDP. Medicare spending was $646.2 billion, or 3.6 percent of GDP.

Health care spending growth shows signs of acceleration after several years of historic lows. From 1975 to 2009, total health care spending and Medicare spending grew, at average annual rates of 9.0 percent and 10.6 percent, respectively. Then from 2009 to 2013, those rates fell to 3.6 percent and 4.1 percent. From 2013 to 2015, Medicare actuaries estimate that spending grew faster: National health care spending grew at an average annual rate of 5.6 percent, and Medicare spending grew 4.6 percent.

The aging of the baby-boom generation will have a profound impact on both the Medicare program and the taxpayers who support it. Over the next 15 years, as Medicare enrollment surges, the number of taxpaying workers per beneficiary will decline. By 2030 (the year all boomers will have aged into Medicare), the Medicare Trustees project there will be just 2.4 workers for each Medicare beneficiary, down from 4.6 around the time of the program's inception and 3.3 in 2012. Those demographics create a financing challenge not only for the Medicare program but also for the entire federal budget. By 2040, under federal tax and spending policies specified in current law, Medicare spending combined with spending on other major health care programs, Social Security, and net interest on the national debt will exceed total projected federal revenues and will thus either increase federal deficits and debt or crowd out spending on all other national priorities.

The growth in health care spending also affects state budgets and the budgets of individuals and families. States pay for a significant portion of Medicaid spending. Under the Patient Protection and Affordable Care Act of 2010 (PPACA), the Medicaid population is expanding; however, under current law, the federal government will pay for most of the costs associated with the expansion. Increases in private insurance premiums have outpaced the growth of individual and family incomes over the past decade, and out-of-pocket costs for Medicare beneficiaries have grown faster than Social Security benefits.

Some health care spending is inefficient. For Medicare, eliminating such spending would result in improved beneficiary health, greater fiscal sustainability for the program, and reduced federal budget pressures. Certain structural features of the Medicare program pose challenges for targeting inefficient spending, but the Commission has a framework to address those challenges that focuses on payment accuracy and efficiency, care coordination and quality, information for patients and providers, engaged beneficiaries, and an aligned health care workforce.

## Assessing payment adequacy and updating payments in fee-for-service Medicare

As required by law, the Commission annually makes payment update recommendations for providers paid under FFS Medicare. An update is the amount (usually expressed as a percentage change) by which the base payment for all providers in a payment system is changed relative to the prior year. As discussed in Chapter 2, to determine an update, we first assess the adequacy of Medicare payments for providers in the current year (2017) by considering beneficiaries' access to care, the quality of care, providers' access to capital, and Medicare payments and providers' costs. Next, we assess how those providers' costs are likely to change in the year the update will take effect (policy year 2018). As part of the process, we examine payments to support the efficient delivery of services consistent with our statutory mandate. Finally, we make a judgment about what, if any, update is needed.

This year, we consider recommendations in nine FFS sectors: acute care hospitals, physicians and other health professionals, ambulatory surgical centers, outpatient dialysis facilities, skilled nursing facilities, home health care agencies, inpatient rehabilitation facilities, long-term care hospitals, and hospices. Each year, the Commission looks at all available indicators of payment adequacy and reevaluates any assumptions from prior years using the most recent data available to make sure our recommendations accurately reflect current conditions. We may also consider recommending changes that redistribute payments among providers within a payment system to correct any biases that may make patients with certain conditions financially undesirable, make particular

procedures unusually profitable, or otherwise result in inequity among providers. Finally, we may also make recommendations to improve program integrity.

Our recommendations, if enacted, could significantly change the revenues providers receive from Medicare. Rates set to cover the costs of relatively efficient providers help create fiscal pressure on all providers to control their costs. Medicare rates also have broader implications for health care spending. For example, Medicare rates are commonly used to set hospital rates charged to uninsured patients eligible for financial assistance, used by Medicare Advantage plans to set hospital prices, and used by the Department of Veterans Affairs (VA) to pay non-VA providers.

The Commission also examines payment rates for services that can be provided in multiple settings. Medicare often pays different amounts for similar services across settings. Basing the payment rate on the rate in the most efficient setting would save money for Medicare, reduce cost sharing for beneficiaries, and reduce the incentive to provide services in the higher paid setting for financial reasons. However, putting into practice the principle of paying the same rate for the same service across settings can be complex because it requires that the definition of the services and the characteristics of the beneficiaries across settings be sufficiently similar. In March 2012, we recommended equalizing rates for evaluation and management office visits provided in hospital outpatient departments and physicians' offices. In 2014, we extended that recommendation to additional services provided in those two settings and recommended consistent payment between acute care hospitals and long-term care hospitals for certain classes of patients. In the Bipartisan Budget Act of 2015, the Congress made payment to outpatient departments for certain services equal to the physician fee schedule rates for those same services provided at any new outpatient off-campus location beginning in 2018. In 2015, we recommended site-neutral payments to inpatient rehabilitation facilities (IRFs) for select conditions treated both in skilled nursing facilities and IRFs. The Commission will continue to analyze opportunities for applying this principle to other services and settings.

## Hospital inpatient and outpatient services

In 2015, the Medicare FFS program paid 4,700 hospitals $178 billion for about 10 million Medicare inpatient admissions, 200 million outpatient services, and $8 billion of non-Medicare uncompensated care costs. This sum represents a 3 percent increase in hospital spending from 2014 to 2015. On net, inpatient payments increased by $2 billion and outpatient payments increased by almost $4 billion. Inpatient payments increased because of slight increases in prices, patient severity, and inpatient volume. Outpatient payments rose because of volume increases, price increases, and the continued shift of services from lower cost physician offices to higher cost hospital outpatient settings.

As we discuss in Chapter 3, most payment adequacy indicators (including access to care, quality of care, and access to capital) are positive. Average Medicare margins continue to be negative, although hospitals with excess capacity still have an incentive to see more Medicare beneficiaries because Medicare payment rates remain about 9 percent higher than the variable costs associated with Medicare patients. Thus, the Commission recommends that the Congress update the inpatient and outpatient payment rates by the amounts specified in current law.

***Beneficiaries' access to care—***The average hospital occupancy rate was 62 percent in 2015, suggesting that hospitals have excess inpatient capacity in most markets. Inpatient use per beneficiary increased by 0.4 percent in 2015, and use of outpatient services increased by 2.2 percent. The small increase in inpatient admissions per capita follows years of steady declines.

***Quality of care—***Hospital mortality and readmission rates have improved in recent years. Patient satisfaction also has improved, with the share of patients rating their hospital a 9 or 10 on a 10-point scale increasing from 69 percent in 2011 to 72 percent in 2015.

***Providers' access to capital—***Access to bond markets remains strong. While some hospitals struggle with low occupancy and limited access to capital, most hospitals have good access to capital due to strong all-payer profit margins. All-payer operating margins reached a record high in 2015.

***Medicare payments and providers' costs—***In 2015, hospitals' aggregate Medicare margin was –7.1 percent. Under current law, Medicare margins are projected to decline from 2015 to 2017 to approximately –10 percent. This decline in part reflects the sunsetting of IT subsidies and lower uncompensated care payments. Uncompensated care payments are projected to decline as more individuals enroll in Medicaid or private insurance. While average

Medicare payments were lower than average costs, Medicare payments were higher than the variable costs of treating Medicare patients in 2015—resulting in a marginal profit of about 9 percent. Therefore, hospitals with excess capacity still have a financial incentive to serve more Medicare patients.

As we discuss in Chapter 3, stand-alone emergency departments (EDs) have expanded in recent years. However, CMS is currently unable to track growth in stand-alone ED claims because the claims are not distinguished from hospitals' on-campus ED claims. Therefore, the Commission recommends that the Secretary require hospitals to add a modifier on claims for all services provided at off-campus stand-alone emergency department facilities to allow CMS to track this growing category of providers.

## Physician and other health professional services

Physicians and other health professionals deliver a wide range of services—including office visits, surgical procedures, and diagnostic and therapeutic services—in a variety of settings. In 2015, Medicare paid $70.3 billion for physician and other health professional services, accounting for 15 percent of FFS Medicare benefit spending. About 919,000 clinicians billed Medicare—over 581,000 physicians and nearly 338,000 nurse practitioners, physician assistants, therapists, chiropractors, and other practitioners.

Medicare pays for the services of physicians and other health professionals using a fee schedule. Under current law, Medicare's conversion factor for the fee schedule will be updated by 0.5 percent in 2018. The payment adequacy indicators below, which are discussed in Chapter 4, suggest that payments for physicians and other health professionals are adequate. Therefore, the Commission recommends an update for 2018 consistent with current law.

***Beneficiaries' access to care—***Overall, beneficiary access to physician and other health professional services is comparable with prior years, although our access survey shows a slight decline compared with last year in the share of beneficiaries reporting that they never had to wait longer than wanted for regular, routine, illness, or injury care. Most beneficiaries continue to report that they are able to find a new doctor without a problem. A small number of beneficiaries report more difficulty, with a higher share reporting problems obtaining a new primary care doctor than problems obtaining a specialist. The number of physicians per beneficiary has remained relatively constant, the number of advanced practice registered nurses and physician assistants per beneficiary has grown slightly, and the share of providers enrolled in Medicare's participating provider program remains high. In 2015, across all services, volume per beneficiary grew by 1.6 percent.

***Quality of care—***CMS assesses the quality of Medicare-billing physicians and other health professionals based on clinician-reported individual quality measures. The Commission has raised the following concerns with Medicare's current clinician quality programs: The reporting requirements are confusing and burdensome to providers, the process does not allow for comparability across providers, many measures are not linked to patient outcomes, and few measures assess low-value care. We also report three sets of population-based measures—avoidable hospitalizations and emergency department visits for ambulatory care–sensitive conditions and rates of low-value care in Medicare. Our results show substantial use of low-value care in FFS Medicare.

***Medicare payments and providers' costs—***In 2015, Medicare payment rates for physician and other health professional services were 78 percent of commercial rates for preferred provider organizations, the same as in 2014. In addition, average annual physician compensation increased by 4 percent in 2015, although average compensation was much lower for primary care physicians than for physicians in specialty groups such as radiology and nonsurgical, procedural specialties—continuing to raise concerns about fee schedule mispricing and its impact on primary care. CMS currently projects that the 2018 increase in the Medicare Economic Index (which measures input prices) will be 2.4 percent.

## Ambulatory surgical center services

Ambulatory surgical centers (ASCs) provide outpatient procedures to patients who do not require an overnight stay after the procedure. In 2015, nearly 5,500 ASCs treated 3.4 million FFS Medicare beneficiaries. Medicare program and beneficiary spending on ASC services was about $4.1 billion.

Our results indicate that beneficiaries' access to ASC services is adequate. Most of the available indicators of payment adequacy for ASC services, discussed in Chapter 5 and below, are positive.

***Beneficiaries' access to care—***Our analysis of facility supply and volume of services indicates that beneficiaries' access to ASC services has generally been adequate. From 2010 to 2014, the number of Medicare-certified ASCs grew at an average annual rate of 1.1 percent. In 2015, the number of ASCs increased 1.4 percent. Most new ASCs in 2015 (96 percent) were for-profit facilities. From 2010 through 2014, the volume of services per beneficiary grew by an average annual rate of 0.5 percent. In 2015, volume increased by 1.8 percent, which is higher than in recent years.

***Quality of care—***ASCs began submitting data on quality measures to CMS in October 2012. CMS has made data from 2013 and 2014 publicly available for five of these measures. Among the ASCs that submitted data on these measures, quality appears to have improved from 2013 to 2014. However, CMS allowed ASCs to suppress their data on these measures, and some ASCs chose that option. Therefore, the data from the ASCs that submitted data may not necessarily represent the quality performance of the sector in general. For 2014, CMS has released quality data on four other measures. We have concerns about ASCs' performance on some of these measures. Reported quality data and claims analysis suggest possible areas of improvement for certain types of ASCs.

***Providers' access to capital—***Because the number of ASCs has continued to increase, access to capital appears to be adequate.

***Medicare payments and providers' costs—***Medicare payments per FFS beneficiary increased by an average of 2.8 percent per year from 2010 through 2014 and by 5.2 percent in 2015. ASCs do not submit data on the cost of services they provide to Medicare beneficiaries. Therefore, we cannot calculate a Medicare margin as we do for other provider types to help assess payment adequacy.

Based on these indicators, the Commission concludes that ASCs can continue to provide Medicare beneficiaries with access to ASC services with no update to the payment rates for 2018. In addition, the Commission again recommends that CMS collect cost data from ASCs without further delay.

## Outpatient dialysis services

Outpatient dialysis services are used to treat the majority of individuals with end-stage renal disease (ESRD). In 2015, nearly 388,000 beneficiaries with ESRD on dialysis were covered under FFS Medicare and received dialysis from nearly 6,500 dialysis facilities. Since 2011, Medicare has paid for outpatient dialysis services using a prospective payment system (PPS) based on a bundle of services. The bundle includes certain dialysis drugs and ESRD-related clinical laboratory tests that were previously paid separately. In 2015, Medicare expenditures for outpatient dialysis services were $11.2 billion, a slight decline of 0.1 percent compared with 2014 Medicare dialysis expenditures.

Our payment adequacy indicators for outpatient dialysis services discussed in Chapter 6 and below are generally positive. The Commission recommends that the Congress increase the outpatient dialysis base payment rate by the update specified in current law for calendar year 2018.

***Beneficiaries' access to care—***Measures of the capacity and supply of providers, beneficiaries' ability to obtain care, and changes in the volume of services suggest payments are adequate. Dialysis facilities appear to have the capacity to meet demand. Between 2014 and 2015, the number of dialysis treatment stations grew slightly faster than the number of dialysis beneficiaries. Between 2014 and 2015, the number of FFS dialysis beneficiaries grew by 1.0 percent while the total number of treatments grew by 0.4 percent. At the same time, the per treatment use of most dialysis injectable drugs (including erythropoiesis-stimulating agents (ESAs), which are used in anemia management) continued to decline, but at a slower rate than during the initial years of the PPS (2011 and 2012). The dialysis PPS created an incentive for providers to be more judicious about their provision of dialysis drugs.

***Quality of care—***Between 2011, when the outpatient dialysis PPS was implemented, and 2015, there was a declining trend in unadjusted mortality, hospitalization, and 30-day readmission rates, though emergency department use increased. Negative cardiovascular outcomes associated with high ESA use declined, and blood transfusion use, which initially increased under the PPS, trended down in 2014 and 2015. Beneficiaries' use of home dialysis, which is associated with improved patient satisfaction and quality of life, increased from 9 percent to 11 percent of dialysis beneficiaries. However, home dialysis growth slowed between 2014 and 2015 because of a shortage of the dialysis solutions needed for the predominant home method, peritoneal dialysis. Another important aspect of quality is the appropriate timing of the initiation of dialysis. A potential concern is that the

proportion of patients with higher levels of residual kidney function upon the initiation of dialysis increased from 13 percent in 1996 to 43 percent in 2010.

***Providers' access to capital*—**Information from investment analysts suggests that access to capital for dialysis providers continues to be adequate. The number of facilities, particularly for-profit facilities, continues to increase. Since 2010, the two largest dialysis organizations have grown through acquisitions and mergers with midsized dialysis organizations and other providers, including physician services organizations.

***Medicare payments and providers' costs*—**From 2014 to 2015, cost per treatment in freestanding dialysis facilities increased by 0.5 percent, while Medicare payment per treatment decreased by about 1.3 percent. We estimate that the aggregate Medicare margin was 0.4 percent in 2015, and the rate of marginal profit was 16.6 percent. We project a 2017 Medicare margin of –1.0 percent, which reflects a CMS accounting change that raises average costs. Without that change, the projected 2017 margin would be about the same as our estimate of the margin for 2015.

## Post-acute care: The Congress and CMS must act to implement recommended changes to PAC payments

Post-acute care (PAC) providers offer important recuperation and rehabilitation services to Medicare beneficiaries after an acute care hospital stay. PAC providers include skilled nursing facilities (SNFs), home health agencies (HHAs), inpatient rehabilitation facilities (IRFs), and long-term care hospitals (LTCHs). In 2015, FFS program spending on PAC services totaled $60 billion.

As we discuss in Chapter 7, the Commission has two goals in making payment recommendations. The *update* recommendations aim to ensure that payments are adequate so that beneficiary access is preserved while taxpayers and the long-run sustainability of the program are protected. The recommendations to *revise the payment systems* aim to match program payments to the costs of treating patients with different care needs. Such targeting increases the equity of the program's payments so that providers have little financial incentive to treat some beneficiaries over others.

Over more than a decade, the Commission has worked extensively on PAC payment reform, proposing closer alignment of costs and payments, more equitable payments across different types of patients, and tying payment to performance on outcomes-based quality measures. While there has been some progress on the quality and value-based purchasing fronts, there have been few corrections to the known shortcomings of the SNF and HHA PPSs, and payments remain high relative to the costs of treating beneficiaries. As a result, the inequities in payment continue to encourage patient selection and to advantage some providers over others.

The cost to the program of not implementing the Commission's update recommendations is substantial. Across the four PAC settings, if this year's recommendations are implemented, we estimate that FFS program spending will be reduced by more than $30 billion over 10 years, all else being equal. The cost of past inaction is also considerable. Had the 2008 recommendations to eliminate the updates to payments for HHAs and SNFs been implemented, we estimate that FFS spending between 2009 and 2016 would have been $11 billion lower without affecting access. The Commission also recommended that the payment systems for SNFs and HHAs be revised to base payments on patient characteristics, not the amount of service furnished. Implementing these recommendations would have narrowed the differences in financial performance across providers within each setting while preserving the profitability of the SNF and HHA sectors. Because FFS payments are the basis of payments under alternative payment models (such as accountable care organizations and bundled payment initiatives) and are used to establish MA benchmarks, reducing post-acute payment rates would also reduce the level of spending in those models.

Although difficult to quantify, revising the SNF and HHA PPSs would have two other salutary effects. It would encourage practices to focus on the care needs of patients rather than the financial advantage of furnishing certain services and treating certain patients over others. In addition, rebalancing spending toward medically complex care would improve access for those patients who now may be less desirable for providers to treat.

The unnecessarily high level of spending and the inequity of payments across different types of patients has led the Commission to recommend changes to both the level and the designs of the payment systems. Further, given the similarity of some of the patients treated in the four PAC settings but substantial differences in the payments

made by Medicare, in June 2016 the Commission recommended features of a unified payment system. Like the recommended designs of the HHA and SNF PPSs, the unified PAC PPS would base payments on patient characteristics. Transitioning to a PAC PPS could begin as early as 2021; until then, CMS should move forward with revisions to the SNF and HHA PPSs. With consistent incentives, those revised payment systems will give providers valuable experience in managing care under payment systems that tailor payments to the care needs of patients.

## Skilled nursing facility services

SNFs provide short-term skilled nursing and rehabilitation services to beneficiaries after a stay in an acute care hospital. In 2015, about 15,000 SNFs furnished 2.4 million Medicare-covered stays to 1.7 million FFS beneficiaries. Medicare FFS spending on SNF services was $29.8 billion in 2015.

We report in Chapter 8 that key measures indicate Medicare payments to SNFs are adequate. We also find that relatively efficient SNFs—facilities identified as providing relatively high-quality care at relatively low costs—had very high Medicare margins, suggesting that opportunities remain for other SNFs to achieve greater efficiencies.

***Beneficiaries' access to care—***Access to SNF services remains adequate for most beneficiaries. The number of SNFs participating in the Medicare program is stable. The vast majority (88 percent) of beneficiaries live in a county with three or more SNFs or swing beds (a rural hospital with beds that can serve as both SNF beds and acute care beds), and less than 1 percent live in a county without one. Between 2014 and 2015, the median occupancy declined slightly but remained high (86 percent), with one-quarter of SNFs having rates at or below 75 percent. Covered admissions per FFS beneficiary increased between 2014 and 2015, consistent with increases in inpatient hospital admissions (a three-day inpatient stay is required for Medicare coverage of SNF services). At the same time, length of stay declined, resulting in a net reduction in covered days.

***Quality of care—***Between 2014 and 2015, the community discharge rate and the rates of hospital readmissions (during SNF stay and within 30 days after discharge) improved. The functional change measures were essentially unchanged.

***Providers' access to capital—***Because most SNFs are part of nursing homes, we examine nursing homes' access to capital. Access to capital was adequate in 2016 but getting tighter and is expected to remain so in 2017. Lending wariness reflects broad changes in post-acute care, not the adequacy of Medicare's payments. Medicare is regarded as a preferred payer of SNF services.

***Medicare payments and providers' costs—***In 2015, the average Medicare margin was 12.6 percent—the 16th year in a row that the average was above 10 percent. Margins continued to vary greatly across facilities, reflecting differences in costs and shortcomings in the SNF PPS, which favors treating rehabilitation patients over medically complex patients. The marginal profit was at least 20.4 percent. The projected Medicare margin for 2017 is 10.6 percent.

Medicare needs to revise the PPS and rebase payments. Over time, the overpayments for therapy services have gotten larger (giving providers an even greater incentive to furnish therapy services of questionable value), and payments for nontherapy ancillary services (most notably drugs) are even more poorly targeted than in prior years. In addition, Medicare Advantage (managed care) payment rates to SNFs are considerably lower than the program's FFS payments.

The Commission recommends that no update to SNF payment rates be made for two years (2018 and 2019) while the SNF PPS is revised. Then, in 2020, the Secretary should evaluate the need to make further adjustments to payments to bring them into better alignment with costs. This recommendation is consistent with our recommendation from 2016, and it reflects concerns about the SNF PPS that we have expressed for many years. The Commission is increasingly frustrated with the lack of statutory or regulatory action to lower the level of payments and revise the payment system.

As required by PPACA, we report on Medicaid use, spending, and non-Medicare (private-payer and Medicaid) margins. Medicaid finances mostly long-term care services provided in nursing homes, but also covers copayments for low-income Medicare beneficiaries who stay more than 20 days in a SNF. The number of Medicaid-certified facilities declined slightly (–0.5 percent) between 2015 and 2016. CMS estimates that total spending on nursing home services increased between 2014 and 2015 and again in 2016. In 2015, the average total margin, reflecting

all payers and all lines of business, was 1.6 percent, down slightly from 2014. The average non-Medicare margin was –2.0 percent, also lower than in 2014 (–1.5 percent).

## Home health care services

HHAs provide services to beneficiaries who are homebound and need skilled nursing or therapy. In 2015, about 3.5 million Medicare beneficiaries received care, and the program spent about $18.1 billion on home health care services. In that year, over 12,300 agencies participated in Medicare.

The indicators of payment adequacy for home health care described in Chapter 9 and below are generally positive.

***Beneficiaries' access to care—***Access to home health care is generally adequate: Over 99 percent of beneficiaries lived in a ZIP code where a Medicare home health agency operated in 2015, and 86 percent lived in a ZIP code with five or more agencies. In 2015, the number of agencies fell slightly by 0.9 percent after a long period of growth. (From 2004 to 2014, the number of agencies increased by 63 percent.) The decline in 2015 was concentrated in areas that experienced sharp increases in supply in prior years. In 2015, the volume of services increased by 0.3 percent, reversing a three-year trend of modest decline. The total number of users increased slightly, while the average number of episodes per home health user declined by 0.6 percent. From 2002 to 2015, home health utilization increased substantially, with the number of episodes increasing by over 60 percent and the episodes per home health user increasing from 1.6 to 1.9 episodes. Episodes not preceded by a hospitalization account for most of the growth in this period, and between 2001 and 2015 these episodes increased from about half to two-thirds of total episodes.

***Quality of care—***In 2015, performance on quality measures improved. The share of beneficiaries reporting improvement in walking and transferring increased; the share of beneficiaries hospitalized during their home health spell decreased from 27.8 percent to 25.4 percent.

***Providers' access to capital—***Access to capital is a less important indicator of Medicare payment adequacy for home health care because this sector is less capital intensive than other health care sectors. The major publicly traded for-profit home health companies had sufficient access to capital markets for their credit needs. Several acquisitions by large post-acute care companies to expand home health capacity indicate this sector is an attractive market to investors.

***Medicare payments and providers' costs—***Between 2014 and 2015, Medicare spending increased by 2.3 percent to $18.1 billion. For more than a decade, payments have consistently and substantially exceeded costs in the home health PPS. Medicare margins for freestanding agencies averaged 16.5 percent between 2001 and 2014 and were, on average, 15.6 percent in 2015. (The marginal profit for HHAs in 2015 was 18.1 percent.) The Commission projects that Medicare margins for 2017 will equal 13.7 percent.

The high Medicare margins of home health agencies have led the Commission to recommend a 5 percent reduction in the base rate for 2018 and a two-year rebasing beginning in 2019. These two actions should help to better align payments with actual costs, ensuring better value for beneficiaries and taxpayers without impeding access to home health care services.

We also are recommending, as we have for the last five years, that Medicare eliminate the use of the number of therapy visits as a payment factor in the home health PPS, beginning in 2019. A review of utilization trends and further research by the Commission and others suggest that this aspect of the PPS creates financial incentives that distract agencies from focusing on patient characteristics when setting plans of care. Eliminating the number of therapy visits as a payment factor would base home health payment solely on patient characteristics, a more patient-focused approach to payment.

## Inpatient rehabilitation facility services

IRFs provide intensive rehabilitation services to patients after an illness, injury, or surgery. Rehabilitation programs at IRFs are supervised by rehabilitation physicians and include services such as physical and occupational therapy, rehabilitation nursing, and speech–language pathology services, as well as prosthetic and orthotic services. In 2015, Medicare spent $7.4 billion on FFS IRF care provided in about 1,180 IRFs nationwide. About 344,000 beneficiaries had more than 381,000 IRF stays. On average, Medicare accounts for about 60 percent of IRFs' discharges.

Our indicators of Medicare payment adequacy for IRFs discussed in Chapter 10 and below are generally positive.

***Beneficiaries' access to care*—**IRF capacity remains adequate to meet demand. After declining for several years, the total number of IRFs increased between 2013 and 2014 and remained relatively stable in 2015. Over time, the number of hospital-based and nonprofit IRFs has declined, while the number of freestanding and for-profit IRFs has increased. In 2015, the average IRF occupancy rate was 65 percent, indicating that capacity is adequate to meet demand for IRF services. Between 2014 and 2015, the number of FFS cases rose 1.5 percent to 381,000 cases.

***Quality of care*—**Between 2011 and 2015, there were small improvements in rates of readmission to the acute care hospital and discharge to the community, as well as in two measures of functional change.

***Providers' access to capital*—**The major freestanding IRF chain, which accounted for 46 percent of all freestanding IRFs in 2015 and about a quarter of all Medicare IRF discharges, has very good access to capital. In addition, the parent institutions of hospital-based IRFs continue to have good access to capital. We were not able to determine the ability of other freestanding facilities to raise capital.

***Medicare payments and providers' costs*—**Between 2014 and 2015, the aggregate IRF Medicare margin rose from 12.4 percent to 13.9 percent. The aggregate margin has risen steadily since 2009. Medicare margins in freestanding IRFs were especially high. Higher margins in freestanding IRFs were driven largely by unit costs that were considerably lower than those of hospital-based IRFs. Despite their lower margins, Medicare payments to hospital-based IRFs in 2015 exceeded marginal costs by 20.5 percent, indicating that hospital-based IRFs with available beds have a strong incentive to admit Medicare patients. Medicare payments to freestanding IRFs exceeded marginal costs by 41.5 percent. We project that IRFs' aggregate Medicare margin will be 14.3 percent in 2017.

The Commission has recommended that the update to IRF payments be eliminated each year since fiscal year 2009. However, in the absence of legislative action, CMS is required by statute to apply an adjusted market basket increase. Thus, payments have continued to rise. In 2015, margins for freestanding IRFs reached an all-time high of 26.7 percent.

Based on these factors, the Commission recommends that the IRF payment rate for fiscal year 2018 be reduced by 5 percent. The reduction in the payment rate should be coupled with an expansion of the high-cost outlier pool, as previously recommended by the Commission, to redistribute payments within the IRF PPS and reduce the impact of potential misalignments between IRF payments and costs.

## Long-term care hospital services

LTCHs provide care to beneficiaries who need hospital-level care for relatively extended periods. To qualify as an LTCH for Medicare payment, a facility must meet Medicare's conditions of participation for acute care hospitals and certain Medicare patients must have an average length of stay greater than 25 days. In 2015, Medicare spent $5.3 billion on care provided in LTCHs nationwide. About 116,000 FFS beneficiaries had roughly 131,000 LTCH stays in about 426 LTCHs. On average, Medicare FFS beneficiaries account for about two-thirds of LTCHs' discharges.

The indicators for payment adequacy are discussed in Chapter 11 and below.

***Beneficiaries' access to care*—**Trends suggest that access to care has been maintained. Growth in the number of LTCHs slowed considerably in recent years because of two moratoriums. The first was in effect through December 28, 2012; the second is effective from April 1, 2014 through September 30, 2017. We estimate that the number of LTCHs and LTCH beds decreased by about 2 percent in 2015. From 2014 to 2015, the number of LTCH cases per beneficiary also declined by 2 percent, continuing a trend of decreasing per capita LTCH use that began in 2012.

***Quality of care*—**LTCHs began submitting quality of care data to CMS starting in fiscal year 2013. CMS began publicly releasing provider-level quality data for two measures beginning in mid-December 2016 and plans to release two additional measures in the spring of 2017. Because quality data only recently became available, we continued to use claims data for our 2015 analysis. We found stable non-risk-adjusted rates of readmission, death in the LTCH, and death within 30 days of discharge across the top 25 LTCH diagnoses.

***Providers' access to capital*—**For the past few years, the availability of capital to LTCHs has not reflected current Medicare payment rates but, rather, uncertainty regarding possible changes to Medicare's regulations and legislation governing LTCHs. The criteria to receive the higher LTCH

payment rate specified in the Pathway for SGR Reform Act of 2013, beginning with cost reporting periods starting in fiscal year 2016, provide more long-term regulatory certainty for the industry compared with recent years. However, payment reductions implemented by CMS and the moratorium on new LTCH beds and facilities through September 2017 continue to limit future opportunities for growth and reduce the industry's need for capital.

***Medicare payments and providers' costs—***From 2007 until 2012, LTCHs held cost growth below the rate of increase in the market basket index, a measure of inflation in the prices of goods and services LTCHs buy to provide care. Between 2012 and 2015, Medicare payments continued to increase, albeit more slowly than provider costs, resulting in an aggregate 2015 Medicare margin of 4.6 percent. Marginal profit, an indicator of whether LTCHs with excess capacity have an incentive to admit more Medicare patients, equaled 20 percent in 2015. We expect changes in admission patterns and cost structure will occur in response to the patient-specific criteria implemented beginning in fiscal year 2016. We project that LTCHs' aggregate Medicare margin for these qualifying cases will be 5.4 percent in 2017.

Based on these indicators, the Commission concludes that LTCHs can continue to provide Medicare beneficiaries with access to safe and effective care and accommodate changes in their costs with no update to LTCH payment rates in fiscal year 2018.

## Hospice services

The Medicare hospice benefit covers palliative and support services for beneficiaries who are terminally ill with a life expectancy of six months or less if the illness runs its normal course. Beneficiaries may choose to elect the Medicare hospice benefit; in so doing, they agree to forgo Medicare coverage for conventional treatment of their terminal illness and related conditions. In 2015, more than 1.38 million Medicare beneficiaries (including nearly 49 percent of decedents) received hospice services from about 4,200 providers, and Medicare hospice expenditures totaled about $15.9 billion.

The indicators of payment adequacy for hospices, discussed in Chapter 12 and below, are positive.

***Beneficiaries' access to care—***Hospice use among Medicare beneficiaries has grown substantially in recent years. In 2015, hospice use increased across all demographic and beneficiary groups examined. However, rates of hospice use remained lower for racial and ethnic minorities than for White beneficiaries. The number of hospice providers increased by about 2.6 percent in 2015, due almost entirely to growth in the number of for-profit hospices, continuing a more than decade–long trend of substantial market entry by for-profit providers. In 2015, the proportion of beneficiaries using hospice services at the end of life continued to grow, while average length of stay among decedents declined slightly. Between 2014 and 2015, average length of stay among decedents declined slightly from 88.2 days to 86.7 days, as a result of a decrease in length of stay among hospice decedents with the longest stays. The median length of stay for hospice decedents was 17 days in 2015 and has remained stable at approximately 17 or 18 days for more than a decade.

***Quality of care—***The first aggregate data on hospice quality have recently become available, and the quality scores are generally positive for most hospices and most measures. Since July 2014, hospices have been reporting data on seven measures of how frequently hospices perform certain care processes on admission that are considered important aspects of hospice care. Initial aggregate data analyzed by a CMS contractor found that most hospices scored high (greater than 90 percent) on six of the seven measures. Performance on the pain assessment measure was lower and more varied, with half of hospices scoring between 65 percent and 92 percent.

***Providers' access to capital—***Hospices are not as capital intensive as some other provider types because they do not require extensive physical infrastructure. Continued growth in the number of for-profit providers (a 5 percent increase in 2015) suggests capital is available to for-profit providers. Less is known about access to capital for nonprofit freestanding providers, for which capital may be more limited. Hospital-based and home health–based hospices have access to capital through their parent providers.

***Medicare payments and providers' costs—***The aggregate 2014 Medicare margin was 8.2 percent, down slightly from 8.5 percent in 2013. In addition, the rate of marginal profit—that is, the rate at which Medicare payments exceed providers' marginal cost—was roughly 11 percent in 2014. The projected aggregate Medicare margin for 2017 is 7.7 percent.

Because the payment adequacy indicators for which we have data are positive, the Commission recommends eliminating the update to hospice payment rates for fiscal year 2018.

## Status report on the Medicare Advantage program

In Chapter 13, the Commission provides a status report on the MA program. In 2016, the MA program included 3,500 plans, enrolled more than 17.5 million beneficiaries (31 percent of all beneficiaries), and paid MA plans about $190 billion (not including Part D drug plan payments). To monitor program performance, we examine MA enrollment trends, plan availability for the coming year, and payments for MA plan enrollees relative to spending for FFS Medicare beneficiaries. We also provide updates on risk adjustment, risk-coding practices, and current quality indicators in MA. As a result of the analyses, we include a recommendation to adjust benchmarks.

The MA program gives Medicare beneficiaries the option of receiving benefits from private plans rather than from the traditional FFS Medicare program. The Commission strongly supports the inclusion of private plans in the Medicare program; beneficiaries should be able to choose between the traditional FFS Medicare program and alternative delivery systems that private plans can provide. Because Medicare pays private plans a per person predetermined rate rather than a per service rate, plans have greater incentives than FFS providers to innovate and use care-management techniques.

The Commission has emphasized the importance of imposing fiscal pressure on all providers of care to improve efficiency and reduce Medicare program costs and beneficiary premiums. For MA, the Commission previously recommended that payments be brought down from previous levels, which were generally higher than FFS, and be set so that the payment system is neutral and does not favor either MA or the traditional FFS program. Legislation has reduced the inequity in Medicare spending between MA and FFS. As a result, over the past few years, plan bids and payments have come down in relation to FFS spending while enrollment in MA continues to grow. The pressure of lower benchmarks has led to improved efficiencies that enable MA plans to continue to increase enrollment by offering benefits that beneficiaries find attractive.

***Enrollment—***From 2015 to 2016, enrollment in MA plans grew by about 5 percent to 17.5 million enrollees. MA plans enrolled about 31 percent of all Medicare beneficiaries in 2016, up from 30 percent in 2015. Among plan types, HMOs continued to enroll the most beneficiaries (11.7 million). Enrollment in local preferred provider organizations (PPOs) was 4.2 million, and regional PPO enrollment was 1.3 million. Enrollment in private fee-for-service plans was about 200,000.

***Plan availability—***Access to MA plans remains high in 2017, with most Medicare beneficiaries having access to a large number of plans. Ninety-five percent of Medicare beneficiaries have an HMO or local PPO plan operating in their county of residence, and on a beneficiary-weighted basis, the average beneficiary can choose from 18 plans in 2017. Overall, 99 percent of all Medicare beneficiaries have access to an MA plan.

MA enrollment is becoming more concentrated. The top 10 MA organizations (ranked by enrollment) had 70 percent of total enrollment in 2016, compared with 61 percent in 2007. Despite this concentration, on average by county, an increasing number of MA organizations are participating; between 2007 and 2015, the per county average number of MA organizations offering coordinated care plans (HMOs or PPOs) rose from 2.6 to 3.2.

***Plan benchmarks and payments—***For 2017, the base county benchmarks (in nominal dollars and before any quality bonuses are applied) average approximately 3 percent higher than the benchmarks for 2016, as compared with expected per capita FFS spending growth of 4 percent. The lower growth in MA benchmarks is due to the final year of the transition to lower benchmarks established in PPACA. Including quality bonuses and before adjustment for unaddressed coding intensity, we estimate that 2017 MA benchmarks will average 106 percent of FFS spending, bids 90 percent of FFS, and payments 100 percent of FFS. Lower benchmarks have led plans to bid more competitively; bids have decreased from about 100 percent of FFS before PPACA to about 90 percent of FFS in 2017. For 2017, about two-thirds of plans, accounting for about 75 percent of projected enrollment, bid below FFS.

On average, the quality bonuses in 2017 will add 4 percent to the average plan's base benchmark and will add 3 percent to plan payments. Removing quality bonuses from the benchmarks, base benchmarks would average 102 percent of FFS in 2017 and thus approach rough equity with FFS. However, because MA plans code more intensively, we estimate payments are effectively about 104 percent of FFS rather than the nominal 100 percent.

In addition, there are county-level equity issues regarding the calculation of MA benchmarks and payments. When

CMS calculates the county-level FFS spending measure, on which the benchmarks are based, it includes all of a county's FFS beneficiaries, regardless of whether these FFS beneficiaries are enrolled in both Part A and Part B. MA beneficiaries, however, are required to enroll in both Part A and Part B to join an MA plan. To make the calculation equitable across counties, the Commission recommends that the Secretary calculate benchmarks using FFS spending data only for beneficiaries enrolled in both Part A and Part B. Making this change would incur a cost to the Medicare program, which could be offset by implementing our March 2016 recommendation on coding intensity (see below).

***Risk adjustment and coding intensity*—**Medicare payments to MA plans are enrollee specific, based on a plan's payment rate and an enrollee's risk score. Risk scores account for differences in expected medical expenditures and are based in part on diagnoses that providers code. Claims in FFS Medicare are paid using procedure codes, which offer little incentive for providers to record more diagnosis codes than necessary to justify ordering the procedure. In contrast, MA plans have a financial incentive to ensure that their providers record all possible diagnoses because higher enrollee risk scores result in higher payments to the plan. Higher coding intensity has resulted in MA enrollees having risk scores that were about 10 percent higher than scores for similar FFS beneficiaries, an increase over our prior-year estimate. By law, CMS makes a minimum across-the-board adjustment to MA risk scores to make them more consistent with FFS coding. The adjustment for 2017 will be 5.66 percent. Last year, the Commission recommended that CMS change the way diagnoses are collected for use in risk adjustment and estimate a new coding adjustment that improves equity across plans and eliminates the impact of differences in MA and FFS coding intensity.

***Quality measures*—**MA plans are able to receive bonus payments if the contract they are part of achieves an overall rating of 4 stars or higher in CMS's 5-star rating system. Between 2015 and 2016, the proportion of beneficiaries in MA plans with bonus-level ratings increased, while between 2016 and 2017, the share decreased. On net, about 1.2 million fewer current enrollees are in plans that are in bonus status under the 2017 star ratings. In part, these changes reflect higher thresholds for the attainment of 4-star ratings for some of the MA quality measures.

This year we continue to see the practice of contract cross-walking (consolidations under one contract) that results in unwarranted bonus payments. For example, one company is combining three regional contracts into one contract, resulting in two contracts (rated below 4 stars) with over 380,000 enrollees being absorbed into the company's 4-star contract that has 20,000 enrollees. In Chapter 13, we discuss ways of ensuring that bonus payments are available only for enrollees in high-performing plans when there has been cross-walking of contracts.

The cross-state consolidation of MA contracts over the past several years has eroded the ability to evaluate quality in the program because CMS evaluates quality at the contract, not the plan, level. More importantly, this consolidation also reduces the utility of star ratings as a plan comparison tool for beneficiaries. In many cases, star ratings do not reflect the quality of care in the local market area. The Commission has a long-standing recommendation to report quality measures by market areas and compare them with results for the FFS program in those areas. Currently, about one-third of MA enrollees are in contracts for which a substantial share of the enrollment is in noncontiguous states across the country.

## Status report on the Medicare prescription drug program (Part D)

In 2015, Medicare spent $80.1 billion for the Part D benefit, accounting for 12 percent of total Medicare outlays. Enrollees' out-of-pocket spending for premiums and cost sharing totaled $11.5 billion and $15.1 billion, respectively. In 2016, 41 million individuals (72 percent of all Medicare beneficiaries) were enrolled in Part D: Of those enrolled, 60 percent were in stand-alone prescription drug plans (PDPs) and 40 percent were in Medicare Advantage–Prescription Drug plans (MA–PDs). In general, Part D has improved Medicare beneficiaries' access to prescription drugs, with plans available to all individuals.

In Chapter 14, the Commission provides a status report on the Medicare prescription drug benefit established under Part D. It describes beneficiaries' access to prescription drugs, enrollment levels, plan benefit designs, and the quality of Part D services. The report also analyzes changes in plan bids, premiums, and program costs.

Last year, we noted that a growing share of Part D program spending has been for high-cost enrollees—beneficiaries who reach the catastrophic phase of Part D's

benefit. This year's status report provides further evidence that this trend has continued, and we point to factors that contribute to greater catastrophic-phase spending. The Commission's June 2016 recommendations would address concerns about Part D's financial sustainability and affordability for its enrollees while maintaining the program's market-based approach.

***Medicare beneficiaries' drug coverage in 2016 and benefit offerings for 2017—***Among the 41 million Part D enrollees in 2016, 12 million received the low-income subsidy (LIS). Nearly 2 million additional individuals (3 percent of all beneficiaries) received drug coverage through employer-sponsored plans that received Medicare's retiree drug subsidy. In 2013, the latest year of survey data available, 12 percent of beneficiaries had no drug coverage or coverage less generous than Part D. Our previous analysis showed that beneficiaries with no creditable coverage tended to be healthier, on average.

In 2017, plan sponsors are offering 746 PDPs, a 16 percent decrease from 2016, and 1,734 MA–PDs, a 3 percent increase from 2016. PDP reductions reflect mergers and acquisitions among plan sponsors, as well as consolidation of plan offerings into fewer, more widely differentiated products. Even with these consolidations, beneficiaries have between 18 and 24 PDPs to choose from, depending on where they live, as well as typically 10 or more Medicare Advantage options. MA–PDs continue to be more likely than PDPs to offer enhanced benefits. For 2017, 231 premium-free PDPs are available to enrollees who receive the LIS, a 2 percent increase from 2016. All regions of the country continue to have at least 3, and as many as 10, PDPs available at no premium to LIS enrollees.

In 2016, all of the 10 PDPs with the highest enrollment used a 5-tier formulary with differential cost sharing between preferred and other generics, preferred brand-name drugs, nonpreferred drugs, and a specialty tier for high-cost drugs. Also in 2016, nearly 85 percent of PDPs used tiered pharmacy networks that included preferred pharmacies offering lower cost sharing. These strategies provide financial incentives for enrollees to use lower cost drugs or pharmacies, potentially reducing program costs. However, these approaches likely will not result in lower Medicare spending for LIS enrollees because the LIS covers most or all of these enrollees' cost sharing, and thus they will continue to have little incentive to use preferred generics or pharmacies with preferred cost sharing,

***Part D program costs—***Between 2007 and 2015, Part D spending on an incurred basis increased from $46 billion to $80 billion (an average annual growth rate of more than 7 percent). Reinsurance has been the largest component of program spending since 2014 and grew at an average annual rate of 20 percent between 2007 and 2015. Enrollees who incur spending high enough to reach the catastrophic phase of the benefit (high-cost enrollees) have started to drive Part D program costs, accounting for 53 percent of gross spending in 2015, up from about 40 percent before 2011. Spending for these high-cost individuals grew by more than 9 percent per enrollee, driven primarily by increases in the average price per prescription filled (reflecting both price inflation and changes in the mix of drugs used). The pharmaceutical pipeline is shifting toward greater numbers of biologic products and specialty drugs, many of which have few therapeutic substitutes and high prices. The use of high-priced drugs by Part D enrollees will likely grow and put significant upward pressure on Medicare spending for individual reinsurance and the LIS.

***Access to prescription drugs—***Giving plans greater flexibility to use management tools could help ensure that prescribed medicines are safe and appropriate for the patient and could potentially reduce overuse or misuse. However, for some beneficiaries, those same tools could also limit access to needed medications. Plan sponsors must strike a balance between providing access to medications while encouraging enrollees to use lower cost therapies through their formulary designs. Medicare requires plan sponsors to establish coverage determination and appeals processes with the goal of ensuring access to needed medications. Beneficiary advocates, prescribers, plan sponsors, and CMS have all noted frustrations with Part D coverage determinations, exceptions, and appeals processes. A more efficient approach would be to resolve such issues at the point of prescribing through e-prescribing and electronic prior authorization rather than at the pharmacy counter.

***Quality in Part D—***In 2017, the average star rating among Part D plans increased somewhat for PDPs while remaining about the same for MA–PDs. However, the utility of star ratings to measure quality of prescription drug services may be limited because data for quality measures do not account for all clinically relevant factors. An additional concern of the Commission is the effectiveness of plans' medication therapy management

(MTM) programs to improve quality. In 2017, Medicare begins testing enhanced MTM programs by providing incentives for stand-alone PDPs to conduct medication reviews and tailor drug benefit designs that encourage adherence to appropriate drug therapies. Six Part D sponsors operating PDPs in 5 regions of the country, with an estimated 1.6 million enrollees, are participating in CMS's enhanced MTM model. ■

CHAPTER 1

# Context for Medicare payment policy

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## Chapter summary

Part of the Commission's mandate is to consider the effect of its recommendations on the federal budget and view Medicare in the context of the broader health care system. To help meet this mandate, this chapter examines health care spending growth—for the nation at large and Medicare in particular—and considers its effect on federal and state budgets as well as the budgets of individuals and families. The chapter also reviews recent mortality and morbidity trends, profiles the health status of the next generation of Medicare beneficiaries, and reviews evidence of inefficient health care spending, structural features of the Medicare program that contribute to inefficient spending, and the Commission's approach to combating those challenges.

In 2015, total national health care spending was $3.2 trillion, or 17.8 percent of gross domestic product (GDP). Private health insurance spending was $1.1 trillion, or 5.9 percent of GDP. Medicare spending was $646.2 billion, or 3.6 percent of GDP.

Health care spending growth shows mixed signs of acceleration after several years of historic lows. For decades—from 1975 to 2009—total health care spending and Medicare spending grew robustly, annually averaging 9.0 percent and 10.6 percent, respectively. Then from 2009 to 2013, growth in

## In this chapter

- National health care spending
- Medicare spending
- Medicare's financing challenge
- Health care spending consumes growing shares of state and family budgets
- Recent trends in life expectancy, morbidity, and mortality
- The relationship between Medicare spending and quality
- Baby boomers will make up the next generation of Medicare beneficiaries
- Inefficient spending suggests Medicare could spend less without compromising care, but not without challenges

total health care spending and Medicare spending slowed to average annual rates of 3.6 percent and 4.1 percent, respectively.

The causes of the system-wide slowdown are still a matter of speculation. A variety of factors could have contributed—weak economic conditions, payment and delivery system reforms, lower Medicare payment rates for most types of providers as mandated by the Patient Protection and Affordability Act of 2010 (PPACA), and the increased use of generic drugs as top-selling brand drugs lost patent protection (Boards of Trustees 2016, Centers for Medicare & Medicaid Services 2015c, Cutler and Sahni 2013).

However, spending began to increase in 2014, and experience in 2015 indicates that this trend continued. Medicare actuaries estimate that spending grew faster: National health care spending grew 5.8 percent and Medicare spending grew 4.5 percent. The increase in the national health care spending growth rate was largely due to the continued effects of coverage expansions for health insurance that commenced in 2014 under PPACA; stronger growth in spending for private health insurance, hospital care, and physician and clinical services; and the continued strong growth in Medicaid and retail prescription drug spending.

The aging of the baby-boom generation will have a profound impact both on the Medicare program and the taxpayers who support it. Over the next 15 years, as Medicare enrollment surges, the number of taxpaying workers per beneficiary is projected to decline. By 2030 (the year all boomers will have aged into Medicare), the Medicare Trustees project there will be just 2.4 workers for each Medicare beneficiary, down from 4.6 around the time of the program's inception and 3.3 in 2012. Those demographics create a financing challenge not only for the Medicare program but also for the entire federal budget. By 2040, under federal tax and spending policies specified in current law, Medicare spending combined with spending on other major health care programs, Social Security, and net interest on the national debt will exceed total projected federal revenues and will thus either increase federal deficits and debt or crowd out spending on all other national priorities.

The growth in health care spending also affects state budgets and the budgets of individuals and families. States pay for a significant portion of Medicaid spending (funded jointly by states and the federal government for health care services provided to state residents with low incomes). Under PPACA, the Medicaid population is expanding; however, under current law, the federal government will pay for most of the costs associated with the expansion. Increases in private insurance premiums have outpaced the growth of individual and family incomes

over the past decade, and out-of-pocket costs for Medicare beneficiaries have grown faster than Social Security benefits.

Some health care spending is inefficient. For Medicare, if such spending could be identified and eliminated, the efficiencies achieved could result in improved beneficiary health, greater fiscal sustainability for the program, and reduced federal budget pressures. Certain structural features of the Medicare program pose challenges for targeting inefficient spending, but the Commission has a framework to address those challenges that focuses on (1) payment accuracy and efficiency, (2) care coordination and quality, (3) information for patients and providers, (4) engaged beneficiaries, and (5) an aligned health care workforce. ■

## Introduction

The Medicare program lies at the junction between the national health care system as a whole and the federal government. For this reason, this chapter reviews the following key areas to help explain the Medicare payment policies discussed in the rest of this report:

- national health care spending and Medicare spending;
- impact of health care spending on federal and state budgets;
- effects of health care spending on individuals and families;
- recent trends in life expectancy, morbidity, and mortality;
- impact of Medicare spending on the quality of health care;
- the next generation of Medicare beneficiaries; and
- evidence of inefficient health care spending.

This chapter also reviews the challenges that Medicare in particular faces and the Commission's principles for constructing recommendations to address those challenges.

## National health care spending

### Spending growth

The relationship between health care spending growth and the nation's economic growth serves as a gauge for assessing spending trends. For decades, health care spending had risen as a share of gross domestic product (GDP), but in the recent past, its growth rate slowed. That general trend has been true both for private health care spending and Medicare (Figure 1-1, p. 8). From 1975 to 2009, health care spending as a share of GDP more than doubled, from 7.9 percent to 17.3 percent ($133 billion to $2.5 trillion). Private health insurance spending as a share of GDP more than tripled over that period, from 1.8 percent to 5.8 percent ($31 billion to $833 billion). Medicare spending as a share of GDP also more than tripled over that period, from 1.0 percent to 3.5 percent ($16 billion to $499 billion). In contrast, from 2009 through 2013, total health care, private health insurance, and Medicare spending as a share of GDP remained relatively constant. But beginning in 2014, spending as a share of GDP for all three began rising again (Centers for Medicare & Medicaid Services 2014b).

The recent slowdown in the rate of health care spending growth has not been fully explained. Contributing factors could include weak economic conditions, payment and delivery system reforms, lower Medicare payment rates for most types of providers as mandated by the Patient Protection and Affordable Care Act of 2010 (PPACA), and the increased use of generic drugs as top-selling brand drugs lost patent protection (Boards of Trustees 2016, Centers for Medicare & Medicaid Services 2015c, Cutler and Sahni 2013).[1]

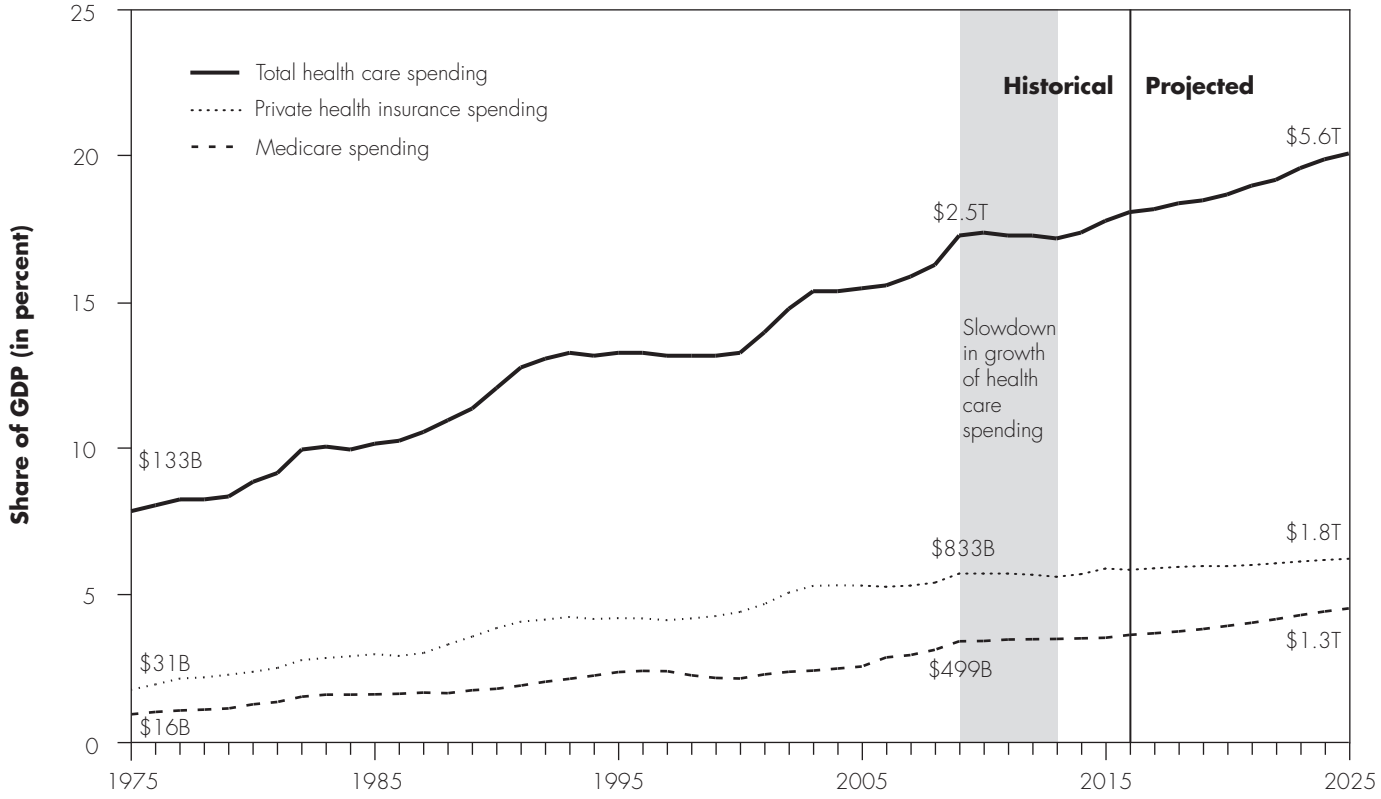
However, as we noted last year, Medicare actuaries estimate that spending accelerated in 2014 and 2015, both for private health insurance and for Medicare (Boards of Trustees 2016, Martin et al. 2016). Growth is projected to continue in 2016 and beyond. From 2009 to 2013, total health care spending growth averaged 3.6 percent annually, while in 2015, it was estimated to have risen to 5.8 percent, reaching 17.8 percent of GDP. The growth was due largely to the increase in the insured population, owing to the implementation of the PPACA health insurance exchanges and the Medicaid expansions. It was also due to stronger growth in spending for private health insurance, hospital care, physician and clinical services, and the continued strong growth in Medicaid and retail prescription drug spending.

Similarly, from 2009 to 2013, Medicare spending averaged 4.3 percent growth annually, but by 2015, it is estimated to have grown 4.5 percent, down from 4.8 percent in 2014 (Centers for Medicare & Medicaid Services 2016). Medicare enrollment increased 2.7 percent in 2015, down from 3.1 percent in 2014 (Martin et al. 2016). The moderate growth was the result of mixed trends among services; hospital and prescription drug spending growth slowed, while spending growth for nursing home and home health care accelerated.

As with national health care spending growth, Medicare spending increased in part because of more prescription drug spending. It also grew because of an increase in per capita spending on health care services provided on an outpatient basis (for example, services received in hospital outpatient departments and physician services) and an increase in enrollment as members of the baby-boom generation aged into Medicare.

**FIGURE 1–1**

**Recent historically low growth rates of health care spending have begun to gradually increase**




Note: B (billion), T (trillion), GDP (gross domestic product). First projected year is 2016. Beginning in 2014, private health insurance spending includes federal subsidies for both premiums and cost sharing for the health care exchanges created by the Patient Protection and Affordable Care Act of 2010.

Source: MedPAC analysis of National Health Expenditure Accounts from CMS, historical data released December 2016, projected data released July 2016.

Over the next decade, Medicare actuaries project growth rates for health care spending to gradually and modestly increase because of health insurance expansions under PPACA, faster economic growth, and population aging (Keehan et al. 2015). By 2025, Medicare actuaries project total health care spending as a share of GDP to grow to 20.1 percent. In that year, private health insurance spending and Medicare spending are projected to reach 6.3 percent and 4.6 percent of GDP, respectively.

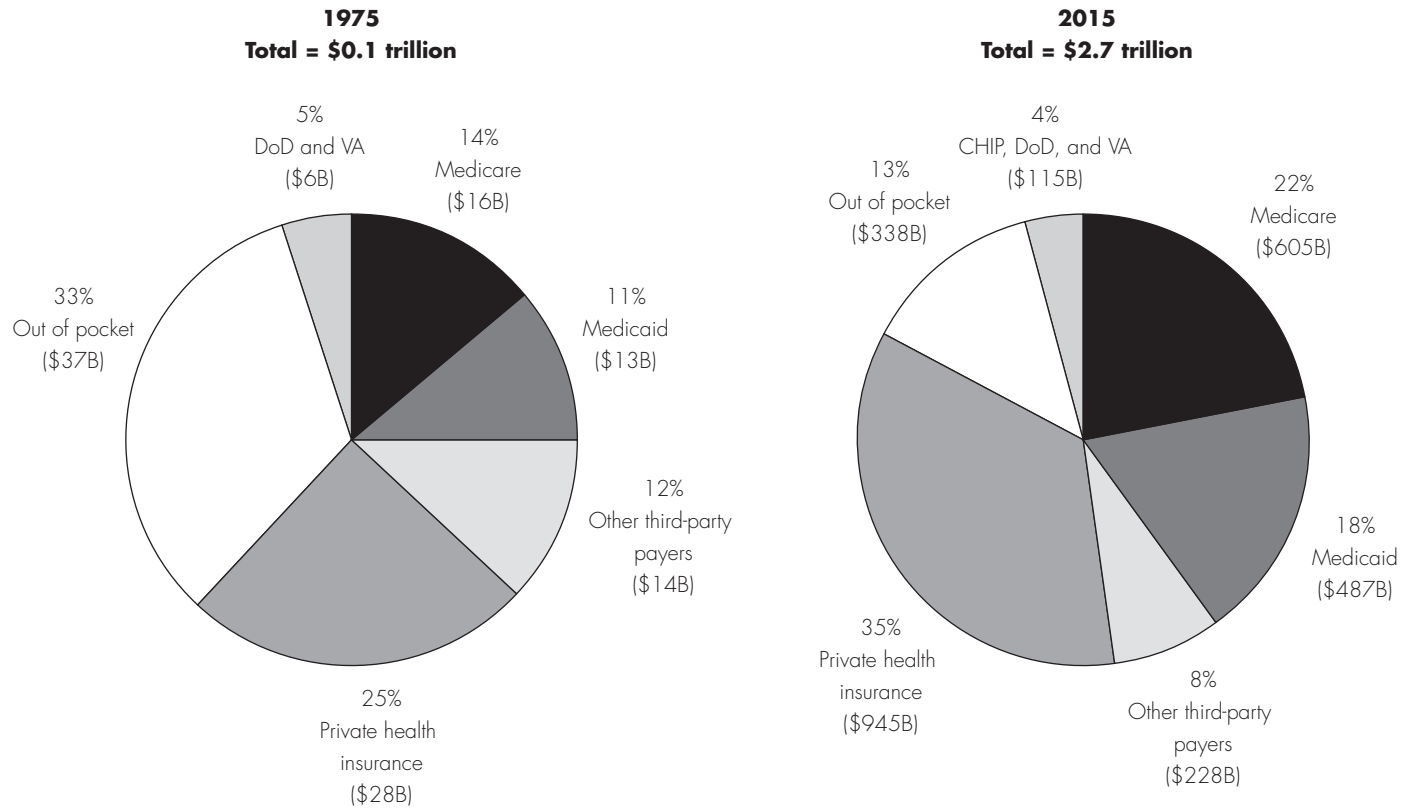
## Personal health care spending

To better understand who is paying for health care, we examine personal health care spending—all medical goods and services provided for an individual's treatment. In 2015, personal health care spending—which excludes spending on government public health activities (e.g., epidemiological surveillance and disease prevention programs), administration of private and public health insurance, and investments in medical research, equipment, and structures—accounted for 85 percent of total health care spending (Centers for Medicare & Medicaid Services 2016).

Over the past four decades, total personal health care spending increased from $0.1 trillion to $2.7 trillion (Figure 1-2). On a per person basis, spending increased from $514 to $8,468, a 7 percent increase per year, on average. During this period, out-of-pocket spending (e.g., cost sharing, deductibles, and health care services not covered by insurance) as a share of total personal health care spending declined from 33 percent to 13 percent, while the shares accounted for by private health insurance, Medicare, and Medicaid all increased. At the same time, Medicare has remained the single largest purchaser of

**FIGURE 1–2**

**Out-of-pocket spending as a share of personal health care spending declined, while the share of spending by payers—private, Medicare, and Medicaid—increased, 1975 and 2015**




Note: DoD (Department of Defense), VA (Department of Veterans Affairs), B (billion), CHIP (Children's Health Insurance Program). Spending is in nominal dollars. "Out-of-pocket" spending includes cost sharing for both privately and publicly insured individuals. Premiums are included in the shares of each program (e.g., Medicare and private insurance) rather than in the out-of-pocket share category. "Other third-party payers and programs" includes work-site health care, other private revenues, Indian Health Service, workers' compensation, general assistance, maternal and child health, vocational rehabilitation, other federal programs such as the Substance Abuse and Mental Health Services Administration, other state and local programs, and school health.

Source: MedPAC analysis of National Health Expenditure Accounts from CMS, data released in December 2016.

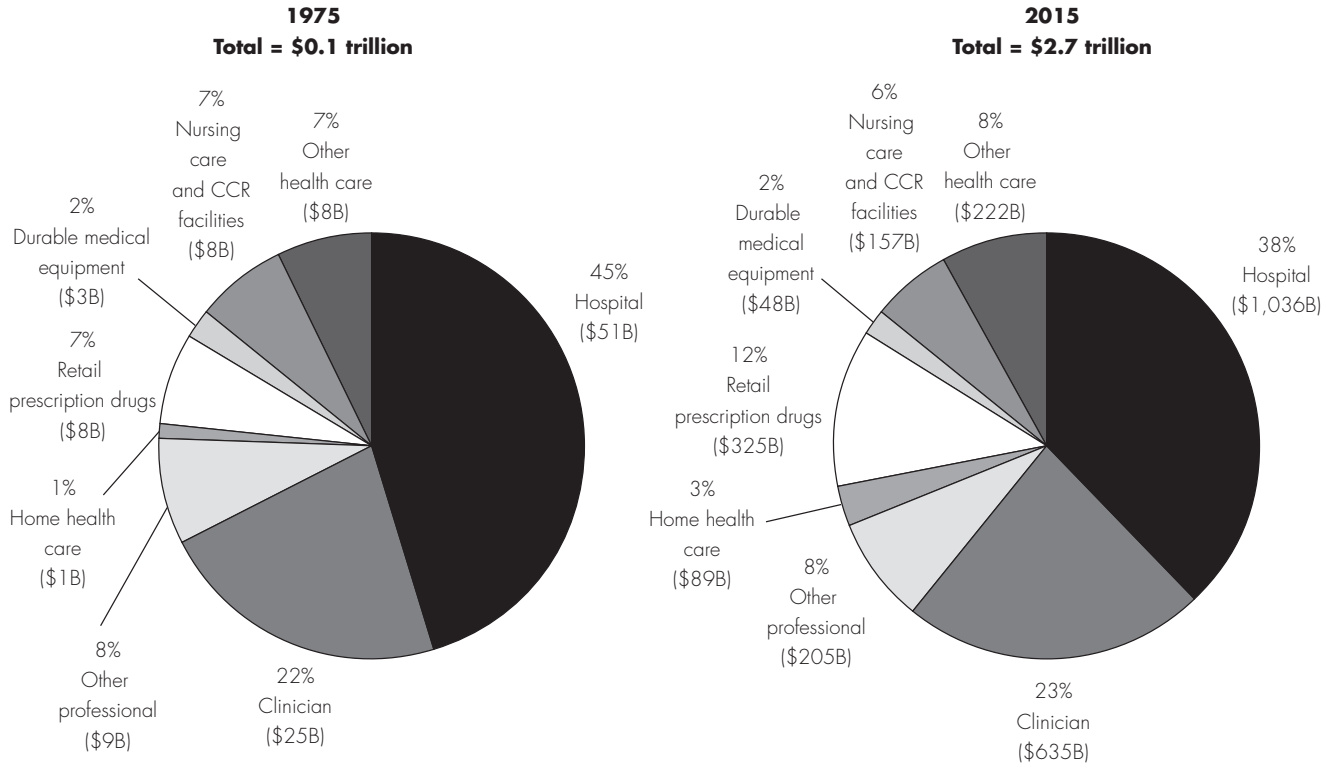
health care in the United States (Centers for Medicare & Medicaid Services 2016).[2]

Despite the decline in the share of health care spending paid directly out of pocket by individuals and the increase in the share of health care spending paid by private and public insurance, people generally have not experienced real declines in the share of health care costs they pay. One reason is that in the commonly defined health care spending categories, the premiums people pay (which have grown over time) are not included in the out-of-pocket (OOP) category but, rather, in the private health insurance and Medicare categories. Second, people receive lower salaries and reduced benefits in exchange for employer-sponsored health insurance (Baicker and Chandra 2006, Gruber 2000, Milusheva and Burtless 2012).

In 2015, Medicare covered more than 54 million people, and CMS actuaries estimate that Medicaid covered about 69 million people (Boards of Trustees 2016, Centers for Medicare & Medicaid Services 2015a). Private health insurance covered 194 million people, and 28 million people were uninsured (National Center for Health Statistics 2015b). Enrollment in Medicare, Medicaid, and private health insurance continues to increase because of the aging of the baby-boom generation and the enactment of PPACA.

**FIGURE 1–3**

**Hospital care and clinician services accounted for the largest shares of personal health care spending in 1975 and 2015**




Note: CCR (continuing care retirement), B (billion). "Personal health care" is a subset of national health expenditures. It includes spending for all medical goods and services that are provided for the treatment of an individual and excludes other spending, such as government administration, the net cost of health insurance, public health, and investment. "Other health care" includes expenditures on nondurable medical products and other health, residential, and personal care. "Other professional" includes expenditures on dental and other professional services. "Nursing care facilities" includes nursing care facilities and continuing care retirement communities. "Hospital" includes outpatient care and inpatient prescription drugs.

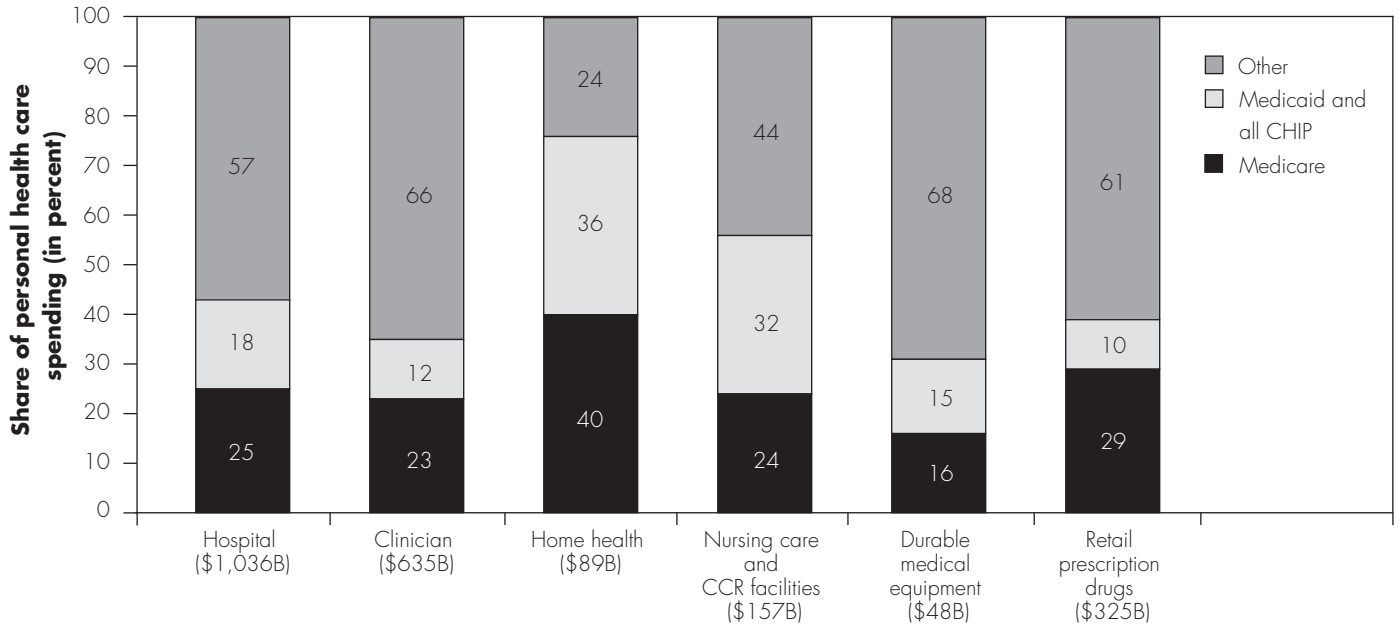
Source: MedPAC analysis of National Health Expenditure Accounts from CMS, data released in December 2016.

Some people have coverage from more than one source. In 2015, about 10 million people were enrolled in both Medicare and Medicaid (Boards of Trustees 2016). Medicaid pays for either a portion or all of the Medicare premium and OOP health care expenses for those enrollees who qualify for dual enrollment based on limited income and resources. Enrollees in public health insurance programs may also have private health insurance. For example, Medicare beneficiaries typically also have supplemental insurance sold by private companies to pay some of the health care costs that Medicare does not cover, such as copayments, coinsurance, and deductibles.

In 2015 as well as 1975, the largest shares of personal health care spending were for hospital care and clinician services (Figure 1-3). In 2015, hospital care accounted for 38 percent of spending ($1,036 billion), and clinician services accounted for 23 percent ($635 billion). Smaller shares went to spending on retail prescription drugs (12 percent, or $325 billion), nursing care facilities (6 percent, or $157 billion), and home health care services (3 percent, or $89 billion). Between 1975 and 2015, the share of spending on hospital care declined (from 45 percent to 38 percent), while the share of spending for retail prescription drugs increased (from 7 percent to 12 percent) (Centers for Medicare & Medicaid Services 2016).

In 2015, Medicare accounted for 22 percent of spending for all personal health care services (Figure 1-2, p. 9), but its share varied by type of service, with a slightly higher share of spending on hospital care (25 percent) and a much higher share of spending on home health services

**FIGURE 1–4** **Medicare's share of spending on personal health care varies by type of service, 2015**




Note: CHIP (Children's Health Insurance Program), B (billion), CCR (continuing care retirement). "Personal health care" is a subset of national health expenditures. It includes spending for all medical goods and services that are provided for the treatment of an individual and excludes other spending, such as government administration, the net cost of health insurance, public health, and investment. "Hospital" includes all services provided in hospitals to patients: room and board, ancillary services such as operating room fees, inpatient and outpatient care, services of resident physicians, inpatient pharmacy, hospital-based nursing home care, hospital-based home health care, and fees for any other services billed by the hospital such as hospice. "Other" includes private health insurance, out-of-pocket spending, and other private and public spending. Medicare's share of spending is lower for other service categories included in personal health care that are not shown here, namely, other professional services; dental services; other health, residential, and personal care; and other nondurable medical equipment.

Source: CMS Office of the Actuary, National Health Expenditure Accounts, released December 2016.

(40 percent) (Figure 1-4). Medicare's share of spending on nursing care facilities was smaller than Medicaid's share because Medicare's benefit pays for skilled nursing or rehabilitation services only, whereas Medicaid pays for custodial care (assistance with activities of daily living) provided in nursing homes for people with limited income and assets. Medicare's share of spending is lower for other service categories included in personal health care that are not shown in Figure 1-4, namely, other professional services; dental services; other health, residential, and personal care; and other nondurable medical equipment.

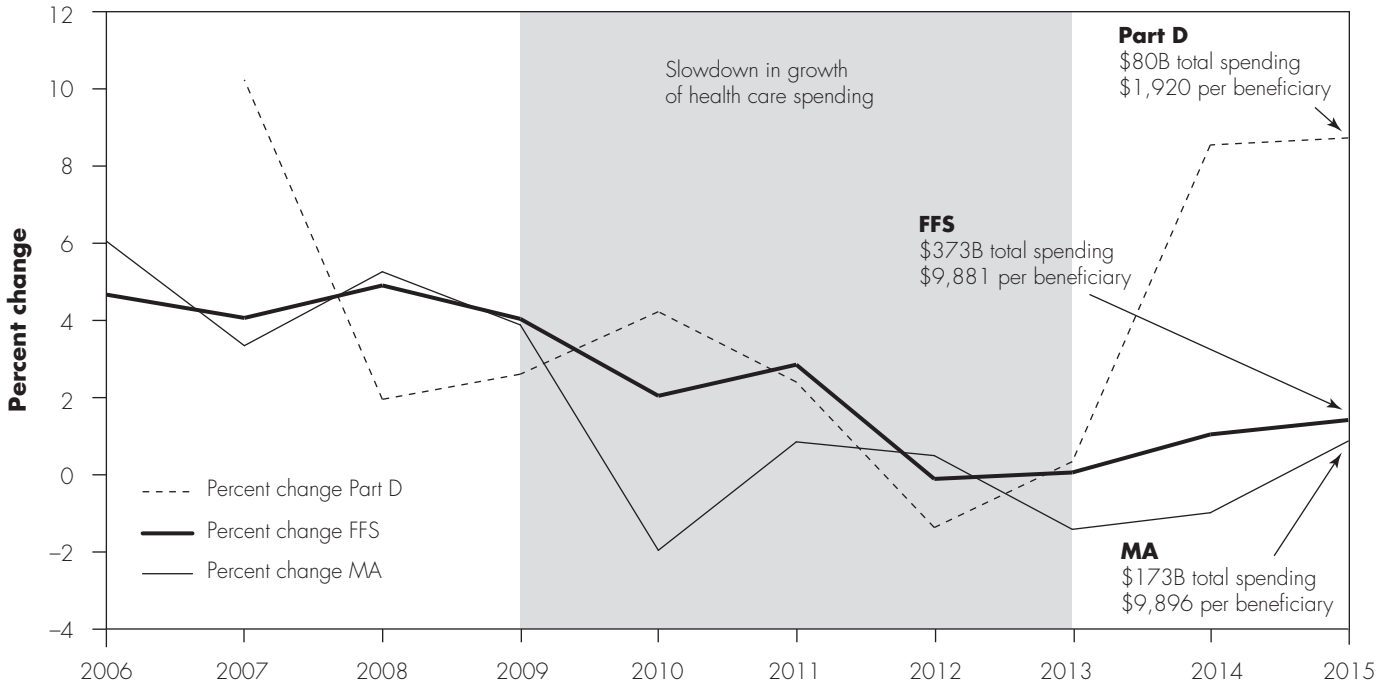
## Medicare spending

Medicare spending can be divided into three program components: the traditional fee-for-service (FFS) program, the Medicare Advantage (MA) program, and the Part D prescription drug program.

- ***Medicare's traditional fee-for-service program.*** In FFS, Medicare pays health care providers directly for health care goods and services furnished to Medicare FFS beneficiaries at prices set through legislation and regulation.
- ***Medicare Advantage program.*** As an alternative to FFS, beneficiaries can choose to enroll in MA, which consists of private health plans that receive capitated payments (or per enrollee payments) for providing health care coverage for enrollees. MA plans pay health care providers for health care goods and services furnished to their enrollees at prices negotiated between the plans and providers.

**FIGURE 1–5**

**Growth in per beneficiary Medicare spending was slow between 2009 and 2013 and mixed between 2013 and 2015**




Note: B (billion), FFS (fee-for-service), MA (Medicare Advantage). Spending is on an incurred basis. Part D spending excludes total premiums paid to Part D plans by enrollees. Part D percentage change not shown for 2006 because the benefit began that year. The "slowdown in growth of health care spending" period of 2009–2013 matches Figure 1-1 (p. 8) and Figure 1-6 (p. 13).

Source: 2015 and 2016 annual reports of the Boards of Trustees of the Medicare trust funds.

- ***Medicare Part D prescription drug program.*** Through Part D, beneficiaries can obtain subsidized prescription drug coverage by voluntarily purchasing insurance policies from private stand-alone drug plans or MA prescription drug plans. Medicare heavily subsidizes the premiums established by those plans.

Growth in per beneficiary spending tends to differ across the three program components. From 2009 to 2013, growth was fairly slow across all three (Figure 1-5). More mixed trends emerged between 2013 and 2015. The lower growth rates were generally because of decreased use of health care services and restrained payment rate increases.

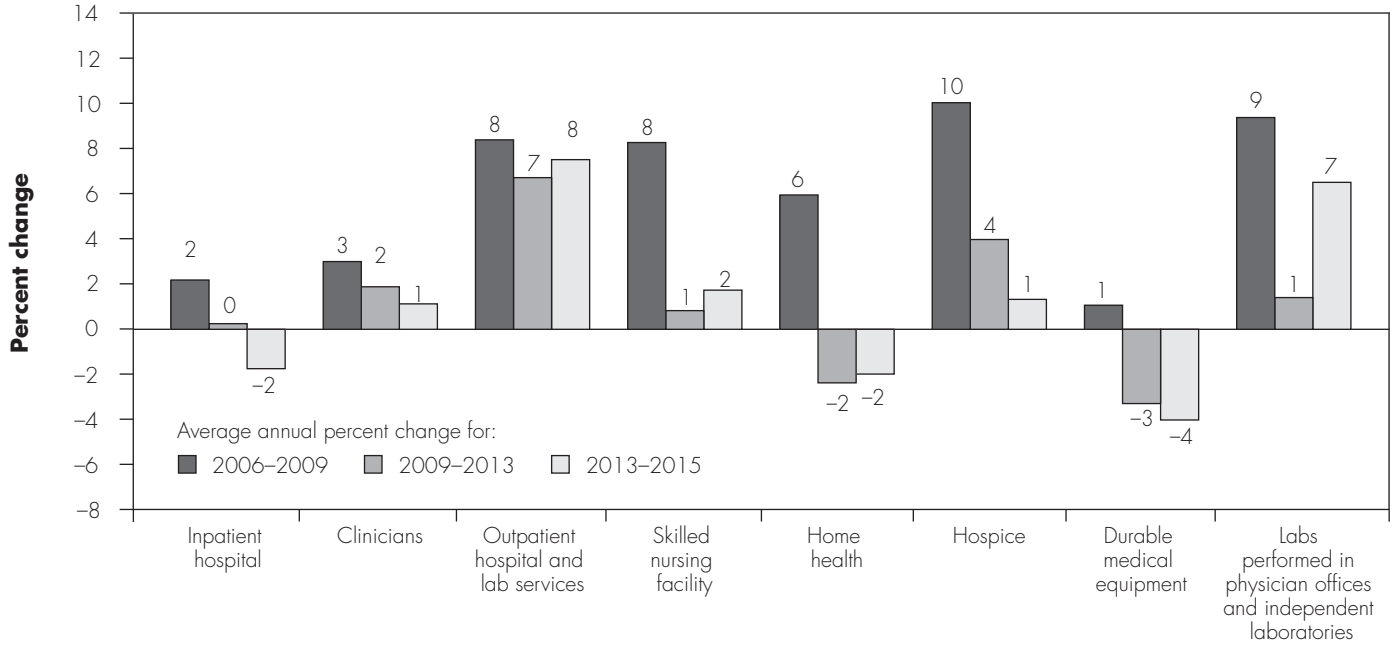
From 2012 to 2015, FFS per beneficiary spending growth averaged 0.8 percent annually. PPACA lowered payment rate updates in FFS for many types of providers (other than physicians) beginning in 2011. However, in 2014, FFS spending grew because of an increase in per beneficiary spending on a wide range of outpatient services, including services received in hospital outpatient departments and physician services.

From 2012 to 2015, MA per beneficiary spending growth declined on average by 0.5 percent annually. Historically, Medicare has spent more for a beneficiary enrolled in MA than if that same beneficiary had been enrolled in FFS. To bring payments more in line with FFS, PPACA began lowering payments to plans in 2011. MA's growth rate would therefore have been lower, but the PPACA payment reductions were offset somewhat by new quality bonus payments and plans' increased coding of beneficiaries' medical conditions (payments to MA plans are higher when beneficiaries have more medical conditions, all other things being equal).

Part D per beneficiary spending growth has fluctuated the most of the three program components over the past decade. However, from 2011 to 2013, average per beneficiary spending was somewhat constant at about

**FIGURE 1–6**

**Per beneficiary FFS spending growth remained high in some settings despite 2009–2013 slowdown in growth of health care spending, 2006–2015**




Note: FFS (fee-for-service). The "slowdown in growth of health care spending" period of 2009–2013 matches Figure 1-1 (p. 8) and Figure 1-5. Outpatient hospital services and outpatient lab services are combined in the figure because a large portion of outpatient laboratory services were bundled into the outpatient prospective payment system effective January 1, 2014.

Source: 2016 annual report of the Boards of Trustees of the Medicare trust funds.

$1,600 per year. The low growth for those years was in part due to the increase in low-priced generic drugs on the market and plans' efforts to steer beneficiaries to generics and other low-priced drugs.

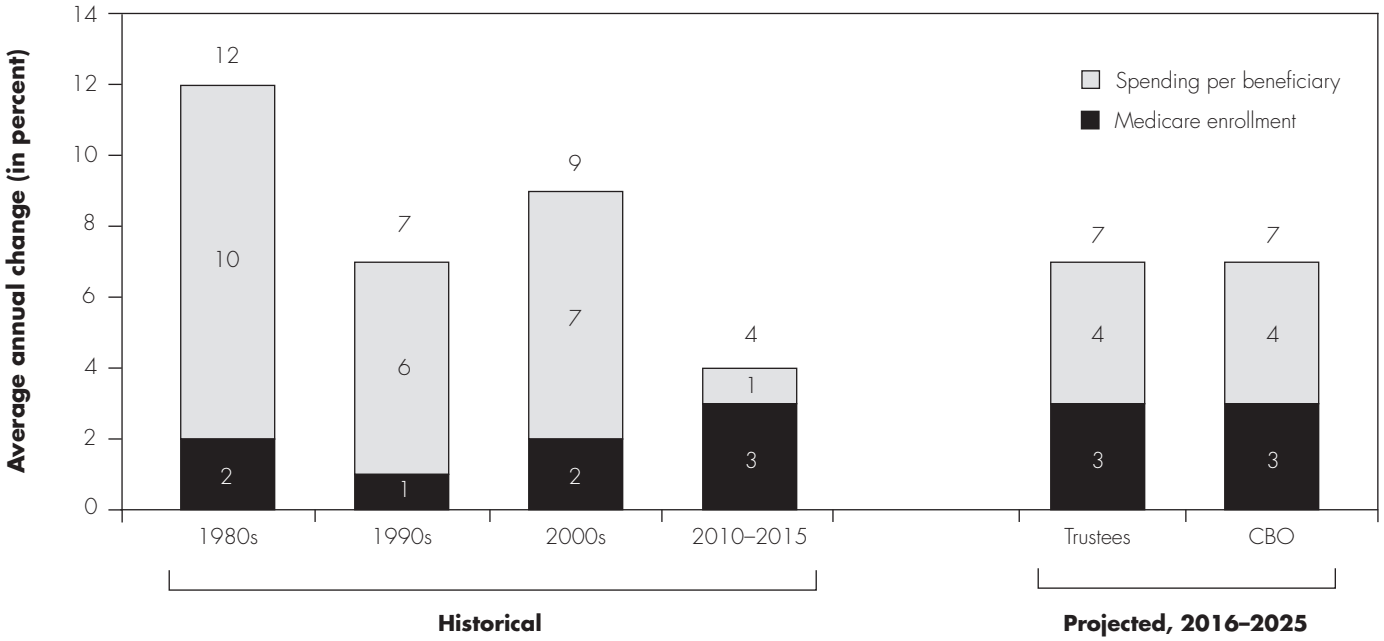
However, in both 2014 and 2015, per beneficiary spending growth in excess of 8 percent caused Part D spending to spike to about $1,900 per beneficiary.[3] Increased spending on high-priced specialty drugs to treat hepatitis C mainly accounts for this jump. The Medicare Trustees project the annual growth in per beneficiary Part D spending to remain high from 2016 to 2024 (ranging from 5 percent to 7 percent) because of a slowing of the trend toward greater generic drug use and a continuing increase in the use and price of specialty drugs (Boards of Trustees 2016, Boards of Trustees 2015).

Figure 1-6 provides a more detailed look at FFS spending growth over the last decade. Generally, all settings experienced a slowdown in per beneficiary spending growth; however, the impact was not uniform. For example, for inpatient hospital care, the average annual growth in per beneficiary spending in the period from 2006 to 2009 and the period from 2013 to 2015 fell from 2 percent to –2 percent. The per beneficiary spending growth in outpatient hospital and lab services declined between 2009 and 2013 but bounced back to grow robustly between 2013 and 2015 at 8 percent annually, in part because of shifts in site of care from both the inpatient hospital setting and physician offices to the outpatient hospital setting.[4] As a reference point, average annual growth in GDP between 2006 and 2015 was about 2.9 percent.

Despite the recent slowing of growth rates, cumulative growth in per beneficiary FFS spending over the last decade has increased in almost all settings and increased substantially in some settings. Per beneficiary spending on outpatient hospital and lab services, skilled nursing facilities, hospice, and labs performed in physician offices and independent laboratories all grew faster than per capita GDP. In contrast, during this time, per beneficiary

**FIGURE 1–7**

**Despite recent slowdown in per beneficiary spending growth, total Medicare spending growth rate is projected to rise**




Note: CBO (Congressional Budget Office).

Source: 2016 annual report of the Boards of Trustees of the Medicare trust funds and CBO report *Updated Budget Projections for Selected Programs: 2015 to 2025*, released March 2016.

spending on durable medical equipment fell by an average of 2 percent per year. That decline was primarily due to the phasing in of a competitive bidding program for durable medical equipment in which suppliers submit bids to provide services to beneficiaries.

Prior Commission reports have explored the relationship between inpatient, outpatient, and physician services and found that outpatient services growth in part reflects hospitals purchasing freestanding physician practices and billing these services through the higher paying hospital outpatient prospective payment system (Medicare Payment Advisory Commission 2015, Medicare Payment Advisory Commission 2014, Medicare Payment Advisory Commission 2013, Medicare Payment Advisory Commission 2012).

## Comparison of private sector and Medicare spending trends

From 2010 to 2014, per capita spending on health care in the private sector grew steadily (Health Care Cost Institute 2015). Increased prices were largely responsible for spending growth, which occurred despite a decline in service use. One key driver of the private sector's higher prices was provider market power (Baker et al. 2014a, Baker et al. 2014b, Gaynor and Town 2012, Robinson and Miller 2014). Hospitals and physician groups have increasingly consolidated, in part to gain leverage over insurers in negotiating higher payment rates. For the private sector, that consolidation resulted in per capita spending growth from 2010 to 2014 of 3.3 percent annually. By comparison, over that same period, Medicare spending per beneficiary increased by 1.0 percent annually. This is partly attributable to restrained increases in Medicare's payment rates.

Regulators and researchers have noted concerns about increased consolidations and their effect on prices. In 2015, the number of hospital mergers increased 18 percent from the prior year and 70 percent from 2010 (Ellison 2016). Consolidation of clinician practices has also increased; a study of available data found a 47 percent jump from 2014 (Irving Levin Associates Inc. 2016). The American

## Independent Payment Advisory Board

The Patient Protection and Affordable Care Act of 2010 (PPACA) established an Independent Payment Advisory Board (IPAB) charged with enforcing limits on Medicare spending growth. As designed, the IPAB consists of 15 presidentially appointed and senatorially confirmed advisors and 3 nonvoting members, including the Secretary of the Department of Health and Human Services, the CMS Administrator, and the Health Resources and Services Administration Administrator.[5] IPAB's design gives it broad authority to propose and execute Medicare payment policies by using a spending target system and accelerated legislative approval process.

The IPAB sequence of events begins each year with the CMS Chief Actuary calculating a target Medicare per capita growth rate. Initially, the target growth rate is based on the projected five-year average percentage increase in the consumer price index for all urban consumers (CPI–U) and the consumer price index for all urban consumers for medical care (CPI–M). For 2020 and beyond, the spending target is set at the yearly average growth rate of the nominal gross domestic product per capita over the prior five years + 1 percent.

If the Chief Actuary determines that the target growth rate has been exceeded, the Chief Actuary establishes a savings target for that year (Figure 1-8, p. 16). This determination triggers a requirement that the IPAB create a cost-savings proposal that holds overall per capita Medicare growth within the target rate. The IPAB proposal cannot include any recommendation to ration care, raise revenues or Part A and Part B premiums, increase cost sharing, restrict benefits, or alter eligibility. Additionally, through 2019, the IPAB cannot affect payment for inpatient hospitals, outpatient hospitals, long-term care hospitals, inpatient

*(continued next page)*

Medical Association's survey of physicians indicates that, over time, physicians have shifted from solo and small practices to larger practices (Kane 2015). The Government Accountability Office (GAO) found that, between 2007 and 2013, the number of physicians in "vertically consolidated" practices—hospital-acquired physician practices, physicians hired as salaried employees, or both—nearly doubled (Government Accountability Office 2015). In addition, the Federal Trade Commission observed that "providers increasingly pursue alternatives to traditional mergers such as affiliation arrangements, joint ventures, and partnerships, all of which could also have significant implications for competition" (Federal Trade Commission 2016). Increased consolidation has an inflationary effect on prices paid in the private sector. A recent study found that disparity in hospital prices within regions is the primary driver of variation in health care spending for the privately insured (Cooper et al. 2015). The study shows that hospitals that face fewer competitors have substantially higher prices; hospital prices in monopoly markets are more than 15 percent higher than those in areas with four or more competitors. It also found that, where hospitals face only one competitor, prices are over 6 percent higher; where they face two, almost 5 percent higher.

Over time, private sector trends can influence Medicare trends. If the private sector is unable to constrain price growth, the profitability of caring for commercially insured patients will increase relative to the profitability of caring for Medicare beneficiaries. Eventually, the difference between commercial rates and Medicare rates will grow so large that more hospitals would have an incentive to focus primarily on patients with commercial insurance, which will exert pressure on the Medicare program to increase its payment rates. Thus, in the long term, Medicare beneficiaries' access to care may in part depend on commercial payers restraining rates paid to hospitals (Medicare Payment Advisory Commission 2009, Stensland et al. 2010, White and Wu 2014).

### Medicare spending projections

What do these current trends portend for Medicare? The growth in Medicare's per beneficiary spending has fallen from average annual rates of 10 percent in the 1980s and 6 percent and 7 percent in the 1990s and 2000s to 1 percent over the last five years (Figure 1-7). This average annual growth over the last four years, however, includes some zero-growth years.

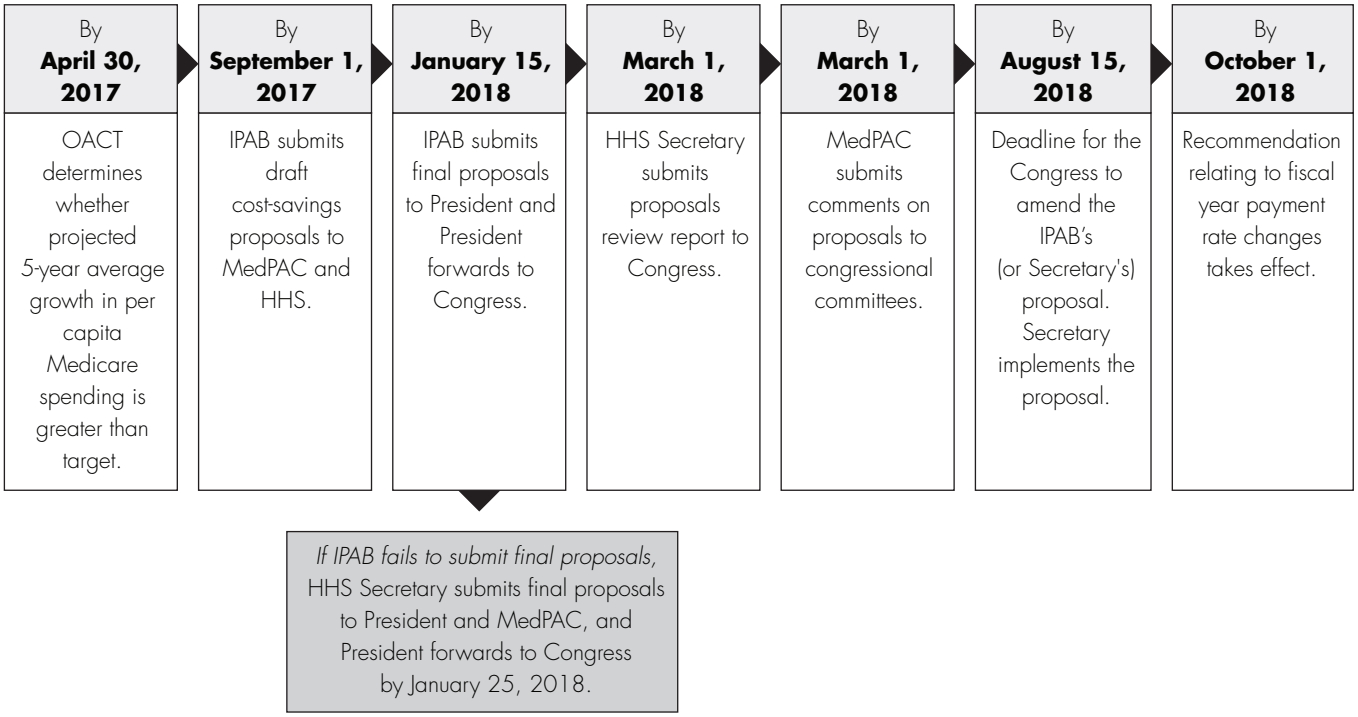
## Independent Payment Advisory Board (cont.)

rehabilitation facilities, psychiatric hospitals, hospice, or Part D beneficiary premiums and the low-income subsidy (LIS). If the IPAB does not submit a proposal, the Secretary of Health and Human Services (HHS) is required to submit a proposal. For the 2013 through 2016 "determination" years, the target growth rates have not been exceeded, so no IPAB proposal has been required. However, for 2017, the Chief Actuary predicts that Medicare spending growth will reach 2.82 percent, which exceeds the target rate of 2.62 percent, and will therefore trigger the IPAB cost-savings proposal (Boards of Trustees 2016).

As Figure 1-8 illustrates, the IPAB must submit a draft of its proposal to the HHS Secretary and the Commission by September 1 and the final version to the President and the Congress by January 15 of the following year. If the IPAB fails to do so, the Secretary is required to develop and submit a final proposal. The Secretary and the Commission are required to review and comment on the proposal by March 1 of the submission year. As specified in PPACA, the proposal is eligible for expedited congressional procedures in the Congress. The IPAB (or Secretary's) proposal automatically becomes law unless the proposal is blocked within a stated period ending August 15th and under circumstances specified in PPACA. Changes to the proposal package are limited to those that would produce at least as much Medicare savings as the submitted legislation. The recommendations that relate to fiscal year payment rate changes go into effect on October 1, the beginning of the government's fiscal calendar, of the proposal year. ■

**FIGURE 1–8**

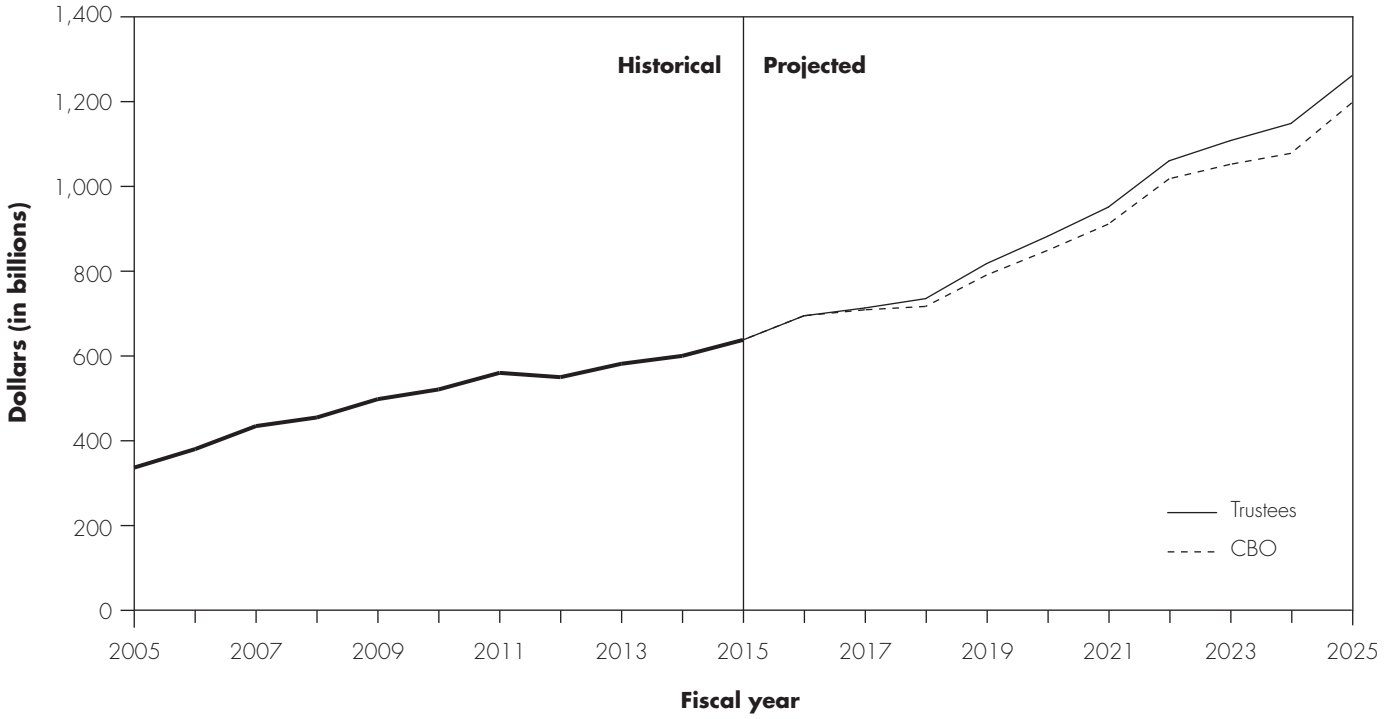
**IPAB time line if triggered in 2017**




Note: IPAB (Independent Payment Advisory Board), OACT (Office of the Actuary), MedPAC (Medicare Payment Advisory Commission), HHS (Department of Health and Human Services). The law specifies that the Trustees' report be released by April 1 and the OACT determination of spending growth relative to the target be released by the end of April of each year. But for the last three years, the report and the OACT determination of spending growth relative to the target have been released in June or July.

**FIGURE 1–9**

**Trustees and CBO project Medicare annual spending to reach $1 trillion by 2022**




Note: CBO (Congressional Budget Office).

Source: 2016 annual report of the Boards of Trustees of the Medicare trust funds and CBO report *Updated Budget Projections for Selected Programs: 2015 to 2025*, released March 2016.

For the next 10 years, the Trustees and the Congressional Budget Office (CBO) project that growth in per beneficiary spending will be higher than the recent lows but lower than the historical highs, with an average annual growth rate of 4 percent (Boards of Trustees 2016, Congressional Budget Office 2016b). High spending growth could trigger a PPACA provision designed to limit Medicare spending growth (see text box on the Independent Payment Advisory Board, pp. 15–16).

At the same time, the aging of the baby-boom generation is causing an enrollment increase. Over the last few years, the enrollment growth rate rose from about 2 percent per year historically to 3 percent and is projected to continue growing throughout the next decade.[6] So despite the slowdown in spending per beneficiary (relative to historical standards), growth in total spending over the next decade is projected by the Trustees and CBO to average 7 percent annually, which outpaces the projected average annual GDP growth of 5 percent.

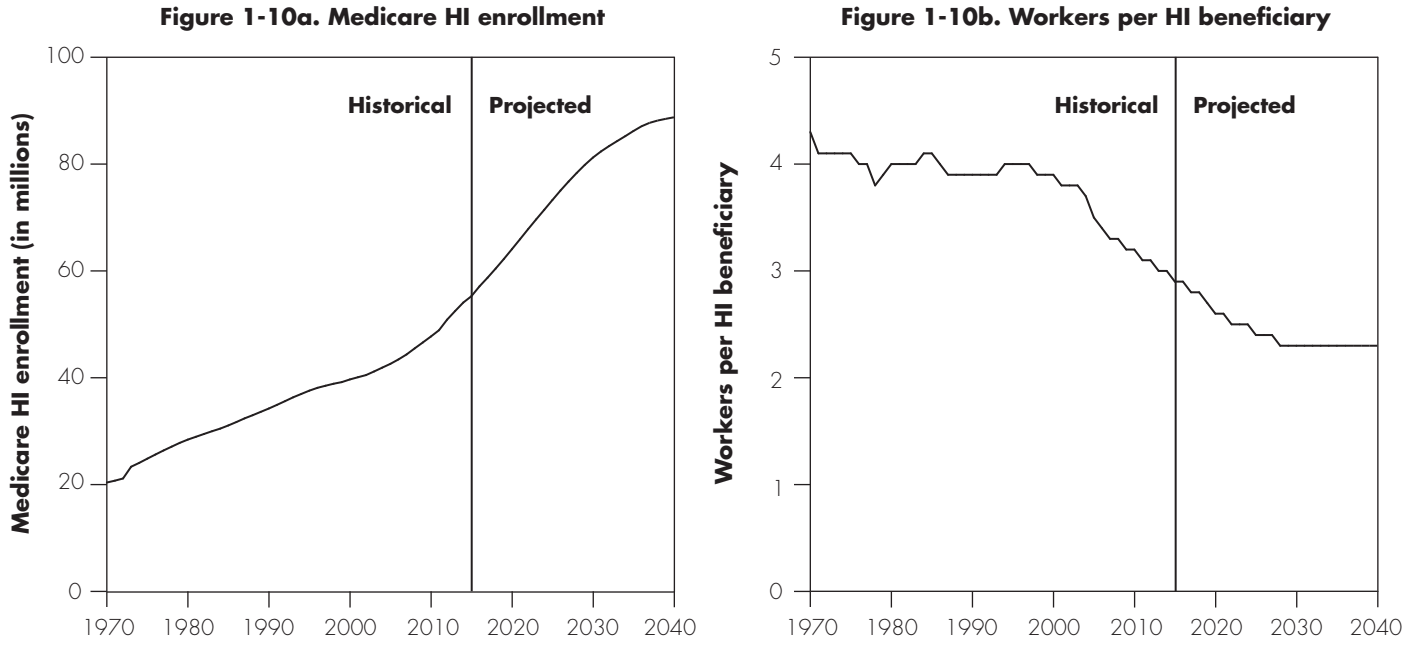
At those rates, Medicare annual spending would rise from about $600 billion in 2016 to $1 trillion within the coming decade (by 2022) under either projection (Figure 1-9) (Boards of Trustees 2016, Congressional Budget Office 2016b).

## Medicare's financing challenge

The aging of the baby-boom generation will have a profound impact both on the Medicare program and the taxpayers who support it. Workers pay for the Medicare program through payroll taxes and taxes that are deposited into the general fund of the Treasury. The number of workers per Medicare beneficiary has already declined from about 4.6 around the program's inception to 3.1 in 2015 (Figure 1-10, p. 18). Over the next 15 years,

**FIGURE 1–10**

**Medicare enrollment is rising while workers per HI beneficiary is declining**




Note: HI (Hospital Insurance). Hospital Insurance is also known as Medicare Part A.

Source: 2016 annual report by the Boards of Trustees of the Medicare trust funds.

as Medicare enrollment surges, the number of workers per beneficiary is projected to decline further. By 2030 (the year by which all baby boomers will have aged into Medicare), the Medicare Trustees project just 2.4 workers for each Medicare beneficiary.

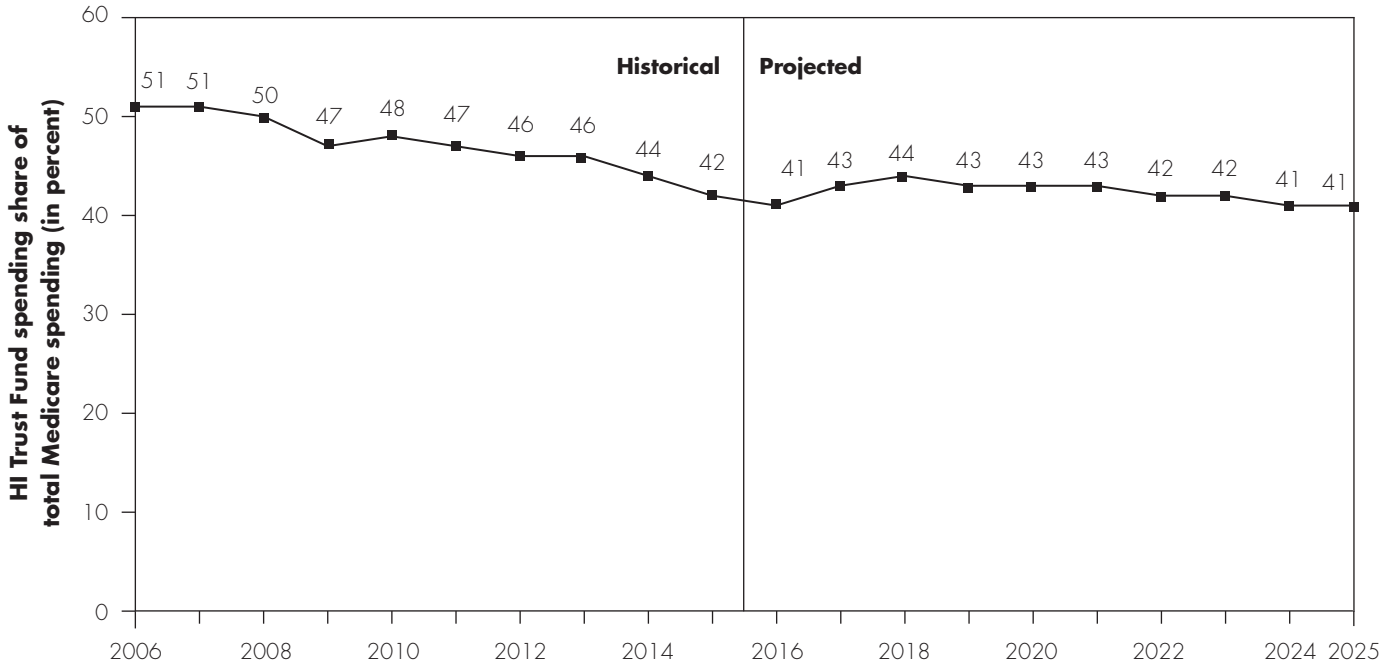
These demographics create a financing challenge for the Medicare program.[7] The Trustees project that Medicare's Hospital Insurance (HI) Trust Fund will become insolvent by 2028—two years earlier than predicted in last year's report—but that date does not tell the whole financial story. The HI Trust Fund covers less than half of Medicare spending (42 percent in 2015), and that share is projected to increase slightly over the next decade, then fall to 41 percent by 2025 (Figure 1-11). The Supplementary Medical Insurance (SMI) Trust Fund covers the remainder and is described on page 19. The HI Trust Fund pays for Medicare Part A services, such as inpatient hospital stays, skilled nursing facilities, and hospice, and is largely (88 percent in 2015) funded through a dedicated payroll tax (i.e., a tax on wage earnings).[8]

Since payroll tax revenues are not growing as fast as Part A spending, the HI Trust Fund is projected to become insolvent by 2028 (Boards of Trustees 2016). To keep the HI Trust Fund solvent over the next 25 years, the Trustees estimate that either the payroll tax would need to be increased immediately by 20 percent, rising from its current rate of 2.90 percent to 3.47 percent, or Part A spending would need to be reduced immediately by 13 percent (Boards of Trustees 2016).[9] (For periods of 50 years and 75 years, see Table 1-1.) Under current law, once the HI Trust Fund is depleted, payments to providers would be reduced to levels that could be covered by incoming tax and premium revenues. However, the Trustees note that:

> If the projections reflected such payment reductions, then any imbalances between payments and revenues would be automatically eliminated, and the [Trustees] report would not serve its essential purpose, which is to inform policymakers and the public about the size of any

**FIGURE 1–11**

**The HI Trust Fund covers a declining share of total Medicare spending**




Note: HI (Hospital Insurance). The rest of Medicare spending is covered by the Supplementary Medical Insurance Trust Fund.

Source: 2016 annual report of the Boards of Trustees of the Medicare trust funds.

trust fund deficits that would need to be resolved to avert program insolvency. To date, lawmakers have never allowed the assets of the Medicare HI Trust Fund to become depleted.

The rest of Medicare benefit spending is covered by SMI. It covers services under Part B (physician services and other ambulatory care received in hospital outpatient departments) and Part D (prescription drug coverage). SMI is a trust fund in name only; it has no funding through a dedicated tax such as there is with the HI Trust Fund. Specifically, Part B and Part D are financed by premiums paid by beneficiaries (covering 25 percent of spending) and general tax revenues plus federal borrowing (covering 75 percent of spending), which are reset each year to match expected Part B and Part D spending.[10]

**TABLE 1–1**

**Increase in payroll tax or decrease in HI spending needed to maintain HI Trust Fund solvency for specific time periods**

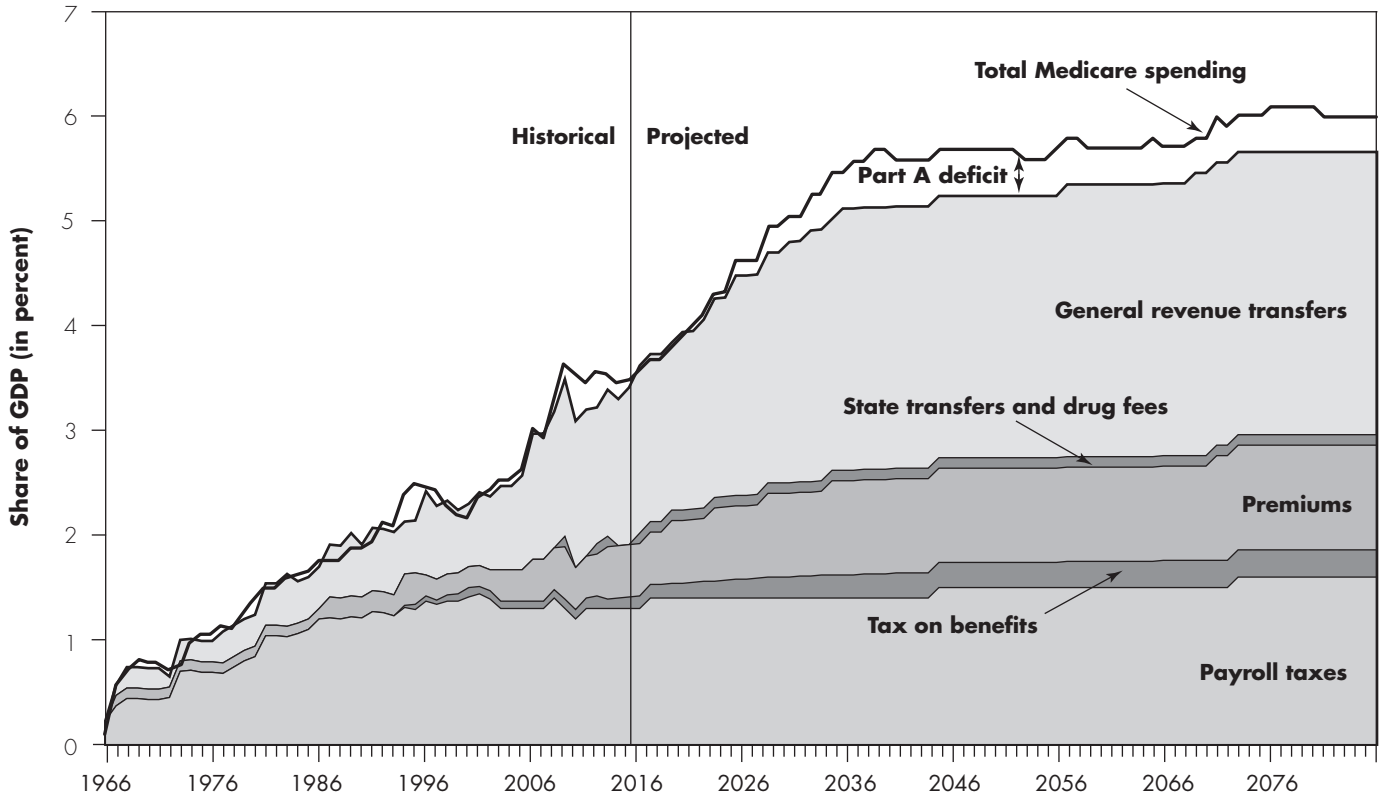
| To maintain HI Trust Fund solvency for: | Increase 2.9 percent payroll tax by: | Or decrease HI spending by: |
|---|---|---|
| 25 years (2016–2040) | 20% | 13% |
| 50 years (2016–2065) | 24 | 16 |
| 75 years (2016–2090) | 25 | 16 |

Note: HI (Hospital Insurance). Hospital Insurance is also known as Medicare Part A.

Source: MedPAC analysis of 2016 annual report of the Boards of Trustees of the Medicare trust funds.

**FIGURE 1–12**

**General revenue is paying for a growing share of Medicare spending**




Note: GDP (gross domestic product). "Tax on benefits" refers to the portion of income taxes that higher income individuals pay on Social Security benefits that is designated for Medicare. "State transfers" (often called the Part D "clawback") refers to payments from the states to Medicare, required by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, for assuming primary responsibility for prescription drug spending. "Drug fees" refers to the fee imposed in the Patient Protection and Affordable Care Act of 2010 on manufacturers and importers of brand-name prescription drugs. These fees are deposited in the Part B account of the Supplementary Medical Insurance Trust Fund.

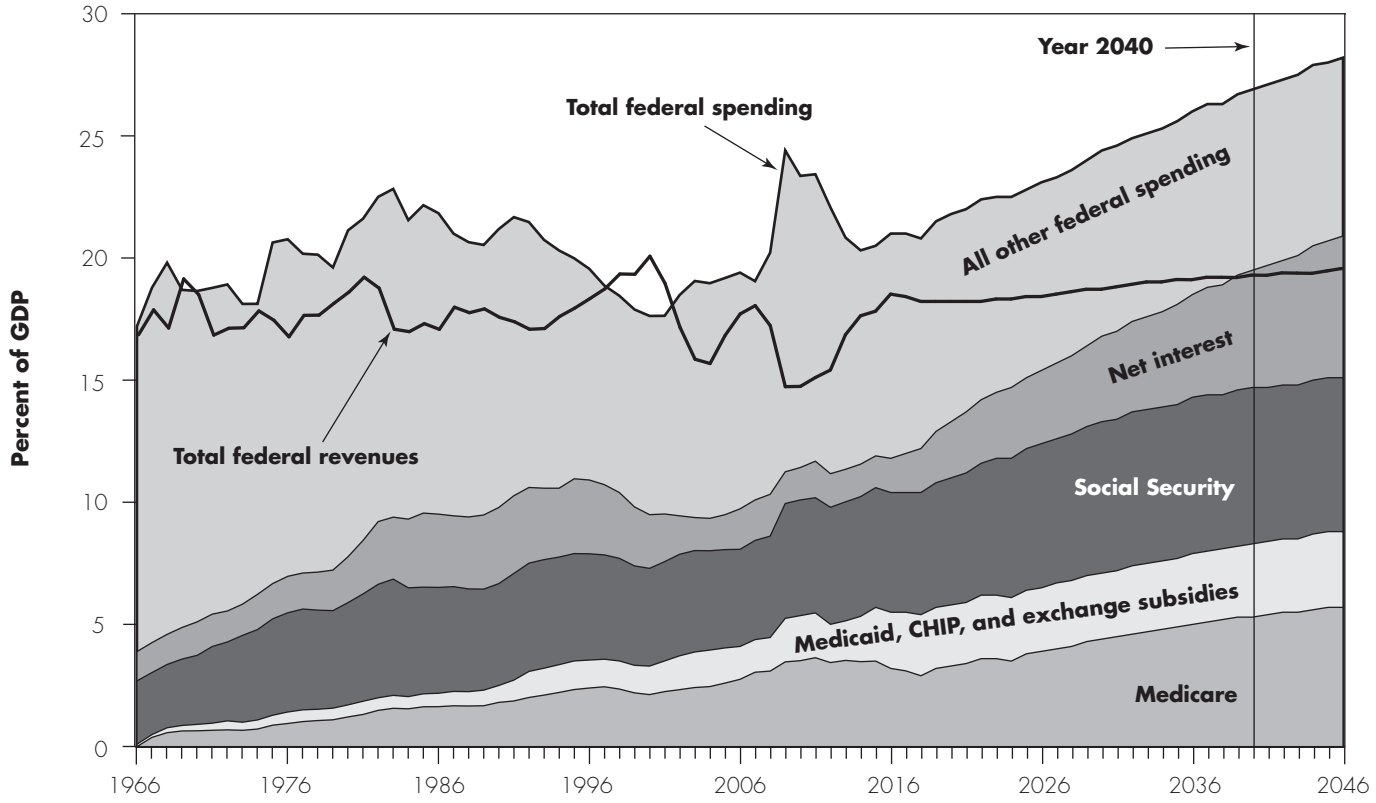
Source: 2016 annual report of the Boards of Trustees of the Medicare trust funds.

Since premiums and transfers are set to grow at the same rate as Part B and Part D spending, the SMI Trust Fund is expected to remain solvent by construction. However, as SMI spending rises, premiums and transfers from the nation's Treasury to the Medicare program also grow, increasing deficits, the debt, and the strain on household budgets both of workers and retirees, and—assuming no other policy or legislative interventions—reducing the resources available to make investments that expand future economic output (e.g., investments in education, transportation, and research and development).

For a more complete financial picture, consider the combined spending and sources of income from the two trust funds; the top line of Figure 1-12 depicts total Medicare spending as a share of GDP; the layers below the line represent sources of Medicare income. Medicare's three primary sources of income are payroll taxes, premiums paid by beneficiaries, and general revenue transfers. The white space below the total Medicare spending line in Figure 1-12 represents the Part A deficit created when payroll taxes fall short of Part A spending. Figure 1-12 reflects projections in the Medicare Trustees' report, which are based on current law with the exception of disregarding payment reductions that would result from the projected depletion of the HI Trust Fund. Under current law, payments to Part A providers would be reduced to levels that could be covered by incoming tax and premium revenues when the HI Trust Fund becomes depleted. Thus, as Medicare actuaries and others have

**FIGURE 1–13**

**Spending on Medicare, other major health programs, Social Security, and net interest is projected to exceed total federal revenues in 25 years (by 2040)**




Note: GDP (gross domestic product), CHIP (Children's Health Insurance Program).

Source: *The 2016 Long-Term Budget Outlook* (published July 2016) and *Updated Budget Projections: 2016 to 2026* (published March 2016) from the Congressional Budget Office.

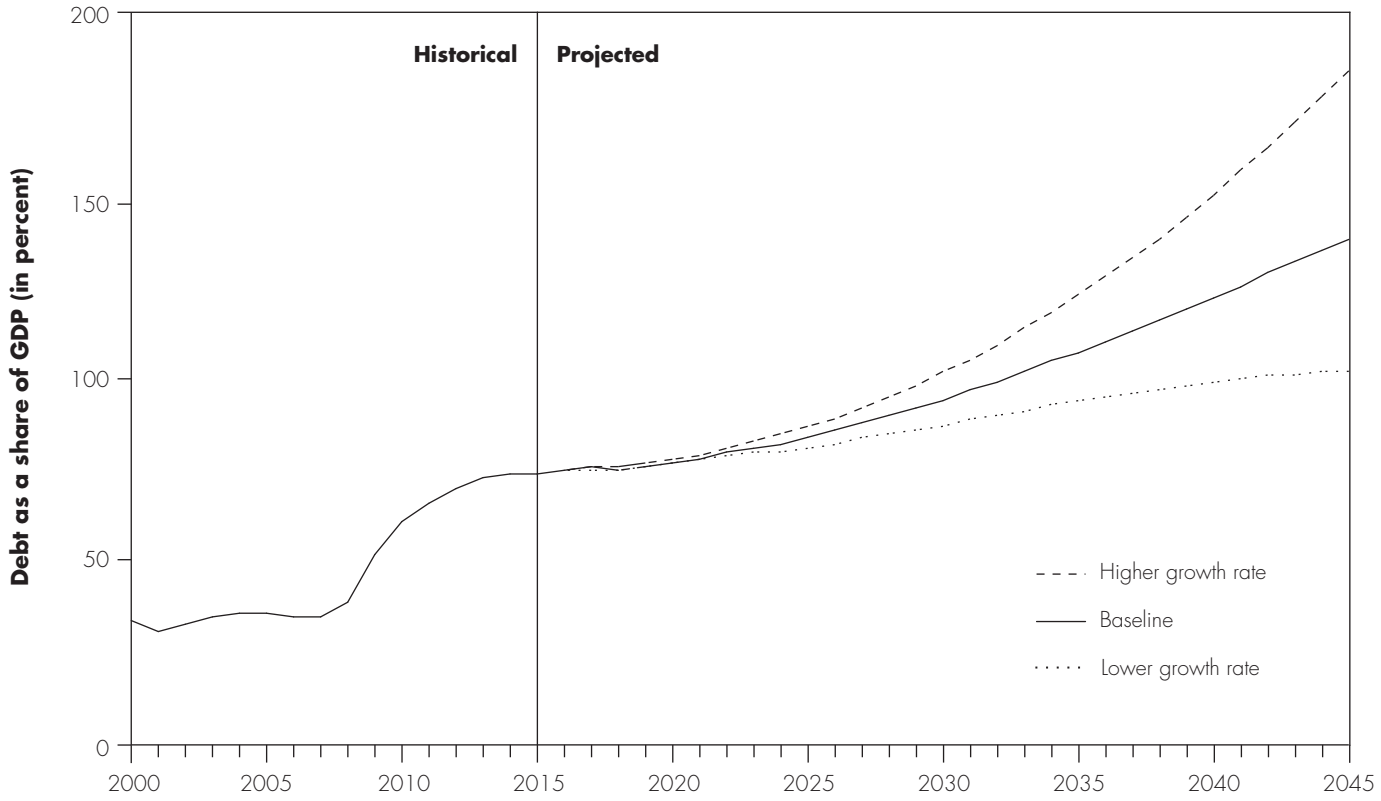
observed, total Medicare spending would be shifted down from the total projected spending by an amount equal to the Part A deficit, as presented in Figure 1-12 (Aaron 2015, Spitalnic 2016). As described above, the actuaries note that if the projections reflected such payment reductions, then any imbalances between payments and revenues would be automatically eliminated. To date, lawmakers have never allowed the assets of the Medicare HI Trust Fund to become depleted.

Undeniably, the Part A deficit is a financing challenge, but so too is the large and growing share of Medicare spending funded through general revenues. General revenues account for 43 percent of Medicare funding today and under current law are projected to grow to 48 percent by 2030; notably, in this context, general revenues include both general tax revenue as well as federal borrowing since, with few exceptions, federal spending has exceeded federal revenues since the Great Depression.

To understand why the growing reliance on general revenues presents a financing challenge, consider the situation from the perspective of the federal budget. The line at the top of Figure 1-13 represents total federal spending as a share of GDP; the line below spending represents total federal revenues. The difference between these two lines represents the budget deficit, which must be covered by federal borrowing. For most years over the past several decades, the federal government has spent more than it collects in revenues, increasing the federal debt to levels not seen since World War II. Federal revenues have remained relatively constant even

**FIGURE 1–14**

**Health care spending growth impacts future debt levels**




Note: GDP (gross domestic product). The higher growth rate of per beneficiary spending on Medicare and Medicaid is 0.75 percentage point per year higher than under the baseline assumptions; the lower growth rate is 0.75 percentage point per year lower than under the baseline assumptions.

Source: *The 2016 Long-Term Budget Outlook* (published July 2016) from the Congressional Budget Office.

though the federal government has taken responsibility for a broader array of services (e.g., the Children's Health Insurance Program).

The layers below the top line in Figure 1-13 (p. 21) depict federal spending by program. Under current law, Medicare spending is projected to rise from 3.6 percent of our economy in 2016 to a little over 6 percent of our economy in 2040 (Congressional Budget Office 2016a). In fact—assuming no other policy or legislative interventions—spending on Medicare, Medicaid, the other major health programs, Social Security, and net interest payments are projected to reach almost 20 percent of the nation's economy by 2040 and, by themselves, will exceed total federal revenues.[11]

Moreover, the projection assumes that federal revenues will rise above 19 percent of GDP, above the historical average of 17 percent of GDP. The increase in revenues is projected to occur mainly because income is projected to grow more rapidly than inflation, pushing more income into higher inflation-indexed tax brackets over time. However, if federal revenues continue at their historical average of 17 percent of GDP, spending on these major programs and net interest payments would exceed total federal revenues even sooner.

With their reliance on general tax dollars and federal deficit spending, Medicare and the other major health care programs have a substantial effect on the federal debt. Debt equaled 35 percent of GDP at the end of 2007 as the economy entered the last recession (Figure 1-14). Because of the recession, the debt soared, reaching 74 percent of GDP in 2015—a higher share than at any point in U.S. history, except briefly around World War II.

Under baseline assumptions, which reflect current law, CBO projects the debt will reach 84 percent of GDP in 2025 and 138 percent of GDP in about 30 years (or by 2045). However, the CBO baseline assumes that per beneficiary spending for Medicare and Medicaid will increase more slowly in the future than it has during the past several decades. If per beneficiary spending growth were a percentage point higher than that of the baseline, the federal debt would be 184 percent of GDP by 2045. On the other hand, if per beneficiary spending growth were a percentage point lower, the federal debt would be 102 percent of GDP by 2045.

## Health care spending consumes growing shares of state and family budgets

Part of the Commission's mandate is to view Medicare in the context of the broader health care system. This section examines the effect of health care spending on state budgets and on the budgets of individuals and families. States bear a significant share of Medicaid costs, so rising health care spending also has implications for state budgets. For individuals and families, increases in premiums and cost sharing have negated real income growth in the past decade. Likewise, premiums and cost sharing for Medicare beneficiaries are projected to grow faster than Social Security benefits, which makes up a significant share of many beneficiaries' income.

### Health care spending and state budgets

States and the federal government jointly finance Medicaid, a program that pays for health care services provided to people with low incomes. In fiscal year 2013, before the coverage expansions made by PPACA, monthly enrollment in Medicaid averaged about 59 million people, and total spending was $455.6 billion, with the states paying 42 percent and the federal government paying the remainder. Medicaid spending accounted for an estimated 19.3 percent of state expenditures in that year (Centers for Medicare & Medicaid Services 2014a).

PPACA gave states the option to expand Medicaid coverage—beginning in 2014—to non-elderly individuals with total family income of less than 138 percent of the federal poverty threshold. States received full federal financing to cover this expansion population in 2014, phasing down to 90 percent federal financing by 2020. CMS actuaries estimate that, in fiscal year 2014, monthly enrollment in Medicaid increased 9.2 percent, covering 64 million people, and total spending increased 8.5 percent, reaching $494.5 billion. Because the federal government paid for 100 percent of the costs of newly eligible enrollees, the states' share of all Medicaid expenditures in 2014 decreased to 39 percent. Currently, government actuaries project that the states' share will remain lower than 40 percent over the next 10 years as more states expand coverage (the states' share is projected to range between 37 percent and 39 percent from 2015 to 2024) (Centers for Medicare & Medicaid Services 2014a).

PPACA also increased the payment amount primary care providers received for seeing Medicaid patients in 2013 and 2014 so that it equaled Medicare's payment. This policy represented a significant increase in payments to providers since Medicaid primary care FFS payment rates averaged 59 percent of Medicare fee levels in 2012. The federal government incurred 100 percent of the cost of the payment increase. Federal spending is expected to reach about $12 billion. (The actual amount is not yet known because states have up to two years to submit claims for federal reimbursement.) Even though the federal subsidies expired at the end of 2014, 16 states and the District of Columbia are continuing to pay enhanced rates (Tollen 2015).

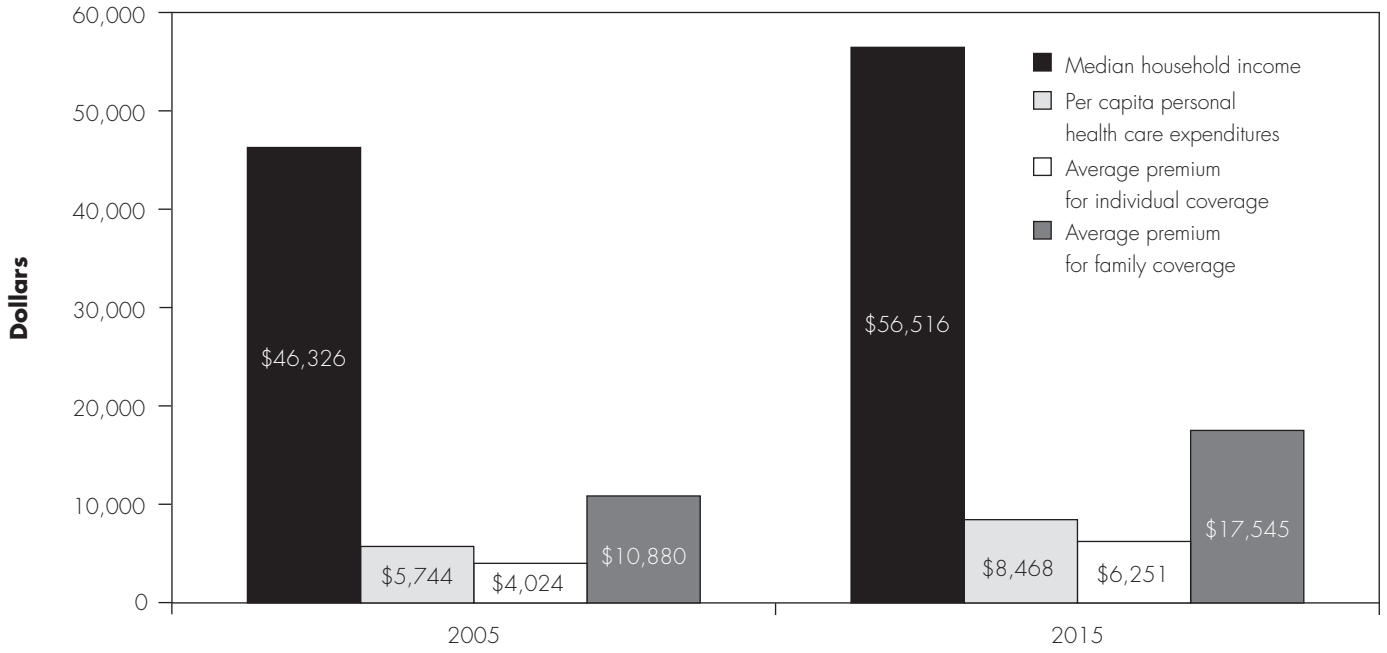
A provision also established under PPACA authority allows state demonstrations for beneficiaries dually eligible for Medicare and Medicaid. Under a financial alignment initiative, CMS has approved 14 demonstrations in 13 states, and all are in operation. CMS does not expect any additional states to join the demonstrations. Most demonstrations will operate for five years. About 450,000 dual eligibles are currently enrolled in what is one of the largest demonstrations that CMS has ever conducted related to dual eligible beneficiaries. Most demonstrations (11 of 14) are testing a "capitated" model, which uses health plans known as Medicare–Medicaid Plans to provide all Medicare benefits and all or most Medicaid benefits to dual-eligible individuals (Medicare Payment Advisory Commission 2016).

### Health care spending and individual and family budgets

For individuals and families, growth in health care spending has meant higher health insurance premiums and higher taxes devoted to health care (Auerbach and Kellermann 2011). Additionally, for those covered by employer-sponsored health insurance, an increase in

**FIGURE 1–15**

**Growth in health care spending and premiums outpaced growth in household income, 2005–2015**




Note: Household income, health expenditures, and premiums are all measured in nominal dollars. Average premiums for individual and family coverage are for employer-sponsored health insurance and include contributions from workers and employers.

Source: MedPAC analysis of Census Bureau, Current Population Survey, Annual Social and Economic Supplements 2016; National Health Expenditure Accounts from CMS 2016; and Kaiser Family Foundation and Health Research & Educational Trust 2015 survey of employer health benefits.

premiums results in lower wage growth because, through wage reductions, employers offset their increased costs of providing health insurance to their employees (Baicker and Chandra 2006, Gruber 2000). As health care spending increases, an increasing share of income from individuals and families is transferred to insurers, hospitals, physicians, and other providers of health care services.

In the last decade, per capita health care spending and premiums have grown much more rapidly than median household incomes and thus account for a greater share of income (Figure 1-15). In 2005, per capita personal health care spending accounted for 12 percent ($5,744) of median household income ($46,326). Insurance premiums for individuals and families were 9 percent ($4,024) and 23 percent ($10,880), respectively (Census Bureau 2016, Centers for Medicare & Medicaid Services 2016, Kaiser Family Foundation and Health Research & Educational Trust 2015).[12] By 2015, per capita personal health care spending had grown to 15 percent ($8,468) of median household income ($56,516). The premiums for typical individual and family health insurance were 11 percent ($6,251) and 31 percent ($17,545) of median household income, respectively. A greater share of the nominal-dollar income increase may have gone to health care providers than to other occupation categories (see text box on health care occupations). From 2007 to 2014, middle-income households' health care spending grew by 25 percent, while their spending fell for categories such as food, housing, clothing, and transportation (Baily and Holmes 2015).

Many Medicare beneficiaries are not exempt from the financial challenges of the program's ever-growing cost-sharing liabilities.[13] In 2015, SMI (Medicare Part B and Part D) premiums and cost sharing consumed 23 percent of the average Social Security benefit, up from 7 percent in 1980 (Boards of Trustees 2016). (Those percentages do not include beneficiary spending on premiums for Medicare supplemental insurance.) The Medicare Trustees estimate

## Health care occupations employment and salaries

Health care occupations represent a large (9 percent) and growing (21 percent growth rate from 2005 to 2015) share of the country's workforce (Table 1-2). According to data from the Bureau of Labor Statistics (BLS), mean salaries for clinicians—health care practitioners who diagnose or treat conditions—are more than twice the average of all other occupations (Bureau of Labor Statistics 2016, Bureau of Labor Statistics 2006). Salaries for health care technicians (e.g., radiologic technologists and technicians, dental hygienists, and emergency medical technicians and paramedics) are about the same as the average for the non–health care workforce. However, health care support occupations' salaries (e.g., home health aides, orderlies, medical assistants, and medical transcriptionists) are less than average salaries. BLS data also indicate that wages for health care professionals may have grown more rapidly (31 percent), in nominal dollar terms, than for other occupations (27 percent).[14] (Note that BLS cautions against using these data to make comparisons across time.) ■

**TABLE 1–2** **Employment and salary for health care and all other occupation categories, 2015**

| Occupation categories | Employees (in millions) | Share of all occupations | Increase from 2005 | Mean salary | Increase from 2005 |
|---|---|---|---|---|---|
| All occupations | 138 | N/A | 6% | $48,320 | 28% |
| All but health care total | 126 | 91% | 5 | $47,037 | 27 |
| All but clinicians | 133 | 96 | 5 | $46,502 | 27 |
| Health care total | 12 | 9 | 21 | $61,763 | 31 |
| Health care practitioners and technical occupations | 8 | 6 | 23 | $77,800 | 31 |
| Clinicians | 5 | 4 | 26 | $97,027 | 32 |
| Technicians | 3 | 2 | 18 | $46,642 | 25 |
| Health care support occupations | 4 | 3 | 19 | $29,520 | 24 |

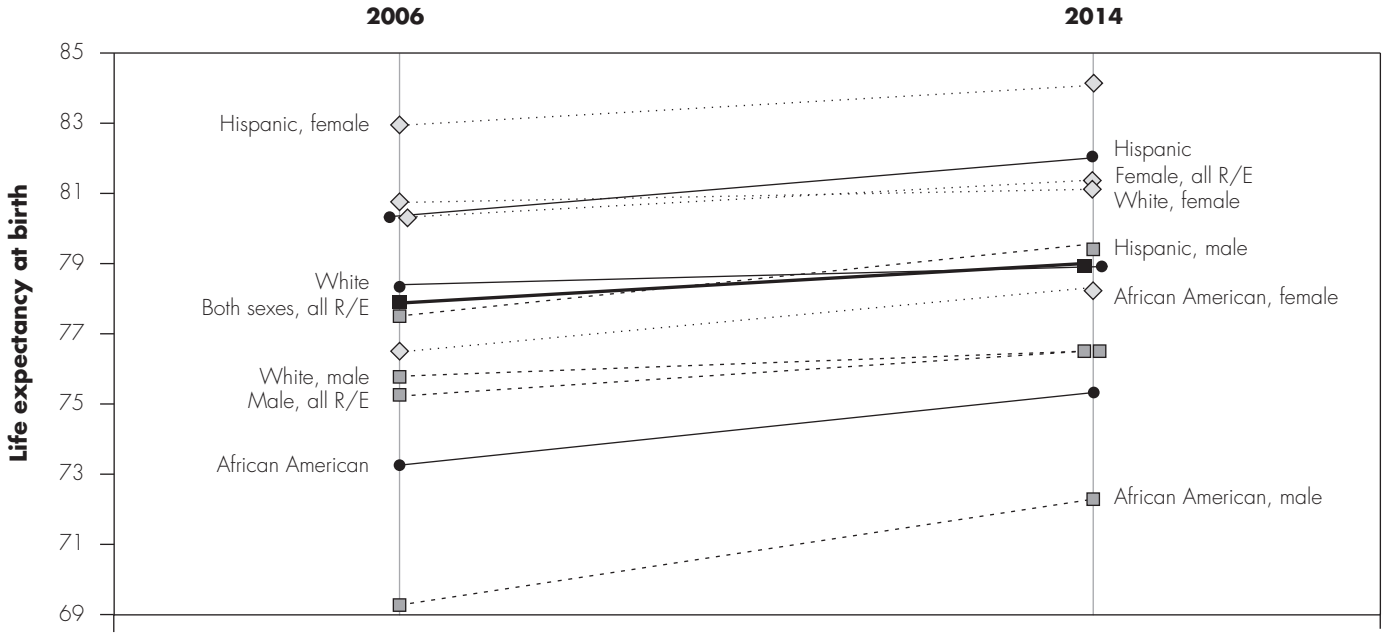
Note: N/A (not applicable). "Clinicians" includes health care practitioners who diagnose or treat conditions, such as physicians, dentists, physician assistants, registered nurses, and physical therapists. "Technicians" includes health care technical occupations such as radiologic technologists and technicians, dental hygienists, emergency medical technicians and paramedics, and pharmacy technicians. "Health care support occupations" includes occupations such as home health aides, orderlies, medical assistants, and medical transcriptionists. Data from self-employed persons are not collected and are not included in the estimates. Salary increase from 2005 is measured in nominal dollars. The Bureau of Labor Statistics cautions against using Occupational Employment Statistics (OES) data to compare two points in time because the survey methodology is designed to create detailed cross-sectional employment and wage estimates but presents challenges in using OES data as a time series. These challenges include changes in the occupational, industrial, and geographical classification systems; changes in the way data are collected; changes in the survey reference period; and changes in mean wage estimation methodology, as well as permanent features of the methodology.

Source: MedPAC analysis of Bureau of Labor Statistics May 2015 National Occupational Employment and Wage Estimates United States and Bureau of Labor Statistics May 2005 National Occupational Employment and Wage Estimates United States.

that those costs will consume 30 percent of the average Social Security benefit by 2030. On average, Social Security benefits account for more than 60 percent of income for seniors. For more than one-fifth of seniors, Social Security benefits account for 100 percent of income (Social Security Administration 2012). However, some seniors also rely on accumulated assets to supplement their income in retirement. Additionally, despite the increasing cost-sharing burden, the availability of SMI Part B and Part D benefits greatly reduces the costs that beneficiaries would otherwise pay for health care services without those benefits since general revenues cover a large share of those costs.

**FIGURE 1–16**

**Life expectancy at birth by race/ethnicity and sex, 2006 and 2014**




Note: R/E (races and ethnicities). The "White" category is exclusive of Hispanics.

Source: National Center for Health Statistics 2016.

## Recent trends in life expectancy, morbidity, and mortality

Several recent studies and news reports have highlighted aspects of decreasing life expectancy and increasing mortality and morbidity among some Americans (see text box on recent mortality and morbidity trends). These include—for specific groups—decreases in life expectancy; increasing rates of suicide and deaths from drug poisonings; and troubling health indicators and behaviors such as increased alcohol consumption, smoking, and obesity. These trends interact with longstanding underlying variations in life expectancy, mortality, and morbidity by sex, income, race and ethnicity, and geographic location.

### Life expectancy by sex, race, and Hispanic origin

In general, life expectancy in the United States has been increasing over the last century (although more slowly than in other Organisation for Economic Co-operation and Development (OECD) countries).[15] These increases in longevity are influenced by a range of factors, including health behavior changes, increased disease prevention efforts, and advances in medical treatments. In 2014, average life expectancy at birth for an individual living in the United States was 78.8 years (Figure 1-16). However, an individual's life expectancy can vary significantly from this average based on certain characteristics, including race, sex, socioeconomic status, and geographic location. Variations have existed since official data have been collected. One example is that, in 2014, women on average had a longer life expectancy (81.2 years) than men (76.4. years) (Figure 1-16). Though this longevity gap has lessened in recent years, researchers speculate that these differences are caused by a combination of genetics, reductions in infections, and behavioral and lifestyle factors (Beltran-Sanchez et al. 2015).

Race and ethnicity are also associated with life expectancy. The Hispanic population in the United States in 2014 had a higher life expectancy at birth (81.6 years) than the non-Hispanic White and African American populations, at 78.8

## Recent mortality and morbidity trends

Several recent studies and news reports have highlighted aspects of increasing mortality and morbidity among some Americans (Arias 2016, Case and Deaton 2015, Montez et al. 2016). While researchers have applied diverse methods and reported various aspects of the trend, findings can be grouped into two categories: increases in mortality in groups of Whites, especially women, and decreases in life expectancy for residents of certain geographic areas.

Over the last century, the United States has experienced generally consistent declines in the mortality rate. However, there has recently been an increase in mortality among the middle-aged non-Hispanic White population (Kochanek et al. 2015). Economists Case and Deaton found that the increase is unique to middle-aged (45–54 years old) non-Hispanic Whites in the United States; a similar mortality rate increase is not seen in other industrialized countries or in the non-Hispanic African American or Hispanic population of this age group (Case and Deaton 2015). Case and Deaton note that three causes of death have dramatically increased among this group in the last decade: suicides, intentional and unintentional poisonings, and chronic liver disease. Additionally, increases in midlife mortality in this group are paralleled by increases in self-reported midlife morbidity and troubling health indicators and behaviors such as increased alcohol consumption, smoking, and obesity. Case and Deaton's findings indicate that the increase in reports of poor health by this group has been matched by increasing reports of physical pain and psychological distress.

As with any population-level trend, the causes of increased midlife morbidity and mortality among non-Hispanic Whites are difficult to identify. A recent study found that varying inequalities in women's mortality across states may be partially explained by macro-level socioeconomic and political factors—for example, policies that shape access to health care, use of tobacco, availability of affordable housing, children's health care, and financial safety nets (Montez et al. 2016). Some researchers point to the availability of opioid drugs as a possible source of rising mortality rates. Increased reports of pain combined with the increased availability of opioid prescriptions for pain that began in the late 1990s have been widely noted, as well as the associated mortality (Rudd et al. 2016). Studies have also found that recent restrictions of opioid prescriptions may lead to unintended negative consequences such as increased use of heroin (Compton et al. 2016). There is concern that those affected by opioid and substance use in midlife include current Medicare beneficiaries under 65 and others who will age into Medicare in worse health than current beneficiaries. Researchers have found that patients with a diagnosed opioid dependency are high utilizers of health care services, including office visits, lab tests, and related treatments (FAIR Health 2016). However, this utilization may be related to the underlying conditions for which opioids were used as much as the consequences of opioid abuse or related effects. Addiction is hard to treat and chronic pain is challenging to control, and these conditions appear to be potential problems among the next generation of Medicare beneficiaries. ■

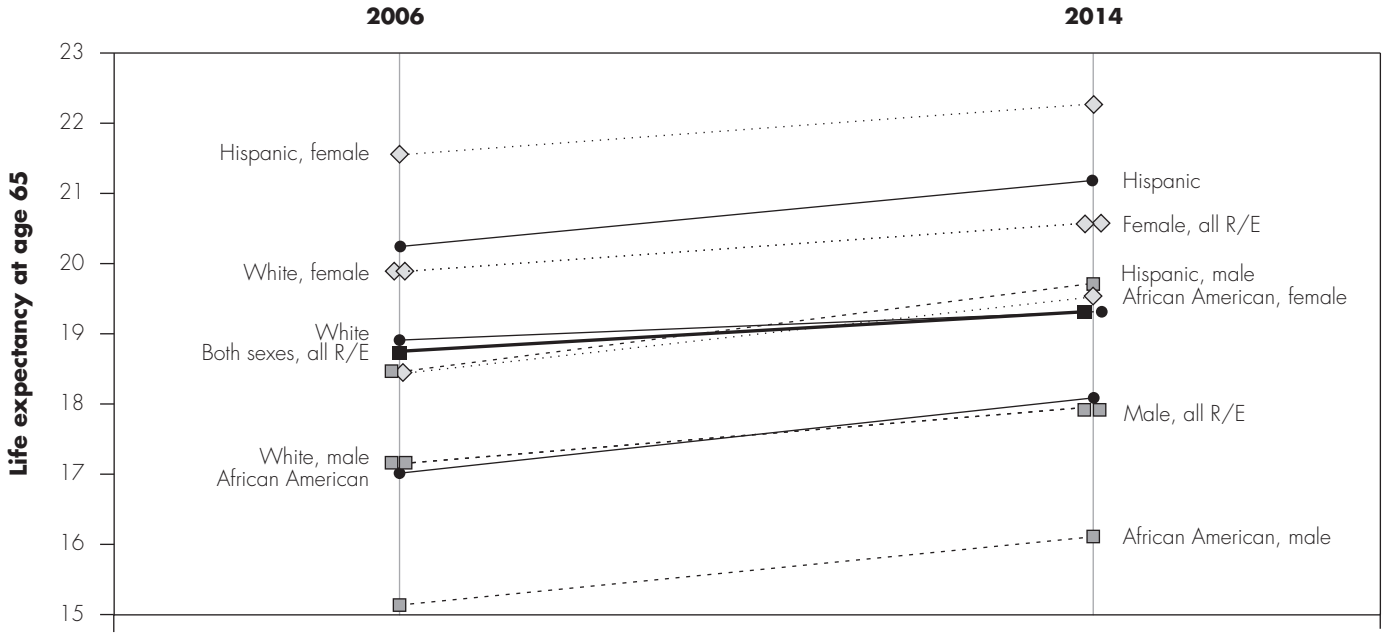
and 75.2 years, respectively (Figure 1-16). Though these differences have shifted somewhat over time, the general trend of the Hispanic population having the longest life expectancy and non-Hispanic African Americans having the shortest has persisted (Arias 2016).

### Life expectancy, by geographic areas

Life expectancy in the United States varies based on an array of geographical characteristics, including urban and rural location and among states. A 2014 study by Singh and Siahpush found that life expectancy was inversely related to levels of rurality and that rural African Americans and Whites had lower life expectancies than their urban counterparts (Singh and Siahpush 2014).[16] From 2005 through 2009, those in large metropolitan areas had a life expectancy of 79.1 years compared with 76.9 years in small urban towns and 76.7 years in rural areas. Compared with their urban peers, people in rural areas

**FIGURE 1–17**

**Life expectancy at age 65 by race/ethnicity and sex, 2006 and 2014**




Note: R/E (races and ethnicities). The "White" category is exclusive of Hispanics.

Source: National Center for Health Statistics 2016.

had higher rates of both smoking and lung cancer, along with obesity. Additionally, rural residents on average had a lower median family income and higher poverty rate, and fewer had college degrees, which may contribute to the difference in life expectancy. Another study by Chetty and colleagues exploring the association between life expectancy and income found that low-income individuals' life expectancy varied substantially based on where they lived (Chetty et al. 2016). The study found that individuals in the lowest income quartile often lived longest and had more healthful behaviors if they resided in urban areas with highly educated populations, high incomes, and high levels of government expenditures. Some potential explanations for these findings are that these areas may have public policies that improve health (e.g., smoking bans) or they may have greater funding for public services. However, the Commission's research has found little difference between rural and urban beneficiaries' satisfaction with access to care and amount of service use. With respect to quality of care, quality is similar for most types of providers in rural and urban areas; however, rural hospitals tend to have below-average rankings on mortality and some process measures (Medicare Payment Advisory Commission 2012).

A recent study by Montez and colleagues examined variation in women's mortality rates across states (Montez et al. 2016).[17] The study found that a state's economic and social environment (e.g., welfare policy, tobacco tax rate, level of economic inequality) had a significant effect on women's mortality rate. The researchers found that many of the states with the best economic and social scores had some of the lowest mortality rates among women. The same correlation was not seen among males. These findings imply that geographic inequities in women's mortality rates may not be fully explained just by women's personal characteristics; rather, the influence of socioeconomic and political contexts must be also considered.

## Life expectancy at age 65

Recent decreases in life expectancy and increases in mortality are isolated to the under-65 population. Between 2006 and 2014, life expectancy at 65 (i.e., remaining years of life) increased for all groups (Figure 1-17).

**TABLE 1–3**

**Leading causes of death, 1980 and 2014**

**Table 1-3a. Leading causes of death, 1980**

| Cause of death | Share of deaths |
|---|---|
| 1. Heart disease | 38.2% |
| 2. Cancer | 20.9 |
| 3. Stroke | 8.6 |
| 4. Accidents | 5.3 |
| 5. Chronic obstructive pulmonary diseases | 2.8 |
| 6. Pneumonia and influenza | 2.7 |
| 7. Diabetes mellitus | 1.8 |
| 8. Chronic liver disease and cirrhosis | 1.5 |
| 9. Atherosclerosis | 1.5 |
| 10. Suicide | 1.4 |

**Table 1-3b. Leading causes of death, 2014**

| Cause of death | Share of deaths |
|---|---|
| 1. Heart disease | 23.4% |
| 2. Cancer | 22.5 |
| 3. Chronic lower respiratory diseases | 5.6 |
| 4. Accidents | 5.2 |
| 5. Stroke | 5.1 |
| 6. Alzheimer's disease | 3.6 |
| 7. Diabetes mellitus | 2.9 |
| 8. Influenza and pneumonia | 2.1 |
| 9. Nephritis, nephrotic syndrome, and nephrosis | 1.8 |
| 10. Suicide | 1.6 |

Note: Starting with 2011 data, the rules for selecting renal failure as the underlying cause of death were changed, affecting the number of deaths in the "nephritis, nephrotic syndrome, and nephrosis" and "diabetes mellitus" categories. These changes directly affect death with mention of renal failure and other associated conditions such as diabetes mellitus with renal complications. The result is a decrease in the number of deaths for nephritis, nephrotic syndrome, and nephrosis and an increase in the number of deaths for diabetes mellitus. Therefore, trend data for these two causes of death should be intrepreted with caution.

Source: 2016 data on mortality from the National Center for Health Statistics.

## Leading causes of death

Over the past few decades, there has been little change in the leading causes of death in the United States, both for all Americans and those 65 and older (Table 1-3, this page, and Table 1-4, p. 30). Heart disease and cancer have remained the first and second leading causes of death, respectively, for both age groups for more than 75 years (Hoyert 2012, National Center for Health Statistics 2016). In each year between 1935 and 2014, three causes—heart disease, cancer, and stroke—remained among the five leading causes. Suicide was the 10th leading cause of death in both 1980 and 2014.

Some of the leading causes of death overlap with the most prevalent and most expensive chronic conditions among Medicare FFS beneficiaries (Table 1-5, p. 30). In Table 1-5, the Medicare total per capita spending amount represents all Medicare spending for FFS beneficiaries with the specified condition (i.e., the spending cannot be attributed strictly to the specified condition because beneficiaries may have other health conditions that contribute to their total Medicare utilization and spending amounts).

It is unclear how the prevalence of these and other acute and chronic conditions contributes to Medicare spending trends in part because treatments for conditions are influenced by changes in technology and definitions of what constitutes disease shift over time. The Commission explored this question in 2007 and found upward pressure on Medicare costs because of a greater proportion of beneficiaries being treated for multiple chronic conditions (Medicare Payment Advisory Commission 2007). This increase reflected growth in the prevalence of obese beneficiaries, advances in technology for diagnosing and treating conditions, and changes in disease definitions. More recently, the Congressional Budget Office found that while ample evidence exists of increased health care spending associated with obesity, evidence about the effects of weight loss on the health and health care spending of obese people is inconclusive at best (Congressional Budget Office 2015).

## The relationship between Medicare spending and quality

As Medicare per beneficiary spending has increased over the life of the program, has the quality of health care received by Medicare beneficiaries improved? From the perspective of beneficiary health and longevity, indicators

**TABLE 1–4**

## Leading causes of death at age 65 and older, 1980 and 2014

**Table 1-4a. Leading causes of death at age 65 and older, 1980**

| Cause of death | Share of deaths |
|---|---|
| 1. Heart disease | 44.4% |
| 2. Cancer | 19.3 |
| 3. Stroke | 10.9 |
| 4. Pneumonia and influenza | 3.4 |
| 5. Chronic obstructive pulmonary diseases | 3.2 |
| 6. Atherosclerosis | 2.1 |
| 7. Diabetes mellitus | 1.9 |
| 8. Accidents | 1.9 |
| 9. Nephritis, nephrotic syndrome, and nephrosis | 1.0 |
| 10. Chronic liver disease and cirrhosis | 0.7 |

**Table 1-4b. Leading causes of death at age 65 and older, 2014**

| Cause of death | Share of deaths |
|---|---|
| 1. Heart disease | 25.5% |
| 2. Cancer | 21.5 |
| 3. Chronic lower respiratory diseases | 6.5 |
| 4. Stroke | 5.9 |
| 5. Alzheimer's disease | 4.8 |
| 6. Diabetes mellitus | 2.8 |
| 7. Accidents | 2.5 |
| 8. Influenza and pneumonia | 2.3 |
| 9. Nephritis, nephrotic syndrome and nephrosis | 2.1 |
| 10. Septicemia | 1.5 |

Note: Starting with 2011 data, the rules for selecting renal failure as the underlying cause of death were changed, affecting the number of deaths in the "nephritis, nephrotic syndrome, and nephrosis" and "diabetes mellitus" categories. These changes directly affect death with mention of renal failure and other associated conditions such as diabetes mellitus with renal complications. The result is a decrease in the number of deaths for nephritis, nephrotic syndrome, and nephrosis and an increase in the number of deaths for diabetes mellitus. Therefore, trend data for these two causes of death should be intrepreted with caution.

Source: 2016 data on mortality from the National Center for Health Statistics.

**TABLE 1–5**

## Selected chronic conditions by prevalence and total per capita spending among Medicare FFS beneficiaries, 2014

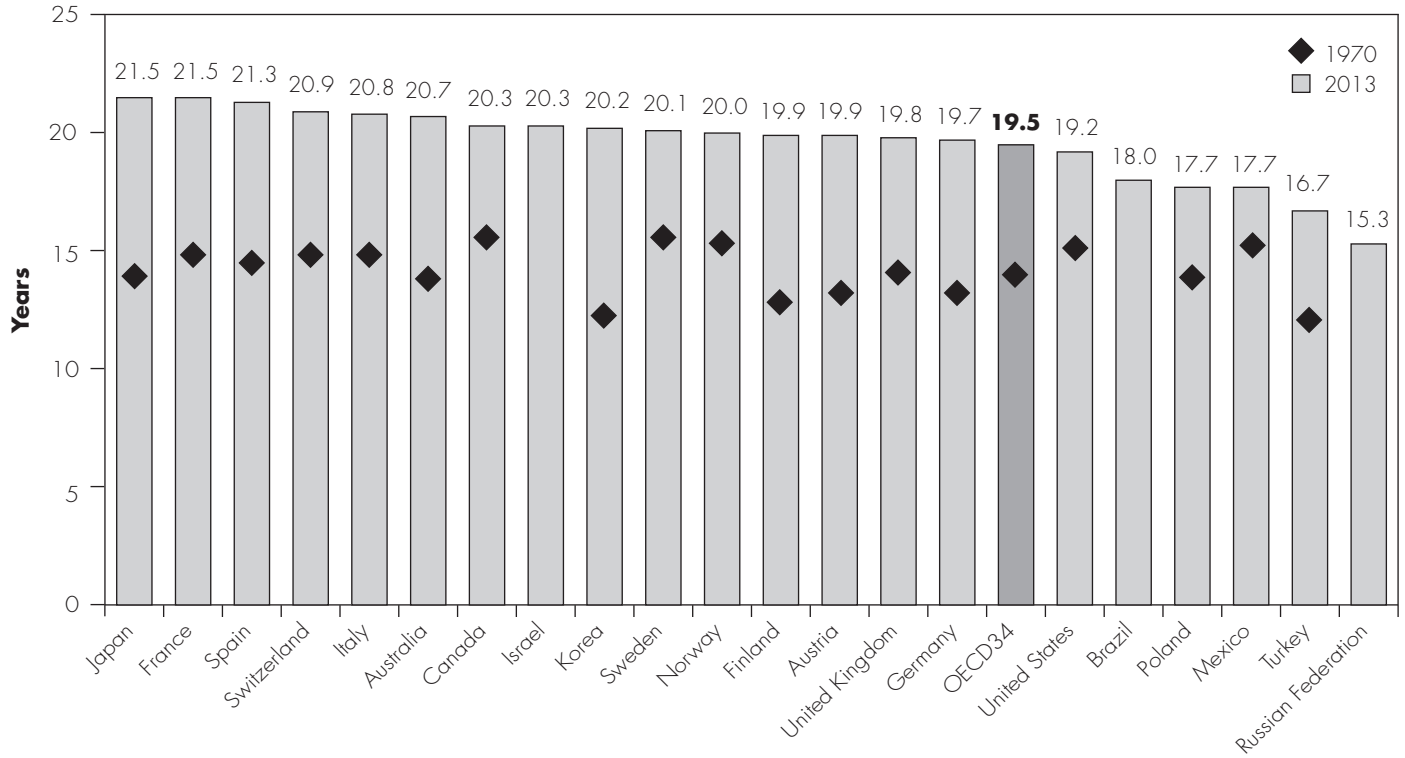
| Chronic condition | Prevalence among Medicare FFS beneficiaries | Total per capita spending for beneficiaries with the condition specified |
|---|---|---|
| **Five chronic conditions most prevalent among Medicare FFS beneficiaries:** | | |
| Hypertension | 57.0% | $14,251 |
| Hyperlipidemia | 46.3 | 13,440 |
| Rheumatoid arthritis/osteoarthritis | 30.7 | 15,735 |
| Ischemic heart disease | 28.1 | 18,947 |
| Diabetes mellitus | 27.7 | 15,735 |
| **Five chronic conditions with highest total per capita spending among Medicare FFS beneficiaries:** | | |
| Stroke | 3.9 | 31,372 |
| Heart failure | 14.3 | 28,394 |
| Hepatitis (chronic viral B & C) | N/A | 27,618 |
| Chronic kidney disease | 17.3 | 26,510 |
| Schizophrenia/other psychotic disorders | N/A | 25,944 |

Note: FFS (fee-for-service), N/A (not available). Data include all Medicare beneficiaries who were eligible for or enrolled in Medicare on or after January 1, 2014. Period prevalence is calculated for these rates: beneficiaries with full or nearly full FFS coverage (i.e., 11 or 12 months of Medicare Part A and Part B (or coverage until time of death) and 1 month or less of HMO coverage) during the year who received treatment for the condition within the condition-specified look-back period (chronic conditions have a 1- to 3-year look-back period). Beneficiaries may be counted in more than one chronic condition category. The Medicare utilization and spending information presented above represents total Medicare FFS spending for beneficiaries with the condition. The information should not be used to attribute utilization or payments strictly to the specific condition selected because beneficiaries with any of the specific conditions presented may have other health conditions that contribute to their Medicare utilization and spending amounts.

Source: 2016 data from the Chronic Conditions Warehouse from the Centers for Medicare & Medicaid Services.

**FIGURE 1–18**

**Life expectancy at age 65 is lower and increased less in the United States than in other OECD countries, 1970–2013**




Note: OECD (Organisation for Economic Co-operation and Development). Selected OECD countries are shown. Life expectancy for Canada as of 1971 and 2011. Life expectancy for Finland as of 1971. Data are not available for 1970 for Brazil, Israel, and the Russian Federation.

Source: 2015 data on life expectancy at age 65 from the Organisation for Economic Co-operation and Development.

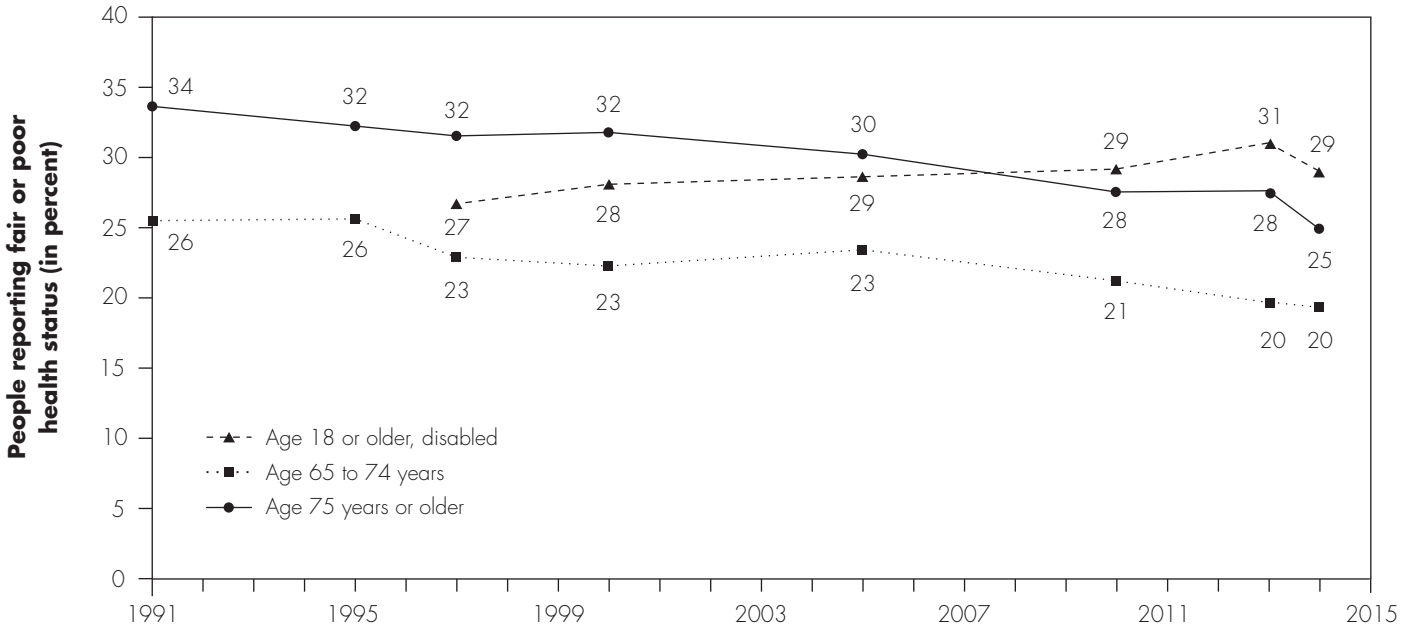
show improvements, primarily for beneficiaries ages 65 and older; the limited data available for younger Medicare beneficiaries include one indication of potentially poorer quality:

- Life expectancy at age 65 has steadily increased since the introduction of Medicare. Individuals who reached age 65 in 2014 had a remaining life expectancy of 19.3 years, compared with 15.2 years for this age group in 1970 (data not shown). However, these beneficiaries' gains in longevity are outpaced by their peers in other OECD countries. From 1971 to 2013, U.S. life expectancy at age 65 improved by 4.1 years (Figure 1-18), compared with an average gain of 5.4 years for the 34 OECD countries. (Comparable information for the Medicare population under age 65 is not readily available.)
- Between 1991 and 2014, the share of people ages 65 to 74 reporting fair or poor health status declined from 26 percent to 20 percent (Figure 1-19, p. 32); the share of people ages 75 and older reporting fair or poor health status declined from 34 percent to 25 percent; and the share of adults with disabilities reporting fair or poor health status increased from 27 percent to 29 percent.
- While the share of people ages 65 and older with chronic conditions such as diabetes, hypertension, and high cholesterol has increased over time, the share of people who have those conditions under control has also increased (National Center for Health Statistics 2015a). (Comparable information for the Medicare population under age 65 is not readily available.)

However, many factors other than health care also impact individual and population health, including poverty, income levels, and health-related behaviors such as smoking and

**FIGURE 1–19**

**The percentage of Medicare eligibles reporting fair or poor health status changed over time, available years 1991–2014**




Note: "Disabled adults" includes people 18 and older who have one or more of the following limitations or difficulties: movement difficulty, emotional difficulty, sensory (seeing or hearing) difficulty, cognitive difficulty, self-care (activities of daily living or instrumental activities of daily living) limitation, social limitation, or work limitation. Disability measure among adults 18 years and older did not begin being reported until 1997.

Source: 2016 data on health status from the National Center for Health Statistics.

alcohol consumption. For example, the poverty rate among people ages 65 years and older has fallen, with the support of the Social Security program, from 25 percent in 1970 to 10 percent in 2014, potentially having a substantial effect on individual and population health for that age group (Figure 1-20). However, the poverty rate for younger adults with disabilities has increased slightly from 36 percent in 1997 to 37 percent in 2014.

## Baby boomers will make up the next generation of Medicare beneficiaries

As the baby-boom generation ages, enrollment in the Medicare program will surge. In 15 years, Medicare is projected to have more than 80 million beneficiaries—up from 54 million beneficiaries today—almost 90 percent of whom will be of the baby-boom generation.[18] These individuals will define the upcoming Medicare population in terms of age distribution, health status, health insurance experiences before Medicare enrollment, and financial security.

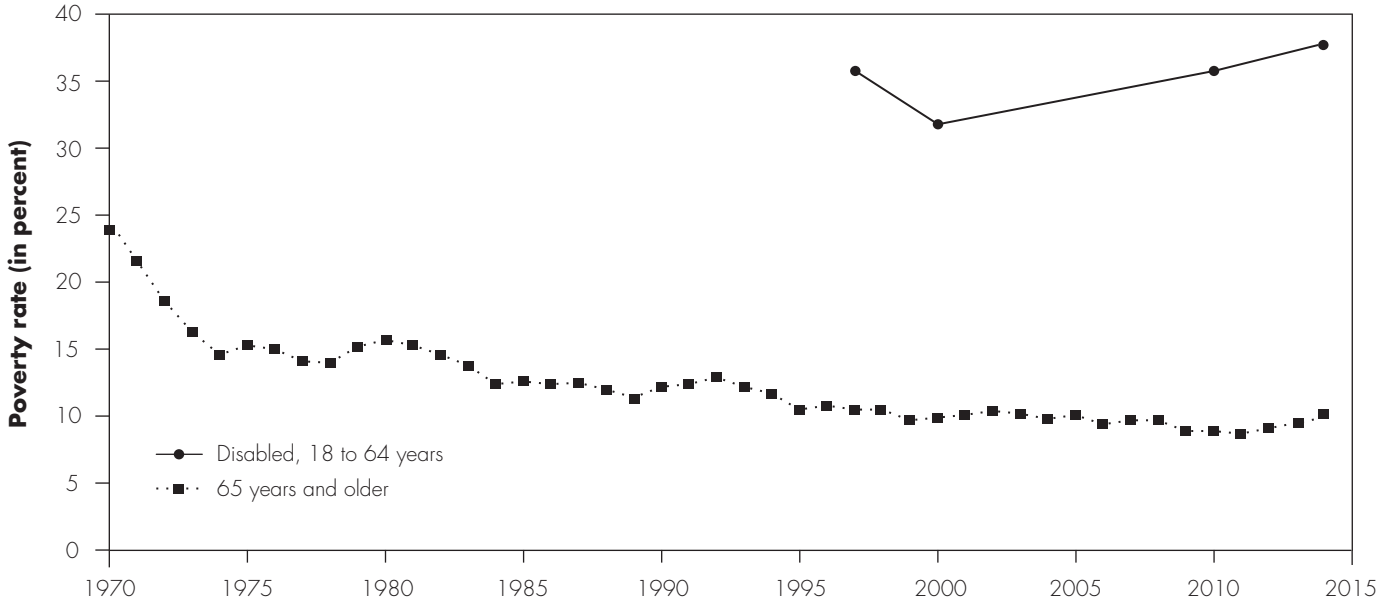
### The Medicare population becomes younger as it expands and then grows older as the baby-boom generation ages

Enrollment in the Medicare program is projected to grow rapidly as members of the baby-boom generation age into the program (Figure 1-10, p. 18). These individuals began aging into Medicare in 2011 at an average rate of 10,000 people per day. Medicare enrollment is projected to grow by nearly 50 percent by 2030, and this growth will be made up almost entirely of baby boomers (Figure 1-21, p. 34) (Census Bureau 2012).

The Medicare population over the next 15 years will be relatively younger, as members of the baby-boom generation join its ranks and increase the number of beneficiaries in younger age categories (Figure 1-22, p. 35).

**FIGURE 1–20**

**The poverty rate has fallen over time among people ages 65 years and older but increased for adults with disabilities, available years 1970–2014**




Note: Data on the poverty rate among people with disabilities has been reported for only four years: 1997, 2000, 2010, and 2014.

Source: 2016 data on health status from the National Center for Health Statistics.

The share of the Medicare population ages 85 years or older is projected to decline slightly through 2025 and then grow as baby boomers continue to age (Boards of Trustees 2014, Census Bureau 2012). In 2013, per beneficiary spending for those ages 85 and older was about twice that of those ages 65 to 74. So, the changing age structure of the Medicare population will exert somewhat less pressure on spending in the very near term, at least on a per capita basis, and then pressure will increase again over the longer term.[19]

## The health of the future Medicare population

How will the health of the Medicare population change as the baby-boom generation ages into the program? A lot of uncertainty surrounds that question. What is known is that members of the baby-boom generation have longer life expectancies and a much lower rate of smoking than earlier generations. This generation also has higher rates of certain diseases and chronic conditions, but these rates could be driven in part by expanded testing and disease definitions. Moreover, baby boomers are much more likely than prior generations to have some chronic conditions under control.

America's Health Rankings compares the health status of middle-age adults (defined as ages 50 to 64 years) in 2014 with the same cohort in 1999 (who are now Medicare beneficiaries). Compared with their predecessors, middle-age adults about to age into Medicare:

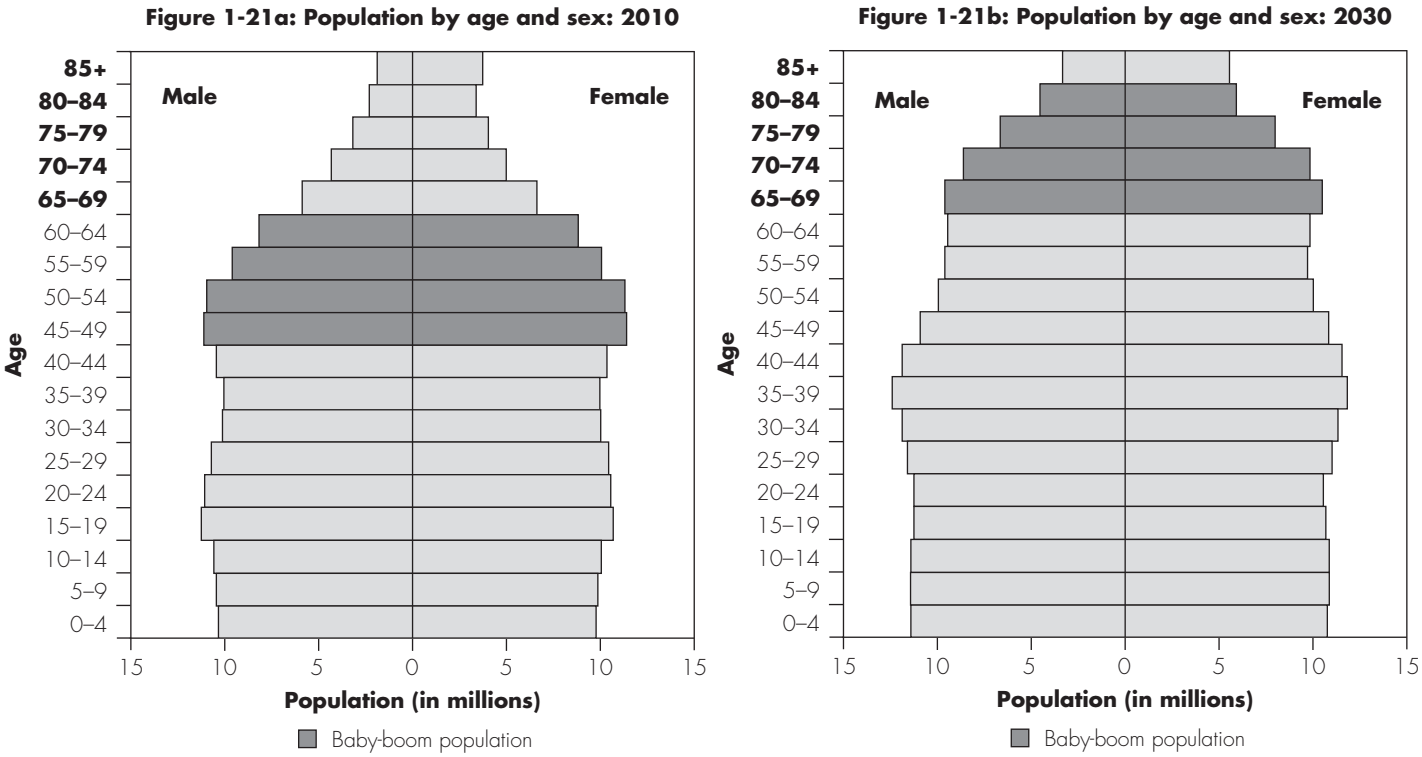
- are 50 percent less likely to smoke,
- have a 55 percent higher prevalence of diabetes,
- have a 25 percent higher prevalence of obesity, and
- have a 9 percent lower prevalence of very good or excellent health status (United Health Foundation 2016).

### Positive indicators: Longer life expectancies and lower rates of smoking

The baby-boom generation enjoys much longer life expectancies than earlier generations. The baby-boom

**FIGURE 1–21**

**By 2030, the entire baby-boom generation will be eligible for Medicare by age**




Note: Ranges eligible for Medicare on the basis of age are shown in bold.

Source: Census Bureau, 2010 Census and 2013 National Population Projections, Middle series.

generation compared with earlier generations also enjoys longer life expectancies at older ages (Census Bureau 2014). Individuals born in 1905 who reached age 65 in 1970 had a remaining life expectancy of about 15 years. Individuals born in 1945 who reached age 65 in 2010 had a remaining life expectancy of about 19 years, a 4-year increase over the 1905 birth cohort.

The baby-boom generation's rate of smoking is much lower than that of previous generations (Cutler and Glaeser 2006). When members of the previous generation were adults in the 1950s and mid-1960s, Americans had one of the highest smoking rates in the developed world: In 1965, over 40 percent of those ages 18 years and older smoked (Census Bureau 2014). But since the mid-1960s and throughout the period in which baby boomers entered adulthood, that rate has been on a dramatic decline. By 2012, only 18 percent of those ages 18 years and older smoked.

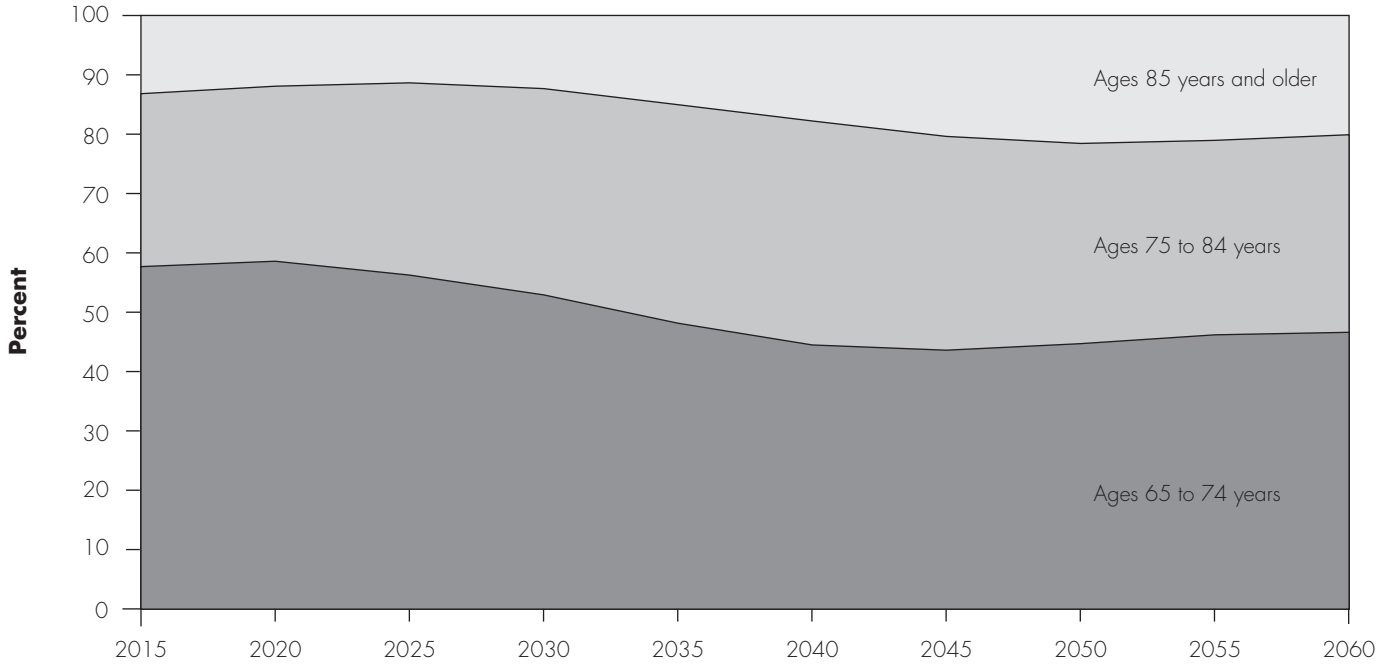
### Negative indicators: Higher rates of obesity and diabetes

Although smoking rates have declined, the share of adults who are obese has risen dramatically over the last 40 years. In the 1970s, about 15 percent of the adult population ages 20 to 74 years were obese. By 2010, the share more than doubled—reaching 36 percent. The proportion of boomers who were obese in 2010 was even higher, at about 40 percent.

Related to higher rates of obesity, baby boomers have higher rates of diabetes than the previous generation (15.0 percent versus 13.9 percent, respectively). However, baby boomers diagnosed with diabetes are much more likely to have the disease under control than members of the previous generation.[20] For the U.S. adult population overall, researchers found a doubling of the share with diabetes from 1990 to 2008 and a plateauing between

**FIGURE 1–22**

**The Medicare population will become younger and then older**




Source: Census Bureau, 2014 National Population Projections.

2008 and 2012 (Geiss et al. 2014). Despite the leveling off in recent years, the share of African Americans, Hispanics, and those with a high-school education or less who have diabetes appears to continue to increase.

Mortality from diabetes has declined, leading to more years spent with diabetes but fewer years of life lost to the disease for the average individual with diabetes (Gregg et al. 2014a, Gregg et al. 2014b). For the population as a whole, however, the number of years of life lost to diabetes has increased because of the increase in the numbers of people who have the disease.

### Mixed indicators: Higher rates of certain diseases and chronic conditions, but evidence of better management

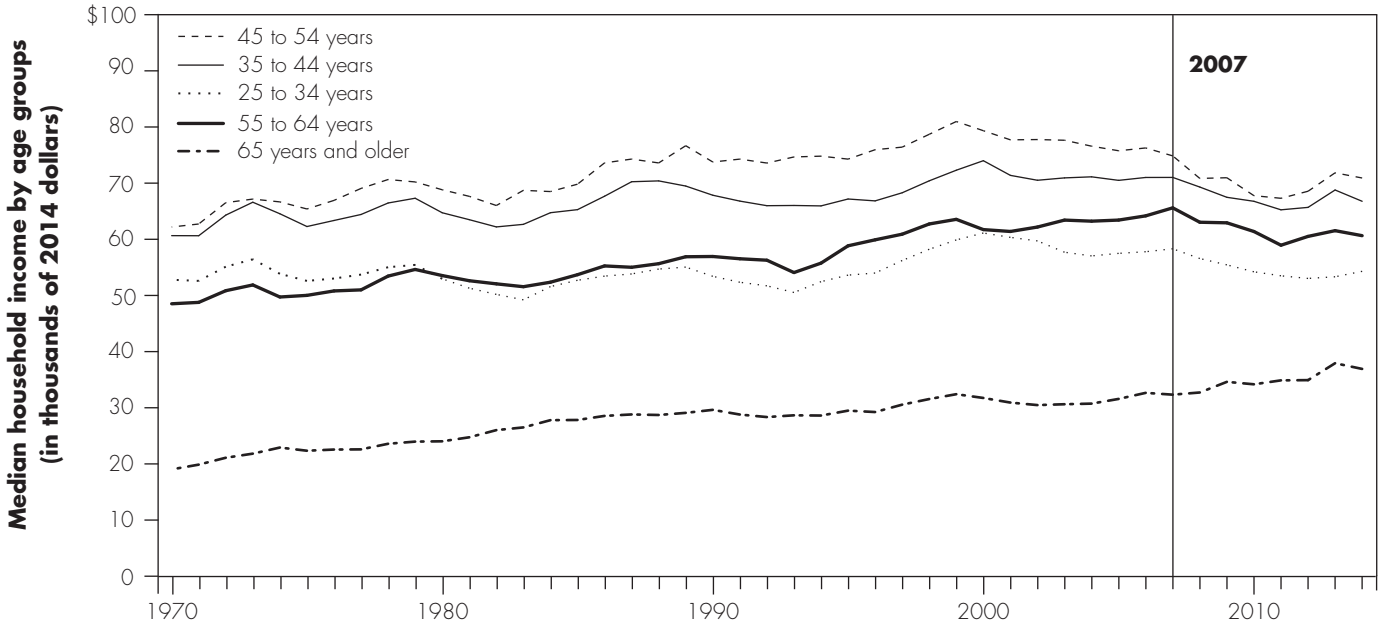
When compared with the previous generation, the baby-boom generation has rates of heart disease and stroke similar to the previous generation. Some research indicates that cancer rates have increased in the baby-boom population (National Center for Health Statistics 2014). However, higher rates of disease and chronic conditions could also be the result of increased use of diagnostic testing and more aggressive treatment practices (Welch et al. 2011). For example, an extremely slow-growing cancer may now be detectable in a person with no symptoms, but might never progress to make the person sick; in such cases, treatment might be unwise.

Also, not all diseases and conditions have the same impact on health status and per beneficiary spending. For example, high blood pressure and high cholesterol were the two most prevalent conditions among Medicare beneficiaries in 2012, but in isolation were not the most costly to treat. Stroke, heart failure, and chronic kidney disease were among the chronic conditions associated with the highest per beneficiary spending (Centers for Medicare & Medicaid Services 2015b, Centers for Medicare & Medicaid Services 2015c).

Another factor affecting per beneficiary Medicare spending is whether beneficiaries were continuously insured before age 65. Research has found that Medicare spending is significantly higher for previously uninsured adults than for previously insured adults (McWilliams et al. 2009). Therefore, the increased availability of health insurance under PPACA—absent future changes—could reduce future Medicare spending for younger baby

**FIGURE 1–23**

**Real median household income declined for all age groups under age 65 during the Great Recession, which began in 2007**




Source: Census Bureau, Current Population Survey, 2015 Annual Social and Economic Supplements, released June 2016.

boomers. Coverage under PPACA through Medicaid expansions (in participating states) and federal and state exchanges began in 2014, when the youngest boomers were 50 years old. So, some boomers who otherwise would have been uninsured before aging into the Medicare program now may have up to 15 years of continuous coverage before becoming eligible for Medicare.

A final factor to consider regarding future Medicare spending is that health care costs in a person's last year of life are substantial (in the last decade, Medicare spending was more than six times higher for decedents than for survivors). So as the baby-boom generation ages, the increased number of beneficiaries entering their last year of life will likely exert upward pressure on Medicare spending (Hogan 2015).

### Effect of baby boomers' health insurance experience pre-Medicare on enrollment decisions for Medicare

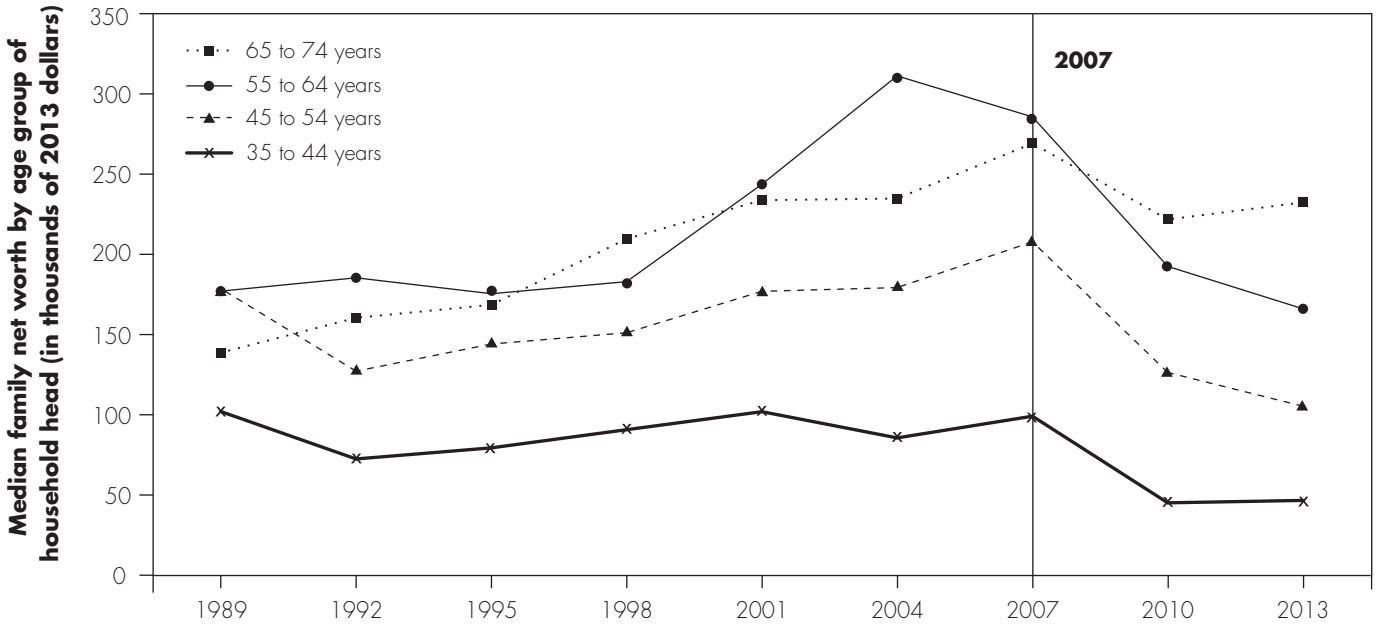
The health insurance experience of baby boomers before Medicare eligibility can also affect their decisions regarding enrollment in Medicare Advantage and medigap plans as they consider trade-offs between cost sharing and limitations placed on choice of providers.

The baby-boom generation's experience with private health insurance coverage has been evolving. Baby boomers likely began their working years in conventional health plans—that is, plans in which health care can be delivered by any provider, with the insurer paying a share of the provider's charges. But over time, many also experienced the disappearance of conventional plans and the rise and subsequent decline of managed care in the form of HMOs—plans that limit health care delivery to the network's providers.

For the baby-boom generation, pre-Medicare enrollment in preferred provider organizations (PPOs) has grown steadily. PPOs generally have lower cost sharing for services delivered by in-network providers versus out-of-network providers. They likely have broad provider networks supported by rapidly rising premiums, deductibles, and copayments. After the backlash against managed care in the mid-1990s, employees and employers favored the broadest possible access to providers and demanded very large networks. Only during the Great Recession that began in

**FIGURE 1–24**

**Real family net worth declined for all age groups during the Great Recession, which began in 2007**




Note: The Survey of Consumer Finances is normally a triennial cross-sectional survey of U.S. families.

Source: Federal Reserve, 2013 Survey of Consumer Finances, released September 2014.

2007 did employees and employers become increasingly willing to accept plans with narrower networks in return for lower premiums, deductibles, and copayments.

Only the youngest boomers are likely to have had experience with high-deductible plans—plans that have lower premiums than traditional plans, but require the enrollee to pay a large deductible before receiving insurance benefits—or with the health insurance exchanges that commenced in 2014 under PPACA, owing to their recency.

### Baby boomers may be less financially secure than previous generations in retirement

During the Great Recession, which began in 2007, real median household income declined for all age groups (Figure 1-23).[21] Since many baby boomers may have been near retirement during the economic slowdown, they may be less financially secure than previous generations in retirement.[22] In 2014, the real median household income for 55- to 64-year-olds had fallen 4 percent over the decade (Figure 1-23). In contrast, real median household income for members of this age group had increased by 13 percent a decade earlier and by 6 percent in the decade ending in 1994.

Income tends to peak when people are between 45 and 54 years old (Figure 1-23). However, this age group, which includes part of the baby-boom generation, experienced a real median household income decline of 7 percent over the decade ending in 2014 (Figure 1-23). In contrast, real median household income for members of this age group had increased by 2 percent a decade earlier and by 9 percent in the decade ending in 1994.

During the Great Recession, family net worth (assets minus liabilities) also declined (Figure 1-24). Between 2007 and 2013, the median net worth of families with heads of household ages 55 to 64 fell 42 percent in real terms. In contrast, the same age group's real median family net worth increased by 70 percent over the six-year period ending in 2004 and decreased by 1 percent over the six-year period ending in 1995. In fact, someone 55 to

64 years old in 2013 had slightly lower net worth than a member of this age group in 1995 (in 2013 dollars).

The economic slowdown also took its toll on the generation that came after the baby boomers (called "Generation X").[23] When compared at similar ages, members of Generation X are less financially secure than the baby boomers. The extent to which members of Generation X will recover financially depends in part on the pace of economic growth from now until they retire. Some experts expect the economy to grow more slowly in the future than it did in the 1980s and 1990s because the labor force is anticipated to expand more slowly than it did then. Labor force growth is anticipated to be held down by the ongoing retirement of the baby boomers and a relatively stable labor force participation rate among working-age women, after sharp increases from the 1960s to the mid-1990s (Congressional Budget Office 2015).

## Inefficient spending suggests Medicare could spend less without compromising care, but not without challenges

With few exceptions throughout modern history, health care spending in the United States has grown robustly, outpacing the growth in the economy. Even if Medicare's recent low growth in per beneficiary spending is sustained (and experience in 2014 suggests it may not be), enrollment growth from the aging of the baby boomers will contribute to growth in total spending regardless. However, the Commission does not believe that ever-increasing health care spending is inevitable. There is strong evidence that a sizeable share of current health care spending—both overall and by Medicare—is inefficient or unnecessary, providing an opportunity for policymakers to reduce spending, extend the life of the program, and reduce pressure on the federal budget.

### Geographic variation within and outside the United States indicates that some share of spending is inefficient

Research on Medicare spending shows that areas with higher spending or more intensive use of services do not always have higher quality of care or improved patient outcomes (Fisher et al. 2003a, Fisher et al. 2003b, Institute of Medicine 2013). Measures of service use, adjusted for health status and standardized prices, also show considerable variation (Medicare Payment Advisory Commission 2011b). Services that have been widely recognized as low value continue to be performed regularly (Schwartz et al. 2014).

The United States spends more on health care than any other country in the world (both on a per capita basis and as a share of GDP), but studies consistently show it ranks poorly on indicators of efficiency, equity, and outcomes. According to a 2014 study by the Commonwealth Fund, the United States ranks last of 11 nations on 2 indicators of healthy lives—mortality amenable to medical care and healthy life expectancy at age 60 (Davis et al. 2014).

### Medicare's challenges to increasing efficiency

The Medicare program is a complex and fragmented system, consisting of multiple paths to entitlement, multiple types of coverage (Part A, Part B, Part C, and Part D), multiple payment systems, and different rules for each setting. The Medicare program must set prices for thousands of discrete services at different levels of aggregation (e.g., inpatient hospital payments are paid based on the stay, while physician payments are based on the service) and in different labor markets across the country. The Medicare program statute and rule making include a substantial number of exceptions, adjustments, and modifications to its general policies. Several of Medicare's structural features (and some shared across the health care system) complicate efforts to achieve spending efficiencies:

- ***Medicare just one payer in the overall, multi-payer health care system.*** While Medicare is the single largest payer in the health care sector, the policy signals from multiple payers can interact in ways that sometimes result in unintended consequences. For example, if a dual-eligible nursing home resident is hospitalized for three days, he or she would then potentially qualify for a Medicare-covered skilled nursing facility stay, shifting the cost burden from the state Medicaid program to the federal Medicare program.
- ***Fragmented payment system across multiple settings.*** The program sets payment rates each year for at least nine health care settings or provider types: acute care hospitals, physician and other health professional services, home health agencies, skilled nursing facilities, long-term care facilities, hospice, inpatient rehabilitation facilities, ambulatory surgical centers, and end-stage renal disease facilities. In addition to

the yearly rule-making process involved in setting these rates, administrators oversee other parts of the program that operate on fee schedules (ambulances, outpatient lab facilities) or on cost-based payment (rural health centers, critical access hospitals). Payment rates for Part C (Medicare Advantage) are set using administrative pricing based on a competitive process, and Part D payments (prescription drugs) are set generally by market rates. The fragmented payment system across multiple health care settings reduces incentives to provide patient-centered, coordinated care.

- ***Coverage of services delivered by any willing provider.*** Under Medicare's statute, the program generally covers all medically necessary (a criterion that is open to interpretation) services that are delivered by any willing provider (any provider that is willing to meet Medicare's rules). As a result, Medicare does not have the authority to develop provider networks or to credential providers, tools that private payers often use to reduce the potential for fraud and abuse. In some cases, the Medicare program even has difficulty removing providers or suppliers whose claims history clearly demonstrates aberrant patterns of billing, care, or both.

- ***The program's benefit design.*** Beneficiaries face differential cost sharing by service (for example, coinsurance for physician services is 20 percent, while home health has no coinsurance); in addition, the cost-sharing amounts, percentages, and deductibles vary by setting, and some services are not covered (for example, Medicare does not generally cover long-term care). Medicare Part A and Part B lack a cap on out-of-pocket (OOP) costs (a feature that exists in nearly all private insurance policies). In response, many beneficiaries purchase supplemental coverage that includes an OOP maximum. Most supplemental policies also substantially reduce or eliminate most of the beneficiary liability for coinsurance and deductibles, thereby blunting the impact of cost sharing. As a result, there is little incentive for beneficiaries to be cost conscious—that is, to select only those services that are necessary and choose providers who use efficient clinical practices (Medicare Payment Advisory Commission 2012).

- ***Different prices for the same or similar services.*** Because of the different settings in which services are delivered, the Medicare program in some cases has different payment rates for the same or similar services. Under these circumstances, providers have an incentive to shift care to the higher paid setting, which leads to increased program spending and higher beneficiary cost sharing.

- ***Undervalued and overvalued services.*** In the process of setting rates for thousands of services, certain services are undervalued relative to others, providing incorrect incentives for their use. For example, the Commission has raised concerns that the Medicare fee schedule overpays for services provided by clinicians in procedural specialties and underpays for services provided by clinicians in primary care specialties (Medicare Payment Advisory Commission 2011a). This imbalance results in significantly higher income for clinicians in procedural specialties relative to those in primary care specialties, contributing to a corresponding imbalance in clinician supply.

- ***Prompt payment standards.*** The Medicare program also follows prompt payment requirements, paying claims within 30 days of receipt. Otherwise, Medicare is liable for interest. This emphasis on timely payment means that, in many cases, the claim may be paid and only thereafter identified as potentially fraudulent or erroneous.

- ***Vulnerability to patient selection, steering, and overuse.*** Another consequence of Medicare's payment structure is its vulnerability to patient selection, steering, and overuse. For example, with some payment systems it is financially advantageous for providers to treat certain kinds of beneficiaries and avoid others, provide certain types of services over others, or treat beneficiaries in a higher paid setting. In addition, in Medicare's FFS system, providers may be able to increase their revenue by increasing the volume of services they provide without commensurate value to the beneficiary. In addition, clinicians can prescribe pharmaceutical drugs and medical devices while receiving payment from manufacturers.

These features make the program vulnerable to inappropriate care, waste, and fraud. GAO annually designates Medicare as a high-risk program because of its size, complexity, and susceptibility to mismanagement and improper payments, which include fraud and errors but not overuse. For fiscal year 2014, the agency found improper payments of 12.7 percent for

Medicare FFS, 9 percent for Part C, and 3.3 percent for Part D (Government Accountability Office 2013).

In recent years, CMS has gained new authorities to exclude potentially fraudulent providers from the program and apply different levels of scrutiny to new providers based on their fraud potential. CMS has also further developed its ability to identify potentially fraudulent billing patterns. However, all of CMS's activities in this area are constrained by resources and subject to statutory requirements that limit its ability to use the same tools as private insurers to reduce fraud (Government Accountability Office 2013).

## The Commission's approach to addressing these challenges

Medicare's goal should be to obtain the greatest possible value for the program's expenditures, which means maintaining beneficiaries' access to high-quality services while encouraging their efficient use. However, managing payment rates alone will not address the Medicare FFS system's key challenge—that providers are usually paid more for doing more services but are usually not held accountable for outcomes. Resolving this conundrum will require further reform of both the payment and delivery systems.

The Commission's work can be categorized in the following domains: (1) payment accuracy and efficiency, (2) care coordination and quality, (3) information for patients and providers, (4) engagement of beneficiaries, and (5) alignment of the health care workforce. Regardless of the issue, the Commission always considers the interests of three main actors: the beneficiary—access to high-quality, efficient care; the provider—fair and equitable pay; and the taxpayer—the most prudent and valuable use of the public's dollar.

- ***Payment accuracy and encouraging efficiency.*** In Medicare's payment systems, the payment rates for individual products and services too often do not accurately reflect the cost of furnishing the product or service. Inaccurate payment rates create incentives for higher volume growth for certain services, thereby unduly disadvantaging some providers and rewarding others. The Commission pursues payment accuracy in its update recommendations as well as other policy recommendations, with a focus on ensuring that payment is adequate for the efficient provision of care.

  The Commission has also identified areas in which payment differences, not clinical differences, among settings for the same service drive the choice of a patient's treatment setting (see online Appendix 1-A, available at http://www.medpac.gov, for additional information on prior Commission recommendations). In principle, the Medicare program should pay the same amount for the same service, regardless of the setting in which it is provided, unless payment differentials are justifiable based on differences in patient mix, provider mission, or other explicitly recognized factors. In March 2012, 2013, and 2014, the Commission made a host of recommendations addressing site-neutral payment issues.

- ***Care coordination and quality.*** Medicare has relied on providers' norms to uphold professional standards and satisfy patients, but until recently the program did not have the authority to hold providers accountable for improving, or to provide incentives to improve, the quality of care they provide. Similarly, few structures exist in Medicare to hold providers accountable for a beneficiary's full spectrum of care, even when they make the referrals that dictate additional resource use. The Commission has supported policies that move Medicare beyond FFS into payment systems that make a provider responsible for the patient's entire episode of care to help address these gaps between settings.

  One such payment policy involves accountable care organizations (ACOs). In an October 2011 comment letter to the Congress and the March 2013 report to the Congress, the Commission recommended increasing the shared savings opportunity for physicians and health professionals who join or lead two-sided risk ACOs—holding providers at financial risk to meet quality measures while obligating the program to pay for successful provider performance. Other suggested improvements to the ACO program include providing these ACOs with regulatory relief and giving them better tools to engage beneficiaries (e.g., waiving some or all cost sharing for beneficiaries when they use ACO providers). In addition to the 2014 recommendations, the Commission provided extensive guidance to the Congress and CMS in identifying ways to improve Medicare's ACO program in its June 2009 report to the Congress and in comment letters to CMS in November 2010, June 2011, June 2014, February 2015, and March 2016.

- ***Broadening information available to Medicare, patients, and providers.*** Medicare and its providers lack the information and tools needed to improve quality and use program resources efficiently. For example, Medicare lacks quality data from many settings of care and does not have timely cost or market data to set accurate payment rates. In addition, beneficiaries are called on to make complex choices among delivery systems, drug plans, and providers. Medicare has started to make information available for beneficiaries that could help them choose higher quality providers or lower cost treatments and improve their satisfaction. The Commission has supported policies that promote comparative effectiveness, disclosure of physician financial relationships, and public reporting of quality information.

  The Commission has extensively discussed the use of shared decision making to engage patients in health care enrollment and treatment decisions. In 2010, we recommended that the Secretary of the Department of Health and Human Services produce comparable information on the performance of MA plans and FFS providers, so that beneficiaries could make informed decisions about the means of their Medicare coverage. In 2015, we recommended that hospitals be required to notify beneficiaries placed in outpatient observation status of their status and the financial implications of that placement decision.

- ***Engaging beneficiaries.*** While much of the Commission's work focuses on providers and their payment incentives, how beneficiaries view the Medicare program and how they make decisions about their health care are vital to the program's success. Developing policies that engage the beneficiary as well as the provider has the potential to improve health, improve the experience of health care provided through Medicare, and control costs for the beneficiary and taxpayer alike. The Commission has supported reforming the current benefit design to include a cap on OOP spending and has promoted shared decision making.

  The Commission has discussed the importance of altering beneficiary financial liability in a way that would encourage beneficiaries to be more cost conscious when making health care decisions. In 2011, the Commission recommended implementing a copayment for home health care that is not preceded by a hospital stay. In June 2012, the Commission recommended many elements of FFS redesign including an OOP maximum deductible for Part A and Part B services. Similarly, in March 2012, noting that low-income beneficiaries were using more high-cost, brand-name drugs that have generic substitutes than higher income beneficiaries were, the Commission recommended that Part D cost sharing be changed for low-income subsidy enrollees to give them more of a financial incentive (such as no copayment for generics) to weigh the benefits of continuing to take brand-name drugs or switching to a generic equivalent.

- ***Aligning the health care workforce.*** Our nation's system of medical education and graduate training is not aligned with the delivery system reforms essential for increasing the value of health care in the United States. The Commission has pursued policies that increase the incentives for residency programs to focus on quality, efficiency, and accountability so that the future clinician workforce can better address the needs of beneficiaries.

  The Commission has published recommendations involving physicians and other health professionals and their role in a reformed delivery system. In 2010, the Commission made a number of recommendations aimed at improving how physicians are trained and paid by Medicare.

## Conclusion

The high and growing level of health care spending as a share of the economy means that—absent substantial changes in spending or the economy—an ever-increasing amount of the country's economic activity and gain will be dedicated to purchasing health care. Medicare is the single largest payer in the health care sector and will expand with the aging of the baby-boom generation, greatly increasing program spending. Significant cross-sectional variation in use and spending, which does not correspond to better quality, raises concern that higher health care use and spending are not improving overall health and are putting beneficiaries at risk, both medically and financially.

Because of its size and because other payers use its payment methods, Medicare is an important influence on

the nation's health care delivery system and its evolution. Reciprocally, trends in the private health insurance market can influence whether Medicare's payment reforms are ultimately successful. Because of this interaction between public and private payers, the alignment of incentives across payers is an important consideration for delivery system reforms.

Despite the relatively lower rates of spending growth recently experienced by Medicare, the program is projected to continue to absorb increasing amounts of federal revenue. Absent changes to current policy, other public investments such as education and infrastructure will be crowded out by high and growing levels of health care spending. State and federal budgets face continued fiscal pressure, effects intensified by health care spending trends. In light of strained federal, family, and individual budgets, the Medicare program must urgently pursue reforms that decrease spending and improve quality. ■

# Endnotes

1 Going forward, the Medicare Trustees project that opportunities for further generic use may diminish. Growth in the use and development of high-cost specialty drugs is beginning to overtake the moderating price influence of generics (Medicare Payment Advisory Commission 2016).

2 Figure 1-2 (p. 9) shows that the share of spending accounted for by private health insurance (35 percent in 2015) is greater than Medicare's share (22 percent in 2015). However, in contrast to Medicare, private health insurance is not a single purchaser of health care; rather, it includes many payers, including traditional managed care, self-insured health plans, and indemnity plans.

3 The Commission's calculations are based on aggregate Part D reimbursements to plans and employers on an incurred basis as shown in Table IV.B10 of the 2016 annual report of the Boards of Trustees of the Medicare trust funds. Per beneficiary spending excludes premium payments.

4 Outpatient hospital services and outpatient lab services are combined in Figure 1-6 (p. 13) because a large portion of outpatient laboratory services were bundled into the outpatient prospective payment system effective January 1, 2014.

5 Most of the presidentially appointed members are to be designated by the congressional leadership and then formally appointed by the President.

6 CBO estimated the effect on Medicare spending of changing the enrollment growth rate by raising Medicare's eligibility age. CBO assumed the eligibility age would be raised by two months every year until it reached age 67. Since the eligibility age would increase gradually in that scenario, CBO estimated minimal short-term effects. For the long term, CBO estimated that spending on Medicare would be about 3 percent less by 2038; however, roughly two-thirds of those long-term savings would be offset by increases in federal spending for Medicaid and subsidies to purchase health insurance through the PPACA insurance exchanges (Congressional Budget Office 2013).

7 Marilyn Moon and colleagues at the American Institutes for Research argue that the ratio of workers per beneficiary presents an incomplete picture. They note that new benefits (e.g., Part D) have been added to the program and, "over time, taxpayers' share of Medicare's costs has actually declined and will decline further as older Americans remain longer in the labor force and as income-related elements in the law that raise premiums over time for higher income beneficiaries become even more important." Additionally, they contend that while Medicare spending is projected to grow faster than GDP, GDP grows larger over time, so the burden on taxpayers will not be enough to "substantially dampen growth in real incomes over time" (Moon et al. 2016).

8 In addition to payroll taxes, the HI Trust Fund's income sources include taxation of Social Security benefits (7 percent in 2015), premiums from people who are not eligible for premium-free Part A (1 percent in 2015), general revenue transfers for certain uninsured beneficiaries who are not entitled to HI coverage based on their work history but are eligible through special statutes (less than 1 percent in 2015), monies from fraud and abuse control activities (less than 1 percent in 2015), and interest earned on the trust fund investments (3 percent in 2015).

9 The standard HI payroll tax rate is scheduled to remain constant at 2.9 percent (for employees and employers, combined). In addition, starting in 2013, high-income workers pay an additional 0.9 percent of their earnings above $200,000 for single workers or $250,000 for married couples filing joint income tax returns.

10 For Part D, the beneficiary premium share is based on 25.5 percent of the average cost of the basic benefit.

11 Other major health programs include Medicaid, the Children's Health Insurance Program, and federal subsidies for the federal and state exchanges legislated under PPACA.

12 Household income, health expenditures, and premiums are all measured in nominal dollars.

13 Medicare beneficiaries with low income and assets have their premiums and may have their cost sharing paid for by Medicaid, and some others have retiree coverage or medigap policies that cover cost sharing.

14 The Medicare fee schedule includes geographic practice cost indexes (GPCIs) that adjust payment rates for costs that vary depending on the geographic area in which a service is furnished. There are three GPCI adjustments: work, practice expense, and professional liability insurance (PLI). The work GPCI is constructed using BLS data on the earnings of professionals in seven reference occupational categories: architecture and engineering; computer, mathematical, life, and physical science; social science, community and social service, and legal; education, training, and library; registered nurses; pharmacists; and art, design, entertainment, sports, and media. The practice expense GPCI is an adjustment for costs such as rent and staff wages that are incurred in operating a medical practice and are known to vary geographically. The PLI GPCI is an adjustment for the premiums that physicians and other health professionals pay for that type of insurance. Medicare's payment rates to hospitals are also adjusted for

differences in reported hospital wages across geographic areas in the United States. Like the GPCI, the hospital wage index is intended to measure differences in wage rates among labor markets. By law, CMS calculates the index using data only from hospitals paid under Medicare's inpatient prospective payment system. It uses self-reported data in hospital cost reports and hence is prone to the problem of circularity. For example, hospitals that successfully moderate increases in hourly wages relative to the national average increase will see a decrease in their wage index.

15 The National Center for Health Statistics defines life expectancy as the average number of years that a hypothetical group of infants would live at each attained age if the group was subject, throughout its lifetime, to the age-specific death rates prevailing from the actual population in a given year (Arias 2016).

16 The authors noted limitations to their study: "Life expectancy estimates for Hispanics, Asian/Pacific Islanders, and American Indians/Alaska Natives should be interpreted with caution as vital statistics–based mortality rates for these groups tend to be underestimated by 5 percent, 7 percent, and 30 percent, respectively."

17 The measures of life expectancy and mortality rate are not interchangeable. However, the two measures are closely related. The National Centers for Health Statistics life expectancy estimate represents the average number of years of life remaining if a group of persons were to experience the mortality rates for that specific year of calculation over the course of their remaining life.

18 Baby boomers are people born during the demographic post–World War II baby boom between the years 1946 and 1964.

19 For example, the Medicare Trustees estimate hospital inpatient admissions per beneficiary will decline through 2022 and begin increasing later in the projection period with the aging of the baby-boom population (Boards of Trustees 2014). The Congressional Budget Office also projects comparatively slow growth in per beneficiary spending for the next decade (2015 to 2025) in part because of the influx of younger beneficiaries, who tend to use fewer health care services and therefore lower Medicare's average spending per beneficiary (Congressional Budget Office 2015).

20 When compared with the previous generation at ages 45 to 64, the baby-boom generation had a larger share of individuals with physician-diagnosed and undiagnosed diabetes (15.0 percent vs. 13.9 percent, respectively), but a smaller share of individuals with diagnosed diabetes who had poor glycemic control (14.1 percent versus 26.0 percent, respectively) (National Center for Health Statistics 2014).

21 Income for individuals over age 65 grew because, as individuals leave the workforce, Social Security makes up a larger and larger share of their income (DeNavas-Walt and Proctor 2013, National Bureau of Economic Research 2014).

22 In 2014, baby boomers were between the ages of 50 and 68.

23 Members of Generation X were born between 1965 and 1980.

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CHAPTER 2

# Assessing payment adequacy and updating payments in fee-for-service Medicare

CHAPTER 2

# Assessing payment adequacy and updating payments in fee-for-service Medicare

## Chapter summary

As required by law, the Commission annually makes payment update recommendations for providers paid under fee-for-service (FFS) Medicare. An update is the amount (usually expressed as a percentage change) by which the base payment for all providers in a payment system is changed relative to the prior year. To determine an update, we first assess the adequacy of Medicare payments for providers in the current year (2017) by considering beneficiaries' access to care, the quality of care, providers' access to capital, and Medicare payments and providers' costs. Next, we assess how those providers' costs are likely to change in the year the update will take effect (the policy year, 2018). As part of the process, we examine payments to support the efficient delivery of services consistent with our statutory mandate. Finally, we make a judgment about what, if any, update is needed. (The Commission also assesses Medicare payment systems for Part C and Part D and makes recommendations as appropriate. But because they are not FFS payment systems, they are not part of the discussion in this chapter.)

This year, we consider recommendations in nine FFS sectors: acute care hospitals, physicians and other health professionals, ambulatory surgical centers, outpatient dialysis facilities, skilled nursing facilities, home health care agencies, inpatient rehabilitation facilities, long-term care hospitals, and hospices. Each year, the Commission looks at all available indicators of payment adequacy and reevaluates any assumptions from prior years using

## In this chapter

- Are Medicare payments adequate in 2017?
- What cost changes are expected in 2018?
- How should Medicare payments change in 2018?
- Payment adequacy in context

the most recent data available to make sure its recommendations accurately reflect current conditions. We may also consider recommending changes that redistribute payments within a payment system to correct any biases that may make patients with certain conditions financially undesirable, make particular procedures unusually profitable, or otherwise result in inequity among providers. Finally, we may also make recommendations to improve program integrity.

Our recommendations, if enacted, could significantly change the revenues providers receive from Medicare. Rates set to cover the costs of relatively efficient providers help create fiscal pressure on all providers to control their costs. Medicare rates also have broader implications for health care spending. For example, Medicare rates are commonly used to set hospital rates charged to uninsured patients eligible for financial assistance; used by Medicare Advantage plans to set hospital prices; and used by the Department of Veterans Affairs (VA) to pay non-VA providers (Department of Veterans Affairs 2010, Internal Revenue Service 2014, Medicare Payment Advisory Commission 2013).

The Commission also examines payment rates for services that can be provided in multiple settings. Medicare often pays different amounts for similar services across settings. Basing the payment rate on the rate in the most efficient setting would save money for Medicare, reduce cost sharing for beneficiaries, and reduce the incentive to provide services in the higher paid setting for financial reasons. However, putting into practice the principle of paying the same rate for the same service across settings can be complex because it requires that the definition of the services and the characteristics of the beneficiaries across settings be sufficiently similar. In March 2012, we recommended equalizing rates for evaluation and management office visits provided in hospital outpatient departments and physicians' offices (Medicare Payment Advisory Commission 2012). In 2014, we extended that recommendation to additional services provided in those two settings and recommended consistent payment between acute care hospitals and long-term care hospitals for certain classes of patients (Medicare Payment Advisory Commission 2014). In the Bipartisan Budget Act of 2015, the Congress made payment to outpatient departments for certain services equal to the physician fee schedule rates for those same services provided at any new outpatient off-campus location beginning in 2018. In 2015, we recommended site-neutral payments to inpatient rehabilitation facilities (IRFs) for select conditions treated in both skilled nursing facilities and IRFs (Medicare Payment Advisory Commission 2015). The Commission will continue to analyze opportunities for applying this principle to other services and settings. ■

## Background

The goal of Medicare payment policy should be to obtain good value for the program's expenditures, which means maintaining beneficiaries' access to high-quality services while encouraging efficient use of resources. Anything less does not serve the interests of the taxpayers and beneficiaries who finance Medicare through their taxes and premiums. Steps toward this goal involve:

- setting the base payment rate (i.e., the payment for services of average complexity) at the right level;
- developing payment adjustments that accurately reflect market, service, and patient cost differences beyond providers' control;
- adjusting payments for quality; and
- considering the need for annual payment updates and other policy changes.

To help determine the appropriate base payment rate for a given payment system in 2018, we first consider whether payments are adequate for relatively efficient providers in 2017. To inform the Commission's judgment, we examine data on beneficiaries' access to care, the quality of care, providers' access to capital, and Medicare payments and providers' costs for 2017. We then consider how providers' costs will change in 2018. Taking these factors into account, we then recommend how Medicare payments for the sector in aggregate should change in 2018.

Within a given level of funding for a sector, we may also consider changes in payment policy to improve payment accuracy. Such changes are intended to improve equity among providers or access to care for beneficiaries and may also affect the distribution of payments among providers in a sector. For example, we have recommended removing biases in the skilled nursing facility (SNF) prospective payment system (PPS) that make it more financially desirable to treat patients who need only therapy than to treat patients with complex medical conditions.

We also make recommendations to improve program integrity when needed. In some cases, our data analysis reveals problematic variation in service utilization across geographic regions or providers. For example, in reaction to patterns of unusually long stays in a subset of hospices, we recommended medical review focused on hospices that have many long-stay patients. In 2016, we recommended the Secretary closely examine the coding practices of certain inpatient rehabilitation facilities that appear to result in very high Medicare margins.

We compare our recommendations for updates and other policy changes for 2018 with the base payment rates specified in Medicare law to understand the implications for beneficiaries, providers, and the Medicare program. As has been the Commission's policy in the past, we consider our recommendations each year in light of the most current data and, in general, recommend updates for a single year.

## Are Medicare payments adequate in 2017?

The first part of the Commission's approach to developing payment updates is to assess the adequacy of current Medicare payments. For each sector, we make a judgment by examining information on the following:

- beneficiaries' access to care
- quality of care
- providers' access to capital
- Medicare payments and providers' costs for 2017

Some measures focus on beneficiaries (e.g., access to care) and some focus on providers (e.g., the relationship between payments and costs). The direct relevance, availability, and quality of each type of information vary among sectors, and no single measure provides all the information needed for the Commission to judge payment adequacy. Ultimately, the Commission makes its recommendations considering all of these factors.

### Beneficiaries' access to care

Access to care is an important indicator of the willingness of providers to serve Medicare beneficiaries and the adequacy of Medicare payments. For example, poor access could indicate that Medicare payments are too low. However, factors unrelated to Medicare's payment policies may also affect access to care. These factors include coverage policies, beneficiaries' preferences, local market conditions, and supplemental insurance.

The measures we use to assess beneficiaries' access to care depend on the availability and relevance of information in each sector. We use results from several surveys to assess the willingness of physicians and

other health professionals to serve beneficiaries and beneficiaries' opinions about their access to physician and other health professional services. For home health services, we examine data on whether communities are served by providers.

### Access: Capacity and supply of providers

Rapid growth in the capacity of providers to furnish care may increase beneficiaries' access and indicate that payments are more than adequate to cover providers' costs. Changes in technology and practice patterns may also affect providers' capacity. For example, less invasive procedures could be performed in outpatient settings, and lower priced equipment could be more easily purchased by providers, increasing the capacity to provide certain services.

Substantial increases in the number of providers may suggest that payments are more than adequate and could raise concerns about the value of the services being furnished. If Medicare is not the dominant payer for a given provider type (such as ambulatory surgical centers), changes in the number of providers may be influenced more by other payers and their demand for services and thus may be difficult to relate to Medicare payments. When facilities close, we try to distinguish between closures that have serious implications for access to care in a community and those that may have resulted from excess capacity.

### Access: Volume of services

The volume of services can be an indirect indicator of beneficiary access to services. An increase in volume shows that beneficiaries are receiving more services and suggests sufficient access—although it does not necessarily demonstrate that the services are appropriate. Volume is also an indicator of payment adequacy; an increase in volume beyond that expected for an increase in the number of beneficiaries could suggest that Medicare's payment rates are too high. Very rapid increases in the volume of a service might even raise questions about program integrity or whether the definition of the corresponding benefit is too vague. Reductions in the volume of services can sometimes be a signal that revenues are inadequate for providers to continue operating or to provide the same level of service. Finally, rapid changes in volume between sectors whose services can be substituted for one another may suggest distortions in payment and raise questions about provider equity. For example, payment rates for evaluation and management (E&M) office visits are much higher in hospital outpatient departments (HOPDs) than in physicians' offices, and over the last several years, the volume of those services in HOPDs has increased while the volume in physicians' offices has decreased.

However, changes in the volume of services are often difficult to interpret because increases and decreases can be explained by other factors such as population changes, changes in disease prevalence among beneficiaries, technology, practice patterns, deliberate policy interventions, and beneficiaries' preferences. For example, the number of Medicare beneficiaries in the traditional fee-for-service (FFS) program varies from year to year; therefore, we look at the volume of services per FFS beneficiary as well as the total volume of services. Explicit decisions about service coverage can also influence volume. For example, in 2004, CMS began enforcing compliance with a rule mandating that a certain share of patients in each inpatient rehabilitation facility (IRF) have 1 of 13 qualifying conditions. As a result, the number of IRF patients decreased markedly.

Changes in the volume of physician services must be interpreted particularly cautiously. Evidence suggests that for discretionary services, volume may go up when payment rates go down—the so-called volume offset. Whether a volume offset phenomenon exists in other sectors depends on how discretionary the services are and on the ability of providers to influence beneficiaries' demand for them.

## Quality of care

The relationship between the quality of care and the adequacy of Medicare payment is not direct. Simply increasing payments through an update for all providers in a sector, regardless of their individual quality, is unlikely to influence the quality of care because, historically, Medicare payment systems have created little or no incentive for providers to spend additional resources on improving quality. The Medicare program has begun to implement quality-based payment policies in a number of sectors; however, some issues have arisen. First, it is very difficult to differentiate quality performance among providers when the number of cases per provider is low. This issue has been particularly vexing in measuring quality performance for individual clinicians and even for measuring the performance of groups of clinicians. Second, the Commission has been increasingly concerned

that Medicare's approach to quality measurement is flawed because it relies on too many clinical process measures. Many current process measures are weakly correlated with outcomes of interest such as mortality and readmissions, and most process measures focus on addressing the underuse of services, while the Commission believes that overuse and inappropriate use are also of concern. Therefore, we have begun exploring the use of a small set of population-based outcome measures to assess and compare the performance of FFS Medicare, Medicare Advantage, and Medicare accountable care organizations within a local area. We also continue to assess whether provider-level quality measures will still be required to make FFS payment adjustments, even after a population-based quality measurement system is put in place.

### Providers' access to capital

Providers must have access to capital to maintain and modernize their facilities and to improve their capability to deliver patient care. Widespread ability to access capital throughout a sector may reflect the adequacy of Medicare payments. Some sectors such as hospitals require large capital investments, and access to capital can be a useful indicator. Other sectors such as home health care do not need large capital investments, so access to capital is a more limited indicator. In some cases, a broader measure such as changes in employment may be a useful indicator of financial health within a sector. Similarly, in sectors where providers derive most of their payments from other payers (such as ambulatory surgical centers) or other lines of business, or when conditions in the credit markets are extreme, access to capital may be a limited indicator of the adequacy of Medicare payments.

## Medicare payments and providers' costs for 2017

For most payment sectors, we estimate Medicare payments and providers' costs for 2017 to inform our update recommendations for 2018. To maintain Medicare beneficiaries' access to high-quality care while keeping financial pressure on providers to make better use of taxpayers' and beneficiaries' resources, we investigate whether payments are adequate to cover the costs of relatively efficient providers, where available data permit such providers to be defined.

Relatively efficient providers use fewer inputs to produce quality outputs. Efficiency could be increased by using the same inputs to produce a higher quality output or by using fewer inputs to produce the same quality output. The Commission follows two principles when selecting a set of efficient providers. First, the providers must do relatively well on cost and quality metrics. Second, the performance has to be consistent, meaning that the provider cannot have poor performance on any metric over the past three years. The Commission's approach is to develop a set of criteria and then examine how many providers meet them. It does not establish a set share of providers to be considered efficient and then define criteria to meet that pool size.

For providers that submit cost reports to CMS—acute care hospitals, SNFs, home health agencies, outpatient dialysis facilities, IRFs, long-term care hospitals, and hospices—we estimate total Medicare-allowable costs and assess the relationship between Medicare's payments and those costs. We typically express the relationship between payments and costs as a payment margin, which is calculated as aggregate Medicare payments for a sector, minus costs, divided by payments. By this measure, if costs increase faster than payments, margins will decrease.

In general, to estimate payments, we first apply the annual payment updates specified in law for 2016 and 2017 to our base data (2015 for most sectors). We then model the effects of other policy changes that will affect the level of payments in 2017. To estimate 2017 costs, we consider the rate of input price inflation or historical cost growth, and, as appropriate, we adjust for changes in the product (such as fewer visits per episode of home health care) and trends in key indicators (such as historical cost growth and the distribution of cost growth among providers).

#### Use of margins

In most cases, we assess Medicare margins for the services furnished in a single sector and covered by a specific payment system (e.g., SNF or home health services). However, in the case of hospitals, which often provide services that are paid for by multiple Medicare payment systems, our measures of payments and costs for an individual sector could become distorted because of the allocation of overhead costs or the presence of complementary services. For example, having a hospital-based SNF or IRF may allow a hospital to achieve shorter lengths of stay in its acute care units, thereby decreasing costs and increasing inpatient margins. For hospitals, we assess the adequacy of payments for the whole range of Medicare services they furnish—inpatient and outpatient (which together account for more than 90 percent of Medicare payments to hospitals), SNF, home health,

psychiatric, and rehabilitation services—and compute an overall Medicare hospital margin encompassing costs and payments for all the sectors. The hospital update recommendation in Chapter 3 applies to hospital inpatient and outpatient payments; the updates for other distinct units of the hospital, such as SNFs, are covered in separate chapters.

Total margins, which include payments from all payers and revenue from nonpatient sources, do not play a direct role in the Commission's update deliberations but can inform our assessment of the overall fiscal pressure on providers. The adequacy of Medicare payments is assessed relative to the costs of treating Medicare beneficiaries, and the Commission's recommendations address a sector's Medicare payments, not total payments. We calculate a sector's Medicare margin to determine whether total Medicare payments cover average providers' costs for treating Medicare patients and to inform our judgment about payment adequacy. Margins will always be distributed around the average, and aggregate payment adequacy does not mean that every provider has a positive Medicare margin. To assess whether changes are needed in the distribution of payments, we calculate Medicare margins for certain subgroups of providers with unique roles in the health care system. For example, because location and teaching status enter into the payment formula, we calculate Medicare margins based on where hospitals are located (in urban or rural areas) and their teaching status (major teaching, other teaching, or nonteaching).

Multiple factors can contribute to changes in the Medicare margin, including changes in the efficiency of providers, changes in coding that may change case-mix adjustment, and other changes in the product (e.g., reduced lengths of stay at inpatient hospitals). Knowing whether these factors have contributed to margin changes may inform decisions about whether and how much to change payments.

Another factor we consider when evaluating the adequacy of payments is whether providers have any financial incentive to expand the number of Medicare beneficiaries they serve. In considering whether to treat a patient, a provider with excess capacity compares the marginal revenue it will receive (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If Medicare payments are larger than the marginal costs of treating an additional beneficiary, a provider has a financial incentive to increase its volume of Medicare patients. In contrast, if payments do not cover the marginal costs, the provider may have a disincentive to care for Medicare beneficiaries.

In sectors where the data are available, the Commission makes a judgment when assessing the adequacy of payments relative to costs. No single standard governs this relationship for all sectors, and margins are only one indicator for determining payment adequacy. Moreover, although payments can be ascertained with some accuracy, there may be no "true" value for reported costs, which reflect accounting choices made by providers (such as allocations of costs to different services) and the relationship of service volume to capacity in a given year. Further, even if costs are accurately reported, Medicare—as a prudent payer—may choose not to recognize some of these costs or may exert financial pressure on providers to encourage them to reduce their costs.

### Appropriateness of current costs

Our assessment of the relationship between Medicare's payments and providers' costs is complicated by differences in providers' efficiency, responses to changes in payment systems, product changes, and cost reporting accuracy. Measuring the appropriateness of costs is particularly difficult in new payment systems because changes in response to the incentives in the new system are to be expected. For example, the number and types of visits in a home health episode changed significantly after the home health PPS was introduced, although the payments were based on the older, higher level of use and costs. In other systems, coding may change. As an example, the hospital inpatient PPS introduced a new patient classification system in 2008 to improve payment accuracy. However, for a number of years after its implementation, it resulted in higher payments because provider coding became more detailed, making patient complexity appear higher—although the underlying patient complexity was largely unchanged. Any kind of rapid change in policy, technology, or product can make it difficult to measure costs per unit.

To assess whether reported costs reflect the costs of efficient providers, we examine recent trends in the average cost per unit, variation in standardized costs and cost growth, and evidence of change in the product. One issue Medicare faces is the extent to which private payers exert pressure on providers to constrain costs. If private payers do not exert pressure, providers' costs will increase and, all other things being equal, margins on Medicare patients will decrease. Providers who are

under pressure to constrain costs generally have managed to slow their growth in costs more than those who face less pressure (Medicare Payment Advisory Commission 2011, Robinson 2011, White and Wu 2014). Some have suggested that, in the hospital sector, costs are largely outside the control of hospitals and that hospitals shift costs onto private insurers to offset Medicare losses. This belief assumes that costs are immutable and not influenced by whether the hospital is under financial pressure. We find that costs do vary in response to financial pressure and that low margins on Medicare patients can result from a high cost structure that has developed in reaction to high private-payer rates. In other words, when providers receive high payment rates from insurers, they face no particular need to keep their costs low, and so, all other things being equal, their Medicare margins are low because their costs are high. Lack of pressure is more common in markets where a few providers dominate and have negotiating leverage over payers. In some sectors, Medicare itself could, and should, exert greater pressure on providers to reduce costs.

Variation in cost growth among a sector's providers can give us insight into the range of performance that facilities can achieve. For example, if some providers' costs grow more rapidly than others in a given sector, we might question whether those increases are appropriate. Changes in product can also significantly affect unit costs. Returning to the example of home health services, one would expect that substantial reductions in the number of visits per 60-day home health episode would reduce costs per episode. If costs per episode instead increased while the number of visits decreased, one would question the appropriateness of the cost growth.

In summary, Medicare payment policy should not be designed simply to accommodate whatever level of cost growth a sector demonstrates. Cost growth can oscillate from year to year depending on factors such as economic conditions and relative market power. Payment policy should accommodate cost growth only after taking into account a broad set of payment adequacy indicators, including the current level of Medicare payments.

## What cost changes are expected in 2018?

The second part of the Commission's approach to developing payment update recommendations is to consider anticipated policy and cost changes in the next payment year. For each sector, we review evidence about the factors that are expected to affect providers' costs. One factor is the change in input prices, as measured by the price index that CMS uses for that sector. (These indexes are estimated quarterly; we use the most recent estimate available when we do our analyses.) For facility providers, we start with the forecasted increase in an industry-specific index of national input prices, called a "market basket index." For physician services, we start with a CMS-derived weighted average of price changes for inputs used to provide physician services. Forecasts of these indexes approximate how much providers' costs would change in the coming year if the quality and mix of inputs they use to furnish care remained constant—that is, if there were no change in efficiency. Other factors may include the trend in actual cost growth, which could be used to inform our estimate if it differs significantly from the projected market basket.

## How should Medicare payments change in 2018?

The Commission's judgments about payment adequacy, forthcoming policy changes, and expected cost changes result in an update recommendation for each payment system. An update is the amount (usually expressed as a percentage change) by which the base payment for all providers in a payment system is changed relative to the prior year. In considering updates, the Commission makes its recommendations for 2018 relative to the 2017 base payment as defined in Medicare's authorizing statute—Title XVIII of the Social Security Act. The Commission's recommendations may call for an increase, a decrease, or no change from the 2017 base payment. For example, if the statutory base payment for a sector were $100 in 2017, an update recommendation of a 1 percent increase for a sector means that we are recommending that the base payment in 2018 for that sector should be 1 percent greater, or $101.

A complicating factor in our analyses in recent years has been the "sequester" (the federal budget sequestration established by the Budget Control Act of 2011). The Commission has argued against the sequester as applied to Medicare because it reduces payments across all sectors by 2 percent without regard to payment adequacy. However, the sequester effects are now fully reflected in provider cost report data and, thus, in our payment

adequacy analyses. Our recommendations are made in this context and reflect conditions and impacts in the sequester budget environment. Therefore, we will continue to assess payment adequacy sector by sector and year by year—including the effects of the sequester—to give the Congress our best analysis and advice on the level and distribution of Medicare FFS payments.

When our recommendations differ from current law, as they often do, the Congress and the Secretary of Health and Human Services would have to take action and change law or regulation to put them into effect. Each year, we look at all available indicators of payment adequacy and reevaluate prior-year assumptions using the most recent data available. The Commission does not start with any presumption that an update is needed or that any increase in costs should be automatically offset by a payment update. Instead, an update (which may be positive, zero, or negative) is warranted only if it is supported by the empirical data, in the judgment of the Commission. For example, this year the Commission is recommending a decrease of 5 percent to the base payment rates for both home health agencies and IRFs.

In conjunction with the update recommendations, we may also make recommendations to improve payment accuracy that might in turn affect the distribution of payments among providers. These distributional changes are sometimes, but not always, budget neutral. Our recommendation to shift payment weights from therapy to medically complex SNF cases is one example of a distributional change that would affect providers differentially based on their patients' characteristics.

The Commission, as it makes its update recommendations, may in some cases take into consideration payment differentials across sectors and make sure the relative update recommendations for the sectors do not exacerbate existing incentives to choose a site of care based on payment considerations. The difficulty of harmonizing payments across sectors to remove inappropriate incentives illustrates one weakness of FFS payment systems specific to each provider type and highlights the importance of moving beyond FFS to more global and patient-centric payment systems. As we continue to move Medicare payment systems toward those approaches, we will also continue to look for opportunities to rationalize payments for specific services across sectors to approximate paying the costs of the most efficient sector and lessen financial incentives to prefer one sector over another. Our June 2016 mandated report on a unified prospective payment system for post-acute care addressed these issues directly (Medicare Payment Advisory Commission 2016).

### Consistent payment for the same service across settings

A beneficiary can sometimes receive a similar service in different settings. Depending on which setting the beneficiary or the treating clinician chooses, Medicare and the beneficiary may pay different amounts. For example, when leaving the hospital, patients with joint replacements requiring physical therapy might be discharged with home health care or outpatient therapy, or they might be discharged to a SNF or IRF, and Medicare payments (and beneficiary cost sharing) can differ widely as a result.

A core principle guiding the Commission is that Medicare should pay the same amount for the same service, even when it is provided in different settings. Putting this principle into practice requires that the definition of services in the settings and the characteristics of the patients be sufficiently similar. Where these conditions are not met, offsetting adjustments would have to be made to ensure comparability. Because Medicare's payment systems were developed independently and have had different update trajectories, payments for similar services can vary widely. Such differences create opportunities for Medicare and beneficiary savings if payment is set at the level applicable to the lowest priced setting in which the service can be safely performed. For example, under the current payment systems, a beneficiary can receive the same physician visit service in a hospital outpatient clinic or in a physician's office. In fact, the same physician could see the same patient and provide the same service, but depending on whether the service is provided in an outpatient clinic or in a physician's office, Medicare's payment and the beneficiary's coinsurance can differ by 80 percent or more.

In 2012, the Commission recommended that payments for E&M office visits in the outpatient and physician office sectors be made equal. This service is comparable across the two settings. Our recommendation sets payment rates for E&M office visits both in the outpatient department and physician office sectors equal to those in the physician fee schedule, lowering both program spending and beneficiary liability (Medicare Payment Advisory Commission 2012). In 2014, we extended that principle to additional services for which payment rates in the outpatient PPS should be lowered to better match payment rates in the physician office setting (Medicare

Payment Advisory Commission 2014). In the Bipartisan Budget Act of 2015, the Congress made payment for outpatient departments for the same services equal to the physician fee schedule rates for those services at any new outpatient off-campus clinic beginning in 2018. We also recommended consistent payment between acute care hospitals and long-term care hospitals for certain categories of patients (Medicare Payment Advisory Commission 2014). In 2015, we recommended site-neutral payments to IRFs for select conditions treated in both SNFs and IRFs (Medicare Payment Advisory Commission 2015). The Commission will continue to study other services that are provided in multiple sites of care to find additional services for which the principle of the same payment for the same service can be applied.

### Budgetary consequences

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 requires the Commission to consider the budgetary consequences of our recommendations. Therefore, this report documents how spending for each recommendation would compare with expected spending under current law. We also assess the effects of our recommendations on beneficiaries and providers. Although we recognize budgetary consequences, our recommendations are not driven by any specific budget target but, instead, reflect our assessment of the level of payment needed to provide adequate access to appropriate care.

## Payment adequacy in context

As discussed in Chapter 1, it is essential to look at payment adequacy not only within the context of individual payment systems but also in terms of Medicare as a whole. The Commission is concerned by any increase in Medicare spending per beneficiary without a commensurate increase in value such as higher quality of care or improved health status. Growth in spending per beneficiary, combined with the aging of the baby boomers, will result in the Medicare program absorbing increasing shares of the gross domestic product and federal spending. Medicare's rising costs are projected to exhaust the Hospital Insurance Trust Fund and significantly burden taxpayers. Ensuring that the recent moderate growth trends in Medicare spending per beneficiary continue will require vigilance. The financial future of Medicare prompts us to look at payment policy and ask what can be done to develop, implement, and refine payment systems to reward quality and efficient use of resources while improving payment equity.

In many past reports, the Commission has stated that Medicare should institute policies that improve the program's value to beneficiaries and taxpayers. CMS is beginning to take such steps, and we discuss them in the sector-specific chapters that follow. Ultimately, increasing Medicare's value to beneficiaries and taxpayers requires knowledge about the costs and health outcomes of services. Until more information about the comparative effectiveness of new and existing health care treatments and technologies is available, patients, providers, and the program will have difficulty determining what constitutes high-quality care and effective use of resources.

As we examine each of the payment systems, we also look for opportunities to develop policies that create incentives for providing high-quality care efficiently across providers and over time. Some of the current payment systems create strong incentives for increasing volume, and very few of these systems encourage providers to work together toward common goals. New programs such as alternative payment models and accountable care organizations are meant to stimulate delivery system reform toward more integrated and value-oriented health care systems and may address these issues. We will continue to contribute to their development and track their progress. In the near term, the Commission will continue to closely examine a broad set of indicators, make sure there is consistent pressure on providers to control their costs, and set a demanding standard for determining which sectors qualify for a payment update each year. ■

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CHAPTER 3

# Hospital inpatient and outpatient services

## RECOMMENDATIONS

**3-1** The Secretary should require hospitals to add a modifier on claims for all services provided at off-campus stand-alone emergency department facilities.

**COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0**

**3-2** The Congress should update the inpatient and outpatient payments by the amounts specified in current law.

**COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0**

*(Additionally, the Commission reiterates its March 2012 and March 2014 recommendations on hospital outpatient department site-neutral payments. See text box, p. 71.)*

CHAPTER 3

# Hospital inpatient and outpatient services

## Chapter summary

In 2015, the Medicare fee-for-service (FFS) program paid 4,700 hospitals $178 billion for about 10 million Medicare inpatient admissions, 200 million outpatient services, and $8 billion of non-Medicare uncompensated care costs. This sum represents a 3 percent increase in hospital spending from 2014 to 2015. On net, inpatient payments increased by $2 billion, and outpatient payments increased by almost $4 billion. Inpatient payments increased because of slight increases in prices, patient severity, and inpatient volume. Outpatient payments rose by about $4 billion because of volume increases, price increases, and the continued shift of services from lower cost physician offices to higher cost hospital outpatient settings. The increase in overall hospital payments between 2014 and 2015 is equivalent to payments per FFS beneficiary increasing from $4,824 to $4,957.

### Assessment of payment adequacy

In brief, most payment adequacy indicators (including access to care, quality of care, and access to capital) are positive. Average Medicare margins continue to be negative, although hospitals with excess capacity still have an incentive to see more Medicare beneficiaries because Medicare payment rates remain about 9 percent higher than the variable costs associated with Medicare patients.

## In this chapter

- Are Medicare payments adequate in 2017?
- How should Medicare payment rates change in 2018?

***Beneficiaries' access to care—***Access measures for hospital services include the capacity of providers and the volume of services.

- ***Capacity and supply of providers—***The average hospital occupancy rate was 62 percent in 2015, suggesting hospitals have excess inpatient capacity in most markets.
- ***Volume of services—***Inpatient use per beneficiary increased by 0.4 percent in 2015 and outpatient services increased by 2.2 percent. The slight increase in inpatient admissions per capita follows years of steady declines.

***Quality of care—***Hospital mortality and readmission rates have improved in recent years. Patient satisfaction has also improved somewhat: The share of patients who rated their hospital a 9 or 10 on a 10-point scale increased from 69 percent in 2011 to 72 percent in 2015.

***Providers' access to capital—***Access to bond markets remains strong. While some hospitals struggle with low occupancy and limited access to capital, most hospitals have good access to capital because of strong all-payer profit margins. All-payer operating margins reached a record high in 2015.

***Medicare payments and providers' costs—***In 2015, hospitals' aggregate Medicare margin was –7.1 percent. Under current law, Medicare margins are projected to decline from 2015 to 2017 to approximately –10 percent. This decline in part reflects the sunsetting of information technology subsidies and lower uncompensated care payments. Uncompensated care payments declined as more individuals enrolled in Medicaid or private insurance from 2015 to 2017. Cost growth per discharge has remained relatively low in recent years with the exception of drug and device costs. While average Medicare payments were lower than average costs, Medicare payments were higher than the variable costs of treating Medicare patients in 2015—resulting in a marginal profit of about 9 percent. Therefore, hospitals with excess capacity still have a financial incentive to serve more Medicare patients.

## Stand-alone emergency departments: Collecting Medicare claims data

As discussed in this chapter, stand-alone emergency departments (EDs) have expanded in recent years. However, CMS is currently unable to track growth in stand-alone ED claims because the claims are not distinguished from hospitals' on-campus ED claims. We recommend claims be modified to allow CMS to track this growing category of providers.

## Recommendations

The Commission recommends that the Secretary require hospitals to add a modifier on claims for all services provided at off-campus stand-alone emergency department facilities. In addition, the Commission recommends that the Congress update the inpatient and outpatient payments by the amounts specified in current law. ■

**TABLE 3–1**

**Growth in Medicare inpatient and outpatient spending**

| Hospital services | 2006 | 2014 | 2015 | Average annual change 2006–2014 | Change 2014–2015 |
|---|---|---|---|---|---|
| **Inpatient services** | | | | | |
| Total FFS payments (in billions) | $110 | $110 | $112 | 0% | 2% |
| Payments per FFS beneficiary | 3,085 | 2,939 | 3,002 | –1 | 2 |
| **Outpatient services** | | | | | |
| Total FFS payments (in billions) | 29 | 54 | 58 | 8 | 7 |
| Payments per FFS beneficiary | 885 | 1,637 | 1,753 | 8 | 7 |
| **Uncompensated care payments** | | | | | |
| Total (in billions) | N/A | 9 | 8 | N/A | –19 |
| Payments per FFS beneficiary | N/A | 248 | 202 | N/A | –18 |
| **Inpatient, outpatient, and uncompensated care payments** | | | | | |
| Total FFS payments (in billions) | 139 | 173 | 178 | 3 | 3 |
| Payments per FFS beneficiary | 3,970 | 4,824 | 4,957 | 3 | 3 |

Note: FFS (fee-for-service), N/A (not applicable). Reported hospital FFS spending includes all hospitals covered by Medicare's inpatient prospective payment system along with critical access hospitals and Maryland hospitals. Fiscal year 2015 payments include partial imputation to account for the hospitals that had not yet submitted cost reports covering fiscal year 2015. The combined amount for inpatient and outpatient services per capita is based on a weighted average of Part A and Part B services. Data included in the columns representing change were calculated using unrounded figures.

Source: MedPAC analysis of CMS Medicare hospital cost reports and Medicare Provider Analysis and Review files.

## Background

### Medicare spending on hospitals

In 2015, the Medicare fee-for-service (FFS) program paid acute care hospitals $112 billion for inpatient care, $58 billion for outpatient care, and approximately $8 billion in uncompensated care payments (Table 3-1). Between 2014 and 2015, inpatient payments increased by $2 billion, resulting from an increase in payment rates of about 1 percent and a slight increase in inpatient volume. In the same period, outpatient spending per FFS beneficiary grew by 7 percent, driving a 3 percent increase in overall Medicare inpatient, outpatient, and uncompensated care payments in 2015.[1] The nearly $4 billion increase in outpatient payments resulted from a 2.2 percent increase in 2015 payment rates, a 15 percent increase in payments for Part B drugs, increasing outpatient visit volume, and a shift in some services from physician offices to higher paying hospital sites of care. Overall inpatient and outpatient payments increased $5 billion from 2014 to 2015 (not shown in table).

### Medicare's payment systems for inpatient and outpatient services

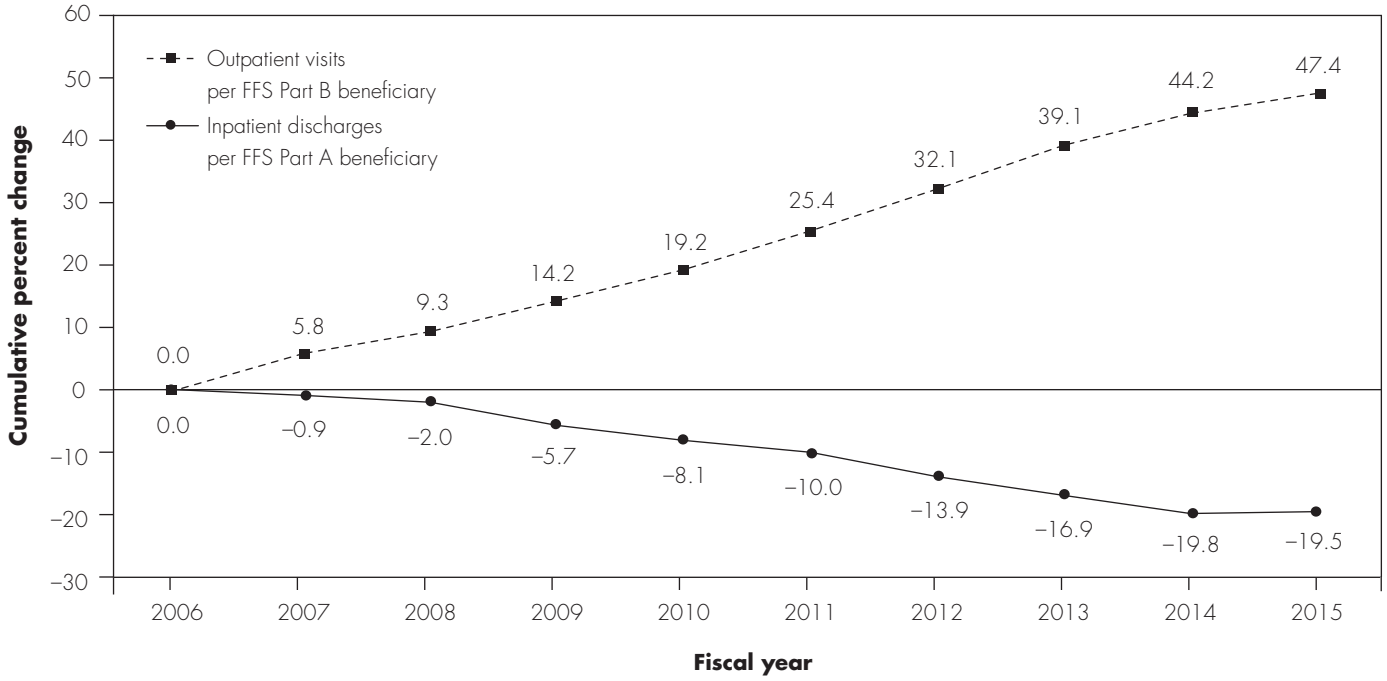
Medicare's inpatient and outpatient prospective payment systems (PPSs) have a similar basic structure. Each PPS has a base rate that is modified for the differences in type of case or service, as well as for geographic differences in input prices. However, the inpatient and outpatient PPSs have different units of service and a different set of payment adjustments.

#### Acute inpatient prospective payment system

Medicare's inpatient prospective payment system (IPPS) pays acute care hospitals a predetermined amount for most discharges. The payment rate is the product of a base rate and a relative weight that reflects the expected costliness

**FIGURE 3–1**

**Medicare inpatient discharges per beneficiary increased slightly in 2015 and outpatient visits per beneficiary continued to increase**




Note: FFS (fee-for-service). Data include general and surgical, critical access, and children's hospitals.

Source: MedPAC analysis of CMS's inpatient and outpatient claims and enrollment data.

of cases in a particular clinical category compared with the average of all cases. The labor-related portion of the base payment rate is adjusted by a hospital geographic wage index to account for differences in hospital input prices among market areas. Payment rates are updated annually.

To set inpatient payment rates, CMS uses a clinical categorization system called Medicare severity–diagnosis related groups (MS–DRGs). The MS–DRG system classifies each patient case into 1 of 756 groups, which reflect similar principal diagnoses, procedures, and severity levels. The severity levels are determined according to whether patients have a complication or comorbidity (CC) associated with the base MS–DRG (the categories are no CC, a nonmajor CC, or a major CC). A more detailed description of the acute IPPS, including payment adjustments, can be found at http://www.medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_16_hospital_finalecfc0fadfa9c665e80adff00009edf9c.pdf?sfvrsn=0.

### Hospital outpatient prospective payment system

The outpatient prospective payment system (OPPS) pays hospitals a predetermined amount per service. CMS assigns each outpatient service to 1 of about 700 ambulatory payment classification (APC) groups. Each APC has a cost-based relative weight, and a conversion factor translates these relative weights into dollar payment amounts. In 2014, CMS started to package additional laboratory tests (previously paid separately under the laboratory fee schedule) into outpatient APCs; CMS estimated that this change shifted $2.4 billion of payments from the laboratory fee schedule to the outpatient fee schedule. In 2015, CMS implemented comprehensive ambulatory payment classifications (C–APCs) in the OPPS and expanded the inclusion of certain services in the payment package for some APCs. A more detailed description of the OPPS can be found at http://www.medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_16_opd_final.pdf?sfvrsn=0.

## Are Medicare payments adequate in 2017?

To judge whether payments in 2017 are adequate for relatively efficient hospitals, we examine several indicators of payment adequacy. We consider beneficiaries' access to care, changes in the quality of care, hospitals' access to capital, and the relationship of Medicare's payments to hospitals' costs for both average and relatively efficient hospitals. Most of our payment adequacy indicators for hospitals are positive, but 2015 Medicare margins remained negative for most hospitals and were approximately zero for relatively efficient providers.

### Beneficiaries' access to care remained good: Excess inpatient capacity persisted and inpatient volume increased

To evaluate access to care, we examine the availability of hospital services to Medicare beneficiaries by analyzing inpatient and outpatient utilization, hospital service offerings, hospital openings and closures, hospital occupancy rates, and other measures. Our framework also includes an evaluation of hospitals' access to capital, which provides an outlook on the industry's ability to sustain or expand its existing resources.

Medicare beneficiaries' access to hospital services remains good, in part because of excess hospital capacity in most markets. Between 2014 and 2015, inpatient discharges per Medicare beneficiary increased 0.4 percent, a reversal from the eight prior years of declines, including a nearly 3 percent annual decline in 2012, 2013, and 2014 (Figure 3-1). Driving this reversal is an increase in the number of medical cases and the number of short-stay cases (those lasting two days). Medical stays increased 1.8 percent from 2014 to 2015, compared with a 0.8 percent decline in surgical cases. Over the longer term (2006 to 2015), surgical cases declined more rapidly than medical cases (–26 percent vs. –15 percent, respectively) as surgeries moved to outpatient settings.

From 2014 to 2015, overall inpatient discharges declined 0.4 percent per beneficiary at rural hospitals receiving IPPS rates compared with a 1.3 percent increase at urban hospitals. Inpatient volume increased in each racial and age group. In 2015, similar to previous years, African Americans and Native Americans were slightly higher users of inpatient services (more than 20 percent of beneficiaries in each category used inpatient services) than White Americans (18 percent), Hispanic Americans (17 percent), and Asian Americans (13 percent). In 2015, as in previous years, beneficiaries ages 90 years and older were higher users of inpatient services, with 42 percent of these older beneficiaries having at least 1 admission in 2015. On a combined basis (called "adjusted discharges"), total inpatient and outpatient volume across all payers (Medicare and other) increased by 3.8 percent from 2014 to 2015. For 2016, existing reports through the first three quarters of 2016 show relatively flat all-payer inpatient admissions and moderate growth in outpatient services (Census Bureau 2016a, Community Health Systems 2016, Lifepoint Health 2016, Morningstar Document Research 2016a, Morningstar Document Research 2016b).

The increase in inpatient volume in 2015 may also be attributable to the decline in the growth rate of outpatient observation stays caused by the implementation of CMS's two-midnight rule. Past declines in inpatient volume corresponded with significant growth in the number of observation stays. From 2010 to 2014, the number of observation stays per beneficiary increased 8 percent per year while inpatient volume declined 3 percent per year as hospitals, in part, responded to pressure from CMS auditors to control their short inpatient stays. In 2014, CMS implemented the two-midnight rule to reduce the growth in observation stays and improve guidance regarding permissible short stays (Medicare Payment Advisory Commission 2015a). Between 2014 and 2015, the volume of outpatient observation stays increased roughly 2 percent, and the volume of inpatient stays lasting two days increased by 3.5 percent. Therefore, the increase in inpatient volume in 2015 may be due to some stays that were previously treated in the observation setting reverting to the inpatient setting.

#### Growth in outpatient hospital services in part reflects incentives to shift patients to higher cost sites of care

From 2014 to 2015, the use of outpatient services increased by 2.2 percent per Medicare FFS beneficiary. Over the decade ending in 2015, volume per beneficiary grew by 47 percent. One-third of the growth in outpatient volume from 2014 to 2015 was due to an increase in the number of evaluation and management (E&M) visits billed as outpatient services. This growth in part reflects hospitals purchasing freestanding physician practices and converting the billing from the physician fee schedule to higher paying hospital outpatient department

**TABLE 3–2**

**E&M office visits and cardiac imaging services are migrating from freestanding offices to HOPDs, where payment rates are higher**

| Type of service | Share of ambulatory services performed in HOPDs, 2012 | Per beneficiary volume growth, 2012–2015 | |
|---|---|---|---|
| | | HOPD | Freestanding physician office |
| E&M office visits | 11% | 22% | –1% |
| Echocardiography | 34 | 20 | –16 |
| Nuclear cardiology | 39 | 1 | –25 |

Note: E&M (evaluation and management), HOPD (hospital outpatient department). In 2012, the E&M office visits had Current Procedural Terminology (CPT) codes 99201–99215. In 2014 and 2015, all E&M office visit facility fees were billed under a single CPT code, G0463. Echocardiography includes services in ambulatory payment classification (APC) 0269, APC 0270, and APC 0697 as defined in 2012. Nuclear cardiology includes services in APC 0377 and APC 0398 as defined in 2012. These APCs changed slightly from 2012 to 2015, but the changes are small enough not to affect the qualitative results in this table if we had used the APC definitions from 2015.

Source: MedPAC analysis of standard analytic claims files from 2012 and 2015.

(HOPD) visits. The conversions shift market share from freestanding physician offices to HOPDs (Table 3-2). From 2012 to 2015, hospital-based E&M visits per beneficiary grew by 22 percent, compared with a 1 percent decline in physician office–based visits. Other categories of services such as echocardiograms and nuclear cardiology are also shifting to hospital-based billing. Hospital-based echocardiograms per capita grew by 20 percent, compared with a 16 percent decline in physician office–based echocardiograms. Nuclear cardiology grew by 1 percent in HOPDs compared with a 25 percent decline in physician offices.

We have documented how the billing for these services has shifted from physician offices to higher cost outpatient sites of care in previous reports (Medicare Payment Advisory Commission 2014b, Medicare Payment Advisory Commission 2013b, Medicare Payment Advisory Commission 2012). Among other effects, the shift in care setting increases Medicare program spending and beneficiary cost-sharing liability because Medicare payment rates for the same or similar services are generally higher in HOPDs than in freestanding offices. For example, we estimate that the Medicare program spent $1.0 billion more in 2009, $1.3 billion more in 2014, and $1.6 billion more in 2015 than it would have if payment rates for E&M office visits in HOPDs were the same as freestanding office rates. Analogously, beneficiaries' cost sharing was $260 million higher in 2009, $325 million higher in 2014, and $400 million higher in 2015 than it would have been because of the higher rates paid in HOPD settings. Other studies have examined the effect of practice acquisition on prices private insurers pay for outpatient services. Those studies found that prices for physician services increased after hospitals acquired physician practices (Capps et al. 2015, Neprash et al. 2015). Inpatient and outpatient volume did not appear to change enough to offset the higher prices (Neprash et al. 2015). Thus, practice acquisitions, at least in the short run, appear to increase costs to private and public payers.

To address the increased spending that results when services shift from freestanding offices to HOPDs, the Commission recommended adjusting OPPS payment rates so that Medicare payment for E&M office visits is equal in freestanding physician offices and HOPDs (Medicare Payment Advisory Commission 2012). The Commission also recommended adjusting OPPS rates for a set of other services so that payment rates are equal or more closely aligned across these two settings (Medicare Payment Advisory Commission 2014b). A brief overview of these two recommendations can be found in the text box (opposite page). The key principle in the Commission's recommendations is that the payment for the selected outpatient services would not depend on the location of service delivery.

In 2015, the Congress took a somewhat different approach to address these concerns. The Congress chose to equalize rates between new off-campus HOPDs and physician offices. However, under the Bipartisan Budget Act of 2015, stand-alone emergency departments (EDs) and existing off-campus HOPDs will continue to receive the higher HOPD facility fees. This measure could give hospital systems an incentive to invest capital in new stand-alone EDs or mini-hospitals even if the hospital system does not need additional ED or inpatient capacity. Hospitals may want to bill for off-campus E&M services and other services at higher hospital rates. Therefore, the current site-based payment creates an incentive for the misallocation of capital toward higher cost sites of care that could result in higher costs for providers, taxpayers, and beneficiaries. Once the capital is allocated, the costs may be difficult to reverse.

## The Commission reiterates its hospital outpatient department site-neutral recommendations

The Commission reiterates its two recommendations to the Congress related to site-neutral payment between hospital outpatient departments and physicians' offices. The first was made in 2012 and the second in 2014. The recommendation language, rationales, and implications are shown below.

### Recommendation from the March 2012 report to the Congress

**The Congress should direct the Secretary of Health and Human Services to reduce payment rates for evaluation and management office visits provided in hospital outpatient departments so that total payment rates for these visits are the same whether the service is provided in an outpatient department or a physician office. These changes should be phased in over three years. During the phase-in, payment reductions to hospitals with a disproportionate share patient percentage at or above the median should be limited to 2 percent of overall Medicare payments.**

The rationale was that hospitals have been acquiring physician practices and employing physicians at an increasing rate. As more physicians become employed by hospitals, evaluation and management (E&M) office visits will shift from being billed as physician office services to being billed as outpatient department services. This shift causes Medicare program payments and beneficiary cost sharing to be higher than they would have been had the services been billed as clinician office visits. Further, there may be a broader loss of efficiency because it can be more costly to operate a physician practice once it becomes hospital owned and is operated as a hospital outpatient department.

The implication of equalizing rates for E&M services would be a reduction in program payments to hospitals of $1.6 billion and a $400 million reduction in beneficiary cost sharing to hospitals, based on 2015 claims data.

### Recommendation from the March 2014 report to the Congress

**The Congress should direct the Secretary of Health and Human Services to reduce or eliminate differences in payment rates between outpatient departments and physician offices for selected ambulatory payment classifications.**

The rationale for this second recommendation was to reduce the incentive to shift patient billing to hospital-owned outpatient facilities for certain services (e.g., echocardiograms) that can safely be provided in physician offices.

If we expanded the equalizing of rates beyond E&M services to other selected ambulatory payment classifications, there would be reductions in payments by the program and by beneficiaries to hospitals. ■

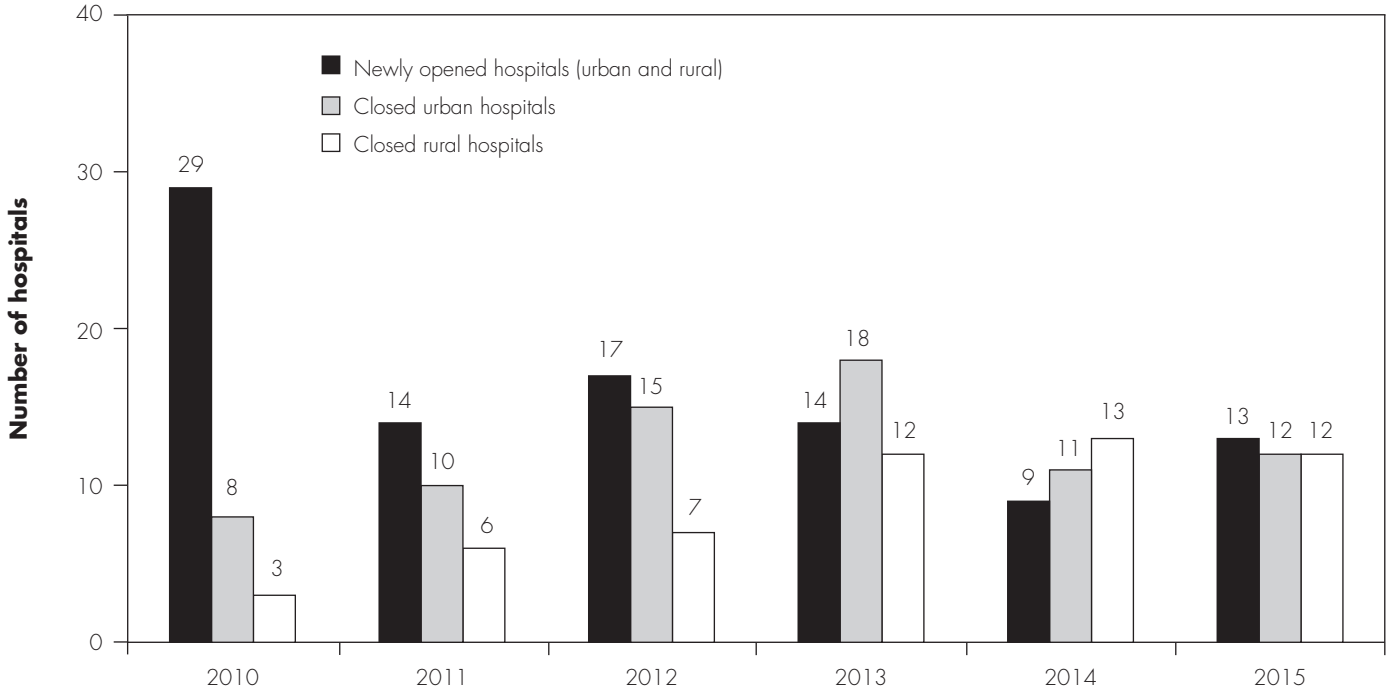
### Excess inpatient capacity

Aggregate occupancy rates for hospitals increased in 2015 for the first time since 2008; however, there continues to be excess inpatient capacity in the industry broadly and to varying degrees by region. From 2014 to 2015, hospital occupancy rates showed a small increase from 61 percent to 62 percent. Occupancy rate growth from 2014 to 2015 was driven by urban hospitals, which saw their rates increase from 64 percent to 65 percent. Occupancy rates at rural hospitals were unchanged at 41 percent. Rural hospitals with fewer than 50 beds had the lowest occupancy rates in 2015, at 33 percent. Between 2010 and 2015, occupancy rates at these small rural hospitals declined 5 percentage points, suggesting individuals from rural areas often bypass small rural hospitals and travel to urban hospitals for inpatient care (Medicare Payment Advisory Commission 2016a).

Nationally, from 2006 to 2014, inpatient bed capacity declined from 2.8 inpatient hospital beds per 1,000 residents to 2.5 beds per 1,000 residents (American Hospital Association 2016). The largest declines in beds were for adult general medical and surgical beds and for skilled nursing beds. The number of intensive care unit

**FIGURE 3–2**

**Hospitals opened and closed, by year**




Source: MedPAC analysis of the CMS Provider of Services file, Internet searches, and personal communication with the Department of Health and Human Services Office of Rural Health Policy.

(ICU) beds did not decline, causing the ICU share of total beds to increase from 11.5 percent in 2010 to 12.0 percent in 2014. Bed capacity varies by market. For example, the major metropolitan statistical area of Portland, OR, had 1.5 beds per 1,000 residents in 2014, compared with Buffalo, NY, with 3.9 beds per 1,000 residents.

### Hospital closures increased slightly

In light of the 4,700 hospitals that Medicare paid in 2015, there have been slightly more hospital closures than hospital openings over the past 4 years. In 2015, we identified 24 closures and 13 openings (Figure 3-2). Among those that closed in 2015, 12 were in urban counties and 12 were in rural counties. All but one of the openings were urban hospitals.

Hospitals that closed in 2015 were smaller than average, they had low occupancy and poor profitability, and a large share were located in states that did not expand their Medicaid program in recent years. These 24 hospitals had an average of 80 inpatient beds. The average occupancy rate of these hospitals was 26 percent, and their average total all-payer margin in the most recent year available was –12 percent. Two-thirds of the 24 hospitals that closed (16 facilities) were in states that did not expand their Medicaid programs under the Patient Protection and Affordable Care Act of 2010. In addition, the urban hospitals that closed were an average of 16 miles from the nearest hospital, and the rural hospitals were an average of 19 miles from the nearest hospital.

Among all the hospitals that closed, nearly half closed their inpatient capacity and converted to outpatient-only facilities. Specifically, 14 hospitals closed completely, 6 converted to stand-alone EDs and outpatient centers, and 4 converted to outpatient facilities without ED services. All of these stand-alone EDs were urban facilities, and the majority of hospitals that closed completely were rural. The rural closures raise questions about whether there are more efficient and financially stable ways to ensure access to emergency services in these communities. One option could be to adopt models that are focused on emergency and outpatient access rather than maintaining inpatient services,

as discussed in our June 2016 report to the Congress (Medicare Payment Advisory Commission 2016a).

## Quality of care has been improving

The quality of hospital care has been improving in recent years, and at least part of this improvement appears to be due to various financial incentives included in recent years in the Medicare program. While these incentives are not perfect and the Commission has discussed refinements to quality improvement programs, the data suggest that even imperfect incentives can lead to improved quality.

In 2017, hospitals' performance on quality metrics has the potential to increase a hospital's base IPPS payment rates by as much as 3.5 percent and lower payments by as much as 6.0 percent. Three payment adjustments are responsible for these potential changes: the Hospital Readmission Reduction Program (HRRP) (which can result in up to a 3.0 percent reduction), the hospital value-based purchasing (VBP) program (which can account for between a 3.5 percent increase and a 2.0 percent reduction to payments), and the Hospital-Acquired Condition (HAC) Reduction Program (which can result in a 1.0 percent reduction to payments for 25 percent of hospitals). While these adjustments have the potential to change inpatient payments, they do not alter outpatient payments. In 2017, a little more than a quarter of hospitals will see a net increase in payments (averaging about $83,000) and a little more than two-thirds will see a net decrease in payments (averaging around $436,000) under the combined effect of these programs. On net, these three programs lower Medicare payments by about $900 million, or 0.5 percent of overall Medicare payments.

### Overall hospital quality metrics show improvement

To assess aggregate trends in quality of care across all IPPS hospitals, we use mortality rates, readmission rates, and patient satisfaction. We find that from 2011 to 2015, mortality declined, readmissions declined, and the share of patients rating their hospital a 9 or 10 on a 10-point scale has increased from 69 percent to 72 percent. The quality improvements reflect the efforts hospitals have made to improve patient outcomes, but also reflect the closure or restructuring of some of the poorest performing hospitals. In 2014, we examined 112 hospitals that from 2009 through 2011 had a combination of low occupancy, high readmission rates, and poor patient experience (Medicare Payment Advisory Commission 2014b). By 2015, 13 of the 112 hospitals closed, a quarter of the hospitals changed ownership, and others replaced their facilities. This finding is consistent with a recent study that suggests market share is flowing to higher quality hospitals (Chandra et al. 2015).

**Readmission rates declining** The Congress enacted the Medicare HRRP in 2010, and since that time the program has expanded to include more conditions. Penalties under the HRRP started in fiscal year 2013, based on three conditions for which the maximum penalty was capped at 1 percent. In fiscal year 2017, hospitals are penalized if they have above-average readmission rates (from a prior three-year period (July 1, 2012, through June 30, 2015)) for one of six clinical conditions (acute myocardial infarction (AMI), heart failure, pneumonia, congestive obstructive pulmonary disease (COPD), elective total hip or knee replacement, or coronary artery bypass graft (CABG) surgery). As stated earlier, the HRRP reduction is capped at 3 percent of base inpatient payments.

In 2017, 80 percent of hospitals will have payments reduced because of the HRRP, with 19 percent receiving a penalty of between 1 percent and 3 percent of base payments. A larger share of major teaching hospitals and hospitals serving large shares of poor patients (92 percent and 89 percent, respectively) will receive a readmission penalty; 22 percent of these facilities are receiving a penalty of 1 percent or more. A large share of hospitals will receive an HRRP penalty in 2017 because a hospital needs to have an above-expected rate for only one of the six conditions to receive a penalty. The average penalty was $205,000 per hospital in 2017. Total penalties are expected to be $526 million in 2017, or 0.3 percent of overall Medicare payments going to hospitals.[2]

In 2013, the Commission suggested several improvements to the HRRP. One called for setting a fixed target for readmission rates so aggregate penalties would go down when industry performance improves. We also suggested using an all-condition readmission measure to increase the number of observations and reduce the random variation that single-condition readmission rates face under current policy. A third improvement would be to evaluate hospitals' readmission rates against rates for peer hospitals with similar shares of poor patients as a way to adjust penalties for the effects of socioeconomic status on hospitals' readmission rates (Medicare Payment Advisory Commission 2013a). The Congress adopted this idea in the 21st Century Cures Act (Public Law 114–255). The act includes a provision (Section 15002) that would require the Secretary of the Department of Health and Human Services to adjust readmission penalties using peer groups

**TABLE 3–3** **Potentially preventable readmission rates have declined**

| Reason for initial admission | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | Percentage point change, 2010–2015 |
|---|---|---|---|---|---|---|---|
| All conditions | 12.9% | 12.4% | 11.9% | 11.3% | 11.0% | 10.5% | –2.4 |
| AMI | 17.3 | 16.9 | 16.1 | 15.0 | 14.3 | 13.7 | –3.6 |
| Heart failure | 19.5 | 19.2 | 18.4 | 17.6 | 17.0 | 16.4 | –3.1 |
| Pneumonia | 13.1 | 12.6 | 12.1 | 11.5 | 11.5 | 10.6 | –2.5 |
| COPD | 16.8 | 16.5 | 15.9 | 15.1 | 14.7 | 14.2 | –2.6 |

Note: AMI (acute myocardial infarction), COPD (congestive obstructive pulmonary disease). Rates are adjusted for changes in the mix of patients.

Source: MedPAC analysis of 2010 through 2015 Medicare claims data and 3M™ potentially preventable readmissions software.

of hospitals based on the share of Medicare patients that are fully dual-eligible beneficiaries starting in fiscal year 2019.

The readmission reduction payment policy and other efforts, such as the Partnership for Patients and Community-Based Care Transitions Program, have encouraged hospitals to improve care coordination with providers outside the hospital to reduce readmissions and make other quality improvements. These programs provide funds for external organizations to help support hospitals' efforts to improve patient outcomes. The Commission has also recommended a redesign of the Quality Improvement Organization Program to allow the Secretary to provide funding for time-limited technical assistance directly to providers and communities to help improve quality of care (Medicare Payment Advisory Commission 2011a). Such a reform could increase the likelihood that providers and communities receive the technical assistance the hospitals deem relevant to their quality improvement efforts.

Through 2015, readmission rates continued to fall for all conditions and for conditions included in the HRRP (Table 3-3). From 2010 to 2015, potentially preventable readmissions declined by 2.4 percentage points across all cases, after adjusting for changes in the mix of patients. Potentially preventable readmission rates dropped 3.6 percentage points for AMI, 3.1 percentage points for heart failure, and 2.5 percentage points for pneumonia. During the same period, readmission rates for COPD (which was added to the program in 2015) fell 2.6 percentage points. Increases in the use of 24-hour-plus observation care accounted for only a small portion of the drop in readmission rates, meaning that care (not just coding) is improving (Medicare Payment Advisory Commission 2016b).

**Mortality rates are declining** From 2011 to 2015, risk-adjusted mortality rates have continued to decline with the average 30-day risk-adjusted mortality rate across all conditions declining 0.9 percentage points (Table 3-4). Raw (non-risk-adjusted) mortality rates, however, actually increased over this period, but this growth was due to less severe cases—with low expected mortality rates—not being admitted to the hospitals because of increased use of outpatient observation care and shifting of other low-severity surgeries to outpatient settings. Other studies have found similar improvements for specific conditions (Hines 2015, Krumholz 2015). The combination of a decline in readmissions and a decline in hospital mortality is strong evidence of improving quality.

**Hospital value-based purchasing incentives are increasing** The Congress mandated a VBP program for IPPS hospitals beginning in fiscal year 2013. Under the program, CMS reduces all IPPS hospitals' base operating diagnosis related group (DRG) payment amounts by 2 percent in fiscal year 2017 to create a pool of funds from which the performance-based VBP incentive payments will be distributed.[3] As required by law, the hospital VBP program is budget-neutral; that is, the pool of withheld payments must be redistributed to hospitals based on their performance on the VBP program's quality measures.

In 2017, the VBP program will redistribute on net approximately $350 million in Medicare inpatient payments from low performers to high performers. The

**TABLE 3–4** **Risk-adjusted 30-day postdischarge mortality rates have declined**

| Mortality rate | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|
| Unadjusted mortality | 8.1% | 8.1% | 8.5% | 8.4% | 8.6% |
| Expected mortality | 8.1 | 9.6 | 10.2 | 10.5 | 11.1 |
| Risk-adjusted mortality | 8.1 | 7.8 | 7.7 | 7.4 | 7.2 |

Source: MedPAC analysis of 2011 through 2015 Medicare claims using 3M™ all-patient refined–diagnosis related group risk of mortality V32 grouper and beneficiary age and gender to calculate risk-adjusted mortality rates (using 2010 through 2012 data to set expected rates).

program uses a combination of measures from four quality domains to develop hospital scores under the program:

- 25 percent based on patient and caregiver experience of care and care coordination using 8 measures from the Hospital Consumer Assessment of Healthcare Providers and Systems® (H–CAHPS®) survey;
- 20 percent based on patient safety measures, which include a composite patient safety measure (the Agency for Healthcare Research and Quality's (AHRQ's) patient safety indicator (PSI) 90) and 6 health care–associated infection measures from the Centers for Disease Control and Prevention's National Healthcare Safety Network;[4]
- 25 percent based on efficiency measures, which use a 30-day Medicare spending per beneficiary measure; and
- 30 percent based on clinical care measures, which includes 3 process of care measures (5 percent) and 3 condition-based outcome measures of 30-day mortality for AMI, heart failure, and pneumonia (25 percent).[5]

In 2017, the VBP program will increase payments to 55 percent of IPPS hospitals (by an average of $95,000) and decrease payments to 38 percent of them (by an average of $140,000). For roughly a third of these hospitals, the change in payments under the program will be small, less than 0.25 percent of base payments. However, 10 percent of hospitals will see an increase of between 1 percent and 3 percent, and another 10 percent will see a decrease equal to more than 0.5 percent of their base inpatient payments. Performance under the VBP program varies by hospital group, with 33 percent of major teaching hospitals receiving rewards compared with 63 percent of nonteaching hospitals. Further research is needed to evaluate reasons for the differences across hospital groups.

The VBP program gives a hospital credit for achievement (relative to other hospitals) and improvement (relative to its own baseline performance). Some of the quality metrics included in the VBP program overlap with other quality programs, particularly the program to reduce hospital-acquired conditions.

**Hospital-Acquired Condition Reduction Program implemented in 2015** The Congress mandated that the HAC Reduction Program begin in fiscal year 2015. Under this program, Medicare reduces hospitals' inpatient payments by 1 percent for hospitals whose performance on a set of HAC measures defined by CMS ranks in the lowest performing quartile nationally. The 1 percent reduction applies to total inpatient payments, including indirect medical education (IME), disproportionate share (DSH) payments, and other quality payment adjustments (readmissions and hospital VBP). This program is not budget neutral because it reduces payments by 1 percent for 25 percent of all IPPS hospitals.

The HAC program includes hospital measures from two domains. In the first domain, patient safety, hospitals' performance is examined using a blended set of eight patient safety indicators (PSI 90), including pressure ulcers, various postoperative complications, and certain hospital-acquired infections. The second domain, infections, includes six measures: central line–associated bloodstream infections (CLABSIs), catheter-associated urinary tract infections (CAUTIs), surgical site infections (SSIs) for colon and hysterectomy surgeries, methicillin-resistant *Staphylococcus aureus*, and *Clostridium difficile* (the latter two were added in 2017). In fiscal year 2017, the patient-safety domain is weighted at 15 percent and the infection measures are weighted at 85 percent. HAC

measures are also included in the hospital VBP program's patient outcome domain. The HAC penalty for fiscal year 2017 is based on performance data from 2013 to 2015. In 2017, the HAC program will reduce payments to 742 hospitals, with penalties totaling around $370 million, or an average of $500,000 per penalized hospital. Penalties will vary by type of hospital, with 46 percent of major teaching hospitals and 56 percent of high DSH hospitals receiving a penalty compared with an average of 23 percent across all hospitals and just 13 percent of rural hospitals. This variance may in part reflect types of cases (e.g., ICU cases) and procedures (e.g., surgical cases) that occur more frequently in major teaching hospitals.

Hospitals have been successful in reducing the number of HACs. A recent AHRQ study reported that, from 2010 to 2015, HACs per discharge declined by 21 percent. This study also estimated that about 125,000 fewer patients died in the hospital as a result of the reduction in HACs, and about $28 billion in health care costs were avoided (Agency for Healthcare Research and Quality 2016). Similarly, data for the years 2008 to 2013 from the Centers for Disease Control and Prevention demonstrate substantial declines in hospital-associated infections, including a 46 percent decline in CLABSIs and a 19 percent decline in SSIs for 10 procedures collectively (Centers for Disease Control and Prevention 2015).

The Commission has expressed concern that the current statutory design of the HAC Reduction Program penalizes 25 percent of hospitals every year, even if all hospitals significantly reduce HAC rates (Medicare Payment Advisory Commission 2013a). Similar to the readmission reduction program, a fixed performance target may improve the HAC program by creating an incentive for all hospitals to decrease HACs to at least the benchmark rate to avoid the payment penalty.

### Hospitals' access to capital and employment is strong

Hospitals' access to capital remained strong because of continued improvement in profitability and low interest rates. The three major bond-rating agencies (Fitch Ratings, Moody's Investor Services, and Standard & Poor's Ratings Services) reported higher revenue growth and lower expense growth at nonprofit hospitals, resulting in improved facility-wide operating profits in 2015 (Fitch Ratings 2016, Moody's Investors Service 2016, Standard & Poor's Ratings Services 2016). The agencies attributed revenue growth to price increases and improvements in patient payer mix as insurance coverage was expanded. For example, Moody's reported that between 2013 and 2015, the self-pay share of hospital patients declined from 7.9 percent to 5.9 percent; Fitch reported, for the same period, that bad debt and charity care costs as a share of patient revenue declined from 5.8 percent to 4.4 percent.

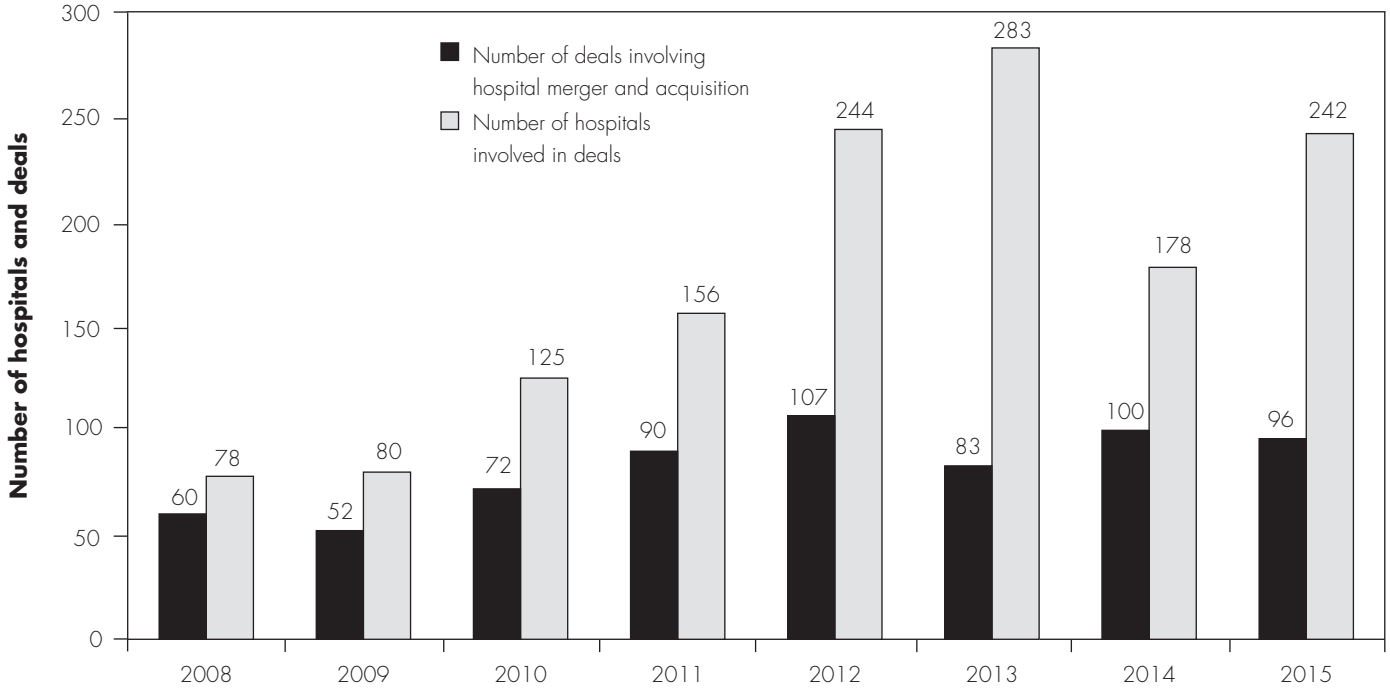
The three ratings agencies attributed hospitals' lower expense growth to several factors. They cite modest growth in capital expenditures because hospitals are building outpatient capacity rather than more expensive inpatient capacity, and hospitals' investment projects in electronic health records systems are nearly complete. Standard & Poor's reported a decline between 2013 and 2015 in capital expenditures' share of depreciation expense from 118 percent to 113 percent (Standard & Poor's Ratings Services 2016). The agencies also cite declining debt burden as a reason expenses have declined. Moody's reported that from 2013 to 2015, total debt as a share of total operating revenues declined from 39 percent to 35 percent (Moody's Investors Service 2016). The agencies also cite continued cost containment strategies as a reason for expense reduction (Fitch Ratings 2016, Moody's Investors Service 2016, Standard & Poor's Ratings Services 2016).

The level of hospital bond issuances increased dramatically from 2015 to 2016. Through the first three quarters of 2016, nonprofit hospitals issued $36 billion in bonds, surpassing the $25 billion of bond offerings in 2015 and 2014. The 2016 bond issuances consisted of more than $22 billion in new financing and more than $13 billion in pure refinancing, both of which were proportionately higher than in previous years. The rebound of bond offerings in 2016 reflects hospitals' strong financial position and continuing low interest rates. The average interest rate for double-A tax-exempt 30-year nonprofit hospital bonds remained low, at 3.25 percent in October 2016 compared with 3.63 percent in October 2015 (Cain Brothers 2016).

In 2015, 242 individual hospitals were acquired in 96 transactions, sustaining the high level of transactions in recent years (Figure 3-3) (Irving Levin Associates Inc. 2016). Several merger deals involved large hospital corporations divesting their interests in groups of hospitals in certain states to smaller, more regional or local health systems. The long-term trend is greater consolidation in the industry, with independent hospitals joining larger hospital corporations and regional systems merging to create a broader network. The outcome is greater market

**FIGURE 3–3**

**Hospital merger and acquisition activity continued at a high level**




Source: MedPAC analysis of 2015 data from Irving Levin Associates Inc.

power for hospitals in negotiating contracts with insurers, physicians, and manufacturers.

Annualized hospital construction spending was $25 billion through July 2016, the same level as 2015, but lower than the $31 billion in average annual spending from 2008 to 2012 (Census Bureau 2016b). Spending remained lower than in the prior period because hospitals built outpatient rather than inpatient capacity. In addition, based on a survey of nonprofit hospital executives, Fitch reported that executives' top capital investment priorities are information technology, clinics, and outpatient capacity (Fitch Ratings 2015).

### Hospital employment increased

Between October 2014 and October 2016, the number of individuals employed by hospitals increased from 4.8 million to 5.1 million, a rate of 6.5 percent, faster than in the rest of the health care sector (5.8 percent) and the rest of the economy (3.4 percent) (Bureau of Labor Statistics 2016). Hospital employment growth was similar to employment growth in physician offices (6.4 percent), but slower than in outpatient care centers (10.1 percent).

Based on data from a separate Bureau of Labor Statistics (BLS) survey, hospitals are hiring individuals in certain high-skill occupational categories and reducing the number of staff in certain lower skilled occupations. Over this two-year period, hospitals increased their employment of computer specialists (6 percent) and social service staff (6 percent) more than other occupations. The number of physicians employed by hospitals increased by 2.3 percent but varied by type of physician. For example, the number of family and general physicians increased 15 percent and the number of anesthesiologists decreased 17 percent. Overall, the number of nurses employed by hospitals increased 1.4 percent during this period, with the number of higher skilled registered nurses increasing by about 40,000 individuals and the number of licensed practice or vocational nurses declining by about 17,000. Hospitals also reduced operational staff from categories such as health care support (–1.5 percent) and food services (–3.0

percent). Hospital employment growth and occupational employment growth within hospitals may have been more rapid than BLS reports because BLS estimates of workers in hospitals do not include contract workers paid outside the hospitals' payroll system, which some suggest have increased in recent years (Government Accountability Office 2015). For example, the decline in food service workers could reflect a decrease in employment or an increase in the use of outside contractors.

### Stand-alone emergency departments are growing, but are not tracked by CMS

Roughly 65 percent of these facilities are hospital-affiliated off-campus emergency departments (OCED). OCEDs are recognized by Medicare for payment if they are "provider-based" departments of a given hospital (or are hospital affiliated) under the regulations at 42 CFR 413.65 and within 35 miles of the affiliated hospital's campus. We estimate that between 2008 and 2016, the number of hospitals with an OCED increased 97 percent. The remaining 35 percent of stand-alone EDs are independent freestanding emergency centers (IFEC). Medicare does not recognize IFECs for payment because they are not hospital affiliated. The majority of these facilities are in Texas, and they have all developed since 2010. Within the last two years, we have observed several owners of IFECs partnering with hospitals and health systems to gain hospital affiliation and to begin billing Medicare.

Two Medicare policies may contribute to stand-alone ED growth:

- Medicare and private payers pay EDs higher rates for evaluation visits and ancillary services than they pay for these services at physician offices and urgent care centers. This disparity encourages providers to shift services from these lower paying settings to higher paying settings such as EDs.
- The exemption given to OCEDs (or "dedicated EDs") under the 2015 site-neutral law (Section 603 of the Bipartisan Budget Act of 2015), enabling hospital-affiliated OCEDs to bill Medicare as an HOPD and receive higher payment rates, may encourage the development of more stand-alone EDs. Under the site-neutral law, new off-campus departments are prohibited from billing Medicare at higher hospital outpatient payment rates. However, the exemption allows OCEDs to continue billing Medicare at higher hospital outpatient payment rates for all ED and non-ED services (e.g., E&M visits) provided at the facility.

Despite the growth of stand-alone EDs and the various reasons for their development, CMS does not track claims for ED and non-ED services delivered at provider-based off-campus departments. Specifically, CMS cannot separately identify the number of these facilities billing Medicare, the services they provide, the types of beneficiaries they serve, or the quality of the care they provide. ED claims from OCEDs are submitted to Medicare for reimbursement through the affiliated hospitals' provider identification number and are therefore not separately identifiable. As a result, CMS and the policy and oversight communities are unable to differentiate between ED services provided at a hospital ED and those at an OCED. Mechanisms exist in the claim submission process that would enable providers to flag ED claims occurring in OCEDs without adding significant burden to OCEDs or their affiliated hospitals. For example, CMS could require OCEDs and their affiliated hospitals to include a standard two-digit modifier on the claim to flag claims from OCEDs. CMS has recently required a similar modifier to be included with claims occurring in hospitals' other off-campus departments, as a part of the site-neutral law's rule-making process.

**RECOMMENDATION 3-1**

**The Secretary should require hospitals to add a modifier on claims for all services provided at off-campus stand-alone emergency department facilities.**

**RATIONALE 3-1**

This recommendation will allow CMS and the Congress to be informed regarding the expansion of off-campus emergency department facilities, the services they provide, and the beneficiaries they treat.

**IMPLICATIONS 3-1**

#### Spending

- The recommendation will not increase program spending.

#### Beneficiaries and providers

- The recommendation has no implications for beneficiaries and is likely to increase only minimally hospitals' administrative burden as they initially adapt to the requirement to add a modifier on claims occurring at off-campus stand-alone emergency departments.

## Medicare payments and providers' costs

In assessing payment adequacy, the Commission also considers the relationship between Medicare payments and the costs of providing care to Medicare patients. We assess the adequacy of Medicare payments for the hospital as a whole (across all Medicare services), thus measuring the relationship between payments and costs using an overall Medicare margin. This margin includes all Medicare payments and all Medicare-allowable costs for the six hospital departments covered by the inpatient, outpatient, and post-acute PPS systems, as well as uncompensated care payments and graduate medical education payments and costs.[6]

We report the overall Medicare margin across service lines because no hospital service line is a purely independent business. For example, we find that operating a skilled nursing facility (SNF) improves the profitability of acute inpatient care services because an in-hospital SNF allows hospitals to safely discharge patients sooner from their acute care beds, thus reducing the cost of the inpatient stay. The overall Medicare margin also takes into account revenues that are not included in the service-line payments for inpatient and outpatient care. These revenues include Medicare payments for health information technology (beginning fiscal year 2011) and uncompensated care payments (beginning fiscal year 2014). Excluding these Medicare revenues would understate Medicare payments to hospitals. Another benefit of focusing on overall margins is that we can avoid the challenges of precisely allocating overhead and administrative costs among the different service lines.

To determine whether hospitals have an incentive to treat additional Medicare patients, we also examine the marginal profits for treating additional Medicare patients. This measure examines whether Medicare payments cover the variable cost of treating an additional Medicare patient. We find that, while average Medicare payments do not cover all costs (fixed and variable), they are sufficient to cover the variable costs of treating additional Medicare patients, which is an indicator of whether hospitals with excess capacity have an incentive to see more Medicare patients.

To measure the overall pressure that hospitals are under to control costs, we also examine hospital total (all-payer) profit margins and hospital cash flows. When total margins and cash flows are strong, hospitals are under less pressure to control their costs, which in turn affects their Medicare margin.

### The source of Medicare revenues to hospitals has shifted

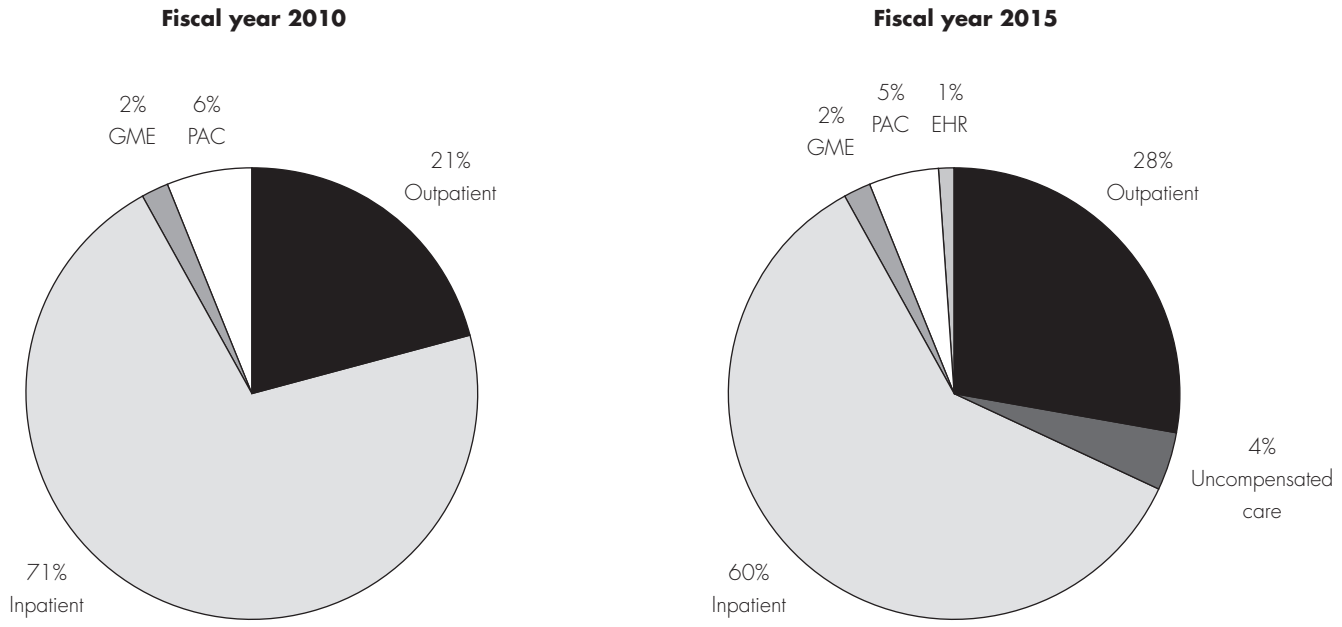
Over time, the share of hospitals' revenue coming from the outpatient setting has grown (Figure 3-4, p. 80). From 2010 to 2015, the share of revenues coming from the outpatient setting increased from 21 percent to 28 percent. The increase resulted from several changes: a shift in services from the inpatient to the outpatient setting (including surgical and observation cases), a general increase in beneficiary outpatient service use, the billing of physician office services shifting from the physician fee schedule to the OPPS, and changes made to the outpatient payment system that packaged many lab services into outpatient payment rates previously paid on a separate fee schedule rather than under the OPPS.[7]

In contrast, between 2010 and 2015, the share of revenues coming from inpatient services fell from 71 percent to 60 percent in 2015. This decline resulted from (1) a shift in services from the inpatient setting to the outpatient setting and (2) changes in Medicare DSH payments. Starting in fiscal year 2014, Medicare DSH payments (which are included in inpatient payments) are paid at 25 percent of the historical payment formula that uses the hospitals' current low-income patient share percentage. This decrease in inpatient DSH payments, however, is offset in large part by a new payment for uncompensated care costs (accounting for 4 percent of Medicare revenues in 2015) that goes to DSH hospitals. The uncompensated care payments, however, are not tied to hospitals' Medicare inpatient payment rates or case volume. They were intended to be allocated to DSH hospitals based on each hospital's share of total uncompensated care costs, but they are currently being distributed based on each DSH hospital's share of total Medicaid and low-income Medicare patient days (Medicare Payment Advisory Commission 2016b). In 2016, the Commission recommended that CMS distribute uncompensated care payments based on actual uncompensated care data rather than the Medicaid and low-income Medicare patient day proxies. CMS has proposed adopting this recommendation starting no later than 2021.

The additional temporary payments that hospitals have received as a part of the Medicare Electronic Health Records (EHR) Incentive Program also increased total Medicare payments. The EHR program was designed to stimulate hospitals' investment in and installation of EHR systems to help improve quality of care and potentially reduce health care costs. Between 2011 and

**FIGURE 3–4**

**Share of revenue from inpatient services has declined, outpatient and uncompensated care increased**




Note: GME (graduate medical education), PAC (post-acute care), EHR (electronic health record). Uncompensated care payments were not a separate payment category in 2010. Beginning in 2014, uncompensated care payments were paid separately from inpatient payments. The uncompensated care payments that were started in 2015 are payable only to hospitals serving a disproportionate share of low-income patients. The uncompensated care payments are funded through a reduction in traditional disproportionate share payments to these hospitals. There were no EHR payments in 2010 because the EHR Incentive Program was not implemented until 2011.

Source: MedPAC analysis of Medicare hospital payments using hospitals' cost reports.

2013, Medicare EHR payments rose from $0.7 billion to $3.2 billion, but since have been declining, to $2.5 billion in 2014 and $1.5 billion in 2015, as the program phases out. In 2015, these payments accounted for 0.9 percent of total Medicare payments made to IPPS hospitals.[8] EHR payments, however, will gradually decline as the program continues to phase out.

Between 2010 and 2015, the share of revenues coming from hospital-based post-acute care providers fell from 6 percent to 5 percent as some hospitals closed certain post-acute services.

### Medicare payment growth

Changes in Medicare inpatient hospital payments per discharge under the IPPS depend primarily on three factors: (1) annual updates to base payment rates, (2) changes in reported case mix, and (3) policy changes that are not implemented in a budget-neutral manner. In 2015, the average Medicare inpatient payment per case increased 1.7 percent. While inpatient payments increased, uncompensated care payments declined in 2015 because of a decline in the number of uninsured patients. In 2015, hospitals received $11 billion in DSH and uncompensated care payments (down from $12.2 billion in 2014). There were three key changes to inpatient payments from 2014 to 2015:

- a 1.3 percent increase in base payment rates,
- a 0.75 percent increase in inpatient case mix, and
- a $1.2 billion reduction in DSH and uncompensated care payments.

Medicare continues to see growth in the use of outpatient services. From 2014 to 2015, outpatient payments grew by 7.2 percent. This growth was from a combination of

**TABLE 3–5** **Cost increases in 2014 and 2015 closer to input price inflation than previous years**

| Cost measure | Annual cost growth 2011 | 2012 | 2013 | 2014 | 2015 | Average annual cost growth 2011–2015 |
|---|---|---|---|---|---|---|
| Inpatient costs per discharge | 2.7% | 3.2% | 2.7% | 2.2% | 2.2% | 2.6% |
| Inpatient case-mix index | 0.5 | 1.4 | 2.0 | 2.0 | 0.8 | 1.4 |
| Input price inflation* | 2.6 | 2.1 | 1.9 | 1.8 | 1.8 | 2.0 |

Note: Cost growth numbers are not adjusted for reported changes in case mix. Analysis excludes critical access hospitals and Maryland hospitals.
*Input price inflation reflects a weighted average of changes in the hospital operating and capital market basket indexes.

Source: MedPAC analysis of Medicare cost reports, claims files, and input price estimates from CMS.

increases in the number of beneficiaries, increases in Medicare rates, increases in outpatient visits, and a $1.2 billion increase (15 percent growth) in payments for separately payable Part B drugs administered in hospitals' outpatient departments. The 15 percent increase was due to an increase in the volume and prices of Part B drugs. Medicare pays hospitals 106 percent of pharmaceutical companies' average sales prices for most Part B drugs. Therefore, manufacturer price increases for Part B drugs can drive up hospitals' drug costs and Medicare program payments.

### Rate of cost growth remains close to rate of input price inflation

Hospitals' inpatient per case cost increases have been relatively low since 2011, averaging 2.6 percent over the period, about 0.6 percentage points faster than input price inflation (the hospital market basket index) (Table 3-5). This growth is much slower than experienced through most of the 2000s, when costs per case increased at twice this rate, an average of 5.6 percent per year, or 1.4 percentage points faster than underlying input price inflation (data not shown).

The lower cost growth from 2011 through 2015 was partly due to lower input price inflation facing hospitals, reflecting low economy-wide inflation and slow wage growth. Hospitals benefited from this low economy-wide wage growth, with compensation costs for hospital workers growing by less than 2 percent in each year from 2010 through 2015 (Bureau of Labor Statistics 2014). While compensation grew relatively slowly, costs of inpatient drugs and devices grew relatively fast at rates of 4.1 percent and 4.0 percent, respectively, from 2014 to 2015. On a combined basis, drugs and devices represented 18 percent of all hospital costs and 35 percent of all cost growth per Medicare discharge in 2015.

From 2012 through 2015, inpatient case mix increased substantially, rising by 1.4 percent in 2012, 2.0 percent in both 2013 and 2014, and 0.8 percent in 2015 (Table 3-5). We presume that most of this growth was due to increases in the relative complexity of the cases seen rather than to coding changes seen after implementation of the MS–DRGs. If we control for this case-mix increase, the hospital cost increase for the past three years would be substantially less than underlying input price inflation. The Commission argues that hospitals must continue to maintain this lower cost growth in the coming years for the financial health of the Medicare program and the costs of the overall health care system.

### Outlier payments mitigate the effects of extremely high-cost cases

The MS–DRG system does not always fully capture the expected costs of the most difficult cases. Because these cases are not randomly distributed and tend to be transferred to hospitals that have the most capabilities, there is a need to compensate hospitals willing to take the most difficult cases. Therefore, CMS provides hospitals with outlier payments for extremely costly cases. However, the accuracy of Medicare's IPPS outlier system can be improved, thus targeting these funds to the hospitals that most warrant them (see the text box on improving Medicare outlier payments, pp. 82–84).

## Improving Medicare outlier payments

Outlier payments, which account for about 5 percent of Medicare inpatient hospital payments, are intended to help protect hospitals from large losses due to extraordinarily high-cost cases. To receive an outlier payment, the cost of a case must exceed the sum of the hospital's applicable Medicare severity–diagnosis related group (MS–DRG) payment and a fixed loss threshold that is currently set at $23,573 in fiscal year 2017. After a hospital reports exceeding this threshold for an individual case, Medicare pays the hospital 80 percent of its costs above that threshold as an outlier payment.

A case becomes an outlier because of high relative costs. In determining costs for outlier cases, Medicare uses a simplified method to determine those costs by multiplying total covered charges for a case by an overall hospital cost-to-charge ratio. This ratio reflects total Medicare-covered inpatient costs for all hospital services divided by total Medicare-covered inpatient charges. Hospitals, however, generally do not mark up services uniformly across all lines of service (Figure 3-5). Certain service lines, such as the operating room or radiology services, generally have much higher charge markups than other services, such as routine days or special care (intensive care) days.

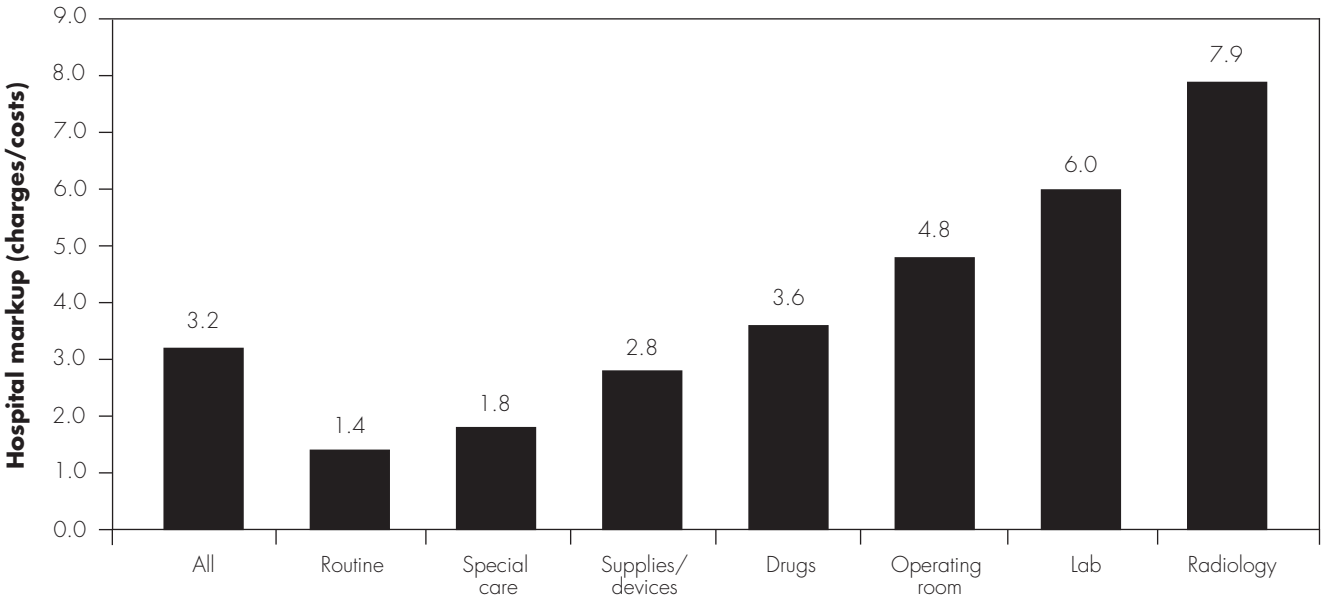
In general, outlier cases have high costs due to greater use of services over longer stays and higher service use per day. Outlier cases have longer inpatient stays, 12 days longer than the national average for the DRG. They also have higher daily costs (40 percent higher on average). The higher daily costs often reflect greater use of special care units and higher daily expenses for pharmaceuticals, supplies, lab services, and therapy. They also tend to be in higher weighted DRGs.

With wide variation in charge markups across services, a concern is how accurately the overall hospital inpatient cost-to-charge ratio (CCR) captures the true underlying cost of outlier cases and whether some

*(continued next page)*

**FIGURE 3–5**

**Markups varied widely across hospital cost centers, 2014**




Source: MedPAC analysis of 2014 Medicare claims and cost reports.

## Improving Medicare outlier payments (cont.)

hospitals use differential charge markups across departments to increase outlier payments. To examine this issue, we calculated case costs using hospital-specific departmental CCRs and compared these cost estimates with those using the hospital's total CCR for calculating costs under the current outlier policy. Our analysis finds that the overall CCR estimates costs reasonably well in the aggregate, but does not do a good job of accurately calculating case costs for outlier cases either by MS–DRG or at the hospital level.

### Accuracy at the MS–DRG level

At an MS–DRG level, the total CCR may not adequately measure outlier case costs. On average, the total CCR method tended to understate total case costs for outlier cases in MS–DRGs that have a high prevalence of outlier cases (sometimes by more than $10,000 per case) and tended to overstate costs for outlier cases in MS–DRGs that have a low incidence of outlier cases.[9] We find that, on average, for a quarter of DRGs, outlier cases' costs are understated by at least $1,700, and for 10 percent, they are understated by more than $3,500. Conversely, we find a quarter of DRGs for which costs are overstated by at least $2,500 and 10 percent for which costs are overstated by at least $5,000. Differences in the mix of services used across DRGs are likely the main factor contributing to this variation.

### Accuracy at the hospital level

We find that hospitals with the highest shares of outlier cases appear to be advantaged by the use of the total overall CCR in calculating outlier payments. Use of a total CCR produces a per case cost estimate for outlier cases that is over $3,300 higher, on average, for the top 50 hospitals with the highest shares of outlier cases compared with a department-specific methodology. This difference suggests that using a total CCR rather than more refined estimates of costs can result in overpayment for some hospitals' outlier cases and underpayment for other hospitals.

Most of the hospitals with outlier shares over 15 percent do not look like the typical inpatient prospective payment system hospital; the majority of these hospitals are small for-profit surgical specialty hospitals. Only a dozen of these hospitals could be classified as general acute care hospitals, and most of these 12 are relatively small, with fewer than one Medicare case per day; four are major teaching hospitals. The outlier cases in these surgical subspecialty hospitals do not look like the typical outlier case since the average length of stay for these cases is only 5.2 days compared with an average of 19.0 days for all outlier cases. Their higher costs tend to come from higher charge markups in the operating room, high device costs possibly resulting from selectively high markups on devices used by Medicare patients, and high per diem costs potentially due to their small size. These cost differences suggest that some outlier payments may be misdirected to pay for short-stay cases at small hospitals.

### Options for improving Medicare's outlier payments

Two refinements could be made to Medicare's outlier payment policies that would help improve the accuracy of these payments and target payments to cases that are truly higher in costs. Both of these policies would be budget-neutral and would redistribute current outlier payments to the cases that have higher costs and away from hospitals that may be manipulating the system or may be extremely inefficient.

**Use hospital-specific departmental cost-to-charge ratios to calculate case costs** Use of hospital-specific departmental CCRs to calculate case costs for determining outlier payments would substantially improve the accuracy of outlier payments at the DRG level and at the hospital level; the case costs would reflect the differences in departmental markups attached to the mix of services actually used in the case. Use of this CCR would also help address charge manipulation at a departmental level, though it would not address charge manipulation within a department. However, this policy would increase the complexity of the outlier payment system since costs would need to be calculated at the departmental level rather than from total covered charges for the case.

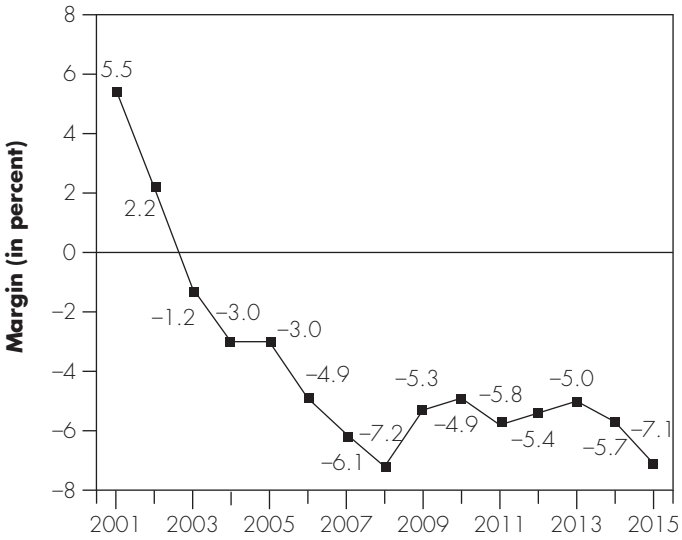
*(continued next page)*

## Improving Medicare outlier payments (cont.)

**Establish a length-of-stay threshold for outlier claims**
Many of the hospitals with a high incidence of outlier cases are small surgical specialty hospitals, with relatively short inpatient stays for their outlier cases. It is unclear why so many of these hospitals have such a high incidence of outlier cases. They may have high costs because they are inefficient. Alternatively, they may have charge structures that take advantage of the use of a total CCR for calculating outlier payments. One way to address the issue would be to require a case to meet a minimum relative length of stay differential (such as five days longer than the average for the DRG) before it becomes eligible for outlier payments. However, the length of stay requirement would not apply to patients who died (or were transferred to another acute-care hospital). This option would reduce the number of cases identified as outliers in many of the small surgical specialty hospitals and other hospitals that tend to have much shorter than average stays for their outlier cases. It would not affect the traditional long-stay outlier cases and, in fact, would result in a better distribution of outlier payments since the fixed loss threshold might be reduced. ■

**FIGURE 3–6**

**Overall Medicare margin is starting to trend downward after holding relatively steady since 2009**




Note: A margin is calculated as payments minus costs, divided by payments; margins are based on Medicare-allowable costs. Analysis excludes critical access and Maryland hospitals. Medicare inpatient margins include services covered by the acute inpatient prospective payment systems. "Overall Medicare margin" covers acute inpatient, outpatient, hospital-based skilled nursing facility (including swing beds), hospital-based home health, and inpatient psychiatric and rehabilitation services, plus graduate medical education and electronic health record incentive payments and payments for uncompensated care.

Source: MedPAC analysis of Medicare cost reports from CMS.

### Trend in the overall Medicare margin

We define Medicare margins as Medicare payments minus the allowable costs of treating Medicare patients divided by Medicare payments. In analyzing hospital margins, we compute margins with and without critical access hospitals (CAHs), which are 1,300 rural hospitals whose payments are based on their incurred costs. We also exclude hospitals in Maryland, which are excluded from the IPPS and paid under a statewide all-payer prospective payment system. The overall Medicare margin trended downward from 2001 through 2008 (Figure 3-6).[10] However, from 2008 to 2010, the overall Medicare margin went up, from –7.2 percent to –4.9 percent, largely because of increases in reported case mix—the result of documentation and coding changes hospitals made with the introduction of MS–DRGs in 2008—and lower cost growth as a result of the economy's downturn from the recession (Medicare Payment Advisory Commission 2013b). From 2009 to 2014, the overall Medicare margin held relatively steady, varying from –4.9 to –5.8 percent. From 2014 to 2015, it dropped from –5.7 percent to –7.1, its lowest level since 2008.

The Medicare margin held relatively steady from 2009 through 2014, despite the budget sequester, which reduced Medicare payments by almost 2 percent starting in 2013. Margins held relatively steady in part because CMS overestimated hospital wage inflation. Each year, the hospital update is based on a forecast of input price

**TABLE 3–6**

**Overall Medicare margins by hospital type**

| Hospital group | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|
| All hospitals (excluding CAHs) | –5.3% | –4.9% | –5.8% | –5.4% | –5.0% | –5.7% | –7.1% |
| Urban | –5.4 | –5.2 | –6.1 | –5.9 | –5.8 | –6.0 | –7.3 |
| Rural | | | | | | | |
| Excluding CAHs | –4.1 | –2.6 | –2.6 | –1.3 | 2.4 | –3.4 | –4.9 |
| Including CAHs | –2.8 | –1.7 | –1.7 | 0.2 | 2.5 | –1.7 | –3.2 |
| Nonprofit | –6.6 | –6.3 | –7.2 | –7.0 | –6.5 | –7.3 | –8.5 |
| For profit | –0.4 | –0.1 | –0.5 | 0.9 | 1.0 | 0.8 | –1.3 |
| Major teaching | –1.2 | –1.0 | –2.4 | –2.7 | –3.6 | –4.5 | –5.2 |
| Other teaching | –5.0 | –4.6 | –5.3 | –5.0 | –4.7 | –4.7 | –5.8 |
| Nonteaching | –8.5 | –8.0 | –8.5 | –7.7 | –6.4 | –7.5 | –9.6 |

Note: CAH (critical access hospital). Data are for all hospitals covered by the Medicare acute inpatient prospective payment system in 2015 and for CAHs where indicated. A margin is calculated as payments minus costs, divided by payments; margins are based on Medicare-allowable costs. "Overall Medicare margin" covers acute inpatient, outpatient, hospital-based skilled nursing facility (including swing beds), hospital-based home health, and inpatient psychiatric and rehabilitation services, plus uncompensated care, graduate medical education, and electronic health record incentive payments. The rural margins are shown with and without 1,300 CAHs, which are paid 101 percent of costs for inpatient and outpatient services. The margins without CAHs illustrate the profitability of rural inpatient prospective payment system hospitals; the rural margins with CAHs give a fuller picture of rural hospital profitability.

Source: MedPAC analysis of Medicare cost reports, Medicare Provider Analysis and Review files, and impact files from CMS.

inflation. In every year from 2012 to 2014, the forecast inflation exceeded actual input price inflation. This forecast error added over 2 percentage points to hospital payment rates. The overestimation more than offset the effects of the 2 percent sequester and allowed hospital margins to remain relatively constant.

### Medicare margins by hospital type, 2015

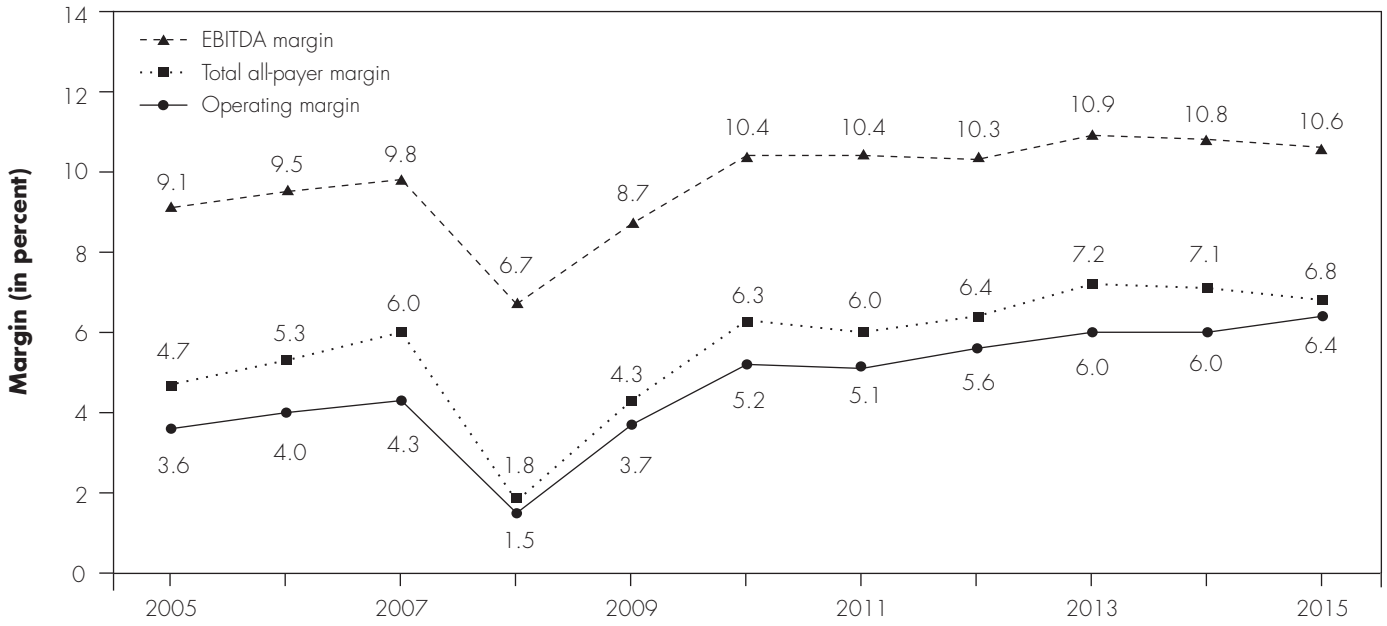
We further examined overall aggregate Medicare margins by hospital type for 2015. Rural IPPS hospitals (excluding CAHs) had a –4.9 percent overall Medicare margin, which was 2.4 percentage points higher than the –7.3 percent margin for urban hospitals (Table 3-6). Major teaching hospitals (i.e., hospitals with a high resident-to-bed ratio) had an overall Medicare margin of –5.2 percent. Major teaching hospitals have higher overall Medicare margins than the average IPPS hospital in large part because of the extra payments they receive through the IME and DSH adjustments and uncompensated care payments.

In 2015, for-profit hospitals had the highest overall Medicare margins (–1.3 percent), well above the –8.5 percent overall Medicare margin for nonprofit hospitals (Table 3-6). Most of this differential can be explained by lower costs at for-profit hospitals; in particular, they have lower outpatient costs. A detailed analysis of 2009 outpatient services indicated that for-profit hospitals' outpatient margins also benefit somewhat from a more favorable service mix and from being less likely to incur outpatient teaching costs (Medicare Payment Advisory Commission 2014b).

### Marginal profits

Another consideration in evaluating the adequacy of payments is to assess whether providers have a financial incentive to increase the number of Medicare beneficiaries they serve. In considering the financial incentive to treat more Medicare patients, the provider compares the marginal revenue it will receive (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If Medicare payments are larger than the marginal costs of treating an additional beneficiary, a provider has a financial incentive to increase its volume of Medicare patients. On the other hand, if marginal payments do not cover the marginal costs, the provider may have a disincentive to admit Medicare beneficiaries.

**FIGURE 3–7** **Hospitals' financial performance has rebounded strongly after poor performance in 2008**




Note: EBITDA (earnings before interest, taxes, depreciation, and amortization). A margin is calculated as revenues minus costs, divided by payments. Analysis excludes critical access hospitals.

Source: MedPAC analysis of Medicare hospital cost report data.

To operationalize this concept, we compare payments for Medicare services with marginal costs, which is approximated as:

Marginal profit = (payments for Medicare services – (total Medicare costs – fixed building and equipment costs)) / Medicare payments

On average, the marginal profit across hospital services lines was approximately 9 percent in 2015.[11] Because hospitals would be expected to generate about 9 percent profit on a marginal increase in Medicare volume, hospitals with excess capacity have a financial incentive to serve more Medicare beneficiaries.

### Total (all-payer) profitability remains robust

Hospitals' total (all-payer) profit margins are an indicator of how much financial pressure hospitals are under to control costs. In 2015, total margins for hospitals were 6.8 percent, slightly lower than the preceding 2 years (Figure 3-7), but still at their highest levels since the beginning of the prospective payment system more than 30 years ago. All-payer margins remain strong because the growth of private-payer rates continues to rise faster than costs (Bureau of Labor Statistics 2013, Health Care Cost Institute 2015, Health Care Cost Institute 2014, Health Care Cost Institute 2012). Other measures of all-payer profitability are also strong. Cash flow—as measured by earnings before interest, taxes, depreciation, and amortization (EBITDA)—has remained steady and strong for the past six years, between 10 percent and 11 percent. In 2015, the all-payer operating margin also increased to 6.4 percent, its strongest level in recent years. This increase is an indication that hospitals continue to grow their private sector revenues faster than costs. While Medicare represents about one-third of all-payer revenues, commercially insured patients represent slightly more than one-third of patient revenues and generate almost all of the operating profits for a typical hospital.

In 2015, total margins varied across hospital types. For-profit hospitals had a relatively high total (all-payer) margin, reaching a record 11.2 percent, more than 4 percentage points higher than in 2007. In addition, the 21 frontier IPPS hospitals (those in low population-density counties) had an average total margin of 12.4 percent, the highest of any group. This figure suggests that isolated hospitals can do well in frontier areas when they have sufficient volumes of insured individuals. The total margin for critical access hospitals was 4.3 percent, their highest level since 2007 and the recession. In contrast, rural hospitals adjacent to urban areas had low total margins (0.3 percent in aggregate).

### Fiscal pressure constrains costs

In aggregate, all-payer profit margins are at record highs. However, hospitals' market power, charges, and prices negotiated with insurers vary widely among hospitals. An analysis of Truven Health MarketScan® data shows that negotiated rates commercial insurers paid to hospitals varied widely (Medicare Payment Advisory Commission 2011a). For example, in 2013, 10 percent of hospital commercial claims were paid less than $236 for a head computed tomography scan (Current Procedural Terminology code 70450), but another 10 percent of hospital commercial claims were paid over $1,527 for the same service (Medicare Payment Advisory Commission 2016b). Given the variability in market power, charges, and the discounts hospitals negotiate with private insurers, we expect to see a wide variation both in hospital profits and in pressure to constrain costs.

Hospitals with strong profits on non-Medicare services and investments are under relatively little pressure to constrain their costs. Other hospitals, with losses on non-Medicare services, face overall losses unless they constrain costs and generate profits on Medicare patients. To determine the effect of financial pressure on costs, we grouped hospitals into three levels of financial pressure from private payers: high, medium, and low, based on their median non-Medicare profit margins and other factors from 2012 to 2014. For these years, the hospitals under high pressure had 2015 non-Medicare profits of less than 1 percent, while the low-pressure hospitals had non-Medicare margins of more than 5 percent. We found that hospitals under high pressure during the five-year period ended up with lower standardized Medicare costs per discharge in 2015 than hospitals under low levels of financial pressure. For more details on our analytic methods, see our earlier analysis of payment adequacy (Medicare Payment Advisory Commission 2011b).

The following are key findings from our analysis of financial pressure on hospitals:

- ***High pressure = low cost:*** The 25 percent of hospitals under the most financial pressure had median standardized Medicare costs per case that were 8 percent lower than the national median for all 2,793 IPPS hospitals with available data. Because of their lower Medicare costs, hospitals under pressure generated a median overall Medicare profit margin of about 4 percent, which is more than 9 percentage points above the national median.
- ***Low pressure = high cost:*** The 61 percent of hospitals that were under a low level of financial pressure had median standardized Medicare costs per case that were 2 percent above the national median. Because of higher costs, they generated a median Medicare profit margin of nearly –9 percent, which is 4 percentage points below the national median.

### Relatively efficient hospitals

The Commission follows two principles when selecting a set of efficient providers. First, the providers must do relatively well on cost and quality metrics. Second, the performance has to be consistent, meaning that the provider cannot have poor performance on any metric over the past three years. In the hospital sector, the variables we use to identify relatively efficient hospitals are hospital-level mortality rates (3M® risk-adjusted all-condition mortality), readmission rates (3M potentially preventable readmissions), and standardized inpatient Medicare costs per case. Our assessment of efficiency is not in absolute terms but, rather, relative to other IPPS hospitals.

**Categorizing hospitals as relatively efficient** We assigned hospitals to the relatively efficient group or the control group according to each hospital's performance relative to the national median on a set of risk-adjusted cost and quality metrics for the period 2012 to 2014.[12] We then examined the performance of the two hospital groups in fiscal year 2015.

Hospitals were identified as relatively efficient if they met four criteria in each year from 2012 to 2014:

- Risk-adjusted mortality rates were among the best two-thirds of all hospitals.

**TABLE 3–7**

**Performance of relatively efficient hospitals**

| Relative performance measure | Type of hospital: Relatively efficient during 2012–2014 | Type of hospital: Other hospitals |
|---|---|---|
| Number of hospitals | 285 | 1,712 |
| Share of hospitals | 14% | 86% |
| **Historical performance, 2012–2014 (percent of national median)** | | |
| Risk-adjusted: | | |
| Composite 30-day mortality (3M™) | 91% | 101% |
| Readmission rates (3M) | 94 | 102 |
| Standardized Medicare costs per discharge | 90 | 103 |
| **Performance metrics, 2015 (percent of national median)** | | |
| Risk-adjusted: | | |
| Composite 30-day mortality (3M) | 94% | 101% |
| Composite 30-day readmission (3M) | 94 | 101 |
| Standardized Medicare costs per discharge | 91 | 102 |
| **Median:** | | |
| Overall Medicare margin, 2015 | 0% | –6% |
| Non-Medicare margin, 2015 | 9 | 9 |
| Total (all-payer) margin, 2015 | 7 | 5 |

Note: Relative measures are the median for the group as a share of the median of all hospitals. Per case costs are standardized for area wage rates, case-mix severity, prevalence of outlier and transfer cases, interest expense, low-income shares, and teaching intensity. Composite mortality was computed using the 3M methodology to compute risk-adjusted mortality for all conditions. We removed hospitals with low Medicaid patient loads (the bottom 10 percent of hospitals) and hospitals in markets with high service use (top 10 percent of hospitals) because of concerns that socioeconomic conditions and aggressive treatment patterns can influence unit costs and risk-adjusted quality metrics.

Source: MedPAC analysis of 2012 to 2015 Medicare cost report and claims-based quality data.

- Risk-adjusted readmission rates were among the best two-thirds of all hospitals.
- Standardized costs per discharge were among the best two-thirds of all hospitals.
- Risk-adjusted mortality or standardized costs per discharge were among the best one-third of all hospitals.

The objective was to identify hospitals that consistently performed at an above-average level on at least one measure (cost or quality) and that always performed reasonably well on all measures. The rationale for this methodology and the details of computing the various measures are discussed in our March 2011 report (Medicare Payment Advisory Commission 2011b). As a secondary check on hospital quality, we also require that at least 60 percent of the hospital's patients rated the hospital a 9 or 10 on a 10-point scale.[13]

**Examining performance of relatively efficient and other hospitals from 2012 to 2014** Of the 2,000 hospitals that met our screening criteria during the 2012 to 2014 period, 285 (14 percent) were found to be relatively efficient. We examined the performance of relatively efficient hospitals on three measures by reporting the group's median performance divided by the median for the set of hospitals in our analysis (Table 3-7). The median efficient hospital's relative risk-adjusted 30-day mortality rate for the 3-year assessment period was 91 percent of the national median, meaning that the 30-day mortality rate for the efficient group was 10 percent below (that is, better

than) the national median. The median readmission rate for the efficient group was 8 percent below the national median. The standardized Medicare cost per discharge for the efficient group was 13 percent lower than the national median. These relatively efficient hospitals were spread across the country and had a diverse set of characteristics, but they were more likely to be larger nonprofit hospitals because those hospitals tend to have better performance on the quality metrics we analyzed. For a more complete description of the methodology and other characteristics of relatively efficient providers, see online Appendix 3-B from our 2016 report to the Congress, available at http://www.medpac.gov.

**Historically strong performers had lower mortality and costs in 2015** Lower costs allowed the relatively efficient hospitals to generate higher overall Medicare margins. The median hospital in the efficient group had an overall Medicare margin of 0 percent, while the median hospital in the comparison group had an overall Medicare margin of –6 percent (Table 3-7). The marginal profits (which ignore the roughly 20 percent of costs that are fixed) were about 15 percent for the relatively efficient provider. As shown in past years, it was possible to deliver relatively good quality care that patients value at a cost roughly equal to Medicare payment rates in 2015.

### Summary of hospitals' financial performance

The financial measures presented for 2015 present a mixed picture. All-payer margins were 6.8 percent, but Medicare margins were at a relatively low –7.1 in aggregate and 0 percent for the relatively efficient providers. While Medicare payments do not cover the full costs (fixed and variable) of the average hospital, they are approximately 9 percent higher than the marginal cost of serving additional Medicare patients. Therefore, hospitals with excess capacity have an incentive to serve more Medicare patients.

## How would current law changes for 2016, 2017, and 2018 affect hospitals' Medicare payments and beneficiaries' access?

We project Medicare margins for 2017 based on margins in 2015 and policy changes that take place in 2016 and 2017. The 2016 update for inpatient and outpatient payments was 1.10 percent. In 2017, the update is 1.65 percent for both inpatient and outpatient services. On net, the average update (across inpatient and outpatient services) is about 2.75 percent over the two-year period. In addition, for fiscal year 2017, CMS implemented an adjustment increasing payments by a total of 0.8 percent to amend a prior payment reduction related to its two-midnight policy. However, as discussed in our March 2016 report to the Congress, several policy changes in current law are expected to partially offset that increase in payment rates from 2015 to 2017.

First, between 2016 and 2017, Medicare uncompensated care payments will fall from $7.6 billion to $6.0 billion because of a sizable drop in the number of uninsured individuals under the age of 65, which the Congressional Budget Office (CBO) estimates will decline from roughly 14 percent to 10 percent. CBO projects rates of uninsurance to remain flat from 2017 to 2018 (Congressional Budget Office 2016). Therefore, we do not expect to see a significant additional reduction in uncompensated care payments in 2018.

Second, payments from Medicare's EHR Incentive Program will sunset in 2016, declining by almost $1.5 billion from 2015 to 2017, which is about 1 percent of overall Medicare payments.

Finally, mandated recovery of past overpayments due to documentation and coding improvement (DCI) changes following implementation of MS–DRGs resulted in a 0.8 percent adjustment to inpatient rates in 2016 and a 1.5 percent adjustment in 2017. These adjustments are temporary, and partially offsetting adjustments will increase rates by 0.5 percent from 2018 to 2023 until 3 percent (0.5 percent × 6) of the DCI adjustment has been removed.

We expect cost growth per discharge to remain around 2.5 percent per year in 2016 and 2017, similar to this rate for the past several years. We expect case mix to increase by slightly less than 1 percent per year. On net, payment updates and case-mix increases in 2016 and 2017 will offset expected cost growth. However, the DCI adjustment will reduce payments by about 3 percent between 2015 and 2017. With this decline in payments and continued modest cost growth, we expect the overall Medicare margin to decline from –7 percent in 2015 to approximately –10 percent in 2017. We also expect the median overall Medicare margin for relatively efficient hospitals to be slightly negative in 2016.

### Current law payment changes in 2018

When this chapter was drafted in the fall of 2016, the hospital market basket was projected to be 3.0 percent. The hospital update was projected to be 1.85 percent

in fiscal year 2018, the result of a 3.0 percent projected market basket increase, a 0.4 percent reduction for productivity, and a 0.75 percent reduction mandated by the Patient Protection and Affordable Care Act of 2010. Several policies that exerted significant downward pressure on hospital payments in recent years will sunset or moderate in fiscal year 2018. The congressionally mandated DCI adjustments sunset in fiscal year 2017, so we do not anticipate payment reductions related to this issue in 2018. As this policy sunsets and the temporary portion of this adjustment expires, inpatient payments will increase in 2018 by 0.5 percent. We do not anticipate further reductions in payments in 2018 stemming from Medicare's EHR Incentive Program because the program's final payments were made in fiscal year 2016. We do not expect further declines in uncompensated care payments coming from the Medicare trust fund in 2018 because CBO projects no change in the level of the uninsured from 2017 to 2018. For fiscal year 2018, aggregate penalties and rewards from the various quality incentive programs should hold relatively steady. The net result would be an expected increase in 2018 payment rates of about 2 percent under current law. The level of Medicare margins for 2018 may depend largely on hospitals' ability to control cost growth.

### Hospitals will continue to have a financial incentive to see Medicare patients

Despite Medicare margins of –7.1 percent in recent years, hospitals' all-payer margins (which include Medicare) in 2015 remained high at 6.8 percent. The all-payer margins are at historical highs due to rate increases of over 4 percent from private insurers that are well above cost growth, resulting in high margins for patients with commercial insurance (Health Care Cost Institute 2016, Health Care Cost Institute 2014, Medicare Payment Advisory Commission 2014a). While commercial rates vary widely across hospitals and insurers, on average, commercial rates are about 50 percent higher than hospital costs and are often far more than 50 percent above Medicare rates (Cooper et al. 2015, Health Care Cost Institute 2014, Medicare Payment Advisory Commission 2014a, Selden et al. 2015). For example, Selden and colleagues found that average private rates were 75 percent higher than Medicare rates in 2012; Aetna and Blue Cross of California paid hospitals rates in 2014 that were often 200 percent of Medicare's rate for inpatient care and 300 percent of Medicare's rate for outpatient services in California (California Department of Insurance 2014a, California Department of Insurance 2014b).

Despite this growing gap, we do not expect to see any near-term material reductions in Medicare beneficiaries' access to care for several reasons:

- Most hospitals have excess inpatient capacity.
- Medicare payment rates, while less than the total cost of care, are still sufficient to generate a marginal profit of about 9 percent on each additional Medicare patient. Therefore, it is still profitable for the average hospital to fill its empty beds with Medicare patients.
- Nonprofit hospitals have an incentive to take Medicare patients to maintain their nonprofit status.

Because hospitals have a financial incentive and the capacity to serve Medicare patients, we do not believe beneficiaries' access to care is at risk in the near term. However, in the long run, if there is a continual disparity between Medicare rates and commercial rates, the difference in the incentive to see Medicare patients and commercially insured patients will have to be addressed. The gap cannot be closed by increasing Medicare rates 4 percent or 5 percent every year; the Medicare trust fund would not be able to absorb those price increases. Therefore, commercial payment rate growth will have to decline, or eventually the difference between commercial rates and Medicare rates will grow so large that some hospitals will have an incentive to focus primarily on patients with commercial insurance. Thus, in the long term, Medicare beneficiaries' access to care may in part depend on commercial payers restraining rates paid to hospitals.

## How should Medicare payment rates change in 2018?

The Commission's recommendation for updating Medicare hospital payments for fiscal year 2018 is based on several indicators of beneficiary access to hospital care, hospital quality, and payment adequacy. Specifically, the Commission recommends:

**RECOMMENDATION 3-2**

**The Congress should update the inpatient and outpatient payments by the amounts specified in current law.**

This recommendation will increase providers' base payment rates by the amount stipulated in current law. In

December 2016, the hospital update for fiscal year 2018 was projected to be 1.85 percent, but this figure is likely to change before its implementation in October 2017 because of typical fluctuations in the hospital market basket index.

## RATIONALE 3-2

An update equal to current law will be sufficient to maintain beneficiaries' access to care. While Medicare margins are negative on average, most providers have excess capacity and positive marginal profits, giving them an incentive to see more Medicare patients. In addition, providers' access to capital remains strong. Therefore, the update in current law is appropriate. It balances the need to have payments high enough to maintain access to care and the need to maintain fiscal pressure on hospitals to control their costs.

## IMPLICATIONS 3-2

### Spending

- The recommendation will not increase spending beyond requirements contained in current law and is therefore budget neutral.

### Beneficiaries and providers

- The recommendation has no implications for beneficiaries or hospitals. ■

# Endnotes

1 Payments include roughly $7 billion of inpatient and outpatient payments to critical access hospitals (CAHs), which are paid 1 percent over their costs of inpatient, outpatient, and post-acute services in swing beds. CAHs do not receive disproportionate share payments or uncompensated care payments.

2 Twenty-two percent of hospitals avoided a penalty for one of two reasons. Seven percent were exempted because they did not have the minimum number of cases (25) over 3 years in any of the 6 conditions covered by the program. The remaining 15 percent of hospitals avoided penalties because they had better than average performance on all the conditions for which they had the minimum 25 cases.

3 The program began in fiscal year 2013 with 1 percent of base payments at risk, phasing in to a maximum of 2 percent starting in fiscal year 2017.

4 The PSI 90 measure is a composite of eight patient safety measures: PSI 03 (pressure ulcers), PSI 06 (iatrogenic pneumothorax), PSI 07 (central venous catheter-related bloodstream infections), PSI 08 (postoperative hip fracture), PSI 12 (perioperative pulmonary embolism or deep vein thrombosis), PSI 13 (postoperative sepsis), PSI 14 (postoperative wound dehiscence), and PSI 15 (accidental puncture or laceration).

5 In 2018, two of the process of care measures will be dropped from the VBP measure, and the one remaining process of care measure, PC–01 *elective delivery before 39 weeks*, will be moved into the patient safety domain, whose weight will increase from 20 percent to 25 percent.

6 The six largest services in order of Medicare patient revenues are inpatient acute care (60 percent), outpatient care (28 percent), inpatient rehabilitation (2.2 percent), inpatient psychiatric care (1.5 percent), home health care (0.9 percent), and skilled nursing services (0.4 percent).

7 In 2014, many lab services had been packaged into outpatient service rates, which shifted revenues and costs from the lab fee schedule to the outpatient payment system. CMS estimates that this change added approximately $2.4 billion in covered services to the outpatient payment system, services that were previously paid on a separate fee schedule (Centers for Medicare & Medicaid Services 2015). This change makes it difficult for us to assess underlying outpatient cost growth.

8 The payments reported here include EHR payments to IPPS hospitals for FFS patients; they do not include payments for managed care patients or payments received by critical access hospitals under the program.

9 It is important to emphasize here, however, that this relationship was not uniform and that, for some DRGs within each of these groups, the reverse was true.

10 The services included in the overall Medicare margin are Medicare's acute inpatient, outpatient, graduate medical education, SNF (including swing beds), hospital-based home health care, and inpatient psychiatric and rehabilitation services. Also included in the overall margin are special payments associated with the Medicare Electronic Health Records Incentive Program, temporary extra payments to hospitals located in low-spending counties, and uncompensated care payments (as of fiscal year 2015).

11 Using a cost-accounting approach, we find that approximately 20 percent of hospital costs are fixed, resulting in a marginal profit of about 9 percent. This estimate is conservative because it ignores any potential managerial or clinical labor costs that are fixed. In the 2015 report, we also took an econometric approach to estimating hospitals' marginal costs and found that fixed costs were about 20 percent of overall costs. This amount also matches the 20 percent figure used in the Medicare outlier policy. For a discussion of our econometric results and the literature on hospital marginal costs, see online Appendix 3-A to our March 2015 report, available at http://www.medpac.gov (Medicare Payment Advisory Commission 2015b).

12 We use medians rather than means to limit the influence of outliers on our set of efficient providers.

13 While H–CAHPS surveys—and similar patient satisfaction surveys—have the limitation of being subjective, we add it as another way to screen out low-value providers because it has the advantage of not being dependent on coding. It is possible that overly aggressive coding by some providers could artificially lower their risk-adjusted cost and risk-adjusted mortality metrics.

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CHAPTER 4

# Physician and other health professional services

## RECOMMENDATION

**4** The Congress should increase payment rates for physician and other health professional services by the amount specified in current law for calendar year 2018.

**COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0**

CHAPTER 4

# Physician and other health professional services

## Chapter summary

Physicians and other health professionals deliver a wide range of services—including office visits, surgical procedures, and diagnostic and therapeutic services—in a variety of settings. In 2015, Medicare paid $70.3 billion for physician and other health professional services, accounting for 15 percent of fee-for-service (FFS) Medicare benefit spending. About 919,000 clinicians billed Medicare—over 581,000 physicians and nearly 338,000 nurse practitioners, physician assistants, therapists, chiropractors, and other practitioners.

Medicare pays for the services of physicians and other health professionals using a fee schedule. Under current law, Medicare's conversion factor for the fee schedule will be updated by 0.5 percent in 2018.

### Assessment of payment adequacy

We use the following factors to assess payment adequacy for physicians and other health professionals: beneficiary access to care, volume growth, quality, and Medicare payments and providers' costs.

***Beneficiaries' access to care*—**Overall, beneficiary access to physician and other health professional services is comparable with prior years, although our access survey shows a slight decline in the share of beneficiaries reporting that they never had to wait longer than wanted for regular or routine care and

## In this chapter

- Are Medicare fee schedule payments adequate in 2017?
- How should Medicare payments change in 2018?

illness or injury care as compared with last year. Most beneficiaries continue to report that they are able to find a new doctor without a problem. A small number of beneficiaries report more difficulty, with a higher share reporting problems obtaining a new primary care doctor than reporting problems obtaining a specialist.

- ***Supply of providers*—**The number of physicians per beneficiary has remained relatively constant, the number of advanced practice registered nurses and physician assistants per beneficiary has grown slightly, and the share of providers enrolled in Medicare's participating provider program remains high.
- ***Volume of services*—**In 2015, across all services, volume per beneficiary grew by 1.6 percent. Among broad categories of service, growth rates were 1.7 percent for evaluation and management, 0.5 percent for imaging services, 1.4 percent for major procedures, 1.9 percent for other procedures, and 1.6 percent for tests.

***Quality of care*—**CMS assesses the quality of Medicare-billing physicians and other health professionals based on clinician-reported individual quality measures. The Commission has raised the following concerns with Medicare's current clinician quality programs: The reporting requirements are confusing and burdensome to providers, the process does not allow for comparability across providers, many measures are not linked to patient outcomes, and few measures assess low-value care. We report three sets of population-based measures—avoidable hospitalizations and emergency department visits for ambulatory care–sensitive conditions and rates of low-value care in Medicare.

***Medicare payments and providers' costs*—**CMS currently projects that the increase in 2018 in the Medicare Economic Index (which measures input prices) will be 2.4 percent. In 2015, Medicare payment rates for physician and other health professional services were 78 percent of commercial rates for preferred provider organizations, the same as in 2014. In addition, average annual physician compensation increased by 4 percent in 2015, according to data from the Medical Group Management Association. Average compensation in 2015 was much lower for primary care physicians than for physicians in specialty groups such as radiology and nonsurgical, procedural specialties, continuing to raise concerns about fee schedule mispricing and its impact on primary care.

The evidence suggests that payments for physicians and other health professionals are adequate. Therefore, the Commission recommends an update for 2018 consistent with current law. ■

## Background

Physicians and other health professionals billing under Medicare's Part B fee schedule deliver a wide range of services—office visits, surgical procedures, and diagnostic and therapeutic services—in a variety of settings.

In 2015, the Medicare program paid $70.3 billion for physician and other health professional services, or 15 percent of benefit spending in Medicare's traditional fee-for-service (FFS) program. In 2015, about 919,000 clinicians billed Medicare through the fee schedule—581,607 physicians and 337,723 nurse practitioners, physician assistants, therapists, chiropractors, and other practitioners.

Medicare uses a fee schedule to pay for physician and other health professional services based on a list of over 7,000 services and their payment rates. In determining payment rates for each service, CMS considers the amount of work required to provide a service, expenses related to maintaining a practice, and professional liability insurance costs. These three factors are adjusted for variation in the input prices in different markets, and the sum is multiplied by the fee schedule's conversion factor (average payment amount) to produce a total payment amount.[1] The conversion factor was $35.80 in 2016 and is $35.89 in 2017.[2]

The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) established a new set of updates for clinicians billing under the Medicare fee schedule and repealed the prior framework that set the conversion factor—the sustainable growth rate (SGR) formula. The SGR was established to limit total fee schedule spending by restraining annual updates when spending exceeded certain parameters. MACRA established two paths for clinicians: a payment path for clinicians who participate in advanced alternative payment models (A–APMs) and a payment path for other clinicians (Table 4-1). In 2018, the statutory update for all clinicians is 0.5 percent. The update could be less than 0.5 percent if CMS does not meet its target for adjusting the prices of misvalued services; the target will be equal to 0.5 percent of fee schedule spending in 2018.

CMS issued a final rule in November 2016 implementing MACRA (Centers for Medicare & Medicaid Services 2016a). By statute, the Medicare program will make

**TABLE 4–1**

**Statutory payment updates and incentive payments for physicians and other health professionals**

| | 2015 | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | January–June | July–December | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 and later |
| **A–APM clinicians** | | | | | | | | | | | | | |
| Update | 0% | 0.5% | 0.5% | 0.5% | 0.5% | 0.5% | 0% | 0% | 0% | 0% | 0% | 0% | 0.75% |
| APM bonus | | | | | | 5% | 5% | 5% | 5% | 5% | 5% | | |
| **Other clinicians** | | | | | | | | | | | | | |
| Update | 0% | 0.5% | 0.5% | 0.5% | 0.5% | 0.5% | 0% | 0% | 0% | 0% | 0% | 0% | 0.25% |
| Potential MIPS adjustments | | | | | | (–4% to +4%) | (–5% to +5%) | (–7% to +7%) | (–9% to +9%) | (–9% to +9%) | (–9% to +9%) | (–9% to +9%) | (–9% to +9%) |

Note: A–APM (advanced alternative payment model), MIPS (Merit-based Incentive Payment System). Clinicians who are subject to the MIPS can receive upward or downward adjustments of up to 4 percent in 2019, 5 percent in 2020, 7 percent in 2021, and 9 percent in 2022 and later. The maximum upward adjustment may exceed these limits or be less than these amounts due to scaling factors and an additional increase for exceptional performance. The basic MIPS adjustments are budget neutral, and there is an additional $500 million per year from 2019 to 2024 for exceptional performance.

Source: Medicare Access and CHIP Reauthorization Act of 2015.

**TABLE 4–2**

**Satisfaction with the overall quality of health care received in all settings in the past 12 months, 2016**

| | Medicare (ages 65 and older) | Private insurance (ages 50–64) |
|---|---|---|
| Very satisfied | 66% | 55% |
| Somewhat satisfied | 20 | 25 |
| Somewhat dissatisfied | 4 | 5 |
| Very dissatisfied | 2 | 2 |

Note: Table excludes the following responses: "Did not receive health care in past 12 months," "Don't know," and "Refused." It does not include Medicare beneficiaries under the age of 65.

Source: MedPAC-sponsored telephone survey conducted in 2016.

incentive payments to clinicians that participate in A–APMs for each year from 2019 to 2024. A–APMs are a subset of all the payment models run by CMS meeting certain criteria. CMS finalized policies that lower the qualifying standards for A–APMs and increase the mechanisms for clinicians to qualify for the A–APM incentive payment. CMS created multiple nominal risk standards; modified existing A–APMs and created new A–APMs; permits alternative calculations for clinicians to qualify in A–APMs; and assesses at both the entity and the individual-clinician level whether clinicians meet the threshold for A–APM participation.

Clinicians that do not receive the A–APM incentive payment will be subject to the Merit-based Incentive Payment System (MIPS). Under the MIPS, clinicians must report information to Medicare in three areas: quality, clinical practice improvement activities, and advancing care information (formerly "meaningful use of electronic health records"). The fourth MIPS component is cost, and clinicians will be scored on this component based on claims (so there is no need for clinician reporting). Clinicians will be scored in each of the four areas and will receive payment adjustments based on their composite performance.

The first year of A–APM eligibility and MIPS reporting is 2017, and those scores will be used for A–APM incentive payments and MIPS payment adjustments in 2019. There are exceptions to the MIPS reporting requirements for participants in certain types of APMs. In addition, CMS finalized that, for the first year of MIPS reporting (2017), clinicians will be held harmless (or receive a small positive adjustment) if they report one quality measure, report one clinical practice improvement activity, or report the base information in the advancing care information category. CMS estimates that 90 percent of clinicians will be above the performance threshold, so the resulting payment increases under MIPS in the first year will likely be very small (Centers for Medicare & Medicaid Services 2016a). In other words, even clinicians who perform very well under MIPS in the first year are unlikely to receive a high reward.

## Are Medicare fee schedule payments adequate in 2017?

We assess payment adequacy by reviewing beneficiary access to care provided by physicians and other health professionals, the supply of physicians and other health professionals, volume growth, quality of care, and Medicare payments and providers' costs. Overall, most indicators show no significant change from prior years.

### Beneficiaries' access to care

We use a number of measures to assess beneficiary access to timely, appropriate care, including direct reporting from beneficiaries (through, for example, our own beneficiary telephone survey); focus groups with beneficiaries; and health facility site visits conducted yearly. Supplementing these primary sources, we also review other patient access surveys and clinician surveys.

Each year, the Commission sponsors a telephone survey of 4,000 Medicare beneficiaries ages 65 and over and 4,000 privately insured individuals ages 50 to 64. The goal in surveying these two populations is to assess whether access concerns reported by Medicare beneficiaries are unique to the Medicare population or are part of trends in the broader health care delivery system. This year's survey was fielded in the summer and fall of 2016.

The Commission also conducts focus groups in markets around the country to provide a qualitative description of beneficiary experiences with the Medicare program. This year, we conducted 12 focus groups of Medicare beneficiaries in 3 markets (Chicago, Philadelphia, and

**TABLE 4–3**

**Selected measures of access and patient experience, 2014**

| | Age 65 and over with Medicare | Adults under age 65, any private insurance |
|---|---|---|
| Always reporting they got an appointment as soon as wanted for… | | |
| Regular or routine care | 64% | 57% |
| Illness or injury | 74 | 65 |
| Reporting that their health providers always… | | |
| Listened carefully to them | 70 | 66 |
| Explained things clearly | 68 | 68 |
| Showed respect for what they had to say | 73 | 71 |
| Spent enough time with them | 62 | 57 |
| Percent giving a 9 or 10 rating (out of 10) for health care received | 65 | 54 |

Note: Rows 2 and 3 reflect those making an appointment; rows 5–8 reflect those who reported going to a doctor's office or clinic in the last 12 months.

Source: Medical Expenditure Panel Survey.

Denver), with roughly half of the beneficiaries dually entitled to Medicare and Medicaid. We also conduct site visits and interviews with providers, and the focus this year was on behavioral health integration.

Overall, findings from our survey and focus groups are consistent with one another and with external sources. Medicare beneficiaries have generally adequate access to clinician services, and their reported access is largely comparable with (or in some cases, better than) access for privately insured individuals.

The survey results that we report for 2016 showed a decrease in beneficiaries' ability to see a doctor as soon as wanted for regular or routine care and illness or injury care among both Medicare beneficiaries and privately insured individuals. This finding could represent either a real change in access or normal variation in year-to-year results. We reviewed other surveys that compare access between Medicare beneficiaries and individuals with private insurance. In general, other surveys did not appear to show a decline in access, and Medicare beneficiaries generally were reported to have comparable access with those who have private insurance.

Two caveats should be noted. First, our ability to analyze contemporaneous sources of data is limited due to the lag time that occurs in survey processing. Currently, only the Commission's survey has data on 2016 access. Second, a data source that we have relied on in the past is not available: CMS will not release the Medicare Current Beneficiary Survey (MCBS) for 2014 while the survey is redesigned. In prior reports, the MCBS has provided beneficiary wait times and detail on access for Medicare beneficiaries with varying characteristics.

### Medicare beneficiaries' overall satisfaction with care is similar to satisfaction among privately insured patients

From our telephone survey, a slightly higher share of Medicare beneficiaries reported that they were very or somewhat satisfied with their care (86 percent) compared with those who have private insurance (80 percent) (Table 4-2).

These overall satisfaction rates are similar to those in other surveys. The Medical Expenditure Panel Survey (MEPS) for 2014 found that patient experience and access for individuals ages 65 and over with Medicare was slightly better than for those under age 65 with private insurance—reporting that they were able to get appointments as soon as needed and felt that their providers were respectful, explained clearly, and listened carefully (Table 4-3).

**TABLE 4–4**

## Most aged Medicare beneficiaries and older privately insured individuals have good access to physician care, 2012–2016

| Survey question | Medicare (ages 65 and older) 2012 | 2013 | 2014 | 2015 | 2016 | Private insurance (ages 50–64) 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Unwanted delay in getting an appointment:** Among those who needed an appointment in the past 12 months, "How often did you have to wait longer than you wanted to get a doctor's appointment?" | | | | | | | | | | |
| **For routine care** | | | | | | | | | | |
| Never | 77%[b] | 73%[b] | 72%[ab] | 72%[ab] | 68% | 72%[b] | 69% | 69%[a] | 69%[a] | 67% |
| Sometimes | 17[b] | 20[b] | 20[ab] | 19[ab] | 22 | 21[b] | 23 | 23[a] | 23[a] | 23 |
| Usually | 3[b] | 3[b] | 3 | 4 | 4 | 3[b] | 4 | 4 | 4 | 5 |
| Always | 2[b] | 3 | 3 | 3 | 3 | 3 | 3 | 3[b] | 3 | 4 |
| Don't know/Refused | 1 | 1 | 2 | 2 | 2 | * | * | 1 | 1 | 1 |
| **For illness or injury** | | | | | | | | | | |
| Never | 84[b] | 82[b] | 83[ab] | 82[ab] | 79[a] | 80[b] | 77[b] | 79[ab] | 77[ab] | 75[a] |
| Sometimes | 12[b] | 14[b] | 12[ab] | 13[ab] | 16[a] | 16[b] | 17 | 16[ab] | 17[a] | 19[a] |
| Usually | 2 | 2 | 2 | 3[b] | 2[a] | 2[b] | 3 | 2[b] | 3 | 3[a] |
| Always | 1 | 1 | 1[a] | 2 | 2[a] | 2 | 2[b] | 2[a] | 2 | 3[a] |
| Don't know/Refused | 1 | 1 | 2 | 1 | 2 | * | 1 | 1 | 1 | 1 |
| **Not accessing a doctor for medical problems:** "During the past 12 months, did you have any health problem or condition about which you think you should have seen a doctor or other medical person, but did not?" | | | | | | | | | | |
| Share answering "Yes" | 8[b] | 8[b] | 10 | 11 | 11[a] | 11 | 11 | 11 | 12 | 12[a] |
| **Looking for a new doctor:** "In the past 12 months, have you tried to get a new...?" (Share answering "Yes") | | | | | | | | | | |
| Primary care doctor | 7 | 7 | 8 | 7[a] | 8[a] | 7[b] | 8[b] | 8[b] | 9[a] | 10[a] |
| Specialist | 13[b] | 14[b] | 17 | 16 | 18 | 18 | 16[b] | 17 | 18 | 18 |
| **Getting a new physician:** Among those who tried to get an appointment with a new primary care physician or a specialist in the past 12 months, "How much of a problem was it finding a primary care doctor/specialist who would treat you? Was it..." | | | | | | | | | | |
| **Primary care physician** | | | | | | | | | | |
| No problem | 72 | 70 | 67 | 67 | 64 | 75[b] | 67 | 63 | 63 | 63 |
| *Share of total insurance group* | *4.7* | *5.2* | *5.5* | *4.7* | *5.1* | *5.0* | *5.2* | *4.9[b]* | *5.7* | *6.1* |
| Small problem | 14 | 11 | 16 | 18 | 15 | 9[b] | 15 | 16 | 18 | 16 |
| *Share of total insurance group* | *0.9* | *0.8* | *1.3* | *1.2* | *1.2* | *0.6[b]* | *1.2* | *1.3* | *1.7* | *1.5* |
| Big problem | 14 | 17 | 15 | 14 | 20 | 15 | 18 | 19 | 17 | 20 |
| *Share of total insurance group* | *0.9[b]* | *1.3* | *1.2* | *1.0[b]* | *1.6* | *1.0[b]* | *1.4* | *1.5* | *1.5* | *1.9* |
| **Specialist** | | | | | | | | | | |
| No problem | 87[b] | 86 | 85 | 87[ab] | 82 | 86[b] | 87[b] | 85[b] | 82[a] | 79 |
| *Share of total insurance group* | *11.7[b]* | *12.4[b]* | *14.4* | *14.2* | *14.7* | *15.6* | *13.9* | *14.5* | *14.8* | *14.4* |
| Small problem | 6[b] | 8 | 7 | 7 | 10 | 7 | 6 | 9 | 8 | 9 |
| *Share of total insurance group* | *0.7[b]* | *1.2* | *1.2* | *1.1[b]* | *1.8* | *1.2* | *0.9[b]* | *1.4* | *1.5* | *1.6* |
| Big problem | 7 | 5 | 7 | 6 | 8[a] | 7[b] | 7[b] | 6[b] | 9 | 11[a] |
| *Share of total insurance group* | *0.9* | *0.7[b]* | *1.2* | *1.0[a]* | *1.4* | *1.2[b]* | *1.1[b]* | *1.0[b]* | *1.7[a]* | *2.0* |

Note: Numbers may not sum to 100 percent because of rounding. Sample sizes for each group (Medicare and privately insured) are 4,000. Sample sizes for individual questions varied. "Aged" beneficiaries are those ages 65 or older.

[a] Statistically significant difference between the Medicare and privately insured groups in the given year (at a 95 percent confidence level).

[b] Statistically significant difference from 2016 within the same insurance category (at a 95 percent confidence level).

*Percentage less than 0.5 percent.

Source: MedPAC-sponsored telephone surveys conducted from 2012 to 2016.

### Most beneficiaries report that they are able to see a doctor when they need to

From our 2016 telephone survey, 68 percent of Medicare beneficiaries reported that they never had to wait longer than they wanted for routine care, and 79 percent reported the same for illness or injury care. These rates are statistically lower than those reported for 2015 (which were 72 percent and 82 percent, respectively) (Table 4-4).

In 2016, the share of Medicare beneficiaries reporting that they never had trouble obtaining regular or routine care was the same as the share of privately insured individuals (68 percent for Medicare beneficiaries, 67 percent for the privately insured), and the rates for both groups were lower than five years ago.

From 2012 through 2016, the share of Medicare beneficiaries reporting that they could always get an appointment for regular or routine care fell by 9 percentage points (from 77 percent to 68 percent). The share of privately insured individuals reporting that they could always get an appointment for regular or routine care fell by 5 percentage points over the same time frame (from 72 percent to 67 percent).

For access to illness or injury care, the magnitude of the decline between 2012 and 2016 was 5 percentage points both for Medicare beneficiaries and privately insured individuals. However, the access rate for Medicare beneficiaries was still higher than for privately insured individuals in 2016 (79 percent for Medicare beneficiaries, 75 percent for privately insured).

### Beneficiaries report more difficulty accessing primary care than specialty care

Most beneficiaries reported that they were able to find a new doctor without a problem. However, consistent with prior years, beneficiaries seeking a primary care doctor were more likely to report that they had a problem finding a doctor than beneficiaries seeking a specialist (Table 4-4). For primary care, 8 percent were looking for a new doctor, and of those looking, 20 percent reported a big problem, meaning that on net, 1.6 percent of the Medicare population reported a big problem. For specialty care, 18 percent were looking for a new doctor, and of those looking, 8 percent reported a big problem, meaning that on net, 1.4 percent of the total Medicare population reported a big problem.

These results were consistent with beneficiary responses in our focus groups, with some reporting more difficulty finding new primary care providers than specialists. Medicare beneficiaries overall were about as likely as privately insured individuals to report a big problem finding a new primary care doctor and less likely to report a big problem finding a specialist. In comparison with 2015, a small but statistically significant higher share of Medicare beneficiaries in 2016 reported big problems finding a primary care doctor (1.6 percent of the total Medicare population, up from 1.0 percent in 2015) (Table 4-4).

Beneficiaries in both the focus groups and our telephone survey reported difficulty with certain specialty referrals. Physicians in our site visits reported difficulty obtaining psychiatric referrals for all of their patients (Medicare and other payers) because, in their experience, many psychiatrists did not accept any type of insurance.

### Some groups of beneficiaries report more difficulty obtaining care

In our telephone survey, minority beneficiaries were more likely than White beneficiaries to report that they could not obtain care as quickly as they wanted. Differences in reported access between urban and rural beneficiaries were minimal.

#### Minority beneficiaries report more difficulty receiving care as soon as they want and higher rates of forgoing care

In our 2016 telephone survey, the share of beneficiaries reporting that they never had to wait longer than they wanted for routine care was lower for minority Medicare beneficiaries (64 percent) than for White Medicare beneficiaries (70 percent) (Table 4-5, p. 104). Minority Medicare beneficiaries were more likely than White Medicare beneficiaries to report that they always had to wait longer than they wanted for a routine doctor's appointment (5 percent vs. 3 percent, respectively). Minority Medicare beneficiaries were also more likely than White beneficiaries to say that they did not receive care when they thought they should have (14 percent for minority beneficiaries vs. 10 percent for White beneficiaries).

Minority Medicare beneficiaries were also less likely than White beneficiaries to report that they faced no problem finding a specialist (74 percent for minority beneficiaries, 83 percent for White beneficiaries). Similar differences also exist for privately insured individuals. Minorities generally report worse access to care overall, for all types of insurance (Agency for Healthcare Research and Quality 2016). In addition, minority Medicare beneficiaries are more likely to also be in groups that have poorer access overall: African American and Hispanic beneficiaries

**TABLE 4–5**

**Medicare beneficiaries have similar access to physicians compared with privately insured individuals, but minorities in both groups report problems more frequently, 2016**

| Survey question | Medicare (ages 65 and older) | | | Private insurance (ages 50–64) | | |
|---|---|---|---|---|---|---|
| | All | White | Minority | All | White | Minority |
| **Unwanted delay in getting an appointment:** Among those who needed an appointment in the past 12 months, "How often did you have to wait longer than you wanted to get a doctor's appointment?" | | | | | | |
| **For routine care** | | | | | | |
| Never | 68% | 70%[b] | 64%[b] | 67% | 67% | 68% |
| Sometimes | 22 | 22 | 23 | 23 | 24 | 22 |
| Usually | 4 | 4 | 4 | 5 | 5 | 5 |
| Always | 3 | 3[ab] | 5[b] | 4 | 4[a] | 4 |
| Don't know/Refused | 2 | 1 | 3 | 1 | 1 | 1 |
| **For illness or injury** | | | | | | |
| Never | 79[a] | 80[ab] | 76[b] | 75[a] | 76[a] | 72 |
| Sometimes | 16[a] | 16[a] | 16 | 19[a] | 19[a] | 20 |
| Usually | 2[a] | 1[a] | 2 | 3[a] | 3[a] | 3 |
| Always | 2[a] | 1[ab] | 3[b] | 3[a] | 2[ab] | 4[b] |
| Don't know/Refused | 2 | 1 | 2 | 1 | 1 | 1 |
| **Not accessing a doctor for medical problems:** "During the past 12 months, did you have any health problem or condition about which you think you should have seen a doctor or other medical person, but did not?" | | | | | | |
| Share answering "Yes" | 11[a] | 10[ab] | 14[b] | 12[a] | 12[a] | 14 |
| **Looking for a new doctor:** "In the past 12 months, have you tried to get a new...?" (Share answering "Yes") | | | | | | |
| Primary care physician | 8[a] | 8[a] | 9 | 10[a] | 10[a] | 9 |
| Specialist | 18 | 19[b] | 14[b] | 18 | 20[b] | 13[b] |
| **Getting a new physician:** Among those who tried to get an appointment with a new primary care physician or a specialist in the past 12 months, "How much of a problem was it finding a primary care doctor/specialist who would treat you? Was it..." | | | | | | |
| **Primary care physician** | | | | | | |
| No problem | 64 | 64 | 64 | 63 | 62 | 66 |
| *Share of total insurance group, by race* | *5.1* | *5.0* | *5.4* | *6.1* | *6.2* | *5.9* |
| Small problem | 15 | 15 | 16 | 16 | 17 | 13 |
| *Share of total insurance group, by race* | *1.2* | *1.1* | *1.3* | *1.5* | *1.7* | *1.2* |
| Big problem | 20 | 20 | 21 | 20 | 20 | 20 |
| *Share of total insurance group, by race* | *1.6* | *1.6* | *1.7* | *1.9* | *2.0* | *1.8* |
| **Specialist** | | | | | | |
| No problem | 82 | 83[b] | 74[b] | 79 | 81 | 75 |
| *Share of total insurance group, by race* | *14.7* | *15.9[b]* | *10.4[b]* | *14.4* | *16.1[b]* | *9.9[b]* |
| Small problem | 10 | 9 | 15 | 9 | 9 | 10 |
| *Share of total insurance group, by race* | *1.8* | *1.8* | *2.1* | *1.6* | *1.8* | *1.4* |
| Big problem | 8[a] | 7 | 11 | 11[a] | 10 | 12 |
| *Share of total insurance group, by race* | *1.4* | *1.3* | *1.5* | *2.0* | *2.0* | *1.5* |

Note: Respondents who did not report race or ethnicity were not included in "White" or "Minority" results but were included in "All" results. Numbers may not sum to 100 percent because of rounding. Sample sizes for each group (Medicare and privately insured) were 4,000 in 2016. Sample sizes for individual questions varied.
[a] Statistically significant difference between the Medicare and privately insured populations in the given year (at a 95 percent confidence level).
[b] Statistically significant difference by race within the same insurance category in the given year (at a 95 percent confidence level).

Source: MedPAC-sponsored telephone surveys conducted in 2016.

are more likely to be under 65 (entitled on the basis of disability), qualify as dually eligible for Medicare and Medicaid, have lower incomes, and report fair or poor health status or functional limitations than are White Medicare beneficiaries (Centers for Medicare & Medicaid Services 2015).

**Few reported differences in access between urban and rural beneficiaries** The Commission's telephone survey showed no major differences in access between urban and rural beneficiaries (Table 4-6, p. 106). There was no significant difference between the share of urban and rural beneficiaries experiencing an unwanted delay in getting an appointment.

Some measures of access appeared to be better for rural Medicare beneficiaries than for rural individuals with private insurance. For example, rural Medicare beneficiaries were significantly less likely than rural privately insured individuals to report not accessing medical care when needed than rural privately insured individuals (9 percent of rural Medicare beneficiaries vs. 14 percent of rural individuals with private insurance). Rural Medicare beneficiaries were also significantly more likely to report no problem finding a new specialist (13.8 percent of rural Medicare beneficiaries) versus rural privately insured individuals (9.5 percent of rural privately insured individuals).

Although we do not see systematic differences in access by urban and rural Medicare beneficiaries and privately insured individuals, reported access varies across the country for both Medicare and private payers. For example, in a state-based analysis of physician acceptance of insurance, states with high rates of Medicare acceptance among physicians were also likely to have high rates of private insurance acceptance (Hing et al. 2015). There is some evidence that access by one group of beneficiaries who are also eligible for Medicaid—qualified low-income beneficiaries—may be worse if the state pays a lower share of the Medicare cost-sharing amount for clinician services. See our June 2016 report for further discussion.

### Nearly all beneficiaries have a regular source of care, with more use of nurse practitioners and physician assistants in rural areas

Nearly all beneficiaries in our focus groups reported that they had a regular source of primary care and that they could access their provider that day or within a few days. From the 2015 National Health Interview Survey, 95 percent of Medicare beneficiaries ages 65 and over reported that they had a usual source of medical care, with the majority reporting a doctor's office (80 percent) and 15 percent reporting a clinic (National Center for Health Statistics 2015). Medicare beneficiaries also reported relatively frequent contact with providers: Over 85 percent reported that they had contact with a clinician within the last six months.

In our telephone survey, 13 percent of beneficiaries responded that they saw a nurse practitioner (NP) or physician assistant (PA) for all or most of their primary care, and 28 percent said that they saw an NP or PA for some of their primary care (data not shown). These figures are slightly higher than last year. Similar to prior years, rural beneficiaries were more likely than urban beneficiaries to report seeing NPs and PAs for all or most of their primary care (16 percent for rural beneficiaries vs. 11 percent for urban beneficiaries).

### Access findings over time and in context show no significant change

To provide more context for our survey results, we looked at two other sources of trend data on access—the MEPS and the Consumer Assessment of Healthcare Providers and Systems® (CAHPS®). Both surveys show largely stable access.

The MEPS, which has data on the 65 and older Medicare population, does not show a significant change from 2010 to 2014 in the number of respondents indicating that they can always access either routine care or care for illness or injury as soon as wanted, with 64 percent reporting they can always get routine care as soon as wanted and 74 percent reporting they can always get illness or injury care as soon as wanted (Figure 4-1, p. 107) (Agency for Healthcare Research and Quality 2016).

The CAHPS surveys are a suite of surveys that assess patient experience and reported access. CAHPS results are used in the Part C and Part D star ratings that measure quality in the Medicare Advantage program, and a CAHPS module is issued to a sample of beneficiaries in the FFS Medicare population.

Overall, the share of Medicare FFS beneficiaries reporting that they always or usually got the care they needed was generally stable between 2011 and 2015. Beneficiaries were as likely to report that they got appointments and care quickly in 2015 as in 2011 (Table 4-7, p. 108). One measure (the share of beneficiaries reporting that they viewed FFS Medicare as a 9 or 10 on a 10-point scale) remained constant from 2012 to 2014, but fell slightly in 2015.

**TABLE 4–6**

## Access to physician care for Medicare beneficiaries is similar to that for privately insured individuals in urban and rural areas, 2016

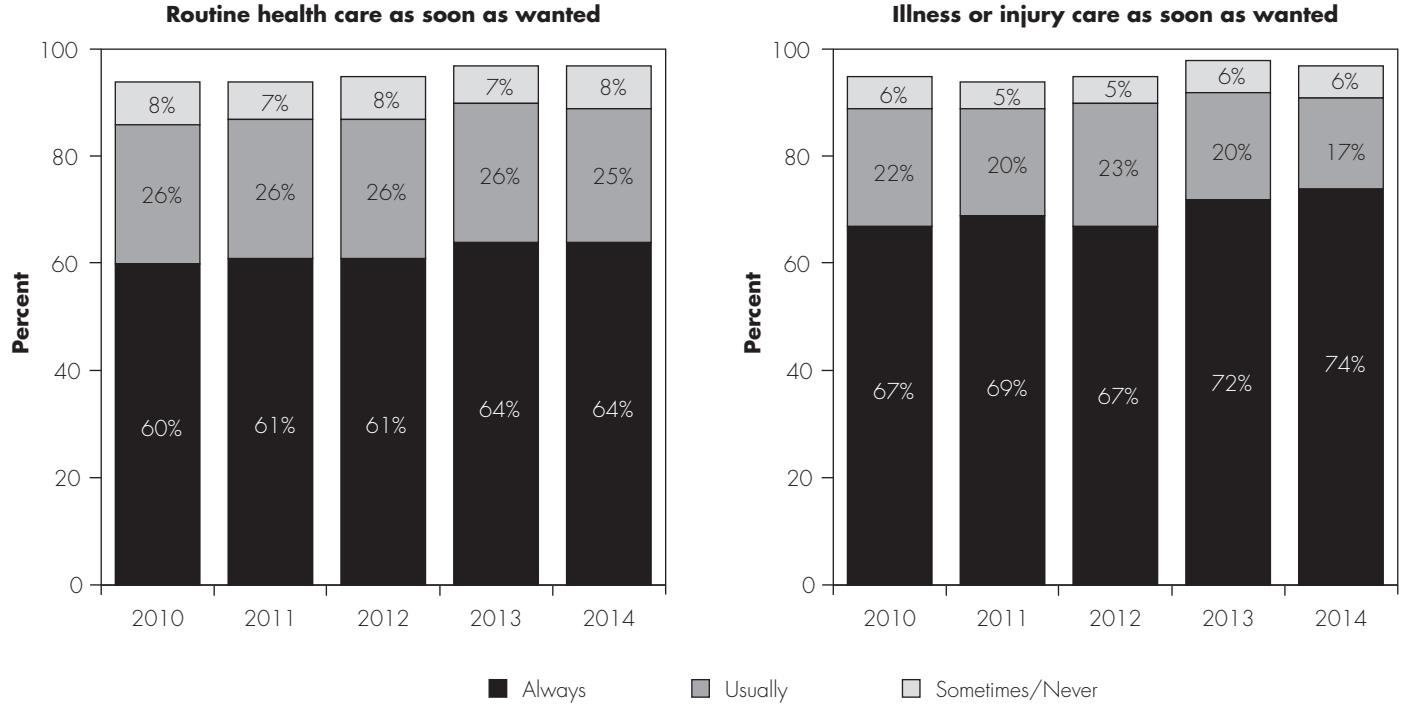
| Survey question | Medicare (ages 65 and older) | | | Private insurance (ages 50–64) | | |
|---|---|---|---|---|---|---|
| | All | Urban | Rural | All | Urban | Rural |
| **Unwanted delay in getting an appointment:** Among those who needed an appointment in the past 12 months, "How often did you have to wait longer than you wanted to get a doctor's appointment?" | | | | | | |
| **For routine care** | | | | | | |
| Never | 68% | 68% | 67% | 67% | 67% | 69% |
| Sometimes | 22 | 22 | 23 | 23 | 23 | 23 |
| Usually | 4 | 4 | 6 | 5 | 5 | 4 |
| Always | 3 | 4 | 3 | 4 | 4 | 4 |
| Don't know/Refused | 2 | 2 | 2 | 1 | 1 | 1 |
| **For illness or injury** | | | | | | |
| Never | 79[a] | 80[a] | 77 | 75[a] | 75[a] | 77 |
| Sometimes | 16[a] | 16[a] | 17 | 19[a] | 19[a] | 18 |
| Usually | 2[a] | 2[a] | 2 | 3[a] | 3[a] | 2 |
| Always | 2[a] | 1[a] | 2 | 3[a] | 2[a] | 3 |
| Don't know/Refused | 2 | 2 | 2 | 1 | 1 | * |
| **Not accessing a doctor for medical problems:** "During the past 12 months, did you have any health problem or condition about which you think you should have seen a doctor or other medical person, but did not?" (Share answering "Yes") | 11[a] | 11 | 9[a] | 12[a] | 12 | 14[a] |
| **Looking for a new primary care physician:** "In the past 12 months, have you tried to get a new...?" (Share answering "Yes") | | | | | | |
| Primary care physician | 8[a] | 8[a] | 8 | 10[a] | 10[a] | 7 |
| Specialist | 18 | 18 | 16 | 18 | 19[b] | 14[b] |
| **Getting a new physician:** Among those who tried to get an appointment with a new primary care physician or a specialist in the past 12 months, "How much of a problem was it finding a primary care doctor/specialist who would treat you? Was it..." | | | | | | |
| **Primary care physician** | | | | | | |
| No problem | 64 | 61 | 73 | 63 | 63 | 60 |
| *Share of total insurance group, by area* | *5.1* | *4.8[a]* | *5.6* | *6.1* | *6.5[ab]* | *4.0[b]* |
| Small problem | 15 | 17 | 8 | 16 | 17 | 8 |
| *Share of total insurance group, by area* | *1.2* | *1.4* | *0.6* | *1.5* | *1.7[b]* | *0.6[b]* |
| Big problem | 20 | 20 | 18 | 20 | 19 | 28 |
| *Share of total insurance group, by area* | *1.6* | *1.6* | *1.4* | *1.9* | *2.0* | *1.9* |
| **Specialist** | | | | | | |
| No problem | 82 | 81 | 84[a] | 79 | 81[b] | 70[ab] |
| *Share of total insurance group, by area* | *14.7* | *14.9* | *13.8[a]* | *14.4* | *15.3[b]* | *9.5[ab]* |
| Small problem | 10 | 11 | 8 | 9 | 8[b] | 16[b] |
| *Share of total insurance group, by area* | *1.8* | *2.0* | *1.3* | *1.6* | *1.5* | *2.2* |
| Big problem | 8[a] | 8 | 8 | 11[a] | 11 | 12 |
| *Share of total insurance group, by area* | *1.4* | *1.4* | *1.2* | *2.0* | *2.0* | *1.6* |

Note: Numbers may not sum to 100 percent because of rounding. Sample sizes for each group (Medicare and privately insured) were 4,000 in 2016. Sample sizes for individual questions varied. The Commission uses the Census Bureau definitions of "urban" and "rural." The Census Bureau classifies as urban all territory, population, and housing units located within an urbanized area (UA) or an urban cluster (UC). It delineates UA and UC boundaries to encompass densely settled territory, which consists of core census block groups or blocks that have a population density of at least 1,000 people per square mile and surrounding census blocks that have an overall density of at least 500 people per square mile. In addition, under certain conditions, less densely settled territory may be part of each UA or UC. The Census Bureau's classification of rural consists of all territory, population, and housing units located outside of UAs and UCs.
[a] Statistically significant difference between the Medicare and privately insured populations in a given year (at a 95 percent confidence level).
[b] Statistically significant difference by area type within the same insurance category in a given year (at a 95 percent confidence level).
* Percentage less than 0.5 percent.

Source: MedPAC-sponsored telephone survey conducted in 2016.

**FIGURE 4–1**

**Medicare beneficiaries over age 65 reported relatively steady levels of accessing care when wanted, 2010–2014**




Note: Data include survey respondents age 65 or over with Medicare. Numbers may not sum to 100 percent because missing responses ("Don't Know" or "Refused") are not included.

Source: Medical Expenditure Panel Surveys, 2010–2014.

In summary, other surveys that assess similar measures of patient access and experience as the Commission's survey do not appear to show declining access. And although our survey is the only one with 2016 results, both the MEPS and CAHPS cover time frames during which our telephone survey shows a slight decrease in reported access for regular and routine care. If our survey was revealing a national change in access, it would probably be detectable in either the MEPS (through 2014) or the CAHPS (through 2015).

In addition, the decline in reported access in our survey appears among both the Medicare population and the privately insured population. So the changes reflected in our survey could reflect changes in the health care market overall.

Our access survey and the MEPS data presented above are figures for the entire Medicare population over age 65. Shifts in the types of additional coverage that Medicare beneficiaries have (e.g., medigap) could have an impact on the overall Medicare access figures. We have reported little difference in perceived access between beneficiaries with Medicare FFS and beneficiaries with Medicare Advantage. But beneficiaries with both Medicare and Medicaid report poorer access to physician services and less satisfaction with their health care overall (Medicare Payment Advisory Commission 2016). Furthermore, beneficiaries with Medicare and other public coverage report lower overall rankings of their care (than do beneficiaries with Medicare only or beneficiaries with Medicare and private coverage) and are less likely to report that their providers explained things clearly (Table 4-8, p. 108).

### Wait times for appointments in most recent surveys have fallen slightly

We were not able to obtain updated wait times for Medicare beneficiaries because CMS is not releasing the results from the 2014 MCBS. From the most recent survey (2013), we reported that about half of beneficiaries noted

**TABLE 4–7**

**Fee-for-service CAHPS® performance rates, 2011–2015**

| CAHPS composite measure | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|
| Getting needed care and seeing specialists (always or usually) | 86% | 87% | 87% | 86% | 85% |
| Getting appointments and care quickly (always or usually) | 75 | 75 | 75 | 76 | 75 |
| Care coordination (e.g., personal doctor always or usually discusses medication, has relevant medical records, helps with managing care) | N/A | 87 | 86 | 86 | 85 |
| Rating of health plan (share rating 9 or 10 on 10-point scale) | 82 | 85 | 85 | 84 | 82 |
| Rating of health care quality (share rating 9 or 10 on 10-point scale) | 86 | 86 | 86 | 86 | 86 |

Note: CAHPS® (Consumer Assessment of Health Providers and Systems®), N/A (not available).

Source: Fee-for-service CAHPS benchmarks from CMS/Harvard Medical School.

that they could see their doctor in three days or less and that this share had fallen slightly since 2010 (Figure 4-2).

In comparing the wait times in this chart with other questions (such as in the Commission's survey) that assess whether respondents had to wait longer than wanted, note that respondents may have different expectations about their ability to get an appointment quickly. Their expectations about what constitutes a timely appointment could also change over time.

### Clinician acceptance of Medicare beneficiaries is comparable with that of private insurance

The National Electronic Health Records Survey reports that in 2015, 81 percent of office-based physicians reported that they accepted Medicare, slightly less than the share accepting private insurance (89 percent) (National Center for Health Statistics 2016). In other studies using these data, the rates of Medicare acceptance is comparable with private insurance when pediatricians are excluded

**TABLE 4–8**

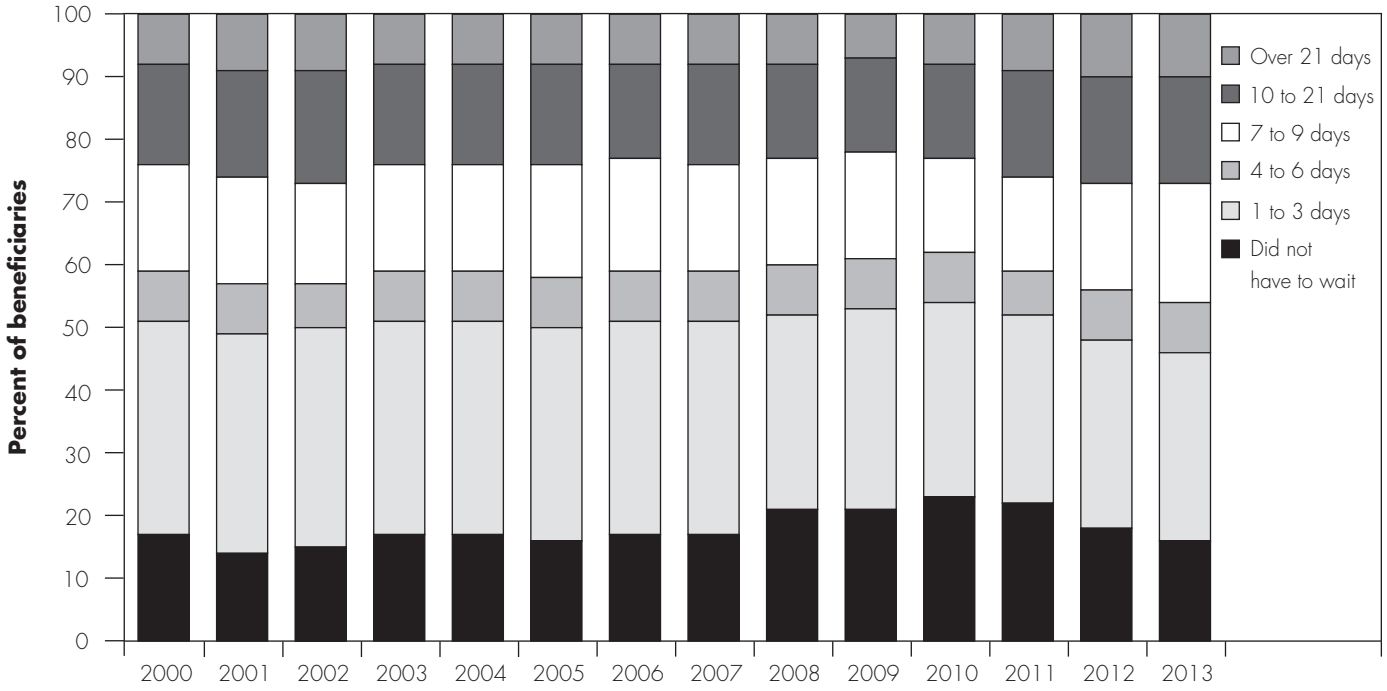
**Reported access for the Medicare 65-and-older population, 2014**

| | Ages 65 and older | | | |
|---|---|---|---|---|
| | All Medicare | Medicare only | Medicare and private | Medicare and other public |
| Reporting they always got an appointment as soon as wanted for… | | | | |
| Regular or routine care | 64.2% | 63.0% | 65.3% | 61.3% |
| Illness or injury | 73.7 | 71.4 | 74.6 | 73.5 |
| Reporting that their health providers always… | | | | |
| Listened carefully to them | 70.2 | 69.7 | 70.3 | 70.6 |
| Explained things clearly | 68.0 | 69.0 | 67.9 | 64.6 |
| Showed respect for what they had to say | 73.4 | 72.1 | 74.3 | 70.5 |
| Spent enough time with them | 62.1 | 59.1 | 64.1 | 59.9 |
| Share giving a 9 or 10 rating (out of 10) for health care received | 64.5 | 64.4 | 66.0 | 55.6 |

Source: Medical Expenditure Panel Survey.

**FIGURE 4–2**

**Slightly less than half of beneficiaries report that they can see their doctor in three days or less, 2000–2013**




Note: Data include noninstitutionalized beneficiaries only.

Source: Medicare Current Beneficiary Survey, 2000–2013.

(Boccuti et al. 2013, Hing et al. 2015). Physician surveys over the past decade have consistently shown that a higher share of specialty physicians accept Medicare than primary care physicians (Boccuti et al. 2013, Hing and Schappert 2012). During our site visits, most providers said that they accept Medicare, but they may limit the number of new patients.

A 2015 survey of primary care physicians conducted by the Kaiser Family Foundation and the Commonwealth Fund reported that primary care physicians are less likely to accept new Medicare patients than new privately insured patients (72 percent for Medicare, 80 percent for private insurance) (Boccuti et al. 2015). Another 20 percent of primary care physicians reported that, while they generally participated in Medicare, they were not currently taking *new* Medicare patients (for a total of 92 percent of primary care physicians reporting that they participated in Medicare). This 20 percent could also include physicians with closed practices not currently accepting any new patients.

## Supply of physicians and other health professionals billing Medicare has kept pace with enrollment growth, and most services are paid on assignment

Other indicators of access include the supply of clinicians billing Medicare, the share of physicians and other health professionals that are participating providers (which means that they accept Medicare's payment as payment in full), and the share of claims that are paid on assignment.

### Supply of physicians and other health professionals billing Medicare has kept pace with enrollment growth

Our analysis of Medicare FFS claims data for 2013 to 2015 shows that the number of physicians and other health

**TABLE 4–9** **Physicians and other health professionals billing Medicare, 2013–2015**

| | Physicians | | | | Advanced practice registered nurses and physician assistants | | Other practitioners | |
|---|---|---|---|---|---|---|---|---|
| | Primary care specialties | | Other specialties | | | | | |
| Year | Number | Number per 1,000 beneficiaries | Number | Number per 1,000 beneficiaries | Number | Number per 1,000 beneficiaries | Number | Number per 1,000 beneficiaries |
| 2013 | 178,404 | 3.7 | 394,103 | 8.2 | 152,612 | 3.2 | 150,466 | 3.1 |
| 2014 | 180,165 | 3.6 | 396,289 | 8.0 | 165,164 | 3.3 | 150,037 | 3.0 |
| 2015 | 182,767 | 3.6 | 398,840 | 7.9 | 182,949 | 3.6 | 154,774 | 3.1 |

Note: "Primary care specialties" are specialties eligible for the Primary Care Incentive Payment Program: family medicine, internal medicine, pediatric medicine, and geriatric medicine. "Other practitioners" includes physical and occupational therapists, chiropractors, optometrists, psychologists, social workers, and podiatrists. The number billing Medicare includes those with a caseload of more than 15 different beneficiaries during the year. Beneficiary counts used to calculate numbers per 1,000 include those in fee-for-service and Medicare Advantage on the assumption that professionals are furnishing services to both types. Figures exclude nonperson providers such as suppliers or clinical laboratories.

Source: MedPAC analysis of Medicare claims data for 100 percent of beneficiaries and the 2016 annual report of the Boards of Trustees of the Medicare trust funds.

professionals furnishing services to Medicare beneficiaries has kept pace with enrollment growth in Medicare (Table 4-9). In 2015, the ratio of physicians in primary care specialties to the number of beneficiaries was 3.6 per 1,000, the same as in 2014. Between 2014 and 2015, the ratio of physicians in other specialties declined slightly from 8.0 per 1,000 beneficiaries to 7.9 per 1,000. Meanwhile, between 2014 and 2015, the number of advanced practice registered nurses and PAs billing Medicare grew from 3.3 per 1,000 beneficiaries to 3.6 per 1,000.

### Most physicians and other health professionals are part of Medicare's participating provider program, and nearly all claims are taken on assignment

In 2016, over 95 percent of physicians and other health professionals billing Medicare signed an agreement with Medicare to be part of the participating provider program. Participating providers agree to take assignment for all claims, which means they accept the fee schedule amount as payment in full (most claims are paid on assignment—99.5 percent in 2015). Providers who do not elect to participate receive a 5 percent lower payment amount and can choose whether to take assignment for their claims on a claim-by-claim basis. If they do not assign a claim, providers may "balance bill" up to 109.25 percent of the fee schedule amount, with the beneficiary paying the difference between 95 percent of the fee schedule amount and the amount billed.

### Opt-out clinicians are concentrated in dental and behavioral health specialties

Physicians and other health professionals may opt out of the Medicare program by signing an affidavit with Medicare stating that they will not receive any payment from Medicare, directly or indirectly, for any Medicare patient they see. In this arrangement, a provider who wishes to treat Medicare beneficiaries but not enroll in Medicare must file an opt-out affidavit for all of his or her patients, and the patient cannot separately submit the claim to Medicare. Opt-out clinicians must also enter into a contract with Medicare beneficiaries to treat them, which states that no payment will be made from Medicare either to the beneficiary or to the provider for services delivered by the opt-out clinician.

MACRA established that agreements between the opt-out clinician and Medicare are automatically renewed every two years unless the clinician elects to rejoin Medicare.[3] Pursuant to MACRA, CMS also publicly released detailed information on opt-out clinicians in 2016 for the first time. As of November 2016, about 10,000 physicians and other practitioners had an opt-out record on file with the Medicare program, and 7,000 dentists had opted out (Figure 4-3). Of the total, about a third of opt-out practitioners were behavioral health providers (psychologists, clinical social workers, and psychiatrists), and about 40 percent appeared to be dentists (see note in Figure 4-3).

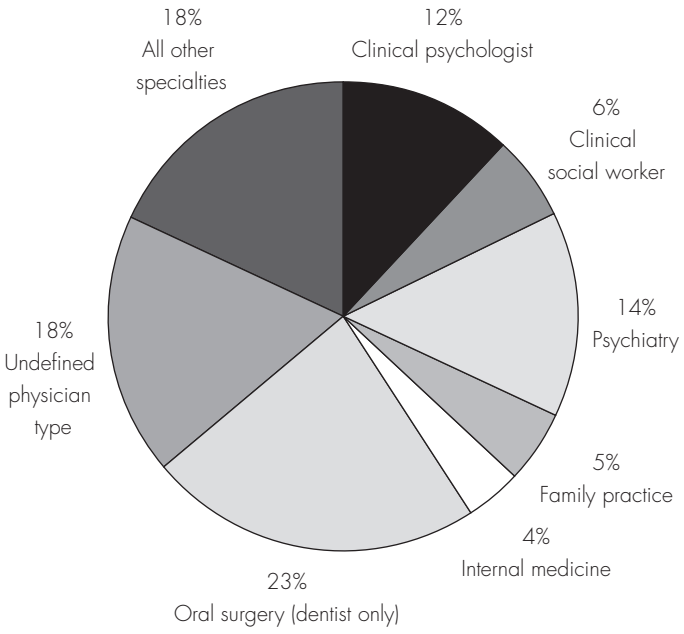
## Higher growth in the volume of clinician services

We analyze annual changes in use of services provided by physicians and other health professionals as another indicator of payment adequacy. However, we recommend caution in interpreting such data because factors unrelated to Medicare's payment rates can influence service volume. Evidence indicates that volume decreases may be related to the movement of services from freestanding offices to hospitals, general practice pattern changes, and concerns expressed by clinicians about overuse of imaging and tests. For example, the number of echocardiograms per beneficiary administered in freestanding offices declined in 2015 by 3.0 percent while the number administered in hospital outpatient departments (HOPDs) rose by 4.7 percent. Increases in volume may signal overpricing if practitioners favor certain services because they are relatively profitable, but other factors—including changes in the population, disease prevalence, Medicare benefits, site of care, technology, and beneficiaries' preferences—can also explain volume increases.

We used claims data from 2010, 2014, and 2015 to analyze volume changes. We identified the services furnished by physicians and other professionals billing under Medicare's fee schedule and calculated two measures of changes in service use: units of service per beneficiary and volume of services per beneficiary. Volume is measured as units of service multiplied by each service's relative value units (RVUs) from the fee schedule. Our volume growth measure thus accounts for changes in both the number of services and the complexity, or intensity, of those services. For example, growth in the volume of imaging services would account not just for any change in the number of such services but also for any change in intensity (e.g., if providers substitute computed tomography scans for less complex X-rays). We used RVUs for 2015 to put service volume for all years on a common scale.

Between 2014 and 2015, across all services, volume per beneficiary grew by 1.6 percent (Table 4-10, p. 112). Among broad service categories, growth rates were 1.7 percent for evaluation and management (E&M), 0.5 percent for imaging services, 1.4 percent for major procedures, 1.9 percent for other procedures, and 1.6 percent for tests. The 2015 growth rate for all services (1.6 percent) was higher than the average annual growth rate from 2010 to 2014 (0.3 percent).

**FIGURE 4–3** **Clinicians who opt out of Medicare are concentrated in certain specialties**




Note: Based on web searches of some of the names of practitioners listed on CMS's website as "undefined physician type," it appears they are largely (or exclusively) dentists. Number of clinicians=17,191.

Source: Analysis of opt-out affidavits currently in effect as of November 2016 using data from http://data.CMS.gov.

Specific services within a broad service category sometimes experienced more rapid volume growth in 2015 than the overall service category. For example, volume growth was 1.4 percent in the major procedures category, but growth in the volume of knee replacement was 3.9 percent, and growth in the volume of hip replacement was 5.0 percent (Table 4-10, p. 112). Volume growth in the other procedures category was 1.9 percent, but growth in the volume of outpatient rehabilitation was 8.8 percent. Outpatient rehabilitation includes physical therapy, occupational therapy, and speech–language pathology services. Services furnished by physical therapists and occupational therapists accounted for most of the 2015 volume growth in outpatient rehabilitation.

While the imaging increase in 2015 was lower than the average increase for all services and follows decreases from 2010 to 2014, use of imaging services remains much higher than it was in 2000 (Figure 4-4, p. 113). Cumulative

**TABLE 4–10**

## Use of clinician services per FFS beneficiary

| Type of service | Change in units of service per beneficiary: Average annual 2010–2014 | Change in units of service per beneficiary: 2014–2015 | Change in volume per beneficiary: Average annual 2010–2014 | Change in volume per beneficiary: 2014–2015 | Share of 2015 allowed charges |
|---|---|---|---|---|---|
| **All services** | **0.0%** | **1.5%** | **0.3%** | **1.6%** | **100.0%** |
| **Evaluation and management** | **0.2** | **1.0** | **0.9** | **1.7** | **48.3** |
| Office visit—new and established | 0.6 | 1.1 | 1.2 | 2.1 | 27.0 |
| Hospital visit—subsequent | –1.6 | –0.5 | –1.1 | 0.0 | 8.4 |
| Hospital visit—initial | –1.1 | –0.1 | –1.1 | –0.2 | 4.3 |
| Emergency room visit | 1.1 | 2.0 | 2.0 | 2.8 | 3.4 |
| Nursing home visit | 3.2 | 1.0 | 3.7 | 2.2 | 3.0 |
| Hospital visit—critical care | 2.0 | 0.8 | 2.0 | 0.7 | 1.5 |
| Home visit | 0.6 | –2.5 | 0.7 | –1.6 | 0.4 |
| **Imaging** | **–0.8** | **0.7** | **–1.8** | **0.5** | **10.7** |
| Advanced—CT: other | 2.3 | 5.2 | 1.6 | 4.2 | 1.6 |
| Echography—heart | 1.4 | 0.7 | –3.5 | –0.8 | 1.1 |
| Advanced—MRI: other | 1.2 | 3.6 | –0.2 | 3.9 | 0.9 |
| Echography—other | 3.4 | –4.2 | 2.4 | –3.4 | 0.8 |
| Standard—musculoskeletal | 0.0 | 1.4 | –0.5 | 1.2 | 0.8 |
| Standard—nuclear medicine | –6.8 | –3.4 | –10.6 | –4.9 | 0.7 |
| Standard—breast | 0.4 | 9.4 | –0.4 | 9.4 | 0.7 |
| Advanced—PET | 0.4 | 1.2 | 2.7 | 3.3 | 0.6 |
| Advanced—MRI: brain | 0.2 | 1.4 | –2.0 | 1.0 | 0.4 |
| Advanced—CT: head | 1.0 | 2.6 | 0.1 | 3.2 | 0.4 |
| Standard—chest | –2.9 | –1.3 | –3.3 | –1.1 | 0.4 |
| Echography—abdomen and pelvis | 0.0 | 0.0 | 0.1 | –0.6 | 0.4 |
| **Major procedures** | **–0.9** | **1.2** | **0.2** | **1.4** | **7.5** |
| Cardiovascular—other | –3.8 | –0.5 | –2.2 | –0.4 | 1.7 |
| Orthopedic—other | –0.3 | 2.3 | 1.1 | 3.2 | 1.2 |
| Knee replacement | 0.2 | 3.5 | 0.6 | 3.9 | 0.5 |
| Hip replacement | 3.1 | 4.8 | 3.6 | 5.0 | 0.3 |
| Explore, decompress, or excise disc | 2.0 | –2.5 | 3.2 | –2.6 | 0.3 |
| Hip fracture repair | –1.0 | –0.5 | –0.8 | –0.3 | 0.2 |
| Coronary angioplasty | –1.1 | 1.9 | –1.1 | 1.9 | 0.2 |
| Coronary artery bypass graft | –5.6 | –1.4 | –5.2 | –0.5 | 0.2 |
| **Other procedures** | **0.9** | **3.4** | **0.6** | **1.9** | **21.9** |
| Skin—minor and ambulatory | 0.9 | 0.8 | 0.8 | 2.0 | 4.7 |
| Outpatient rehabilitation | 2.1 | 8.3 | 2.8 | 8.8 | 3.7 |
| Radiation therapy | –2.1 | –6.5 | –2.1 | –3.6 | 1.9 |
| Minor—other | –1.8 | –1.6 | –1.4 | –1.5 | 1.8 |
| Minor—musculoskeletal | 1.3 | 2.0 | 1.6 | 4.3 | 1.5 |
| Cataract removal/lens insertion | –0.5 | 0.6 | –0.4 | 0.5 | 1.3 |
| Eye—other | 6.5 | 2.7 | 3.6 | 1.0 | 1.1 |
| Colonoscopy | –0.6 | 0.2 | –0.4 | 0.3 | 0.8 |
| Upper gastrointestinal endoscopy | –1.1 | –1.0 | –0.9 | –0.6 | 0.4 |
| Cystoscopy | –0.8 | –1.5 | –1.4 | –1.4 | 0.4 |
| **Tests** | **0.2** | **0.3** | **–1.3** | **1.6** | **4.5** |
| Other tests | 2.5 | 0.0 | –0.8 | 0.0 | 1.7 |
| Laboratory tests—other | 0.5 | –0.2 | 1.6 | 1.5 | 1.4 |
| Electrocardiograms | –2.1 | 0.0 | –2.5 | 0.1 | 0.4 |

Note: FFS (fee-for-service), CT (computed tomography), MRI (magnetic resonance imaging), PET (positron emission tomography). Volume is measured as units of service multiplied by each service's relative value unit (RVU) from the physician fee schedule. To put service use in each year on a common scale, we used the RVUs for 2015. For billing codes not used in 2015, we imputed RVUs based on the average change in RVUs for each type of service. Some low-volume categories are not shown but are included in the summary calculations. "Laboratory tests" includes tests billable under the fee schedule for physicians and other health professionals and excludes services billable under the laboratory fee schedule.

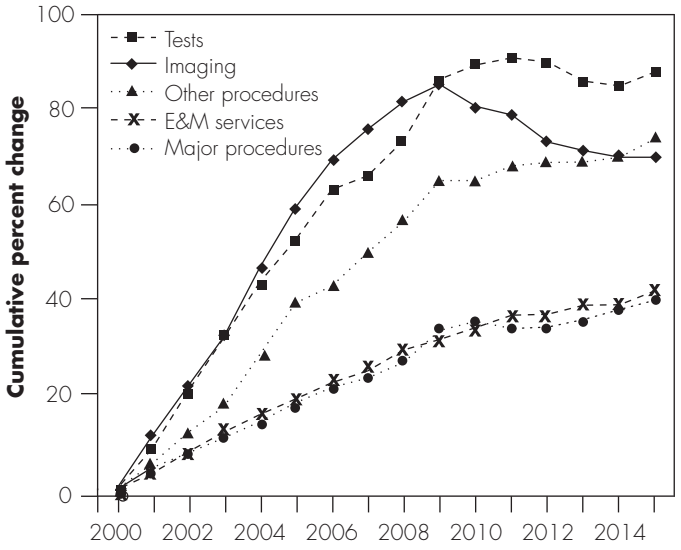
Source: MedPAC analysis of claims data for 100 percent of Medicare beneficiaries.

growth in the volume of imaging per beneficiary from 2000 to 2009 totaled 85 percent, compared with a cumulative decrease in imaging volume since then of about 8 percent. The growth in imaging volume from 2000 to 2009 was exceeded only by the 86 percent growth in the use of tests (e.g., allergy tests) during those years. Such growth was more than double the cumulative growth rates from 2000 to 2009 for E&M services and major procedures, which were 32 percent and 34 percent, respectively. In addition, volume increases in 2015 were much higher for certain types of advanced imaging than other types of imaging. The increases follow several years of lower volume growth. For example, in 2015, the volume of computed tomography (CT) for parts of the body other than the head (advanced—CT: other) grew by 4.2 percent (Table 4-10). By contrast, average annual volume growth from 2010 to 2014 for these services was 1.6 percent. Similarly, in 2015, the volume of MRI for parts of the body other than the head increased by 3.9 percent, after falling by 0.2 percent per year from 2010 to 2014.

The relatively high use of imaging and tests has led to concerns about appropriate use of these services. Physicians have warned that diagnostic tests are often ordered without an understanding of how the results could change patient treatment (Hoffman and Cooper 2012, Redberg et al. 2011). Others have found that some clinicians routinely repeat tests and diagnostic procedures (Welch et al. 2012). When available, guidelines rarely specify how often to repeat these services. In response to concerns about overuse, the American Board of Internal Medicine (ABIM) Foundation developed the "Choosing Wisely" campaign. As part of this ongoing effort, more than 70 specialty societies have identified over 450 tests and procedures that are often overused (ABIM Foundation 2016). The goal of Choosing Wisely is to promote conversations between clinicians and their patients to help patients choose care that is supported by evidence, not duplicative of other tests or procedures, free from harm, and truly necessary. In addition, CMS is mandated by statute to require that claims for CT, MRI, and nuclear medicine studies include information about whether the services adhere to appropriate use criteria developed by medical societies or other provider-led entities. CMS is in the process of implementing this requirement.

**FIGURE 4–4**

**Growth in the volume of clinician services per fee-for-service beneficiary, 2000–2015**




Note: E&M (evaluation and management). Volume growth for E&M from 2009 to 2010 is not directly observable because of a change in payment policy for consultations. To compute cumulative volume growth for E&M through 2015, we used a growth rate for 2009 to 2010 of 1.85 percent, which is the average of the 2008 to 2009 growth rate of 1.7 percent and the 2010 to 2011 growth rate of 2.0 percent.

Source: MedPAC analysis of claims data for 100 percent of Medicare beneficiaries.

### Volume changes reflect shift in billing from freestanding offices to hospitals

Measuring volume growth has two advantages. First, it accounts for both changes in the number of services and changes in the intensity of services (e.g., substitution of advanced imaging for X-rays). Second, together with changes in fees, volume growth has a significant impact on spending growth.

Volume growth, however, is sensitive to shifts in the site of care. The RVUs used to calculate volume include practice expense RVUs, which are often lower for services provided in a facility setting, such as an HOPD, compared with services in a nonfacility setting, such as a freestanding office. In 2016, for example, the most common type of E&M office visit had an average nonfacility fee schedule payment of $73.[4] By contrast, the average fee schedule payment for this visit when provided in a facility setting was $52 because the practice expense RVUs are lower. Medicare makes both a fee schedule payment and a facility payment when a service is provided in an HOPD (the facility payment accounts for the cost of the service in an HOPD). However, the program makes only a fee schedule payment when a service is furnished in a freestanding

**TABLE 4–11**

**Cardiovascular imaging services continue to shift from freestanding physicians' offices to HOPDs, 2014–2015**

| | Share of services performed in HOPDs, 2015 | Per beneficiary change in units of service | |
|---|---|---|---|
| | | HOPD | Freestanding office |
| Echocardiography | 42.9% | 4.7% | –3.0% |
| Nuclear cardiology | 46.5 | 0.6 | –5.9 |

Note: HOPD (hospital outpatient department). Echocardiography includes services in ambulatory payment classification (APC) 0269, APC 0270, and APC 0697. Nuclear cardiology includes services in APC 0377 and APC 0398.

Source: MedPAC analysis of outpatient claims and carrier claims for 100 percent of Medicare beneficiaries.

office. For example, in 2016, total payment for the most common E&M office visit when provided in an HOPD was $154 ($52 for the fee schedule payment to the clinician plus $102 for the facility payment to the HOPD) compared with $73 (the nonfacility fee schedule payment) for this visit when provided in a freestanding office.

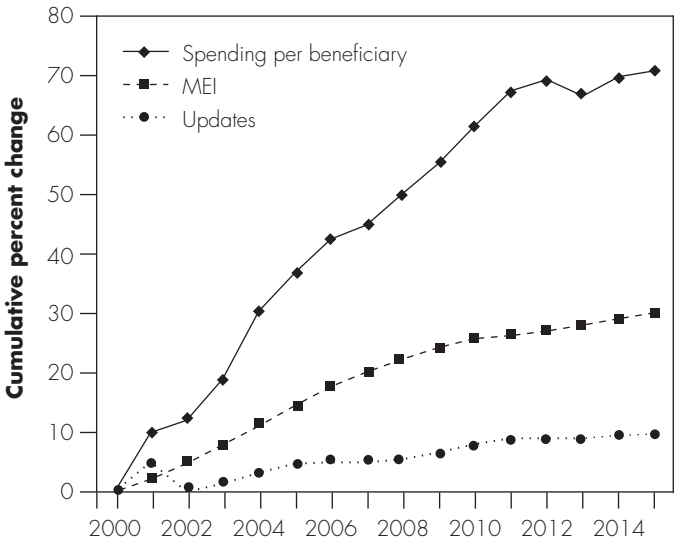
In recent years, there has been a trend toward billing for some services in hospitals instead of freestanding offices. From 2012 to 2015, for example, hospital-based E&M visits per beneficiary grew by 22 percent, compared with a 1 percent decline in physician office–based visits. There has also been a shift of echocardiography and nuclear cardiology from freestanding offices to HOPDs. This change in setting increases overall Medicare program spending and beneficiary cost sharing because Medicare generally pays more for the same or similar services in HOPDs than in freestanding offices (Medicare Payment Advisory Commission 2014, Medicare Payment Advisory Commission 2013, Medicare Payment Advisory Commission 2012). For example, we estimate that the Medicare program spent $1.0 billion more in 2009, $1.3 billion more in 2014, and $1.6 billion more in 2015 than it would have if payment rates for E&M office visits in HOPDs were the same as freestanding office rates. In addition, beneficiaries' cost sharing for E&M office visits in HOPDs was $260 million higher in 2009, $325 million higher in 2014, and $400 million higher in 2015 than it would have been had payment rates been the same in both settings.

### Decrease in volume of cardiovascular imaging influenced by shift in billing from freestanding offices to hospitals

From 2014 to 2015, the volume of two types of cardiovascular imaging billed under the fee schedule declined: echography–heart, also known as echocardiography, and nuclear cardiology, which is in the nuclear medicine service category (Table 4-10, p. 112). This decrease was influenced by a shift in billing for these services from freestanding offices to HOPDs (Table 4-11). During this period, the number of echocardiograms per beneficiary delivered in HOPDs rose by 4.7 percent, compared with a 3.0 percent decline in freestanding offices. Similarly, the number of nuclear cardiology studies per beneficiary provided in HOPDs increased by 0.6 percent, compared with a 5.9 percent decline in freestanding offices. These changes in billing patterns are consistent with reports of an increase in hospital-owned cardiology practices (American College of Cardiology 2012).

**FIGURE 4–5**

**Growth in the volume of clinician services has caused fee schedule spending to increase faster than input prices and updates, 2000–2015**




Note: MEI (Medicare Economic Index). The MEI measures the change in clinician input prices. Spending per beneficiary includes only services paid under the fee schedule for physicians and other health professionals and excludes services paid under the clinical laboratory fee schedule.

Source: 2016 annual report of the Boards of Trustees of the Medicare trust funds; Clemens 2014.

### Across all services, volume growth has contributed to an increase in spending

The growth in service volume has contributed significantly to an increase in spending for fee schedule services (Figure 4-5). From 2000 to 2015, payment updates for these services have not kept pace with growth in input prices. Payment updates increased cumulatively by 10 percent—less than the 30 percent cumulative increase in the Medicare Economic Index (MEI), which measures changes in input prices. However, spending per beneficiary for these services grew at a cumulative rate of 71 percent, which includes the effect of the sequester. Volume growth, which accounts for most of the difference between the payment updates and spending growth, may reflect changes in clinical practice, such as the diffusion of new technologies, as well as changes in the demographic and health status of beneficiaries.[5]

In 2015, per beneficiary spending for fee schedule services increased by 0.6 percent. Several factors influenced the size of this change: the small increase in volume, the small increase in the fee schedule conversion factor (0 percent during the first half of 2015 and 0.5 percent during the second half of 2015), and payment adjustments outside of the update process (e.g., the Physician Quality Reporting System (PQRS) payment adjustment).

## Quality of care

CMS assesses the quality of Medicare-billing physicians and other health professionals based largely on clinician-reported individual quality measures. Clinicians select a set number of measures to report from about 300 measures in the PQRS measure set. These clinician-reported measures are currently used in the Medicare value-based payment modifier (known as the "value modifier") and will form the quality component of the Merit-based Incentive Payment System (MIPS). The MIPS will be used to make payment adjustments starting in 2019 based on four areas: quality, resource use, clinical practice improvement activities, and advancing care information (formerly meaningful use of electronic health records) (Centers for Medicare & Medicaid Services 2016a).

The Commission has repeatedly raised concerns with Medicare's current clinician quality programs and resulting payment adjustments. First, the quality reporting requirements are confusing and burdensome to providers, and the link between performance and the resulting payment adjustment is unclear. Second, the quality reporting process does not allow creation of a national performance benchmark across the entire universe of clinicians. Third, many of the quality measures are not linked to outcomes of importance for the beneficiary. And fourth, the measures do not generally assess low-value care.

Clinicians can choose the measures from PQRS that they wish to report, resulting in small case sizes and compressed performance. As a result, CMS's ability to differentiate performance is limited; either clinicians are not found to be different from average (the approach taken in the current value modifier) or clinicians receive different payment adjustments based on minimal differences in performance (the approach that will be used in the MIPS). The most commonly reported quality measure in 2014 was measure 130: *Documentation of current medications in the medical record* (Table 4-12, p. 116).

The current PQRS measure set has few measures assessing low-value care, and few clinicians report these measures. Low-value care is a significant issue in Medicare. For example, a Commission analysis found that between 23 percent and 38 percent of beneficiaries received at least one low-value service in 2013 (see text box, pp. 118–119).

The Commission has also considered ways of assessing aggregate performance on a few key outcomes measures of interest to patients in lieu of a large number of process measures. However, outcome measures such as readmissions, mortality, and avoidable hospitalizations are often unreliable at the individual clinician level and become measurable with some certainty only when clinicians are organized into larger entities or practices. As a result, in this chapter, we present aggregate national data and local market-area data for two population-based measures of potentially avoidable events that can gauge the quality of a community's ambulatory care environment.

First are the Prevention Quality Indicators (PQIs), developed by the Agency for Healthcare Research and Quality. These measures assess rates of hospitalizations for ambulatory care–sensitive conditions. Figure 4-6 (p. 116) presents results for three common conditions among the Medicare population—diabetes, congestive heart failure, and bacterial pneumonia. The trends show largely falling rates across all three conditions and the age categories, with the exception of potentially avoidable hospitalizations for congestive heart failure in 2014. The increase was likely due to hospitals changing their behavior in response

**TABLE 4–12**

**Top five PQRS measures reported by clinicians, 2014**

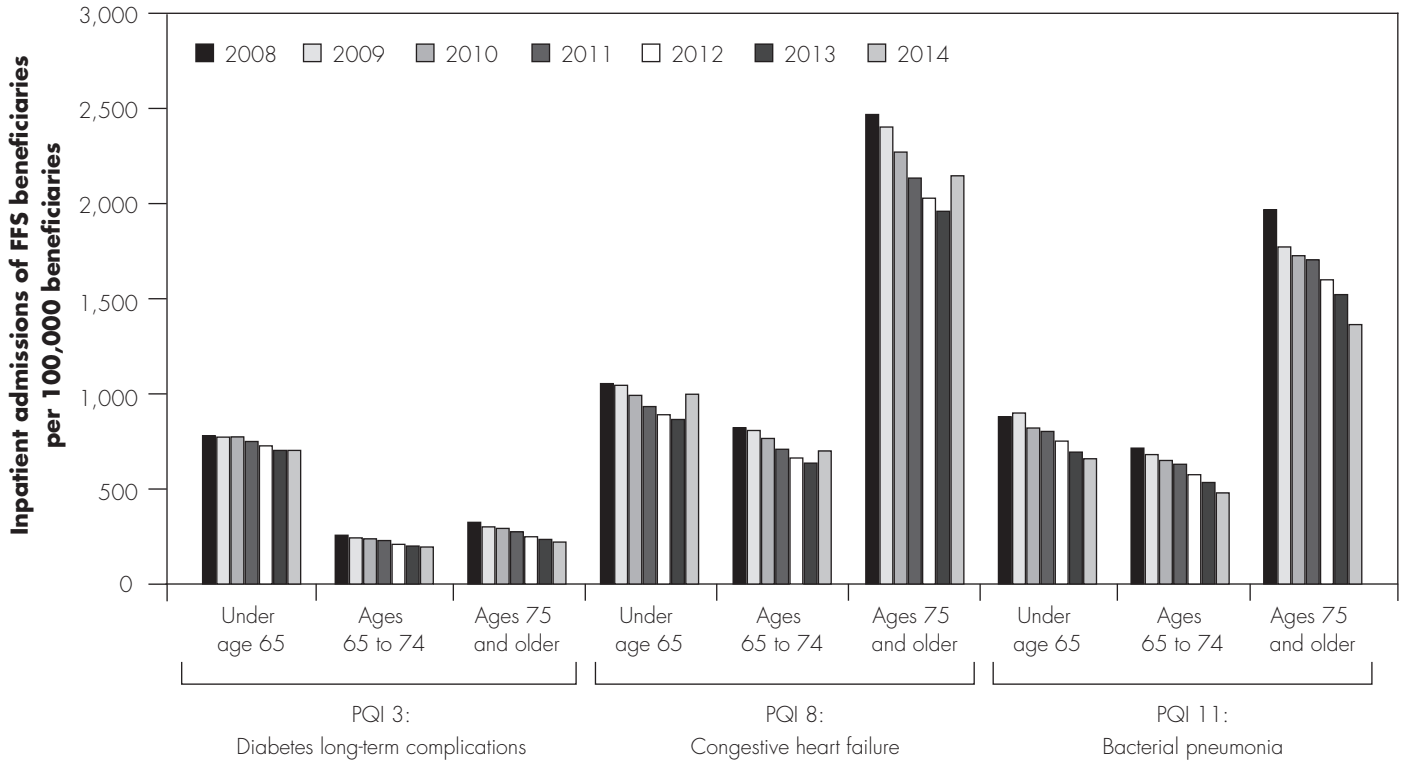
| Rank | Measure number | Measure | Number of clinicians reported | Mean performance rate across all reporting options |
|---|---|---|---|---|
| 1 | 130 | Documentation of current medications in the medical record | 156,727 | 84% |
| 2 | 226 | Preventive care and screening: Tobacco use: Screening and cessation intervention | 111,522 | 89 |
| 3 | 128 | Preventive care and screening: Body mass index screening and follow-up | 104,996 | 64 |
| 4 | 131 | Pain assessment and follow-up | 61,385 | 84 |
| 5 | 111 | Pneumonia vaccination status for older adults | 60,235 | 50 |

Note: PQRS (Physician Quality Reporting System).

Source: Centers for Medicare & Medicaid Services, PQRS Experience Report, 2015 Quality and Resource Use Reports baseline performance.

**FIGURE 4–6**

**Trends in selected Prevention Quality Indicators for inpatient admissions of FFS beneficiaries for ambulatory care–sensitive conditions, 2008–2014**




Note: FFS (fee-for-service), PQI (Patient Quality Indicator). Figures represent the number of hospital admissions for the identified condition for Medicare beneficiaries in each age range per 100,000 beneficiaries. Only FFS beneficiaries with both Part A and Part B are included. Beneficiaries who died during the year are included.

Source: CMS, data on geographic variation. Figures calculated by CMS from the Chronic Conditions Data Warehouse of 100 percent of claims.

**TABLE 4–13**

**Distribution of PPAs and PPVs in 2014 across all market areas**

| | Rate | |
|---|---|---|
| | **PPA** | **PPV** |
| Mean (population weighted) | 1.00 | 1.00 |
| Percentile | | |
| 10th (highest performing) | 0.85 | 0.24 |
| 25th | 0.94 | 0.72 |
| 50th (median) | 1.06 | 0.98 |
| 75th | 1.19 | 1.14 |
| 90th (lowest performing) | 1.32 | 1.29 |
| Difference between 90th and 10th percentile | 0.47 | 1.05 |

Note: PPA (potentially preventable admission), PPV (potentially preventable [emergency department] visit). Rates were calculated using 3M™ PPA/PPV software. A market area with a ratio less than 1.00 is a higher performing area; its actual rate of PPAs/PPVs is lower than the rate that is predicted based on the age and disease severity of beneficiaries who reside in that area. An area with a ratio greater than 1.00 is a lower performing area; its rate of PPAs/PPVs is greater than the rate that is predicted based on the age and disease severity of beneficiaries who reside in that area. There are 1,227 local market areas.

Source: Analysis of 2013 and 2014 100 percent Part A and Part B claims data.

to CMS's "two-midnight" rule that instructed Medicare auditors on how to differentiate between appropriate inpatient admissions and observation status.

Second, we present rates of potentially preventable admissions (PPAs) and potentially preventable visits (PPVs) to the emergency department. PPAs are hospital admissions that may have resulted from a lack of adequate ambulatory care access and coordination. PPVs are emergency department visits that, like PPAs, may reflect the effectiveness of the ambulatory care system. The PPAs and PPVs are based on the premise that, while not every PPA and PPV can be averted, comparatively high risk-adjusted rates of these events can identify opportunities for improvement in an area's ambulatory care systems.

Rates of these events vary across local market areas.[6] The rates are presented as a ratio of the actual rate to the rate that would be expected given the population's age and burden of chronic illness. Rates below 1.00 are better because the market area has fewer than expected PPAs or PPVs. Table 4-13 displays the distribution of percentiles, showing that PPV and PPA rates varied by market area. PPV rates show a wider variation (90th to 10th percentile: 1.05) compared with the rates of PPAs (90th to 10th percentile: 0.47). The geographic variation in PPAs and PPVs may indicate opportunities for ambulatory care improvement.

The Commission plans to continue to refine a set of population-based outcome measures, such as PPA and PPV, that Medicare can calculate using claims data.

## Medicare payments and providers' costs

Because physicians and other health professionals do not report their costs to the Medicare program, we use other measures to assess the adequacy of Medicare payments relative to clinicians' costs. The first measure is how Medicare's payments compare with the commercial rates paid by preferred provider organizations (PPOs). The second measure is whether Medicare's fee schedule contributes to differences in physician compensation across specialties—even after accounting for the cost of running a practice. The third measure assesses input prices for physicians and other health professionals—the MEI. We also review payment adjustments made in addition to the conversion factor update.

### Ratio of Medicare payments to commercial PPO payments did not change

In 2015, Medicare's payment rates for physician and other health professional services (including cost sharing) were

## Research shows substantial use of low-value care in fee-for-service Medicare

Low-value care is the provision of a service that has little or no clinical benefit or care in which the risk of harm from the service outweighs its potential benefit (Chan et al. 2013, Kale et al. 2013). In addition to increasing health care spending, low-value care has the potential to harm patients by exposing them to the risks of injury from inappropriate tests or procedures and may lead to a cascade of additional services that contain risks but provide little or no benefit (Keyhani et al. 2013, Korenstein et al. 2012). The "Choosing Wisely" campaign, an initiative of the American Board of Internal Medicine (ABIM) Foundation, identifies services that represent low-value care. In the latest iteration of this ongoing effort, over 70 specialty societies have identified more than 450 tests and procedures that are often overused (ABIM Foundation 2016).

A team of researchers developed 31 measures of low-value care drawn from evidence-based lists (such as Choosing Wisely), recommendations by the United States Preventive Services Task Force, and the medical literature, which they applied to Medicare claims data from 2009 through 2012 (Schwartz et al. 2015, Schwartz et al. 2014). The authors developed two versions of each measure: a broader one with higher sensitivity (and lower specificity) and a narrower one with lower sensitivity (and higher specificity). Increasing the sensitivity of a measure captures more potentially inappropriate use but is also more likely to misclassify some appropriate use as inappropriate. Increasing a measure's specificity leads to less misclassification of appropriate use as inappropriate, at the expense of potentially missing some instances of inappropriate use.

The Commission contracted with the authors of these studies to obtain the measures' specifications and their algorithms, which we applied to Medicare claims data from 2013. We developed two versions of each measure based on the original studies: a broader version (more sensitive, less specific) and a narrower version (less sensitive, more specific). For each version, we calculated the number of low-value services per 100 beneficiaries, the share of beneficiaries who received at least one low-value service, and total spending across all fee-for-service (FFS) beneficiaries for each service.

Our results show substantial use of low-value care in FFS Medicare. Based on the broader versions of the measures, our analysis showed 74 instances of low-value care per 100 beneficiaries in 2013, and 38 percent of beneficiaries received at least 1 low-value service. Medicare spending for these services in 2013 was $7.1 billion, or 2.1 percent of FFS Medicare spending for the beneficiaries in our sample. Based on the narrower versions of the measures, our analysis showed 35 instances of low-value care per 100 beneficiaries in

*(continued next page)*

78 percent of commercial rates for PPOs, the same ratio as in 2014. The ratio has declined slightly since 2010, when it was 81 percent. The 2015 ratio varied by type of service. For example, Medicare's fees were 84 percent of commercial rates for office visits for new and established patients, but 72 percent of commercial rates for cataract removal and lens insertion procedures. This analysis used data on paid claims for PPO members of a large national insurer that covers a wide geographic area across the United States. The payments reflect the insurer's allowed amount with allowed cost sharing. The data exclude any remaining balance billing and payments made outside of the claims process, such as bonuses or risk-sharing payments. We note that the ratio of Medicare rates to commercial rates may vary by practice type, practice size, and geographic area. For example, some large physician groups in California have been able to negotiate much higher rates with commercial plans than smaller groups (Berenson et al. 2010b).

We also examined information on the growth of prices for professional services from the Health Care Cost Institute (HCCI), which compiles data from four national insurance companies: Aetna, Humana, Kaiser Permanente, and UnitedHealthcare. Professional services include office

## Research shows substantial use of low-value care in fee-for-service Medicare (cont.)

2013, and 23 percent of beneficiaries received at least 1 low-value service. Medicare spending for these services totaled $2.6 billion, or 0.8 percent of FFS Medicare spending for the beneficiaries in our sample. The differences between the broader and narrower versions of the measures demonstrate that the amount of low-value care detected varies substantially based on the measures' clinical specificity.

We used claims data to measure low-value care, and claims do not include detailed clinical information. Therefore, our analysis likely represents a conservative estimate of the number of low-value services in Medicare. In addition, our spending estimates probably understate actual spending on low-value care because they do not include downstream services (e.g., follow-up tests and procedures) that may result from the initial low-value service.

Among the measures' broader versions, measures with the highest volume were imaging for low back pain (11.9 per 100 beneficiaries), prostate-specific antigen (PSA) screening for men ages 75 and over (9.2), and colon cancer screening for older adults (8.4). Those with the highest Medicare spending were percutaneous coronary intervention with balloon angioplasty or stent placement for stable coronary disease ($1.3 billion), stress testing for stable coronary disease ($1.3 billion), and spinal injection for low back pain ($1.3 billion).

Among the measures' narrower versions, measures with the highest volume were PSA screening for men ages 75 and over (5.2 per 100 beneficiaries), carotid artery disease screening in asymptomatic patients (4.3), and parathyroid hormone measurement for patients with early chronic kidney disease (3.8). Those with the highest Medicare spending were spinal injection for low back pain ($654 million), vertebroplasty or kyphoplasty for osteoporotic vertebral fractures ($359 million), and screening for carotid artery disease in asymptomatic adults ($234 million).

For more details on the volume and spending for individual measures, see the Commission's June 2016 data book (http://www.medpac.gov/docs/default-source/data-book/june-2016-data-book-section-5-quality-of-care-in-the-medicare-program.pdf?sfvrsn=0).

After grouping the 31 measures into 6 larger clinical categories, we found that imaging and cancer screening measures accounted for 60 percent of the volume of low-value care per 100 beneficiaries among the measures' broader versions. However, cardiovascular testing and procedures and other surgical procedures constituted over 70 percent of the spending. Among the measures' narrower versions, two categories (imaging and diagnostic and preventive testing) accounted for 60 percent of the volume of low-value care, while other surgical procedures and imaging made up two-thirds of the spending. ■

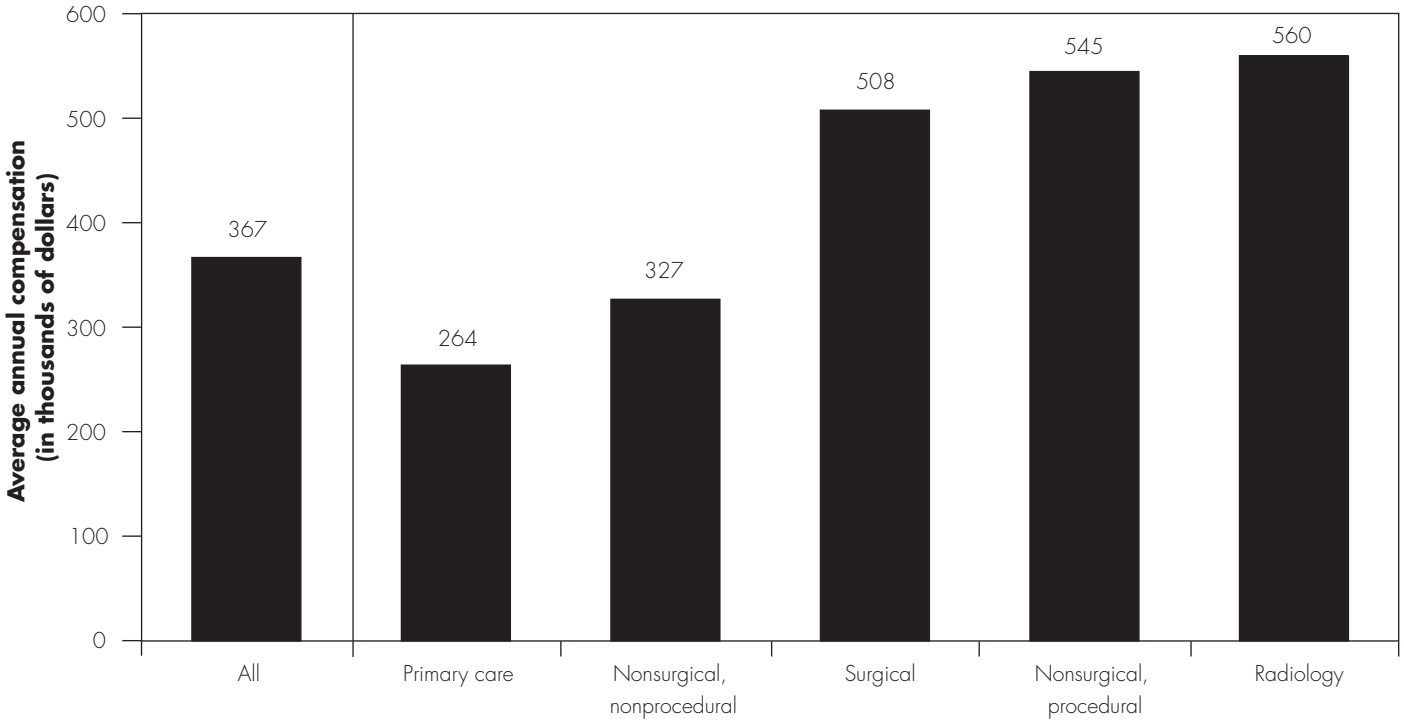
visits, surgery, radiology, anesthesia, lab/pathology, and physician-administered drugs. Between 2012 and 2015, the average intensity-adjusted price of a professional service increased at an average annual rate of 2.0 percent (the intensity-adjusted price adjusts for changes in the complexity of services) (Health Care Cost Institute 2016). By comparison, the Medicare update for physician and other health professional services grew at an average annual rate of 0.2 percent from 2012 to 2015. However, a key difference between the HCCI data and the Medicare update is that the HCCI data include prices for physician-administered drugs, which have been growing at a rapid rate, and the Medicare update does not apply to physician-administered drugs. Therefore, this comparison should be interpreted with caution.

### Compensation is much higher for certain specialties than for primary care

The Commission remains concerned that the fee schedule and the nature of FFS payment leads to an undervaluing of primary care and an overvaluing of specialty care. First, the Commission has concerns that the resource-based relative value scale, which forms the basis for the fee schedule, includes mispriced services and that these

**FIGURE 4–7**

**Disparities in physician compensation are widest when primary care physicians are compared with nonsurgical proceduralists and radiologists, 2015**




Source: MedPAC analysis of data from the Medical Group Management Association's Physician Compensation and Production Survey, 2015.

mispriced services cause an income disparity between primary care and specialty physicians. Second, FFS payment allows some specialties to more easily increase the volume of services they provide (and therefore their revenue from Medicare), while such increases are less likely for other specialties, particularly those that spend most of their time providing E&M services.

For an analysis of the compensation received by physicians—the largest subset of practitioners—we examined data from the Physician Compensation and Production Survey from 2015, conducted by the Medical Group Management Association (MGMA). Averaged across all specialties, physician compensation was about $367,000 in 2015, 4 percent higher than average compensation in 2014 ($354,000). Within these averages, compensation was much higher for some specialties than others. The specialty groups with the highest compensation were radiology (average compensation of $560,000) and the nonsurgical, procedural group (average compensation of $545,000) (Figure 4-7).[7] Compensation for these groups was almost double the compensation of some of the specialties in the nonsurgical, nonprocedural group—such as psychiatry (average compensation of $289,000)—and was more than double the compensation for primary care physicians (average compensation of $264,000).[8] Our analysis of 2012 and 2014 data from MGMA showed similar disparities.

Previous Commission work using MGMA data showed that such disparities also existed when compensation was observed on an hourly basis, thus accounting for variations in hours worked per week.[9] In addition, the disparities persist when compensation is simulated as if all services physicians provide were paid under Medicare's fee schedule (Berenson et al. 2010a). This finding suggests that the fee schedule is an important source of the disparities in compensation among specialties.

## Commission recommendation for a per beneficiary payment for primary care

The Commission has a long-standing concern that primary care is undervalued by the Medicare fee schedule for physicians and other health professionals compared with specialty care. The Commission has also become concerned that the fee schedule is an ill-suited payment mechanism for primary care. The Commission, in its March 2015 report, recommended that the Congress establish a per beneficiary payment for primary care to replace the expired Primary Care Incentive Payment (PCIP) program, which provided a 10 percent bonus payment on fee schedule payments for primary care visits provided by primary care providers (Medicare Payment Advisory Commission 2015). The recommended monthly per beneficiary payment based on PCIP payments would initially amount to about $2.60.

The Commission recommended that the additional payments to primary care practitioners be in the form of a per beneficiary payment as a step away from the service-oriented fee-for-service payment approach. Funding for the per beneficiary payment would come from reducing fees for all services in the fee schedule other than PCIP-defined primary care services provided by any practitioner. This method of funding would be budget neutral and would help rebalance the fee schedule to achieve greater equity of payments between primary care and other services. ■

Validation of the fee schedule's RVUs can help correct the fee schedule's inaccuracies and ensure that physicians at the high end of the compensation scale are not overcompensated. CMS has a statutory mandate and resources to validate RVUs, and the Commission has provided CMS with ideas for how to do so (Medicare Payment Advisory Commission 2015). In addition, the Commission made a recommendation in 2015 for a per beneficiary payment for primary care that could help redistribute Medicare spending to primary care from other services (see text box about this recommendation).

To better support primary care and patient-centered care management, CMS introduced new billing codes for chronic care and transitional care management services in recent years. These codes were implemented in a budget-neutral manner. The use of these new services has been growing, and Medicare spent almost $180 million on them in 2015 (see text box, pp. 124–125). Primary care clinicians provide about 90 percent of these services.

### Input costs for physicians and other health professionals are projected to increase from 2017 to 2018

The MEI measures the change in the market basket of input prices for physician and other health professional services and is adjusted for economy-wide productivity.[10] CMS's current forecast is that the MEI will increase by 2.4 percent in 2018 (IHS Markit LTD 2016).

### Payment adjustments outside of the update process also affect spending

Medicare spending for the services of physicians and other health professionals is also affected by bonuses, penalties, and payment adjustments. The effect of these adjustments can be large and help explain the portion of spending increases or decreases not explained by updates or volume growth.

Table 4-14 (p. 122) shows these adjustments in two categories: direct payment adjustments and payment adjustments for incentive programs. Some of the incentive programs are changing from payment incentives to payment penalties. The Primary Care Incentive Payment program expired at the end of 2015. In addition, the electronic health record meaningful use requirement, PQRS, and value modifier will be phased out at the end of 2018 and replaced by the MIPS.

## How should Medicare payments change in 2018?

The Commission's deliberations on payment adequacy for physicians and other health professionals are informed by beneficiary access to services, volume growth, quality, and input prices for physicians and other health professionals.

**TABLE 4–14**

**Payment adjustments for clinicians billing Medicare, 2015**

| Category | Adjustment | Number of providers | Spending impact (in millions) | Source and notes |
|---|---|---|---|---|
| **Direct payment adjustments** | HPSA payment adjustment | 52,323 | +$135 | 2015 analysis of claims |
| | Work GPCI floor | Not available | +400 | CBO estimate of MACRA, 2014 |
| | Sequester | All billing providers (about 1,200,000) | –1,400 | Estimate based on 2016 Trustees' report |
| | Primary Care Incentive Payment | 192,211 | +686 | 2015 analysis of claims |
| **Payment adjustments for incentive programs** | PQRS payment adjustment | 448,872 | –400 | Provider data for 2013, estimated spending impact. Failure to report resulted in a PQRS penalty of 1.5% in 2015. |
| | EHR incentive | 193,452 | +929 | CMS payment summary, 2015 |
| | EHR payment adjustment | Not yet released | Not yet released | Failure to meet meaningful use in 2015 resulted in 1% penalty |

Note: HPSA (health professional shortage area), GPCI (geographic practice cost index), CBO (Congressional Budget Office), MACRA (Medicare Access and CHIP Reauthorization Act of 2015), PQRS (Physician Quality Reporting System), EHR (electronic health record).

Source: CMS/Office of the Actuary, annual report of the Boards of Trustees of the Medicare trust funds, Congressional Budget Office, Department of Health and Human Services.

We find that, on the basis of these indicators, payments appear adequate.

On measures of access to the services of physicians and other health professionals, the Commission continues to find that beneficiary access to care appears generally stable. Overall, Medicare beneficiaries generally have access comparable with privately insured individuals ages 50 to 64. Our beneficiary access survey shows a small reported decline in recent years among the share of beneficiaries accessing care as soon as wanted. These modest declines in reported access appear to be occurring for both Medicare and privately insured individuals. To the extent there are true changes in access, they may be the result of broader changes in health care delivery, not Medicare policies in particular. In addition, other surveys covering similar time periods do not show a decline in reported access among Medicare beneficiaries. The number of primary care physicians per beneficiary stayed the same, a slight decline in the number of non–primary care physicians per beneficiary was more than offset by an increase in the number of advanced practice registered nurses and physician assistants per beneficiary, and the share of providers enrolled in Medicare's participating provider program remains high.

In 2015, across all services, volume per beneficiary grew by 1.6 percent. Among broad categories of service, growth rates were 1.7 percent for E&M, 0.5 percent for imaging services, 1.4 percent for major procedures, 1.9 percent for other procedures, and 1.6 percent for tests (Table 4-10, p. 112).

As of the third quarter of 2016, input prices for physicians and other health professionals were projected to increase by 2.4 percent in 2018. We note that this projection is subject to change. In 2015, compensation was much lower for primary care physicians than for physicians in certain

specialties, continuing to raise concerns about fee schedule mispricing and its impact on primary care.

### Update recommendation

In recommending an update for physicians and other health professionals, the Commission balanced the following objectives:

- maintain beneficiary access to physician and other health professional services,
- minimize the burden on the taxpayers and beneficiaries who finance the Medicare program, and
- ensure adequate payments for the efficient provision of services.

In balancing these objectives with the overall finding that payments appear adequate, the Commission recommends an update for 2018 consistent with current law.

**RECOMMENDATION 4**

**The Congress should increase payment rates for physician and other health professional services by the amount specified in current law for calendar year 2018.**

**RATIONALE 4**

The Medicare Access and CHIP Reauthorization Act of 2015 established a set of statutory updates for clinicians, including a 0.5 percent update for 2018. Overall, access to clinician services for Medicare beneficiaries appears stable and comparable with that for privately insured individuals. Other measures of payment adequacy are stable and consistent with prior years. Therefore, the Commission does not see a reason to diverge from the current law update of 0.5 percent for 2018.

**IMPLICATIONS 4**

### Spending

- No change as compared with current law.

### Beneficiary and provider

- The Commission's recommendation of the current law update is unlikely to affect beneficiaries' access to care and providers' willingness and ability to furnish care. ■

## Chronic care management and transitional care management services

To improve payment for and encourage the use of care management services, CMS instituted separate payments for chronic care management (CCM) and transitional care management (TCM) services in recent years.

### Chronic care management

In 2015, Medicare began paying separately for non-face-to-face CCM services through the fee schedule. The 2015 base payment rate for a CCM service was $43 when performed in a physician's office and $87 when performed in a hospital outpatient department (HOPD). Beneficiaries are responsible for 20 percent coinsurance for these services. Providers are able to bill for this new service when they provide at least 20 minutes of care management services in a calendar month to beneficiaries with 2 or more chronic conditions that place them at a significant risk of death, acute exacerbation/decompensation, or functional decline. CMS established several requirements for providers to bill a CCM service, such as creating an electronic patient-centered care plan, providing 24/7 access to care, and managing care transitions between health care settings. Billing for these services is not limited to primary care clinicians.

We examined the use and spending associated with CCM services in 2015 and the characteristics of beneficiaries who received them. We found the following:

- Clinicians billed for just under 1 million CCM services on behalf of 292,000 beneficiaries, for an average of 3.4 services per beneficiary.
- The number of beneficiaries who received a CCM service in a given month increased steadily from 21,000 in January to 127,000 in December.
- Payments totaled $41 million, with Medicare paying $33 million and beneficiaries paying $8 million.
- Primary care practitioners provided 87 percent of CCM services, with cardiology being the highest billing non–primary care specialty at 5 percent of CCM services.
- Only 7,900 providers billed for a CCM service across the entire year.
- Beneficiaries who received at least one CCM service were older and more likely to be eligible for Medicaid, female, non-White, and residing in an urban area compared with all Medicare fee-for-service (FFS) beneficiaries. They were also less likely to be eligible for Medicare because of disability.

CMS has received feedback from providers that the requirements to bill for a CCM service are burdensome and redundant, which prevents them from providing the services to beneficiaries who could benefit from them (Centers for Medicare & Medicaid Services 2016b). Further, providers said that the service is undervalued, given that they often spend far more than the minimum of 20 minutes per beneficiary per month performing CCM services. Given this feedback and the agency's mandate under the Medicare Access and CHIP Reauthorization Act of 2015 to encourage beneficiaries with chronic conditions to receive CCM services, CMS added multiple new CCM codes and eased the billing requirements for CCM services. In 2017, CMS added a higher paid code for 60 minutes of complex CCM, an add-on code for each additional 30 minutes of complex CCM, and an add-on code for an extensive face-to-face assessment and care planning provided during an evaluation and management (E&M) visit that initiates CCM services. In addition, CMS relaxed several requirements for CCM services. For example, beginning in 2017, CMS no longer requires written beneficiary consent to receive CCM services, access to the electronic care plan outside of normal business hours to those providing the CCM services, or CCM services to be initiated during an E&M visit for established patients.

### Transitional care management

In 2013, CMS instituted separate payments for TCM services for beneficiaries who require moderate- or high-complexity medical decision making. TCM services are intended to pay providers for managing a beneficiary's care for 30 days after discharge from

*(continued next page)*

## Chronic care management and transitional care management services (cont.)

certain institutional settings, such as an inpatient acute care hospital, inpatient psychiatric hospital, or skilled nursing facility. To bill for a TCM service, a provider must have interactive contact with the beneficiary, such as a phone call or e-mail, within 2 business days following the beneficiary's discharge; have a face-to-face visit within 14 days of discharge for beneficiaries requiring moderately complex medical decision making or within 7 days for beneficiaries requiring highly complex medical decision making; and perform certain non-face-to-face services as necessary, such as reviewing discharge information, assisting in scheduling follow-up appointments, and establishing referrals for needed community resources. Medicare pays only one practitioner per discharge for a TCM service; Medicare pays the first eligible claim submitted during the 30-day period after discharge. In 2015, the Medicare base payment rate for a TCM service with moderately complex medical decision making was $166 if provided in a physician's office and $218 if provided in an HOPD. For a TCM service with highly complex medical decision making, the 2015 payment rate was $232 if provided in a physician's office or $268 if provided in an HOPD. Beneficiaries are responsible for 20 percent coinsurance for these services.

We examined the utilization and spending associated with TCM services from 2013 through 2015 and the characteristics of beneficiaries who received them in 2015. We found the following:

- The number of beneficiaries who received a TCM service increased from 267,000 in 2013 to 616,00 in 2015.
- The number of TCM services increased from 298,000 in 2013 to 722,000 in 2015, with most beneficiaries receiving only 1 service per year throughout the time period.
- Total Medicare and beneficiary spending on TCM services has increased from $56 million in 2013 to $136 million in 2015.
- The share of TCM services performed in physicians' offices decreased from 91 percent in 2013 to 88 percent in 2015, while the share performed in the more expensive HOPD setting increased from 5 percent to 7 percent over the same time period.
- In each year, about 93 percent of TCM services were performed by primary care providers.
- The number of providers who billed at least 1 TCM service per year increased from about 31,000 in 2013 to about 51,000 in 2015.
- Beneficiaries who received at least one TCM service in 2015 were older and more likely to be eligible for Medicaid and to be female, White, and residing in an urban area compared with all Medicare FFS beneficiaries. They were also less likely to be eligible for Medicare because of disability. ■

# Endnotes

1 For further information, see the Commission's *Payment Basics: Physician and Other Health Professionals Payment System* at http://www.medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_16_physician_final.pdf?sfvrsn=0.

2 The 0.25 percent increase in the conversion factor is smaller than the 0.5 percent statutory update due to three adjustments: a relative value unit budget-neutrality adjustment of –0.013 percent, a misvalued-services target recapture amount of –0.18 percent, and an imaging multiple-procedure payment reduction adjustment of –0.07 percent.

3 Under prior law, clinicians had to affirmatively renew them every two years.

4 The Current Procedural Terminology code for this visit is 99213. The total nonfacility fee includes work RVUs, practice expense RVUs, and professional liability insurance RVUs.

5 The effect of population changes in age and sex on Medicare spending for physician and other health professional services has generally been small in the recent past, and physician spending varies less by age than spending for other services, such as inpatient hospital and post-acute care.

6 The Commission has defined market areas that best match insurance markets served by private plans. There are about 1,231 market areas in the 50 states and the District of Columbia. In urban areas, we use collections of counties located in the same state and the same core-based statistical area (CBSA), which is a collective term for both metropolitan and micropolitan areas. Among counties outside CBSAs, we use health service areas, which are collections of counties where most of the short-term hospital care received by beneficiaries living in those counties occurs in hospitals in the same collection of counties.

7 The nonsurgical, procedural specialties in the analysis are cardiology, dermatology, gastroenterology, and pulmonary medicine.

8 In addition to psychiatry, the nonsurgical, nonprocedural group includes emergency medicine, endocrinology, hematology/oncology, nephrology, neurology, physiatry, rheumatology, hospital medicine, and urgent care. The primary care specialties in the analysis are family medicine, internal medicine, and general pediatrics.

9 To account for differences among specialties in hours worked per week, an earlier analysis based on MGMA data from 2007 included comparisons of hourly compensation. The results were similar to those from the analysis of 2015 data on annual compensation: Hourly compensation for nonsurgical, procedural specialties and radiology was more than double the hourly compensation rate for primary care. Analysis of hourly compensation was not possible with the 2015 data because the newer MGMA survey did not include questions about hours worked.

10 The MEI measures the weighted average annual price change for various inputs used by physicians and other health professionals to furnish services.

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CHAPTER 5

# Ambulatory surgical center services

## RECOMMENDATION

**5** The Congress should eliminate the update to the payment rates for ambulatory surgical centers for calendar year 2018. The Congress should also require ambulatory surgical centers to submit cost data.

**COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0**

CHAPTER 5

# Ambulatory surgical center services

## Chapter summary

Ambulatory surgical centers (ASCs) provide outpatient procedures to patients who do not require an overnight stay after the procedure. In 2015, nearly 5,500 ASCs treated 3.4 million fee-for-service (FFS) Medicare beneficiaries. Medicare program and beneficiary spending on ASC services was about $4.1 billion.

### Assessment of payment adequacy

Our results indicate that beneficiaries' access to ASC services is adequate. Most of the available indicators of payment adequacy for ASC services, discussed below, are positive.

***Beneficiaries' access to care*—**Our analysis of facility supply and volume of services indicates that beneficiaries' access to ASC services has generally been adequate.

- ***Capacity and supply of providers*—**From 2010 to 2014, the number of Medicare-certified ASCs grew at an average annual rate of 1.1 percent. In 2015, the number of ASCs increased 1.4 percent. Most new ASCs in 2015 (96 percent) were for-profit facilities.
- ***Volume of services*—**From 2010 through 2014, the volume of services per beneficiary grew by an average annual rate of 0.5 percent. In 2015, volume increased by 1.8 percent, which is higher than in recent years.

## In this chapter

- Are Medicare payments adequate in 2017?
- How should Medicare payments change in 2018?

***Quality of care*—**ASCs began submitting data on quality measures to CMS in October 2012. CMS has made data from 2013 and 2014 publicly available for five of these measures. Among the ASCs that submitted data on these measures, quality appears to have improved from 2013 to 2014. However, CMS allowed ASCs to suppress their data on these measures, and some ASCs chose that option. Therefore, the data from the ASCs that did not have their data suppressed may not necessarily represent the quality performance of the sector in general. For 2014, CMS has released quality data on four other measures. We have concerns about ASCs' performance on some of these measures. For example, only 10 percent of reporting ASCs indicated all of their personnel had a flu vaccine, and 14 percent of reporting ASCs indicated that less than 50 percent of the personnel had a flu vaccine. Further, reported quality data and claims analysis suggest possible areas of improvement for certain types of ASCs.

***Providers' access to capital*—**Because the number of ASCs has continued to increase, access to capital appears to be adequate.

***Medicare payments and providers' costs*—**Medicare payments per FFS beneficiary increased by an average of 2.8 percent per year from 2010 through 2014 and by 5.2 percent in 2015. ASCs do not submit data on the cost of services they provide to Medicare beneficiaries. Therefore, we cannot calculate a Medicare margin like we do for other provider types to help assess payment adequacy.

On the basis of these indicators, the Commission concludes that ASCs can continue to provide Medicare beneficiaries with access to ASC services with no update to the payment rates for 2018. In addition, the Commission again recommends that CMS collect cost data from ASCs without further delay. ■

## Background

An ambulatory surgical center (ASC) is a distinct entity that primarily provides outpatient procedures to patients who do not require an overnight stay after the procedure. In addition to ASCs, hospital outpatient departments (HOPDs) and, in some cases, physicians' offices perform outpatient surgical procedures.

Since 1982, Medicare has covered and paid for surgical procedures provided in ASCs. Medicare provides separate payments for 3,400 surgical procedures under the ASC payment system. However, the volume of ASC services is concentrated on a relatively small number of services: 70 percent of the volume occurs in only 20 services. Physicians who perform procedures in ASCs or other facilities receive a separate payment for their professional services under the payment system for physicians and other health professionals, also known as the physician fee schedule (PFS). According to surveys, most ASCs have partial or complete physician ownership (Ambulatory Surgery Center Association 2011, Medical Group Management Association 2009). Physicians who perform surgeries in ASCs they own receive a share of the ASC's facility payment in addition to payment for their professional services. To receive payments from Medicare, ASCs must meet Medicare's conditions of coverage, which specify standards for administration of anesthesia, quality evaluation, operating and recovery rooms, medical staff, nursing services, and other aspects of care.

Medicare pays ASCs for a bundle of facility services—such as nursing, recovery care, anesthetics, and supplies—through a system that is primarily linked to the outpatient prospective payment system (OPPS), which Medicare uses to set payment rates for most services provided in HOPDs (a more detailed description of the ASC payment system can be found online at http://medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_16_asc_final.pdf?sfvrsn=0). The ASC payment system is also partly linked to the PFS. In 2008, the ASC system underwent substantial revisions (see online Appendix 2C-A from Chapter 2C of our March 2010 report to the Congress, available at http://www.medpac.gov/docs/default-source/reports/Mar10_Ch02C_APPENDIX.pdf?sfvrsn=0.) The most significant changes included a substantial increase in the number of surgical procedures covered; permission for ASCs to bill separately (that is, outside the payment bundle) for certain ancillary services; and large changes in payment rates for many procedures.

For most covered procedures, the ASC relative weight, which indicates a procedure's resource intensity relative to other procedures, is based on its relative weight under the OPPS. Although the ASC payment system is linked to the OPPS, payment rates for all services covered under both systems are lower in ASCs for two reasons. First, relative weights have been lower under the ASC system compared with the OPPS system. CMS makes proportional adjustments to the relative weights from the OPPS to maintain budget neutrality in the ASC system. In 2017, this adjustment has reduced the ASC relative weights by 10 percent below the relative weights in the OPPS. Second, for most procedures covered under the ASC system, the payment rate is the product of its relative weight and a conversion factor, set at $45.02 for 2017, which is lower than the OPPS conversion factor ($75.00 for 2017).

The ASC conversion factor is lower than the OPPS conversion factor because the ASC conversion factor started at a lower level in 2008 and has been updated at a lower rate than the OPPS conversion factor since then. CMS set the initial ASC conversion factor in 2008 such that total ASC payments under the revised payment system would equal what they would have been under the previous ASC payment system. The resulting ASC conversion factor for 2008 was lower than the OPPS conversion factor in 2008. In addition, since 2008, CMS has updated the ASC conversion factor based on the consumer price index for all urban consumers (CPI–U), whereas it has used the hospital market basket to update the OPPS conversion factor. The CPI–U has generally been lower than the hospital market basket, so the updates to the ASC conversion factor have been smaller than the updates to the OPPS conversion factor.

We are concerned that the CPI–U may not reflect ASCs' cost structure (see text box on the ASC market basket, p. 149). However, CMS does not collect ASC cost data, which we could use to determine whether an alternative input price index would be an appropriate proxy for ASC costs. The ASC industry has opposed the collection of cost information for this purpose (Ambulatory Surgery Center Association 2012). Nevertheless, the Commission has recommended that CMS collect cost data from ASCs to identify an alternative price index (Medicare Payment Advisory Commission 2010b).

CMS uses a method different from the one described above to determine payment rates for procedures that are predominantly performed in physicians' offices and were first covered under the ASC payment system in 2008

or later. Payment for these "office-based" procedures is the lesser of the amount derived from the standard ASC method or the practice expense portion of the PFS rate that applies when the service is provided in a physician's office (the nonfacility practice expense, which covers the equipment, supplies, nonphysician staff, and overhead costs of a service). CMS set this limit on the rate for office-based procedures to prevent migration of these services from physicians' offices to ASCs for financial reasons.[1] The Commission has investigated payment rate differences across multiple ambulatory settings, including ASCs, HOPDs, and physicians' offices (Medicare Payment Advisory Commission 2014, Medicare Payment Advisory Commission 2013a, Medicare Payment Advisory Commission 2012).

The ASC payment system generally parallels the OPPS in terms of which ancillary services are paid separately and which are packaged into the payment of the associated surgical procedure. In 2015, however, CMS implemented comprehensive ambulatory payment classifications (C–APCs) for the OPPS but not for the ASC system. C–APCs largely combine all hospital services reported on a claim that are covered under Medicare Part B into a single payment, with a few exceptions. CMS chose not to implement C–APCs into the ASC system because the ASC claims processing system does not allow for the type of packaging of ancillaries necessary for creating C–APCs.

In 2008, Medicare began making separate payments to ASCs for the following ancillary items and services:

- radiology services that are integral to a covered surgical procedure if separate payment is made for the radiology service in the OPPS;
- brachytherapy sources implanted during a surgical procedure;
- all drugs that are paid for separately under the OPPS when provided as part of a covered surgical procedure (pass-through and non-pass-through drugs); and
- devices with pass-through status under the OPPS.[2]

Although we do not have recent ASC cost data that would allow us to quantify cost differences between settings, some evidence suggests that ASCs are a lower cost setting than HOPDs. The Government Accountability Office (GAO) compared ASC cost data from 2004 with HOPD costs and found that costs were, on average, lower in ASCs than in HOPDs (Government Accountability Office 2006).[3] In addition, studies that used data from the National Survey of Ambulatory Surgery found that the average time for ambulatory surgical visits for Medicare patients was 25 percent to 39 percent lower in ASCs than HOPDs, which likely contributes to lower costs in ASCs (Hair et al. 2012, Munnich and Parente 2014). An additional study using data from a facility that has both an ASC and a hospital found that surgeries took 17 percent less time in the ASC (Trentman et al. 2010). Trentman and colleagues and Munnich and Parente estimated less time savings in ASCs than did Hair and colleagues, likely because Trentman and colleagues and Munnich and Parente accounted for differences in health status between patients treated in ASCs and those treated in HOPDs, while Hair and colleagues did not.

## Are Medicare payments adequate in 2017?

To address whether payments for the current year (2017) are adequate to cover the costs of efficient providers and how much payments should change in the coming year (2018), we examine several measures of payment adequacy. We evaluate beneficiaries' access to care by examining the supply of ASC facilities and changes over time in the volume of services provided, providers' access to capital, and changes in ASC revenue from the Medicare program.

ASCs began submitting quality data to CMS in October 2012. Data from 2013 and 2014 for five quality measures are now publicly available. However, CMS gave ASCs the option to suppress these data. For ASCs that chose that option, their data from 2013, 2014, or both are not publicly available. CMS allowed ASCs to suppress these data out of concern that some ASCs had difficulty implementing systems changes that were necessary for submission of the data (Quality Reporting Center 2015). Suppressing data from some ASCs has the potential to distort the overall picture presented by available data on ASCs' performance on these quality measures, which could diminish the usefulness of these data. On four of these measures, data are not reported for 6 percent of the ASCs because the ASC elected not to submit the data, the ASC had no claims data for the measure, or the ASC elected to have its data suppressed. Data are not reported for the fifth measure for 57 percent of ASCs. Because data are missing or not reported for a meaningful share of ASCs, the data that are reported may not be fully representative of the actual quality of care provided in ASCs. Putting these gaps aside, however, reported quality data and claims data suggest possible areas of quality improvement for certain types of ASCs.

## Differences in types of patients treated in ambulatory surgical centers and hospital outpatient departments

There is evidence that patients treated in ambulatory surgical centers (ASCs) are different in several ways from those in hospital outpatient departments (HOPDs). Our analysis of Medicare claims from 2015 found that the following groups represent a smaller share of ASC patients than of HOPD patients: Medicare beneficiaries who also have Medicaid coverage (dual eligibles), African Americans (who are more likely to be dually eligible), beneficiaries who are eligible for Medicare because of disability (under age 65), and beneficiaries who are ages 85 and older (Table 5-1).[4] The smaller share of disabled and older beneficiaries treated in ASCs may reflect the healthier average profile of ASC patients relative to HOPD patients. In addition, the smaller share of African American patients in ASCs relative to HOPDs may be linked to differences in the geographic locations of ASCs and hospitals, the lower rate of supplemental coverage among African Americans, the higher proportion of African Americans who are dually eligible, and the relatively high share of African Americans who use HOPDs or emergency departments (EDs) as their usual source of care (Centers for Medicare & Medicaid Services 2015a).

In a separate analysis, we found that patients in HOPDs in 2014 were, on average, more medically complex than patients treated in ASCs, as measured by differences in average patient risk scores. We used risk scores from the CMS–hierarchical condition category (CMS–HCC) risk adjustment model used in Medicare Advantage to measure patient severity. CMS–HCC risk scores predict beneficiaries' relative costliness based on their age and sex, their diagnoses from the prior year, whether they are dually eligible, and whether they are currently age 65 or older but were originally eligible for Medicare because of disability. The average risk score for HOPD patients across all procedures in 2014 was 1.57 compared with 1.13 for ASC patients.

**TABLE 5–1**

**Medicare patients treated in ASCs differ from patients treated in HOPDs, 2015**

| | Percent of beneficiaries | |
|---|---|---|
| **Characteristic** | **ASC** | **HOPD** |
| Medicaid status* | | |
| Not Medicaid | 86.7% | 78.4% |
| Medicaid | 13.3 | 21.6 |
| Race/ethnicity | | |
| White | 86.7 | 83.2 |
| African American | 6.9 | 10.2 |
| Other | 6.3 | 6.5 |
| Age | | |
| Under 65 | 12.0 | 19.5 |
| 65 to 84 | 81.0 | 70.7 |
| 85 or older | 7.0 | 9.8 |
| Sex | | |
| Male | 42.9 | 44.8 |
| Female | 57.1 | 55.2 |

Note: ASC (ambulatory surgical center), HOPD (hospital outpatient department). All of the differences between ASC and HOPD beneficiaries are statistically significant ($p < 0.05$). The analysis excludes beneficiaries who received services that are not covered in the ASC payment system.
*"Medicaid status" refers to whether a beneficiary has dual eligibility. "Not Medicaid" indicates a beneficiary does not have dual eligiblity, and "Medicaid" indicates a beneficiary has dual eligibility.

Source: MedPAC analysis of physician/supplier and outpatient standard analytic files, 2015.

*(continued next page)*

Most of our available indicators of payment adequacy are positive. Beneficiaries have adequate access to care in ASCs, although some groups—such as beneficiaries dually eligible for Medicare and Medicaid, African Americans, and beneficiaries under age 65—are less likely than the average beneficiary to receive care in ASCs than in HOPDs (see text box on the differences in types of patients treated in ASCs and HOPDs). ASCs also have adequate access to capital, and Medicare payments to ASCs have continued to grow.

### Beneficiaries' access to care: Supply of ASCs and volume of services indicate adequate access

Increases in the number of Medicare-certified facilities and fairly stable volume of services provided to Medicare

## Differences in types of patients treated in ambulatory surgical centers and hospital outpatient departments (cont.)

This difference is statistically significant ($p < 0.05$). Beneficiaries who have higher risk scores are likely to be sicker and may require more time and resources to treat. For example, analysis of surgery time for procedures performed in ASCs and HOPDs indicates that surgery time increases as patients' risk scores increase (Munnich and Parente 2014).[5] Moreover, sicker patients may be referred to HOPDs instead of ASCs because hospitals offer emergency services and access to onsite specialists if complications arise.

A caveat about this comparison is that patient risk scores tend to be higher in some regions than in others. To the extent that the regions where ASCs are relatively common have risk scores that are different from the overall average, the differences in risk scores that we estimated may be affected. However, our estimated difference in risk scores between ASC patients and HOPD patients is so large that regional differences in risk scores are very unlikely to affect the conclusion that HOPD patients have higher average risk scores than ASC patients.

We also compared average patient risk scores for each of the 137 services that composed 90 percent of ASC volume in 2014. For 112 of these services, the average HOPD risk score was statistically higher than the average ASC risk score ($p < 0.05$). For the remaining 25 services, the severity of patients in HOPDs was similar to or less than the severity of patients in ASCs.

There is evidence that ASCs treat fewer Medicaid patients than HOPDs. According to data from Pennsylvania on Medicare and non-Medicare patients, ASCs are less likely than HOPDs to serve Medicaid patients (Pennsylvania Health Care Cost Containment Council 2016). In Pennsylvania in 2015, Medicaid patients accounted for 5.9 percent of ASCs' diagnostic and surgical procedures, compared with 12.5 percent of HOPDs' procedures.[6] Commercially insured and Medicare patients represented a higher share of ASC procedures than HOPD procedures (86.2 percent vs. 77.7 percent, respectively). Although Pennsylvania data may not be nationally representative, national estimates from the National Survey of Ambulatory Surgery (NSAS), conducted by the Centers for Disease Control and Prevention, show that ASCs treated a smaller share of Medicaid patients than did HOPDs in 2006. According to the NSAS data, ambulatory surgery visits by Medicaid patients accounted for 3.9 percent of total visits to freestanding ASCs compared with 8.1 percent of total visits to hospital-based surgery centers.[7]

Several factors could be responsible for ASCs treating a smaller share of Medicaid patients (including dually eligible beneficiaries) than HOPDs. A study by Gabel and colleagues (2008) suggests that insurance coverage influences a physician's decision to refer a patient to an ASC or to a hospital. This study found that physicians in Pennsylvania were much more likely to refer their commercially insured and Medicare patients than their Medicaid patients to a physician-owned ASC.

The location of ASCs may also lead to a smaller share of Medicaid patients. A study by Strope and colleagues indicates that people living in areas that have relatively low socioeconomic status (measured by median household income; value of owner-occupied housing; share of households with dividend or rental income; educational attainment; and share of residents employed in managerial, professional, and related occupations) are less likely to receive surgical services in ASCs than are people living in areas that have high socioeconomic status (Strope et al. 2009b). Also, research indicates that ASCs are most likely to enter markets that did not previously have an ASC if a market has relatively high per capita income (Suskind et al. 2015).[8]

In addition, many state Medicaid programs do not pay Medicare's cost sharing for dually eligible beneficiaries if the amount Medicare pays for a service (Medicare payment rate minus the cost sharing) is higher than the Medicaid rate for the service (Medicare Payment Advisory Commission 2010a). In states that do not pay the cost sharing for ASC services used by dually eligible beneficiaries, ASCs could be discouraged from treating these patients. Finally, dual-eligible beneficiaries are more likely to report that their usual source of care is an HOPD or ED than are Medicare beneficiaries who have other types of supplemental coverage (Centers for Medicare & Medicaid Services 2015a). If a patient's usual source of care is an HOPD or ED, physicians may be more likely to refer the patient to an HOPD for surgery than another setting. The relatively low rate of ASC use among dual-eligible beneficiaries may partly explain the relatively low rate of ASC use among African Americans (Table 5-1, p. 135). ■

**TABLE 5–2**

**Number of Medicare-certified ASCs grew by 7 percent, 2010–2015**

| Type of ASC | 2000 | 2010 | 2014 | 2015 | Average annual percent change 2000–2010 | 2010–2014 | 2014–2015 |
|---|---|---|---|---|---|---|---|
| Total | 3,028 | 5,111 | 5,402 | 5,475 | 5.4% | 1.1% | 1.4% |
| New | 295 | 192 | 180 | 149 | N/A | N/A | N/A |
| Closed or merged | 53 | 110 | 94 | 76 | N/A | N/A | N/A |

Note: ASC (ambulatory surgical center), N/A (not applicable).

Source: MedPAC analysis of Provider of Services file from CMS, 2016.

beneficiaries suggest that beneficiaries have adequate access to care in ASCs. Access to ASCs may be beneficial to patients and physicians because ASCs can offer them greater convenience and efficiency compared with HOPDs, the provider type most similar to ASCs. For patients, ASCs can offer more convenient locations, shorter waiting times, and easier scheduling relative to HOPDs. For physicians, ASCs offer more control over their work environment and specialized staff. In addition, Medicare's payment rates and beneficiaries' cost sharing are lower in ASCs than in HOPDs. The Office of Inspector General estimated that from 2007 through 2011 the Medicare program spent $7 billion less on services provided in ASCs than Medicare would have spent if those services had been provided in HOPDs (Office of Inspector General 2014). However, most ASCs have some degree of physician ownership. These physician owners may have an incentive to provide more services in the facilities where they have an ownership stake than they would in HOPDs where they have no stake. Therefore, having surgical services provided in ASCs rather than HOPDs could lead to an increase in overall surgical volume.

### Capacity and supply of providers: Number of ASCs is increasing

From 2014 through 2015, the number of Medicare-certified ASCs increased 1.4 percent to nearly 5,500 ASCs (Table 5-2). This annual growth rate was similar to the years between 2010 and 2014, but slower than roughly a decade earlier. From 2000 to 2010, the number of ASCs increased about 5.4 percent per year, while from 2010 to 2014, the number of ASCs increased 1.1 percent per year. In 2015, 149 ASCs entered the market and 76 ASCs either closed or merged with other facilities. Since 2000, the number of new ASCs has outnumbered ASCs that have closed or merged, leading to an 81 percent increase in the number of ASCs from 2000 to 2015 (data not shown).

Several factors might explain the relatively slower growth of ASCs since 2009:

- To expand their outpatient surgery capacity, many hospitals have acquired and integrated ASCs into the hospital or developed new surgery centers that are part of the hospital, which may limit the market for new freestanding ASCs (Hirst 2010, Jacobson 2014, Kochman 2014, Levingston 2014, Moody 2014, North Carolina Department of Health and Human Services 2011, Sowa 2014, State of Connecticut 2011). Hospitals' decisions to increase their outpatient surgery capacity may be influenced by the higher rates Medicare pays for ambulatory surgical services provided in HOPDs relative to ASCs (in 2017, Medicare's rates are 85 percent higher in HOPDs than in ASCs).
- Physicians are increasingly choosing to be employed by hospitals rather than work in an independent practice (Berenson et al. 2012, Mathews 2012, Medicare Payment Advisory Commission 2013a, Merritt Hawkins 2014, Physicians Advocacy Institute 2016). These physicians are more likely to provide ambulatory procedures in the hospitals that employ them than in freestanding ASCs.

The number of operating rooms (ORs) in ASCs is also growing. In 2015, there were more than 16,000 ORs in ASCs, or an average of 3.0 per facility. From 2010 through 2014, the total number of ASC ORs increased 0.9 percent per year, a slightly slower rate than the growth in the number of ASCs overall (1.4 percent per year). From 2014 to 2015, the number of ORs in ASCs increased by about 2 percent, a slightly faster rate than the number of ASCs overall (1.4 percent). This growth was due to existing

**TABLE 5–3**

**Most Medicare-certified ASCs are urban and for profit**

| Type of ASC | Open in 2010 | Open in 2015 | New in 2015 |
|---|---|---|---|
| Urban | 92.0% | 92.8% | 93.2% |
| Rural | 8.0 | 7.2 | 6.8 |
| For profit | 94.0 | 94.2 | 95.9 |
| Nonprofit | 3.4 | 3.3 | 2.0 |
| Government | 2.5 | 2.6 | 2.0 |

Note: ASC (ambulatory surgical center).

Source: MedPAC analysis of Provider of Services file from CMS, 2016.

ASCs expanding their OR capacity. ASCs entering the market in recent years tend to be smaller. Among the ASCs that entered the market in 2014 and 2015, 66 percent had just one or two ORs. By contrast, in 2010, 53 percent of all ASCs had one or two ORs.

ASCs are concentrated geographically. In 2015, Maryland had the most ASCs per FFS Part B beneficiary (5 ASCs per 10,000 beneficiaries), followed by Georgia and Idaho (approximately 3 ASCs per 10,000 beneficiaries). Vermont, West Virginia, Alabama, and the District of Columbia had the fewest ASCs per beneficiary (less than 0.5 ASCs per 10,000 beneficiaries).[9]

Consistent with previous years, most Medicare-certified ASCs in 2015 were for profit (94 percent), urban (93 percent) (Table 5-3), and located off a hospital campus (99 percent) (data not shown). The characteristics of ASCs in 2015 are similar to those of ASCs operating in 2010. However, ASCs that were new in 2015 were slightly more likely to be urban (including urban and suburban areas) and for profit compared with existing ASCs. Beneficiaries who do not live near an ASC can obtain ambulatory surgical services in HOPDs and, in some cases, physicians' offices. In addition, beneficiaries who live in rural areas can travel to urban areas to receive care in ASCs.

**TABLE 5–4**

**Specialization of ASCs, 2015**

| Type of ASC | Number of ASCs | Share of all ASCs |
|---|---|---|
| Single specialty | 2,878 | 61% |
| Gastroenterology | 1,027 | 22 |
| Ophthalmology | 1,020 | 22 |
| Pain management | 355 | 8 |
| Dermatology | 191 | 4 |
| Urology | 124 | 3 |
| Podiatry | 95 | 2 |
| Orthopedics/musculoskeletal | 23 | 0 |
| Respiratory | 16 | 0 |
| Cardiology | 10 | 0 |
| OB/GYN | 9 | 0 |
| Neurology | 5 | 0 |
| Other | 3 | 0 |
| Multispecialty | 1,802 | 39 |
| More than 2 specialties | 1,421 | 30 |
| Pain management and neurology/orthopedics | 221 | 5 |
| Gastroenterology and ophthalmology | 160 | 3 |
| Total | 4,680 | 100 |

Note: ASC (ambulatory surgery centers), OB/GYN (obstetrics and gynecology). "Single-specialty ASCs" are defined as those with more than 67 percent of their Medicare claims in one clinical specialty. "Multispecialty ASCs" are defined as those with more than 67 percent of their Medicare claims in more than one clinical specialty. ASCs included in this analysis are limited to those in the 50 states and the District of Columbia with a paid Medicare claim in 2015.

Source: MedPAC analysis of Medicare carrier file claims, 2015.

**TABLE 5–5**

**Volume of ASC services per FFS beneficiary increased in 2015**

| | 2010 | 2011 | 2012 | 2013 (actual) | 2013* (adjusted) | 2014 | 2015 |
|---|---|---|---|---|---|---|---|
| Volume of services (in millions) | 6.5 | 6.7 | 6.9 | 6.9 | 6.3* | 6.2 | 6.4 |
| Volume per 1,000 FFS beneficiaries | 202.6 | 206.1 | 209.2 | 210.3 | 189.6* | 187.8 | 191.2 |
| Percent change in volume per FFS beneficiary from previous year | 1.7% | 1.7% | 1.5% | 0.5% | N/A | –0.9% | 1.8% |

Note: ASC (ambulatory surgical center), FFS (fee-for-service), N/A (not applicable).
*The adjusted 2013 values reflect adjustments we made to the larger actual values for 2013. The adjusted 2013 values reflect policies established in 2014 that changed the status of many services that had been separately payable in 2013 to packaged with another service in 2014. The purpose is to make the method for counting services in 2013 consistent with the method for counting services in 2014 and 2015.

Source: MedPAC analysis of physician/supplier standard analytic files, 2010–2015.

The majority of ASCs specialize in a single clinical area, with gastroenterology and ophthalmology being the most common. Overall, 61 percent of ASCs in 2015 were single-specialty facilities (Table 5-4).[10] Twenty-two percent of ASCs specialized in gastroenterology and another 22 percent specialized in ophthalmology. Smaller shares specialized in pain management (8 percent), dermatology (4 percent), urology (3 percent), and podiatry (2 percent). By contrast, 39 percent of ASCs were multispecialty facilities, providing services in more than one clinical area. The most common combinations of clinical services offered by multispecialty ASCs were pain management and either neurology or orthopedic services (5 percent of all ASCs) or gastroenterology and ophthalmology services (3 percent of all ASCs). The remaining multispecialty ASCs had more than two clinical specialties. From 2014 to 2015, the proportion of multispecialty ASCs increased by 1 percentage point relative to single-specialty ASCs (data not shown).

Continued growth in the number of Medicare-certified ASCs suggests that Medicare's payment rates have been adequate. Other factors have also likely influenced the long-term growth in the number of Medicare-certified ASCs:

- Changes in clinical practice and health care technology have expanded the provision of surgical procedures in ambulatory settings.
- ASCs may offer patients greater convenience than HOPDs, such as the ability to schedule surgery more quickly.
- For most procedures covered under the ASC payment system, beneficiaries' coinsurance is lower in ASCs than in HOPDs.[11]
- Physicians have greater autonomy in ASCs than in HOPDs, which enables them to design customized surgical environments and hire specialized staff.
- Physicians who invest in ASCs and perform surgeries there can increase their revenue by receiving a share of ASC facility payments. The federal anti-self-referral law (also known as the Stark Law) does not apply to ASC services.
- Because physicians are able to perform more procedures in ASCs than in HOPDs in the same amount of time, they can earn more revenue from professional fees.

### Number of beneficiaries treated and volume of services grew from 2014 to 2015

We found that the number of FFS beneficiaries treated in ASCs and the volume of ASC surgical services per FFS beneficiary grew from 2014 to 2015. Because ASC services are covered under Part B, we limited our analysis to FFS beneficiaries who have Part B coverage. We estimate that the number of FFS beneficiaries who received ASC services grew by an average of 0.5 percent per year from 2010 through 2014 and increased by 1.2 percent in 2015 (data not shown). The volume of services per FFS beneficiary increased by an average of 0.5 percent per year from 2010 through 2014 and by 1.8 percent in 2015 (Table 5-5). On average, the number of services per

**TABLE 5–6**

**The 20 most frequently provided ASC services in 2015 were similar to those provided in 2010**

| Surgical service | 2010 Percent of volume | 2010 Rank | 2015 Percent of volume | 2015 Rank |
|---|---|---|---|---|
| Cataract surgery w/ IOL insert, 1 stage | 19.2% | 1 | 18.6% | 1 |
| Upper GI endoscopy, biopsy | 8.9 | 2 | 8.2 | 2 |
| Colonoscopy and biopsy | 6.2 | 3 | 6.8 | 3 |
| Lesion removal colonoscopy (snare technique) | 4.7 | 4 | 5.6 | 4 |
| Diagnostic colonoscopy | 4.7 | 5 | 2.3 | 9 |
| After cataract laser surgery | 4.4 | 6 | 4.4 | 6 |
| Inject foramen epidural: lumbar, sacral | 4.2 | 7 | 4.8 | 5 |
| Injection spine: lumbar, sacral (caudal) | 3.9 | 8 | 3.3 | 7 |
| Inject paravertebral: lumbar, sacral | 2.3 | 9 | 3.1 | 8 |
| Colorectal screen, high-risk individual | 1.8 | 10 | 2.0 | 10 |
| Cataract surgery, complex | 1.4 | 11 | 1.6 | 12 |
| Colorectal screen, not high-risk individual | 1.4 | 12 | 1.9 | 11 |
| Upper GI endoscopy, diagnosis | 1.4 | 13 | 1.0 | 17 |
| Lesion removal colonoscopy (hot biopsy forceps) | 1.2 | 14 | 0.8 | 21 |
| Cystoscopy | 1.2 | 15 | 1.2 | 15 |
| Revision of upper eyelid | 1.0 | 16 | 0.9 | 19 |
| Inject spine, cervical or thoracic | 0.9 | 17 | 1.0 | 16 |
| Upper GI endoscopy, insertion of guide wire | 0.8 | 18 | 0.8 | 20 |
| Injection procedure for sacroiliac joint, anesthetic | 0.8 | 19 | 1.3 | 14 |
| Carpal tunnel surgery | 0.7 | 20 | 0.7 | 22 |
| Total | 71.3 | | 70.4 | |

Note: ASC (ambulatory surgical center), IOL (intraocular lens), GI (gastrointestinal). The numbers listed in the "Percent of volume" columns do not sum to stated totals because of rounding.

Source: MedPAC analysis of physician/supplier standard analytic files, 2010 and 2015.

beneficiary who received services in ASCs increased at an average annual rate of 0.7 percent from 2010 through 2014 and 0.8 percent in 2015.

Services that have historically contributed the most to overall volume continued to constitute a large share of the total in 2015. For example, the Healthcare Common Procedure Coding System (HCPCS) code for cataract removal with intraocular lens insertion (HCPCS 66984) had the highest volume in both 2010 and 2015, accounting for 19.2 percent of volume in 2010 and 18.6 percent in 2015. Moreover, 18 of the 20 most frequently provided HCPCS codes in 2010 were among the 20 most frequently provided in 2015 (Table 5-6). These services constituted about 71 percent of ASC Medicare volume in 2010 and 70 percent in 2015. A potential concern about the services most frequently provided in ASCs is the extent to which they may be unnecessary or low value, such as certain spinal injections. CMS could consider policies such as requiring prior authorization or strengthening auditing practices to limit the provision of these types of services.

Services that were outside the 20 most frequently provided HCPCS codes accounted for 29 percent of ASC volume in 2010 and 30 percent in 2015. We grouped the HCPCS codes for these services into broader service categories and found that eye procedures, nerve injections (for pain management), arthroscopy, and skin repair had the highest volume. These four categories accounted for 15 percent of ASC volume in 2010 and 14 percent in 2015.

### Outpatient surgical procedures grew in HOPDs and ASCs in 2015

From 2010 through 2014, average annual growth in volume per FFS beneficiary of surgical services covered by the ASC payment system was 0.5 percent in ASCs and 1.5 percent in HOPDs. In 2015, volume per FFS beneficiary increased by 1.8 percent in ASCs and by 2.5 percent in HOPDs.

A reason for the higher growth of surgical services in HOPDs relative to ASCs over the 2010 through 2015 period may be that Medicare payment rates have become much higher in HOPDs than in ASCs, which might make it less financially attractive to provide surgical services for Medicare patients in ASCs. For example, in 2017, Medicare payment rates for most surgical services are 85 percent higher in HOPDs than in ASCs. Another reason for the slower growth in ASC volume is that physicians continue to move away from working in private practices and toward working for hospitals or medical groups (Merritt Hawkins 2014, Physicians Advocacy Institute 2016). It is likely that physicians working for hospitals are more inclined to perform procedures at or refer patients to the hospitals that employ them rather than freestanding ASCs.

### Maintaining or expanding access to ASCs

Maintaining beneficiaries' access to ASCs has some benefits because services provided in this setting are less costly to Medicare and beneficiaries than services delivered in HOPDs. Medicare payment rates for surgical services performed in HOPDs are about 85 percent higher than if the same surgical services are provided in ASCs. For example, the most frequently provided service in ASCs is cataract surgery with intraocular lens insertion, HCPCS 66984. The payment rate for this procedure in 2017 is $977 in ASCs compared with $1,824 in HOPDs. The lower payment rate in ASCs for this service has been financially beneficial to Medicare and beneficiaries, given that the share of these procedures provided in ASCs rose from 70 percent in 2010 to 73 percent in 2015. Other recent studies similarly find that ASCs are less costly than HOPDs in the Medicare and non-Medicare context and that the recent price growth at ASCs has been slower than price growth at HOPDs (Carey 2015, Robinson et al. 2015).

Medicare program spending and beneficiary cost sharing could be reduced if more surgical services were provided in ASCs rather than HOPDs or if HOPD payment rates were reduced to the level that Medicare sets for ASCs. This issue is pertinent to the ASC sector because among even the most frequently provided services in ASCs, a substantial volume is provided in HOPDs. For example, 27 percent of the total volume of cataract surgery with intraocular lens insertion (the service that has the largest volume in ASCs) occurred in HOPDs in 2015, and the overall HOPD volume among Medicare beneficiaries was 439,000 units. We provide a description of a method that could be used to adjust HOPD payment rates for select services to the level of ASC payment rates (see text box, p. 142).

A concern remains, however, about services provided in ASCs rather than HOPDs because most ASCs have some degree of physician ownership. Studies offer limited evidence that physicians who have an ownership stake in an ASC perform a higher volume of certain procedures than physicians who do not own a stake (Hollingsworth et al. 2010, Mitchell 2010, Strope et al. 2009a). Other studies suggest that the presence of an ASC in a market is associated with a higher volume of outpatient surgical procedures (Hollenbeck et al. 2014, Hollingsworth et al. 2011, Koenig and Gu 2013). The most recent study may be the most convincing because it is based on a nationwide sample of Medicare beneficiaries and includes all surgical procedures (Hollenbeck et al. 2014). This study found that introducing ASCs into service areas that previously did not have any resulted in a larger rate of increase in ambulatory surgical procedures than in areas that already had at least one ASC or did not have any. However, this study found a smaller effect of ASCs on outpatient surgical volume than did the earlier studies. Although none of these studies assessed whether the additional procedures were inappropriate, they suggest that the presence of ASCs might increase overall surgical volume.

## Quality of care: Newly reported quality data demonstrate room for improvement in ASC performance and measure development

ASC-reported quality data that CMS made available to the public for the first time in 2016 represent a positive first step in measuring ASC performance. However, CMS should work to improve the existing measures and to add new measures that better represent ASCs' performance.

CMS established the ASC Quality Reporting (ASCQR) Program in 2012 (Centers for Medicare & Medicaid Services 2011). Under this system, ASCs must submit data on quality measures to receive the full update to the ASC payment rates each year. ASCs that do not successfully

## Aligning hospital outpatient payment rates with ambulatory surgical center payment rates for select services

In previous work, we investigated the idea of aligning payment rates in the outpatient prospective payment system (OPPS) for select services with rates in the ambulatory surgical center (ASC) payment system. For these services, the result would be that Medicare payment rates would be "site neutral," meaning payment rates would be the same whether the service were provided in a hospital outpatient department (HOPD) or an ASC (Medicare Payment Advisory Commission 2013a).

In that analysis, we used three criteria to identify services for which we determined it is reasonable to have equal payment rates in HOPDs and ASCs:

- The service is performed in ASCs more than 50 percent of the time, which indicates it is likely safe and appropriate to provide in ASCs.
- The service is provided with an emergency department (ED) visit less than 10 percent of the time when it is furnished in an HOPD. Infrequent use of ED visits indicates the service is unlikely to have costs associated with operating an ED.
- The severity of patients who receive the service is no greater when it is provided in an HOPD than in an ASC. We used patients' risk scores from the CMS hierarchical condition category (CMS–HCC) risk adjustment model to measure patient severity. For a given service, we determined that patient severity is not greater among patients receiving that service in HOPDs if their mean risk score is not statistically greater than the mean risk score for the patients receiving that service in ASCs.

It is possible that two of these criteria could be relaxed and still meet their intended purpose. First, the 50 percent requirement in the first criterion may not be necessary. The purpose of this criterion was to provide assurance that the services are safe to provide in ASCs. However, the fact that a service is covered under the ASC payment system indicates that CMS believes that providing the service in an ASC does not pose a significant risk to patient safety. Nevertheless, a minimum threshold that ASCs provide at least 1,000 units of a service per year is reasonable to ensure that the service has been safely provided in ASCs.

Additionally, the criterion for patient severity could be relaxed. Many services are frequently provided in both HOPDs and ASCs. In these cases, even small differences between mean risk scores in HOPDs and ASCs can be statistically significant because of the large number of patients. This criterion could be adjusted so that site-neutral payments are appropriate if the average risk score for patients in HOPDs is no greater than the average risk score for patients in ASCs by a difference of 0.10.

A summary of the criteria that could replace the criteria from our previous work for identifying services that are viable for site-neutral payments between HOPDs and ASCs include:

- the service is a covered service under the ASC payment system and provided in ASCs at least 1,000 times per year;
- the service is provided with an ED visit less than 10 percent of the time when it is furnished in an HOPD; and
- the service has an average risk score for patients in HOPDs that does not exceed the average risk score for patients in ASCs by more than 0.1.

Eighty-nine of the 3,400 Healthcare Common Procedure Coding System coded services that are paid separately under the ASC payment system would meet these revised criteria. Combined program spending and beneficiary cost sharing for these services in 2014 was about $3.1 billion in HOPDs. If OPPS payment rates for these services had been set equal to the rates in the ASC payment system, combined program spending and beneficiary cost sharing would have been lower by about $1.4 billion. Medicare program spending would have been lower by $1.2 billion and beneficiary cost sharing by $200 million. ■

**TABLE 5–7**

**Quality measures that CMS uses in the ASC Quality Reporting Program**

| Description of quality measure | First year measure used for payment determination |
|---|---|
| ASC–1: Patient burn | 2014 |
| ASC–2: Patient fall | 2014 |
| ASC–3: Wrong site, wrong side, wrong patient, wrong procedure, wrong implant | 2014 |
| ASC–4: Hospital transfer/admission | 2014 |
| ASC–5: Prophylactic intravenous antibiotic timing | 2014 |
| ASC–6: Safe-surgery checklist use | 2015 |
| ASC–7: ASC facility volume data on selected ASC surgical procedures | 2015 |
| ASC–8: Influenza vaccination coverage among health care personnel | 2016 |
| ASC–9: Endoscopy/polyp surveillance: Appropriate follow-up interval for normal colonoscopy in average-risk patients | 2016 |
| ASC–10: Endoscopy/polyp surveillance: Colonoscopy interval for patients with a history of adenomatous polyps–avoid inappropriate use | 2016 |
| ASC–11: Cataracts: Improvement in patient's visual function within 90 days following cataract surgery | Voluntary |
| ASC–12: Facility seven-day risk standardized hospital visit rate after outpatient colonoscopy | 2018 |
| ASC–13: Normothermia outcome: Percentage of patients under anesthesia who are normothermic within 15 minutes of arrival in the post-anesthesia care unit | 2020 |
| ASC–14: Unplanned anterior vitrectomy: Percentage of cataract surgery patients who have an unplanned removal of the vitreous | 2020 |
| ASC–15: Five patient experience measures from the Consumer Assessment of Healthcare Providers and Systems® survey measures: | |
| ASC–15a: About facilities and staff | |
| ASC–15b: Communication about procedure | |
| ASC–15c: Preparation for discharge and recovery | |
| ASC–15d: Overall rating of facility | |
| ASC–15e: Recommendation of facility | 2020 |

Note: ASC (ambulatory surgical center).

Source: Final rule for outpatient prospective payment system and ambulatory surgical center payment system, 2017.

submit the data have their payment update reduced by 2 percentage points. Performance on these quality measures does not affect an ASC's payments; ASCs are required only to submit the data to receive a full update. The Commission has recommended a value-based purchasing program for ASCs that would reward high-performing providers and penalize low-performing providers (see text box, p. 145).

CMS has identified 19 quality measures for which ASCs submit data (Table 5-7). Five measures began affecting payment in 2014; two measures began in 2015; three measures began in 2016; one measure will begin in 2018; and seven measures will begin in 2020. One measure is voluntary and does not affect payment updates (Centers for Medicare & Medicaid Services 2015b).

### Results from reported 2013 and 2014 ASC quality data

In 2016, CMS made ASC-reported data on five quality measures from calendar years 2013 and 2014 available to the public. The five measures affecting payment beginning

**TABLE 5–8**

**Modest improvement in ASC quality from 2013 to 2014**

| Description of quality measure | Percent meeting threshold* 2013 | 2014 | Percentage point change |
|---|---|---|---|
| Patient burn | 88.3% | 90.6% | 2.3 |
| Patient fall | 91.1 | 92.5 | 1.4 |
| Wrong site, wrong side, wrong patient, wrong procedure, wrong implant | 97.9 | 98.0 | 0.1 |
| Hospital transfer/admission | 74.9 | 77.1 | 2.2 |
| Prophylactic intravenous antibiotic timing | 59.2 | 64.6 | 5.4 |

Note: ASC (ambulatory surgical center).
*We established thresholds of zero events for the first four measures listed. We used a threshold of 99 percent of patients for prophylactic antibiotic timing, which we derived from the ASC Quality Collaboration.

Source: MedPAC analysis of CMS dataset of ASC 2013 and 2014 quality data.

in 2014 demonstrate modest improvement from 2013 to 2014 (Table 5-8). For example, the share of ASCs without any patient burns increased from about 88 percent to almost 91 percent, and the share of ASCs that provided on-time prophylactic antibiotics to at least 99 percent of their patients increased from about 59 percent to almost 65 percent. However, these signs of improvement are tempered by the fact that they are based on the first two years of reported data and gaps in reporting remain.

In addition to these five measures, data on four more measures are also publicly available from 2014. Among these nine quality measures, the performance among the ASCs that reported data appears to be strong on six of the measures. For example, of the 4.7 million ASC claims from 2014, we found that only 0.1 percent of these claims (4,700 claims) indicated a patient fall in 2014 (Table 5-9). Rates were also low for the other adverse event measures (patient burns, "wrong" events, and patient transfers), but we acknowledge that the occurrence of any of these events represents an area of possible improvement. Measures of the share of patients receiving on-time antibiotic treatment and the share of ASCs using the safe-surgery checklist also showed strong performance. However, the three other measures reported in 2014 indicate that

**TABLE 5–9**

**ASC quality measure levels for 2014**

| ASC quality measure | Mean percent | Estimated number of events* |
|---|---|---|
| Share of patients suffering burns | 0.43% | 20,400 |
| Share of patients suffering falls | 0.10 | 4,700 |
| Share of patients suffering a "wrong" event | 0.03 | 1,400 |
| Share of patients transferred to a hospital | 0.45 | 21,300 |
| Share of patients receiving prophylactic intravenous antibiotics at appropriate time | 96 | |
| Share of ASCs using the safe-surgery checklist | 99 | |
| Flu vaccine for ASC staff | 74 | |
| Share of average risk patients with appropriate endoscopy/polyp surveillance | 77 | |
| Share of patients with polyp history with appropriate endoscopy/polyp surveillance | 79 | |

Note: ASC (ambulatory surgery center).
*The number of events was estimated using the average reported rate of occurrence and the total number of ASC claims in 2014 (4.7 million). The estimated number of events is not calculated for measures that do not pertain to adverse events.

Source: Medicare Hospital Compare data for ASCs, 2014. MedPAC analysis of Medicare carrier file claims, 2015.

## Creating a value-based purchasing program for ambulatory surgical centers

In 2012, the Commission recommended that the Congress authorize and CMS implement a value-based purchasing (VBP) program for ambulatory surgical centers (ASCs). A VBP would reward high-performing providers and penalize low-performing providers (Medicare Payment Advisory Commission 2012).[12]

CMS established a quality reporting program for ASCs in 2012. However, Medicare payments to ASCs are not adjusted based on how they perform on quality measures, only on whether they report the measures. The Commission supports the ASC Quality Reporting (ASCQR) Program but believes that, eventually, high-performing ASCs should be rewarded and low-performing facilities should be penalized through the payment system.

The ASCQR Program could lay the foundation for a VBP program. Consistent with the Commission's overall position on VBP (also known as pay-for-performance) programs in Medicare, an ASC VBP program should include a relatively small set of measures to minimize the administrative burden on ASCs and CMS. These measures should focus on clinical outcomes because Medicare's central concern should be improving patient outcomes across all ASCs. The program should also minimize the use of measures that require providers to extract data from patients' medical records. Several indicators reported through the ASCQR Program could be used for an ASC VBP program.

An ASC VBP program should reward ASCs for improving their prior year performance and for exceeding quality benchmarks. In addition, funding for the VBP incentive payments should come from existing Medicare spending for ASC services. Initially, funding for the incentive payments should be set at 1 percent to 2 percent of aggregate ASC payments. The size of this pool should be expanded gradually as more measures are developed and ASCs become more familiar with the program. (Our March 2016 report to the Congress provides more detail about our recommendation to CMS about an ASC VBP program (Medicare Payment Advisory Commission 2016)). ■

ASCs' performance could be substantially improved. For example, ASCs on average indicated that only 74 percent of their staff had flu shots in 2014. In addition, the share of patients receiving follow-up care after endoscopy/polyp procedures was lower than expected.

### ASC reporting and quality measures should be improved

The Commission has several concerns with the ASC quality reporting program. Overall, the Commission believes the existing set of measures is insufficient for assessing the quality of care in ASCs. Specifically, CMS should address three concerns:

- The measure for appropriate timing of prophylactic intravenous antibiotics and use of a safe-surgery checklist are nearly "topped out," meaning that nearly 100 percent of ASCs reported that they follow these practices (Table 5-9). Consequently, these measures do little to differentiate performance among ASCs.
- The lack of publicly available quality data from many ASCs adds uncertainty to the interpretation of the data. The overall value of the data was diminished by CMS's decision in late 2015 to allow ASCs to choose to have 2013 and 2014 data they reported to CMS suppressed from public view (Quality Reporting Center 2015). Among the five measures ASCs were permitted to suppress, in 2014, 6 percent of ASCs had missing or suppressed data for four of the measures, and 57 percent of ASCs had missing or suppressed data for the fifth measure. In addition, other measures that could not be suppressed demonstrated poor levels of reporting. For example, 2014 data were not publicly available on the measures for staff flu vaccination and the use of a safe-surgery checklist for 15 percent and 17 percent of ASCs, respectively. The Commission believes all reported quality data should be publicly available and Medicare should not give providers the option of suppressing data from public reporting.

**TABLE 5–10**

**Share of ASC cases with subsequent hospital visits, 2014**

| Type of ASC and procedure | Subsequent hospital visit within 3 days of discharge from ASC | | Subsequent hospital visit within 7 days of discharge from ASC | |
|---|---|---|---|---|
| | Number of ASC cases with subsequent hospital visit | Share of all ASC cases | Number of ASC cases with subsequent hospital visit | Share of all ASC cases |
| All ASCs | 51,146 | 1.1% | 96,740 | 2.0% |
| Multispecialty | 22,348 | 1.3 | 41,242 | 2.4 |
| Single specialty | 28,798 | 1.0 | 55,498 | 1.8 |
| Ophthalmology | 8,082 | 0.6 | 16,827 | 1.2 |
| Gastroenterology | 13,821 | 1.2 | 25,333 | 2.1 |
| Pain management | 3,365 | 1.1 | 7,316 | 2.4 |
| Urology | 2,654 | 2.4 | 4,416 | 4.0 |
| Cardiology | 133 | 4.0 | 259 | 7.9 |

Note: ASC (ambulatory surgical center). Subsequent hospital visits include inpatient admissions, observation services, and emergency department visits, but exclude cases related to trauma or mental health services. To determine the number of cases in each row, divide the number of subsequent hospital visits by the share of all ASC cases.

Source: Medicare physician, hospital outpatient, and hospital inpatient claims, 2014.

- The ASCQR Program lacks measures that apply to all ASCs and that assess claims-based clinical outcomes. For example, more than half of ASCs did not report data for the appropriate timing of antibiotic administration and appropriate endoscopy/polyp surveillance because these measures apply only to a subset of ASCs. Overall, two of the nine measures for which data from 2014 are publicly available do not apply to all ASCs. In addition, none of the current or future measures are claims-based clinical outcome measures that apply to all ASCs. While the four existing adverse event measures do assess outcomes to a certain degree, they are self-reported claims-based measures and do not assess whether the procedures being performed were successful for all ASC patients.

### Hospital visits following discharge from the ASC

Because of the concerns cited above and the potential value of clinical outcome measures that apply to all ASCs, we believe new ASC quality measures should be developed. We have identified two measures that might allow for better assessment of the quality of care provided in ASCs. The first of these measures is a count or rate of the number of Medicare beneficiaries discharged from ASCs who had a subsequent hospital visit. We developed a version of this measure by evaluating 4.7 million ASC claims in 2014 and estimating the rate at which the surgical procedures on these claims resulted in subsequent hospital visits. If such a measure were to be used for the ASCQR Program, it should be risk adjusted and any subsequent hospital visit should be related to the original procedure that was performed at the ASC. Our initial estimate of subsequent hospitalizations is not risk adjusted but does exclude unrelated hospital visits to a certain degree. We found that 1.1 percent (about 51,000 claims) of the 4.7 million claims indicate that the patient had a subsequent hospital visit within 3 days after discharge from an ASC, and 2.0 percent (almost 97,000 claims) indicate a subsequent hospital visit within 7 days after discharge (Table 5-10).[13]

Certain types of ASCs had higher than average rates of subsequent hospital visits within seven days of an ASC discharge. Approximately 2.4 percent of patients discharged from multispecialty ASCs had a subsequent hospital visit. Of patients discharged from ASCs specializing in urology and cardiology, 4.0 percent and 7.9 percent had a subsequent hospital visit, respectively. We also found that 164 ASCs had subsequent hospital visits within 7 days of discharge on at least 5 percent of their claims (data not shown). These ASCs were more likely to have been multispecialty ASCs or ASCs specializing in urology or podiatry.

The second outcome measure CMS could consider for the ASCQR Program is the rate of surgical site

infections (SSIs) occurring at ASCs. Researchers have found that lapses in infection control were common among a sample of ASCs in three states (Schaefer et al. 2010). The Hospital Inpatient Quality Reporting Program includes an SSI measure that applies primarily to inpatient procedures. Although CMS has considered an SSI measure for ASCs in the past (Centers for Medicare & Medicaid Services 2011), it is not currently working to develop an SSI measure (Centers for Medicare & Medicaid Services 2016). In general, an SSI measure could be used to track infection rates for ASCs or compare infection rates for ambulatory surgeries conducted in HOPDs and ASCs. In addition, measuring SSI rates could be a way to encourage providers to collaborate and better coordinate care for ambulatory surgery patients.

### Providers' access to capital: Growth in number of ASCs suggests adequate access

Owners of ASCs require capital to establish new facilities and upgrade existing ones. The change in the number of ASCs is the best available indicator of ASCs' ability to obtain capital. The number of ASCs increased in 2015 by 1.4 percent, a rate consistent with the previous seven years (Table 5-2, p. 137). However, Medicare accounts for a small share—perhaps 20 percent—of ASCs' overall revenue, so factors other than Medicare payments may have a larger effect on access to capital for this sector (Medical Group Management Association 2009).

Financial data suggest the industry is growing and profiting. Securities and Exchange Commission filings from Surgical Partners Inc. and AMSURG Corp. indicate revenues in their surgical facility services increased from the first six months of 2015 to the first six months of 2016 by nearly 20 percent (AMSURG Corp. 2016b, Surgical Partners 2016). This growth is largely the result of acquisitions. Data from the Pennsylvania Health Care Cost Containment Council's annual analysis of the state's ASCs indicate that ASCs in Pennsylvania had an average total margin of 25 percent in 2015 (Pennsylvania Health Care Cost Containment Council 2016).[14]

AMSURG Corp., which owns and operates the largest number of ASCs in the country, appears to have adequate access to capital.[15] In 2015, AMSURG made about $1 billion in acquisitions, including ASC facilities and physician practices (Barkholz 2016). This expansion included practices of emergency physicians, radiologists, neonatologists, and anesthesiologists (Rechtoris 2015). In 2016, AMSURG acquired another five anesthesia practices and merged with Envision Healthcare Holdings Incorporated (Barkholz 2016, Cohen 2016). We caution, however, that AMSURG comprises only 5 percent of all Medicare-certified ASCs, so its experience may not represent the entire ASC sector.

Other recent activity in the ASC marketplace showed general signs of growth in 2016 and other large transactions in prior years. In 2016, Healthcrest Surgical Partners purchased seven ASCs from Foundation HealthCare for $2.5 million (Dyrda 2016). In 2014, H.I.G. Capital, owner of the 50 ASCs associated with Surgery Partners, acquired another 50 ASCs associated with Symbion Holdings Corporation and owned by Crestview Partners LP (Rizzo 2014). Surgery Partners made the acquisition for $792 million, which made it the second largest independent ASC operator in the United States, with 100 ASCs in 26 states. In 2014, Surgery Partners borrowed over $1 billion from Jeffries Group LLC, an investment banking firm, to complete this acquisition (Tan 2014).

### Medicare payments: Payments have increased steadily

In 2015, ASCs received $4.1 billion in Medicare payments and beneficiaries' cost sharing (Table 5-11, p. 148). Spending per FFS beneficiary increased by an average annual rate of 2.8 percent from 2010 through 2014 and by 5.2 percent in 2015. The increase in payments per capita in 2015 reflects a 1.4 percent increase in the ASC conversion factor, a 1.8 percent increase in per capita volume, a 1.6 percent increase in the average relative weight of the ASC services provided to FFS beneficiaries, and a 0.2 percentage point increase from higher use of separately payable drugs.

## How should Medicare payments change in 2018?

Our payment adequacy analysis indicates that the number of Medicare-certified ASCs has increased, beneficiaries' use of ASCs has increased, and access to capital has been adequate. In addition, enough quality data are available to assess ASC quality. ASCs made improvements from 2013 to 2014 in five measures that assess patient safety, but we identified several areas for ASC quality improvement. Our information for assessing payment adequacy, however, is limited because Medicare does not require ASCs to submit cost data, unlike other types of facilities.

Cost data would enable the Commission to examine the growth of ASCs' costs over time and analyze Medicare

**TABLE 5–11**

**Medicare payments to ASCs have grown, 2010–2015**

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|
| Medicare payments (in billions of dollars) | $3.3 | $3.4 | $3.6 | $3.7 | $3.8 | $4.1 |
| Medicare payments per FFS beneficiary | $104 | $106 | $110 | $113 | $116 | $122 |
| Percent change per FFS beneficiary from previous year | 2.0% | 2.0% | 4.2% | 2.1% | 3.1% | 5.2% |

Note: ASC (ambulatory surgical center), FFS (fee-for-service). "Medicare payments" includes program spending and beneficiary cost sharing for ASC facility services. Payments include spending for new technology intraocular lenses.

Source: MedPAC analysis of data from the Office of the Actuary at CMS and data from physician/supplier standard analytic files.

payments relative to the costs of efficient providers, which would help inform decisions about the ASC update. Cost data are also needed to examine whether an alternative market basket would be an appropriate proxy for ASC costs. As discussed in the text box, the Commission has previously expressed concern that the market basket that CMS uses to update ASC payments (the CPI–U) likely does not reflect ASCs' cost structure (Medicare Payment Advisory Commission 2010b). CMS also has concluded that it needs data on ASC input costs (Centers for Medicare & Medicaid Services 2012). To date, however, CMS has not required ASCs to submit cost data.

We believe it is feasible for ASCs to provide a limited amount of cost information, despite their and CMS's concern that requiring cost data may impose a burden on these facilities (Centers for Medicare & Medicaid Services 2011). Even though ASCs are generally small facilities that may have limited resources for collecting cost data, such businesses typically keep records of their costs for filing taxes and other purposes. Moreover, a Pennsylvania state agency is able to collect the cost and revenue data from ASCs in Pennsylvania and is able to estimate the margins for those ASCs. The cost and revenue data are from all sources (Pennsylvania Health Care Cost Containment Council 2016). To minimize the burden on CMS and ASCs, CMS should create a streamlined process for ASCs to track and submit a limited amount of cost data. As it did in 1986 and 1994, CMS could annually conduct a survey of a random sample of ASCs, with mandatory response. The Government Accountability Office conducted a similar random sample survey of ASC costs in 2004. CMS could also streamline ASC cost reporting by collecting a smaller set of cost variables from all ASCs annually, which might require less time for ASCs to complete. Alternatively, CMS could require ASCs to submit cost data from their existing cost accounting systems, provided the definitions of their reported cost variables are consistent with CMS's definitions.

To enable the Commission to determine the relationship between Medicare payments and the costs of efficient ASCs, ASCs would optimally submit the following information:

- total costs for the facility;
- Medicare unallowable costs, such as entertainment, promotion, and bad debt;
- the costs of clinical staff who bill Medicare separately, such as anesthesiologists and clinical nurse anesthetists (these costs would be excluded from the facility's costs because these clinicians are paid separately under Medicare);
- total charges across all payers and charges for Medicare patients (CMS could allocate total facility costs to Medicare based on Medicare's proportion of total charges); and
- total Medicare payments.

In addition to this information, CMS would need to collect data on specific cost categories to determine an appropriate market basket for ASCs. For example, CMS would need data on the share of ASCs' costs related to employee compensation, medical supplies, medical equipment, building expenses, and other professional expenses (such as legal, accounting, and billing services). CMS should use this information to examine the cost structure of ASCs and determine whether an existing Medicare market basket is

## Revisiting the ambulatory surgical center market basket

CMS uses the consumer price index for all urban consumers (CPI–U) as the market basket to update ambulatory surgical center (ASC) payment rates. Because of our concern that the CPI–U likely does not reflect ASCs' cost structure, the Commission examined in 2010 whether an alternative market basket index would better measure changes in ASCs' input costs (Medicare Payment Advisory Commission 2010b). Using data from a Government Accountability Office (GAO) survey of ASC costs in 2004, we compared the distribution of ASC costs with the distribution of hospital and physician practice costs. We found that ASCs' cost structure is different from that of hospitals and physician offices. ASCs have a much higher share of expenses related to medical supplies and drugs than the other two settings, a much smaller share of employee compensation costs than hospitals, and a smaller share of all other costs (such as rent and capital costs) than physician offices. For more detail about our methods and findings, see Chapter 2C of our March 2010 report to the Congress (Medicare Payment Advisory Commission 2010b).

Since our 2010 analysis, CMS has considered whether the hospital market basket or the practice expense component of the Medicare Economic Index (MEI) is a better proxy for ASC costs than the CPI–U (Centers for Medicare & Medicaid Services 2012). CMS contends that the hospital market basket does not align with the cost structure of ASCs because hospitals provide a much wider range of services than ASCs, such as room and board, emergency care, and inpatient care. Therefore, the agency concluded that it needs data on the cost inputs of ASCs to determine whether there is a better alternative than the CPI–U to measure changes in ASCs' input costs. CMS asked for public comment on the feasibility of collecting cost information from ASCs but did not propose a plan to collect cost data.

The ASC cost data from GAO used in our comparative analysis are 13 years old and do not contain information on several types of costs. Therefore, the Commission has recommended several times that the Congress require ASCs to submit new cost data to CMS (Medicare Payment Advisory Commission 2016, Medicare Payment Advisory Commission 2015, Medicare Payment Advisory Commission 2014, Medicare Payment Advisory Commission 2013b, Medicare Payment Advisory Commission 2012, Medicare Payment Advisory Commission 2011b, Medicare Payment Advisory Commission 2010b). In each of the last four years, the Commission recommended eliminating the update to the ASC payment rates, meaning the ASC payment rates would not change from the previous year. In the future, the Commission may consider reductions in ASC payment rates from the previous year to motivate the collection of cost data. CMS should use cost data to examine whether an existing Medicare market basket is an appropriate proxy for ASC costs or an ASC-specific market basket should be developed. A new ASC market basket could include the same types of costs that appear in the hospital market basket or MEI but with different cost weights that reflect ASCs' unique cost structure. ■

an appropriate proxy for ASC costs or whether an ASC-specific market basket should be developed.

CMS increased the ASC conversion factor by 1.3 percent in 2014, 1.4 percent in 2015, 0.3 percent in 2016, and 1.9 percent in 2017. The update for 2017 is based on a projected 2.2 percent increase in the CPI–U minus a 0.3 percent reduction for multifactor productivity growth, as mandated by the Patient Protection and Affordable Care Act of 2010 (PPACA).[16]

### Update recommendation

In recommending an update to the ASC conversion factor for 2018, the Commission balanced the following objectives:

- maintain beneficiaries' access to ASC services;
- pay providers adequately;
- hold down the burden on the beneficiaries and taxpayers who finance Medicare;

- maintain the sustainability of the Medicare program by appropriately restraining spending on ASC services;
- keep providers under financial pressure to constrain costs; and
- require ASCs to submit cost data.

In balancing these goals, the Commission concludes that the ASC update for 2018 should be eliminated and that the Congress should require ASCs to submit cost data.

## RECOMMENDATION 5

**The Congress should eliminate the update to the payment rates for ambulatory surgical centers for calendar year 2018. The Congress should also require ambulatory surgical centers to submit cost data.**

## RATIONALE 5

On the basis of our payment adequacy indicators and the importance of maintaining financial pressure on providers to constrain costs, we believe that ASC payment rates should not be increased for 2018. That is, the 2018 base payment rate under the ASC payment system should be the same as the base rate in 2017. The indicators of payment adequacy for which we have information are stable: The volume of services increased in 2015, and the number of Medicare-certified ASCs increased. Also, ASCs have adequate access to capital, and Medicare payments to ASCs have continued to grow. Moreover, even though we do not have cost data and we have reservations about the quality data, the indicators we have suggest that payments have been adequate.

As we have stated in prior reports, it is vital that CMS begin collecting cost data from ASCs without further delay. Cost data would enable the Commission to examine the growth of ASCs' costs over time and evaluate Medicare payments relative to the costs of an efficient provider, which would help inform decisions about the ASC payment update. Cost data are also needed to evaluate whether an alternative market basket would be an appropriate proxy for ASC costs.

## IMPLICATIONS 5

### Spending

- The Secretary has the authority to select an update mechanism for ASC payment rates and has decided to use the CPI–U as the basis for updating payments (Centers for Medicare & Medicaid Services 2007). PPACA requires that the update factor be reduced by a multifactor productivity measure. The currently projected CPI–U increase for 2018 is 2.4 percent, and the forecast of productivity growth for 2018 is 0.4 percent, resulting in a projected update of 2.0 percent to the base payment rates for 2018 (IHS Markit LTD 2016). Relative to current Medicare law, our recommendation would decrease federal spending by less than $50 million in the first year and by less than $1 billion over five years.

### Beneficiary and provider

- Because of the growth in the number of Medicare-certified ASCs and the increase in ASCs' revenue from Medicare, we do not anticipate that this recommendation will diminish beneficiaries' access to ASC services or providers' willingness or ability to provide those services.
- ASCs may incur some minimal administrative costs to track and submit cost data, but we believe cost accounting is standard practice in the ASC industry, and ASCs should be able to draw cost data from that source. ■

# Endnotes

1 Because CMS updates payment rates in the OPPS and the PFS independently of each other, it is possible for the ASC payment rate for an office-based procedure to be based on the OPPS rate in one year and the PFS rate the next year (or vice versa).

2 ASCs and HOPDs receive the same amount for drugs that are paid for separately under the OPPS and for devices that have pass-through status.

3 GAO surveyed a random sample of 600 ASCs to obtain cost data from 2004. They received reliable cost data from 290 facilities.

4 Because some states (Maryland, Idaho, and Georgia) have a disproportionately high number of ASCs per beneficiary, we weighted beneficiaries such that the share of beneficiaries in each state receiving care in ASCs matched the national percentage. This process prevented idiosyncrasies in states that have high concentrations of ASCs from biasing the results. The analysis excluded beneficiaries who received services that Medicare does not cover in ASCs.

5 Munnich and Parente used risk scores derived from the Adjusted Clinical Groups System.

6 These data are based on 273 ASCs and 170 hospitals.

7 The sample of freestanding ASCs in the NSAS includes facilities listed in the 2005 Verispan Freestanding Outpatient Surgery Center Database and Medicare-certified ASCs from CMS's Provider of Services file (Cullen et al. 2009).

8 The study by Suskind and colleagues (2015) also found that ASCs are more likely to enter a market that did not previously have an ASC if the outpatient procedures in that market are concentrated among a relatively small number of providers, which implies relatively low competition in that market.

9 Whether a state has certificate-of-need (CON) laws for ASCs appears to affect the number of ASCs in the state. Twenty-seven states and the District of Columbia have CON laws for ASCs. Each of the 10 states with the fewest ASCs per capita has a CON law in place, while only 4 of the 10 states that have the most ASCs per capita have CON laws. Among these four states, Georgia and Maryland have exceptions in their CON requirements that make it easier to establish new ASCs.

10 *Single-specialty ASCs* are defined as those with more than 67 percent of their Medicare claims in one clinical specialty. *Multispecialty ASCs* are defined as those with more than 67 percent of their Medicare claims in more than one clinical specialty.

11 By statute, coinsurance for a service paid under the OPPS cannot exceed the hospital inpatient deductible ($1,316 in 2017). The ASC payment system does not have the same limitation on coinsurance; for a few services, the ASC coinsurance exceeds the inpatient deductible. In these instances, the ASC coinsurance exceeds the OPPS coinsurance.

12 The Commission also described its principles for a VBP program for ASCs in a letter to the Congress commenting on the Secretary's report to the Congress on a VBP program for ASCs (Medicare Payment Advisory Commission 2011a).

13 Subsequent hospital visits include emergency department services, outpatient observation services, and inpatient services.

14 The margins for ASCs have important differences from the margins in other sectors such as hospitals. In particular, the cost data used to determine margins for most ASCs do not include compensation for physician owners or the taxes paid on that compensation.

15 AMSURG Corp. owns 260 ASCs in 34 states and the District of Columbia in partnership with approximately 2,000 physicians. About 26 percent of AMSURG's ambulatory net revenue is from government health care programs, primarily Medicare and managed Medicare programs (AMSURG Corp. 2016a).

16 Unlike update factors for other providers such as the hospital market basket, the CPI–U is an output price index that already accounts for productivity changes (Centers for Medicare & Medicaid Services 2012). Nevertheless, CMS is mandated to subtract multifactor productivity growth from the ASC update factor.

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CHAPTER 6

# Outpatient dialysis services

## RECOMMENDATION

**6** The Congress should increase the outpatient dialysis base payment rate by the update specified in current law for calendar year 2018.

**COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0**

CHAPTER 6

# Outpatient dialysis services

## Chapter summary

Outpatient dialysis services are used to treat the majority of individuals with end-stage renal disease (ESRD). In 2015, nearly 388,000 beneficiaries with ESRD on dialysis were covered under fee-for-service (FFS) Medicare and received dialysis from nearly 6,500 dialysis facilities. Since 2011, Medicare has paid for outpatient dialysis services using a prospective payment system (PPS) that is based on a bundle of services. The bundle includes certain dialysis drugs and ESRD-related clinical laboratory tests that were previously paid separately. In 2015, Medicare expenditures for outpatient dialysis services were $11.2 billion, a slight decline of 0.1 percent compared with 2014 Medicare dialysis expenditures.

### Assessment of payment adequacy

Our payment adequacy indicators for outpatient dialysis services are generally positive.

***Beneficiaries' access to care*—**Measures of the capacity and supply of providers, beneficiaries' ability to obtain care, and changes in the volume of services suggest payments are adequate.

- ***Capacity and supply of providers*—**Dialysis facilities appear to have the capacity to meet demand. Between 2014 and 2015, growth in the number

## In this chapter

- Are Medicare payments adequate in 2017?
- How should Medicare payments change in 2018?

of dialysis treatment stations grew slightly faster than the growth in the number of dialysis beneficiaries.

- ***Volume of services*—**Between 2014 and 2015, the number of FFS dialysis beneficiaries grew by 1.1 percent, while the total number of treatments grew by 0.4 percent. At the same time, the per treatment use of most dialysis injectable drugs (including erythropoiesis-stimulating agents (ESAs), which are used in anemia management) continued to decline, but at a slower rate than during the initial years of the PPS (2011 and 2012). The dialysis PPS created an incentive for providers to be more judicious about their provision of dialysis drugs.

***Quality of care*—**We looked at changes in quality indicators between 2011, when the outpatient dialysis PPS was implemented, and 2015. There was a declining trend in unadjusted mortality, hospitalization, and 30-day readmission rates, though emergency department use increased. With regard to anemia management, negative cardiovascular outcomes associated with high ESA use declined, and blood transfusion use, which initially increased under the PPS, trended down in 2014 and 2015. Beneficiaries' use of home dialysis, which is associated with improved patient satisfaction and quality of life, increased from 9 percent to 11 percent of dialysis beneficiaries. However, home dialysis growth slowed between 2014 and 2015 because of a shortage of the dialysis solutions needed for the predominant home method, peritoneal dialysis. Another important aspect of quality is the appropriate timing of the initiation of dialysis. A potential concern is that the proportion of patients with higher levels of residual kidney function upon the initiation of dialysis increased from 13 percent in 1996 to 43 percent in 2010.

***Providers' access to capital*—**Information from investment analysts suggests that access to capital for dialysis providers continues to be adequate. The number of facilities, particularly for-profit facilities, continues to increase. Since 2010, the two largest dialysis organizations have grown through acquisitions and mergers with midsized dialysis organizations and other providers, including physician services organizations.

***Medicare payments and providers' costs*—**Our analysis of Medicare payments and costs is based on 2014 and 2015 claims and cost report data submitted to CMS by freestanding dialysis facilities. During this period, cost per treatment increased by 0.5 percent, while Medicare payment per treatment decreased by about 1.3 percent. Taking into account the sequester, we estimate that the aggregate Medicare margin was 0.4 percent in 2015, and the rate of marginal profit—that is, the rate at which Medicare payments exceed providers' marginal cost—was 16.6 percent. We project a 2017 Medicare margin of –1.0 percent, which reflects a CMS accounting change

that raises average costs. Without that change, the projected 2017 margin would be about the same as our estimate of the margin for 2015. The Commission therefore recommends that the Congress increase the outpatient dialysis base payment rate by the update specified in current law for calendar year 2018. ■

## Dialysis treatment choices

Dialysis replaces the filtering function of the kidneys when they fail. The two types of dialysis—hemodialysis and peritoneal dialysis (PD)—remove waste products from the bloodstream differently. Within these two types of dialysis, patients may select various protocols.

Most dialysis patients travel to a treatment facility to undergo hemodialysis three times per week, although patients can also undergo hemodialysis at home. Hemodialysis uses an artificial membrane encased in a dialyzer to filter the patient's blood. Because of recent clinical findings, there is increased interest in more frequent hemodialysis, administered five or more times per week while the patient sleeps, and short (two to three hours per treatment) daily dialysis administered during the day. Research also has increased interest in the use of "every-other-day" hemodialysis; reducing the two-day gap in thrice-weekly hemodialysis could be linked to improved outcomes.

PD, the most common form of home dialysis, uses the lining of the abdomen (peritoneum) as a filter to clear wastes and extra fluid and is usually performed independently in the patient's home or workplace five to seven days a week. During treatments, a cleansing fluid (dialysate) is infused into the patient's abdomen through a catheter. This infusion process (an exchange) is done either manually (continuous ambulatory peritoneal dialysis) or using a machine (continuous cycler-assisted peritoneal dialysis).

Each dialysis method has advantages and disadvantages; no one method is best for everyone. People choose a particular dialysis method for many reasons, including quality of life, patients' awareness of different treatment methods and personal preferences, and physician training and recommendations. The use of home dialysis has grown modestly since 2009, a trend that has continued under the dialysis prospective payment system. Some patients switch methods when their conditions or needs change. Although most patients still undergo in-center dialysis, home dialysis remains a viable option for many patients because of advantages such as increased patient satisfaction, better health-related quality of life, and fewer transportation challenges compared with in-center dialysis. ■

## Background

End-stage renal disease (ESRD) is the last stage of chronic kidney disease and is characterized by permanent irreversible kidney failure. Patients with ESRD include those who are treated with dialysis—a process that removes wastes and fluid from the body—and those who have a functioning kidney transplant. Because of the limited number of kidneys available for transplantation and the variation in patients' suitability for transplantation, about 70 percent of ESRD patients undergo maintenance dialysis (see text box on dialysis treatment choices). Patients receive additional items and services related to their dialysis treatments, including dialysis drugs to treat conditions such as anemia and bone disease resulting from the loss of kidney function.[1]

In 2015, about 388,000 ESRD beneficiaries on dialysis were covered under fee-for-service (FFS) Medicare and received dialysis from nearly 6,500 dialysis facilities.[2]

Since 2011, Medicare has been paying facilities using a prospective payment system (PPS) payment bundle that includes dialysis drugs (for which facilities previously received separate payments) and services for which other Medicare providers (such as clinical laboratories) previously received separate payments. In 2015, Medicare Part B expenditures for outpatient dialysis services included in the payment bundle were $11.2 billion. In addition, Part D payments for dialysis drugs—a calcimimetic and multiple phosphate binders—that are not yet included in the PPS payment bundle totaled $1.5 billion in 2014 (the most recent data available).

### Characteristics of fee-for-service dialysis beneficiaries, 2014

Although Medicare generally does not provide disease-specific entitlement, the 1972 amendments to the Social Security Act extended Medicare benefits to people with ESRD, including those under age 65. To qualify for the ESRD program, an individual must be fully or currently

**TABLE 6–1**

**FFS dialysis beneficiaries are disproportionately younger, male, and African American compared with all Medicare FFS beneficiaries, 2015**

| | Percent of FFS: | |
|---|---|---|
| | Dialysis beneficiaries | All beneficiaries |
| Age | | |
| Under 45 years | 11% | 4% |
| 45–64 years | 38 | 13 |
| 65–74 years | 27 | 48 |
| 75–84 years | 18 | 23 |
| 85+ years | 6 | 12 |
| Sex | | |
| Male | 55 | 47 |
| Female | 45 | 53 |
| Race | | |
| White | 48 | 81 |
| African American | 36 | 10 |
| All others | 17 | 9 |
| Residence, by type of county | | |
| Urban | 82 | 78 |
| Rural micropolitan | 11 | 13 |
| Rural, adjacent to urban | 5 | 6 |
| Rural, not adjacent to urban | 3 | 4 |
| Frontier | 1 | 1 |

Note: FFS (fee-for-service). Urban counties contain a cluster of 50,000 or more people, rural micropolitan counties contain a cluster of 10,000 to 50,000 people, rural adjacent counties are adjacent to urban areas and without a city of at least 10,000 people, and rural nonadjacent counties are not adjacent to an urban area and do not have a city with at least 10,000 people. Frontier counties have six or fewer people per square mile. Totals may not sum to 100 percent due to rounding.

Source: Data compiled by MedPAC from 2015 enrollment data and claims submitted by dialysis facilities to CMS.

insured under the Social Security or Railroad Retirement program, entitled to benefits (i.e., has met the required work credits) under the Social Security or Railroad Retirement program, or be the spouse or dependent child of an eligible beneficiary.

Most dialysis beneficiaries have FFS coverage. The statute prohibits enrollment of individuals with ESRD in Medicare Advantage (MA) plans. However, beneficiaries who were enrolled in a managed care plan before an ESRD diagnosis can remain in the plan after they are diagnosed. In addition, CMS permits the enrollment of ESRD beneficiaries with a functioning kidney transplant in MA. In 2015, about 17 percent of ESRD beneficiaries were enrolled in MA plans; by comparison, about 30 percent of all Medicare beneficiaries were enrolled in MA plans. In 2000, the Commission recommended that the Congress lift the prohibition on ESRD beneficiaries enrolling in MA (Medicare Payment Advisory Commission 2000).[3]

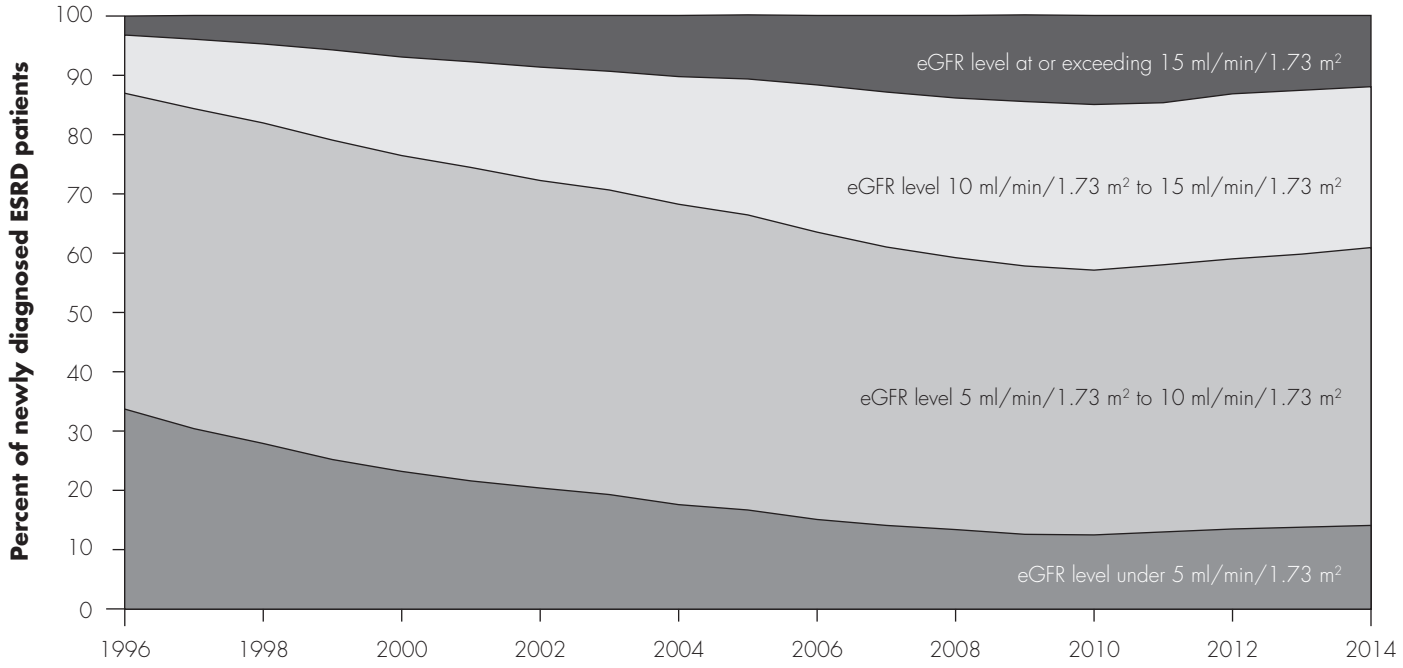
In 2015, a majority (90 percent) of FFS dialysis beneficiaries were enrolled in Part D or had other sources of creditable drug coverage. In 2015, 70 percent of FFS dialysis beneficiaries with Part D coverage received the low-income subsidy, and 10 percent of FFS dialysis beneficiaries in 2015 had either no Part D coverage or coverage less generous than Part D's standard benefit.

Compared with all Medicare FFS beneficiaries, FFS dialysis beneficiaries are disproportionately young, male, and African American, and they are more likely to reside in urban areas (Table 6-1). In 2015, 76 percent of FFS dialysis beneficiaries were less than 75 years old, 55 percent were male, and 36 percent were African American. By comparison, of all FFS Medicare beneficiaries, 65 percent were less than 75 years old, 47 percent were male, and 10 percent were African American. A greater share of dialysis beneficiaries reside in urban areas compared with all FFS beneficiaries (82 percent vs. 78 percent, respectively). FFS dialysis beneficiaries were more likely to be dually eligible for Medicaid and Medicare, compared with all Medicare FFS beneficiaries (48 percent vs. 18 percent, respectively; data not shown).

Between 2004 and 2014 (most recent data available), the adjusted rate (or incidence) of new ESRD cases (which includes patients of all types of health coverage who initiate dialysis or receive a kidney transplant) decreased by 1 percent per year, from 386 per million people to 353 per million people (United States Renal Data System 2016). Since peaking in 2006, the adjusted rate declined or remained the same across all races and ethnicities (White, African American, Asian Americans, Native American, and Hispanic) and all age groups (United States Renal Data System 2016).[4] In 2015, we estimate that approximately 82,000 FFS dialysis beneficiaries were new to dialysis, and nearly half (45 percent) were under age 65 and thus entitled to Medicare based on ESRD (with or without disability).[5]

**FIGURE 6–1**

**Dialysis has been initiated with higher levels of residual kidney function since 1996**




Note: eGFR (estimated glomerular filtration rate). "Higher levels of residual kidney function" refers to patients with an eGFR (a measure of residual kidney function) above 10 milliliters per minute per 1.73 square meters. (Lower values of this measure suggest reduced residual kidney function.) Population includes only newly diagnosed patients with CMS Form 2728. eGFR is calculated using the chronic kidney disease epidemiology calculation (CKD–EPI) equation (CKD–EPI eGFR (ml/min/1.73 $m^2$) for patients 18 years and older and the Schwartz equation for patients under the age of 18 years.

Source: United States Renal Data System, National Institute of Diabetes and Digestive and Kidney Diseases. 2016. *USRDS 2016 annual data report*. Bethesda, MD: NIDDK.

Data from the mid-1990s through 2014 suggest a trend toward initiating dialysis earlier in the course of chronic kidney disease (CKD) (United States Renal Data System 2016). The proportion of patients with higher levels of residual kidney function steadily increased between 1996 and 2010, from 13 percent to 43 percent (Figure 6-1). Higher levels of residual kidney function refer to patients with an estimated glomerular filtration (eGFR) rate (a measure of residual kidney function) above 10 milliliters per minute per 1.73 square meters (lower values of this measure suggest comparatively less residual kidney function). While the share of patients initiating dialysis earlier in the course of CKD has decreased modestly since 2011, the share remains three times higher than in 1996. Researchers have questioned this early initiation of dialysis in those with late-stage CKD, concluding that it was not associated with improved survival or clinical outcomes (Cooper et al. 2010, Evans et al. 2011, Kazmi et al. 2005, Stel et al. 2009, Traynor et al. 2002). For example, Cooper and researchers found that survival is similar between patients for whom dialysis is initiated early (with an eGFR equal to 10.0 to 14.0 ml per minute) and those for whom dialysis is electively delayed (with an eGFR equal to 5.0 to 7.0 ml per minute) and concluded that dialysis can be delayed for some patients until the eGFR drops below 7.0 ml per minute or until more traditional clinical indicators for the initiation of dialysis are present (Cooper et al. 2010). The Commission intends to continue to monitor this trend.

Better primary care management of the risk factors for CKD—particularly hypertension and diabetes, which together are the primary cause of roughly 7 of 10 new ESRD cases—can help prevent or delay the illness's onset (United States Renal Data System 2016). Although risk-factor control for hypertension and diabetes has improved for all racial and ethnic groups in Medicare, disparities remain between African Americans and other racial

**TABLE 6–2** **Current payment adjustment factors for the dialysis PPS**

| Payment adjuster | Value of payment adjuster |
|---|---|
| Age | |
| 18–44 years | 1.257 |
| 45–59 years | 1.068 |
| 60–69 years | 1.070 |
| 70–79 years | 1.000 |
| 80+ years | 1.109 |
| Body surface area (per 0.1 $m^2$) | 1.032 |
| Underweight (body mass index < 18.5 $kg/m^2$) | 1.017 |
| Time since onset of dialysis (<4 months) | 1.327 |
| Comorbidities | |
| Pericarditis | 1.040 |
| Gastrointestinal tract bleeding | 1.082 |
| Hereditary hemolytic/sickle cell anemia | 1.192 |
| Myelodysplastic syndrome | 1.095 |
| Facility low-volume status | 1.239 |
| Facility rural status | 1.008 |

Note: PPS (prospective payment system). Payment adjustment factors are for ages 18 and older. The base payment rate is also adjusted for local input prices on a facility-level basis.

Source: Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2015. Medicare program; end-stage renal disease prospective payment system, and quality incentive program. Final rule. *Federal Register* 80, no. 215 (November 16): 68967–69077.

groups. The Commission has long argued that primary care providers are undervalued in Medicare's fee schedule and has made recommendations to support primary care, which in turn could support better management of kidney disease risk factors.

## Since 2011, CMS pays for dialysis services under the dialysis PPS

To treat ESRD, dialysis beneficiaries receive care from two principal providers: (1) the clinicians (typically nephrologists) who prescribe and manage the provision of dialysis and establish the beneficiary's plan of care, and (2) the facilities that provide dialysis treatments in a dialysis center or that support and supervise the care of beneficiaries on home dialysis. Medicare uses different methods to pay for ESRD clinician and facility services. Clinicians receive a monthly capitated payment established in the Part B physician fee schedule for outpatient dialysis-related management services, which varies based on the number of visits per month, the beneficiary's age, and whether the beneficiary receives dialysis in a facility or at home. While our work in this report focuses on Medicare's payments to facilities, it is important to recognize that facilities and clinicians collaborate to care for dialysis beneficiaries. One acknowledgment of the need for collaboration is Medicare's Comprehensive ESRD Care Initiative, a shared savings program that began in 2015, involving facilities and nephrologists.

To improve provider efficiency, in 2011, Medicare began a PPS for outpatient dialysis services that expanded the payment bundle to include dialysis drugs, laboratory tests, and other ESRD items and services that were previously billable separately. In addition, effective 2012, outpatient dialysis payments are linked to the quality of care that dialysis facilities provide. These changes, mandated by the Medicare Improvements for Patients and Providers Act of 2008 (MIPPA), were based on the Commission's recommendation to modernize the outpatient dialysis payment system (Medicare Payment Advisory Commission 2001). We contended that Medicare could provide incentives for the efficient delivery of quality care by broadening the payment bundle (to include commonly furnished drugs and services that providers formerly billed separately) and

## Significant changes to the outpatient dialysis PPS

Since its implementation in 2011, the dialysis prospective payment system (PPS) has undergone two significant changes. First, effective 2014, the base payment rate was rebased to account for the decline in dialysis drug use under the dialysis PPS. Based on statutory and regulatory changes, CMS set the 2014 base payment at $239.02. The Commission's March 2014 report to the Congress provides more information about the rebasing of the dialysis base payment rate (available at http://medpac.gov/docs/default-source/reports/mar14_ch06.pdf?sfvrsn=0).

Second, beginning in 2016, CMS uses recalibrated and redefined patient-level and facility-level payment adjustments to calculate each patient's adjusted payment per treatment. These adjusters are applied to the base payment rate to account for factors that may affect treatment costs. More information about these payment changes can be found in the Commission's March 2016 report to the Congress (available at http://medpac.gov/docs/default-source/reports/chapter-6-outpatient-dialysis-services-march-2016-report-.pdf?sfvrsn=0). ■

by linking payment to quality. The PPS is designed to create incentives for facilities to provide services more efficiently by reducing previous incentives inherent in the former payment method to overuse drugs.

Under the outpatient dialysis PPS, the unit of payment is a single dialysis treatment. Table 6-2 provides the payment adjusters for the PPS: patient-level characteristics (age, body measurement characteristics, onset of dialysis, and selected acute and chronic comorbidities) and facility-level factors (low treatment volume, rural location, and local input prices) applied to the base payment rate in 2016. Medicare pays facilities furnishing dialysis treatments in the facility or in a patient's home for up to three treatments per week, unless there is documented medical justification for more than three weekly treatments. In addition, in 2016, the ESRD Quality Incentive Program held facilities responsible for the quality of care they provide, using eight clinical measures and three reporting measures. Up to 2 percent of a facility's payment is linked to these quality measures. The Commission's *Payment Basics* provides more information about Medicare's method of paying for outpatient dialysis services (available at http://medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_16_dialysis_final.pdf?sfvrsn=0).

Since it was implemented in 2011, the outpatient dialysis PPS has undergone two significant changes—rebasing of the base payment rate in 2014 and recalibrating and redefining the payment adjusters in 2016. The text box on this page summarizes these changes.

## Are Medicare payments adequate in 2017?

To address whether payments for 2017 are adequate to cover the costs that efficient providers incur and how much providers' costs should change in the update year (2018), we examine several indicators of payment adequacy. We assess beneficiaries' access by examining the capacity of dialysis facilities and changes over time in the volume of services provided, quality of care, providers' access to capital, and the relationship between Medicare's payments and facilities' costs. Most of our payment adequacy indicators for dialysis services are positive:

- Provider capacity is sufficient.
- Some quality measures show improvement, while others need improvement.
- Provider access to capital is sufficient.
- The 2015 Medicare outpatient dialysis margin is estimated at 0.4 percent, and the rate of marginal profit is 16.6 percent.

### Beneficiaries' access to care: Indicators continue to be favorable

Our analysis of access indicators—including the capacity of providers to meet beneficiary demand and changes in the volume of services—shows that beneficiaries' access to care remains favorable.

**TABLE 6–3**

**Increasing number and capacity of freestanding, for-profit, and large dialysis organizations**

| | 2015 | | | | Average annual percent change | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Number of facilities | | Number of stations | |
| | Total number of FFS treatments (in millions) | Total number of facilities | Total number of stations | Mean number of stations | 2010–2014 | 2014–2015 | 2010–2014 | 2014–2015 |
| All | 45.1 | 6,475 | 113,400 | 18 | 3% | 3% | 3% | 2% |
| | Percent of total | | | | | | | |
| Freestanding | 94% | 93% | 95% | 18 | 4 | 3 | 4 | 3 |
| Hospital based | 6 | 7 | 5 | 14 | –6 | –3 | –6 | –3 |
| Urban | 84 | 80 | 83 | 18 | 4 | 3 | 3 | 3 |
| Rural, micropolitan | 11 | 13 | 11 | 16 | 1 | 2 | 2 | 2 |
| Rural, adjacent to urban | 3 | 5 | 4 | 13 | 2 | 1 | 2 | 1 |
| Rural, not adjacent to urban | 2 | 3 | 2 | 12 | 2 | 3 | 2 | 4 |
| Frontier | 0.2 | 0.6 | 0.3 | 11 | 1 | 0 | 5 | 1 |
| For profit | 90 | 87 | 88 | 18 | 4 | 3 | 4 | 3 |
| Nonprofit | 10 | 13 | 12 | 17 | –3 | 0 | –2 | 0 |
| Two largest dialysis organizations | 75 | 71 | 73 | 18 | 7 | 3 | 6 | 3 |
| All others | 25 | 29 | 27 | 17 | –3 | 2 | –3 | 2 |

Note: FFS (fee-for-service). Urban counties contain a cluster of 50,000 or more people, rural micropolitan counties contain a cluster of 10,000 to 50,000 people, rural adjacent counties are adjacent to urban areas and without a city of at least 10,000 people, and rural nonadjacent counties are not adjacent to an urban area and do not have a city with at least 10,000 people. Frontier counties have six or fewer people per square mile. Totals may not sum to 100 percent due to rounding.

Source: Compiled by MedPAC from the 2010, 2014, and 2015 Dialysis Compare database from CMS and 2015 claims submitted by freestanding and hospital-based dialysis facilities to CMS.

### Capacity has kept pace with patient demand

Growth in the number of dialysis facilities and treatment stations alongside growth in dialysis beneficiaries suggests that between 2010 and 2014, provider capacity kept up with demand for care. During that period, the number of facilities increased annually by 3 percent; facilities' capacity to provide care—as measured by dialysis treatment stations—also grew 3 percent annually (Table 6-3). By contrast, between 2010 and 2014, the number of beneficiaries grew 2 percent annually (data not shown). In the same period, capacity at facilities that were freestanding and for profit each grew by 4 percent annually while capacity at facilities that were hospital based and nonprofit decreased annually (–6 percent and –2 percent, respectively). Between 2010 and 2014, capacity at urban facilities grew at 3 percent per year while capacity at all rural facilities (data not shown) grew at 2 percent per year. Total dialysis capacity between 2014 and 2015 grew at rates similar to rates in 2010 to 2014.

### Providers of outpatient dialysis services

In 2015, there were roughly 6,500 dialysis facilities in the United States. Since the late 1980s, for-profit, freestanding facilities have provided the majority of dialysis treatments (Rettig and Levinsky 1991). In 2015, freestanding facilities furnished 94 percent of FFS treatments, and for-profit facilities furnished about 90 percent (Table 6-3). In 2015, the capacity of facilities located in urban and rural

**TABLE 6–4** **Annual growth in the number of FFS beneficiaries and treatments, 2009–2015**

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|
| Percent annual growth in the number of beneficiaries | 4% | 4% | 2% | 2% | 2% | 2% | 1% |
| Percent annual growth in the number of total treatments | 4 | 5 | 3 | 3 | 2 | 2 | 0.4 |
| Number of non-annualized treatments per beneficiary | 113 | 114 | 115 | 117 | 117 | 117 | 116 |

Note: FFS (fee-for-service). The growth rates reported reflect the percent change between that year and the prior year.

Source: MedPAC analysis of claims submitted by dialysis facilities to CMS.

areas was generally consistent with where FFS dialysis beneficiaries lived.

Two large dialysis organizations (LDOs) dominate the dialysis industry. In 2015, these two LDOs accounted for about 70 percent of all facilities and 75 percent of all Medicare treatments. In addition to operating most dialysis facilities, these two LDOs are each vertically integrated. One manufactures and distributes renal-related pharmaceutical products (e.g., phosphate binders), is the leading supplier of dialysis products (such as hemodialysis machines and dialyzers) to other dialysis companies, and operates a Phase I–IV drug and device clinical development company that focuses on the clinical development of new renal therapies. Both organizations operate an ESRD-related laboratory, a pharmacy, and one or more centers that provide vascular access services; they provide ESRD-related disease management services; and they operate dialysis facilities internationally. Both organizations have, in recent years, acquired physician and hospital groups.

### Type of facilities that closed and their effect on beneficiaries' access to care

Each year, we assess the type of facilities that closed and whether certain groups of Medicare dialysis beneficiaries are disproportionately affected by facility closures. Using facilities' claims submitted to CMS and CMS's Dialysis Compare database and Provider of Service file, we compared the characteristics of beneficiaries treated by facilities that closed in 2014 with the beneficiaries of facilities that provided dialysis in 2014 and 2015, the most current years for which complete data are available.

Between 2014 and 2015, the number of dialysis treatment stations—a measure of providers' capacity—increased by 2 percent. There was a net increase in the number of facilities that are freestanding, for profit, and located in both urban and rural areas. Compared with facilities that treated beneficiaries in both years, facilities that closed in 2014 (about 60 facilities) were more likely to be hospital based, nonprofit, and smaller (as measured by the number of dialysis treatment stations), which is consistent with long-term trends in supply of dialysis providers (Table 6-3).

According to our analysis, few dialysis beneficiaries (about 2,100 individuals) were affected by facility closures in 2014. Our analysis found that beneficiary groups who were disproportionately affected included beneficiaries who were White and older. Our analysis of claims data suggests that beneficiaries affected by these closures obtained care elsewhere.

### Volume of services

To assess changes in the volume of dialysis services, we examined recent trends in the number of dialysis treatments provided to beneficiaries and in the use of injectable drugs administered during dialysis.

#### Trends in number of dialysis treatments provided

Between 2014 and 2015, the average annual growth of total dialysis treatments (0.4 percent) was slower than the average annual growth of beneficiaries (1 percent) (Table 6-4). While the non-annualized number of dialysis treatments per beneficiary dropped between 2014 and 2015 from about 117 treatments to 116 treatments, the number remains higher than levels seen between 2009 and

**TABLE 6–5** **Use per treatment of dialysis drugs has declined under the outpatient dialysis PPS**

| | Mean units per treatment* | | | Aggregate percent change | | |
|---|---|---|---|---|---|---|
| **Dialysis drug** | **2007** | **2010** | **2015** | **2007–2010** | **2010–2014** | **2014–2015** |
| ESAs | | | | | | |
| Epoetin alfa | 5,532 | 5,214 | 2,197 | –6% | –45% | –23% |
| Darbepoetin alfa | 1.52 | 1.26 | 1.36 | –17 | –40 | 81 |
| Epoetin beta** | N/A | N/A | 1.35 | N/A | N/A | N/A |
| Iron agents | | | | | | |
| Sodium ferric gluconate | 0.39 | 0.15 | 0.12 | –62 | –17 | –5 |
| Iron sucrose | 12.3 | 16.0 | 12.8 | 30 | –19 | –1 |
| Ferumoxytol | N/A | 0.8 | 0.01 | N/A | –98 | –49 |
| Vitamin D agents | | | | | | |
| Paricalcitol | 2.3 | 2.3 | 0.3 | –2 | –83 | –17 |
| Doxercalciferol | 0.8 | 0.9 | 1.7 | 8 | 120 | –11 |
| Calcitriol | 0.16 | 0.13 | 0.05 | –17 | –74 | 34 |
| Antibiotics | | | | | | |
| Daptomycin | 0.097 | 0.217 | 0.129 | 123 | –34 | –10 |
| Vancomycin | 0.029 | 0.024 | 0.015 | –18 | –32 | –9 |
| Other drugs | | | | | | |
| Levocarnitine | 0.017 | 0.010 | 0.002 | –43 | –72 | –29 |
| Alteplase | 0.023 | 0.020 | 0.003 | –12 | –87 | –1 |

Note: PPS (prospective payment system), ESA (erythropoiesis-stimulating agent), N/A (not available). Individual units per treatment are rounded; the aggregate percent change is calculated using unrounded units per treatment.
*Each drug is reported using its own drug units.
**Epoetin beta was introduced to the U.S. market in 2015.

Source: MedPAC analysis of claims submitted by dialysis facilities to CMS.

2011. By comparison, between 2010 and 2014, growth in total treatments (3 percent per year) was slightly higher than growth in the total number of beneficiaries (2 percent per year (data not shown)).

That the growth in total treatments in 2015 did not keep up with growth in the total number of beneficiaries may be partly associated with CMS's restatement (in the rule-making process) of its policy for paying for dialysis furnished more than thrice weekly. In the rule-making process, the agency stated that (1) some facilities have begun to offer dialysis modalities, such as home hemodialysis, where the standard treatment regimen is more than three treatments per week, and (2) there was variation among the Medicare administrative contractors in processing claims for these modalities, resulting in payment of more than thrice-weekly treatment without medical justification. CMS clarified that facilities must provide medical justification to be paid for furnishing more than three dialysis treatments per week. The agency also said that the choice of dialysis modalities that require more than three treatments per week (including peritoneal dialysis and short frequent hemodialysis) does not constitute medical justification (Centers for Medicare & Medicaid Services 2014b).

**Use of most dialysis drugs has declined under the outpatient dialysis PPS** Because CMS based the bundled payment rate in the dialysis PPS on a per treatment basis and 2007 use data, we examined changes between 2007 and 2015 (the most current year for which complete data are available) in the use per treatment for the leading 12 dialysis drugs and aggregated them into 4 therapeutic classes—erythropoiesis-stimulating agents (ESAs), iron agents, vitamin D agents, and antibiotics.[6] We also examined changes in the use of drugs between 2010 (the year before the start of the PPS) and 2014 and between 2014 and 2015.

The dialysis PPS increased the incentive for providers to be more judicious in providing dialysis drugs since those are included in the payment bundle. Under the prior payment method, dialysis drugs were paid according to the number of units of the drug administered—in other words, the more units of a drug provided, the higher the Medicare payment.

Most of the decline in the use of dialysis drugs has occurred under the PPS. For example, between 2010 and 2014, the mean per treatment units of the two ESAs marketed during this period declined—epoetin alfa by 45 percent and darbepoetin alfa by 40 percent (Table 6-5). For ESAs, some of this decline may also have stemmed from clinical evidence showing that higher doses of these drugs led to increased risk of morbidity and mortality, which resulted in the Food and Drug Administration changing the ESA label in 2011.

Between 2014 and 2015, the use of most dialysis drugs continued to decline but at a lower rate than during the initial years of the PPS. The per treatment use of two drugs increased between 2014 and 2015: use of calcitriol, a vitamin D agent, increased by 34 percent (from 0.03 mcg to 0.05 mcg per treatment) and use of darbepoetin alfa, an ESA, increased by 81 percent (from 0.75 mcg to 1.36 mcg per treatment (Table 6-5)). Despite the increase in calcitriol and darbepoetin alfa, use across all vitamin D agents and ESAs declined between 2014 and 2015 (as measured by multiplying drug units per treatment reported on 2014 and 2015 claims by each drug's 2016 average sales price).

Under the outpatient dialysis PPS payment bundle, there has been increased competition and some shifts in the use of drugs within the ESA and vitamin D therapeutic classes. Our preliminary analysis of ESA utilization since 2013 suggests that providers are switching beneficiaries from epoetin alfa to darbepoetin alfa or epoetin beta. Between 2013 and 2015, the number of beneficiaries who received only epoetin alfa declined by 40 percent (to roughly 200,000 beneficiaries) and the number of darbepoetin alfa users more than tripled (to about 70,000 beneficiaries). Our preliminary analysis also shows that in 2015, there were about 90,000 beneficiaries who received epoetin beta (which was introduced to the U.S. market in 2015). One of the LDOs announced its intent to have 71 percent of the company's ESA patients (110,000 patients) switched to epoetin beta (from epoetin alfa) by the end of the first quarter of 2016 (Reuters 2016). In our 2016 report to the Congress, we discussed the increased competition between the two principal vitamin D agents and the change in prescribing patterns of these two products (Medicare Payment Advisory Commission 2016).

## Quality of care

Our analysis focuses on changes in quality indicators—including mortality and morbidity, process measures that assess dialysis adequacy and anemia management, and treatment utilization (home dialysis and kidney transplantation rates)—between 2011, the first year of the outpatient dialysis PPS, and 2015. The analysis, except where indicated, is based on the Commission's analysis of Medicare FFS enrollment and claims data between 2011 and 2015, CMS's monthly monitoring data (Centers for Medicare & Medicaid Services 2014a), and data from the U.S. Renal Data System (USRDS).

From 2011 to 2015, unadjusted mortality, hospitalization, and readmission rates declined while unadjusted emergency department (ED) use rose modestly. During this period, use of home dialysis, which is associated with improved patient satisfaction and quality of life, increased modestly. However, home dialysis growth slowed in 2014 and 2015 because of a shortage of the solutions needed for the predominant home method, peritoneal dialysis (PD). The negative cardiovascular outcomes associated with high ESA use generally declined, and blood transfusion use, which initially increased under the PPS, declined in 2014 and 2015.

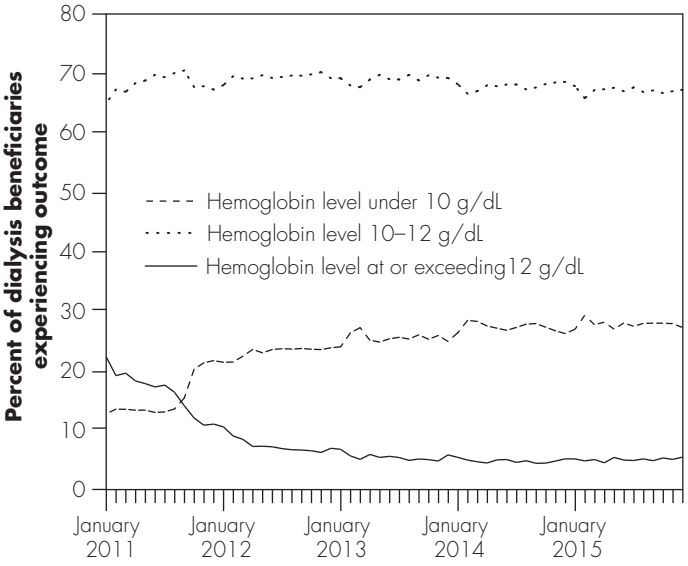
In assessing quality, we also examine the multiple factors that affect access to kidney transplantation. This procedure is widely regarded as a better ESRD treatment option than dialysis in terms of patients' clinical and quality of life outcomes and Medicare spending, and demand far outstrips supply. We also discuss CMS's new payment model—the ESRD Comprehensive Care Initiative—that aims to improve the health outcomes of dialysis beneficiaries while lowering the total Medicare Part A and Part B per capita spending on these beneficiaries. Last, we discuss CMS's two quality measurement systems, the ESRD Quality Incentive Program (QIP) and the Dialysis Star Ratings Systems.

### Quality under the PPS

According to the Commission's analysis of claims data, between 2011 and 2015, mean all-cause hospital stays per beneficiary declined from 1.7 admissions per beneficiary to 1.5 admissions per beneficiary, respectively. This finding is consistent with the trend of declining inpatient admissions

**FIGURE 6–2**

**Changes in hemoglobin levels, 2011–2015**




Note: Data are compiled on a monthly basis by CMS.

Source: MedPAC analysis of 2011–2015 claims submitted by dialysis facilities.

for all Medicare FFS beneficiaries during this period. In addition, USRDS data shows that admission rates also fell for ESRD-related complications and comorbidities between 2010 and 2014 (United States Renal Data System 2016).[7] During this period, 30-day readmission rates also declined, from 23 percent to 21 percent, respectively, and unadjusted annual rates of mortality declined from 16 percent of dialysis beneficiaries to 15 percent. According to CMS's and the Commission's analyses, the proportion of dialysis beneficiaries who used the ED increased modestly from an average of 10.5 percent per month in 2011 to 11.5 percent per month in 2015.

Beneficiaries' fluid management is related to factors such as the adequacy of the dialysis procedure and dietary management. According to the Commission's analysis, between 2011 and 2015, from 96 percent to 97 percent of hemodialysis beneficiaries and 88 percent to 92 percent of peritoneal dialysis beneficiaries received adequate dialysis, defined as having enough waste removed from their blood. Between 2011 and March 2015, the share of dialysis beneficiaries diagnosed with congestive heart failure or dehydration declined slightly while the share of beneficiaries diagnosed with fluid overload increased slightly (Centers for Medicare & Medicaid Services 2014a).

Process and health outcome measures reflect the change in anemia management under the PPS. Anemia is measured by a blood test to check the level of hemoglobin, the protein that carries oxygen in red blood cells. According to the Commission's analysis, from 2011 to 2015, median hemoglobin levels fell from 11.1 g/dL to 10.5 g/dL. Figure 6-2 shows that the proportion of dialysis beneficiaries with higher hemoglobin levels declined, and the proportion with lower hemoglobin levels increased (which is generally associated with lower ESA use). The proportion of beneficiaries receiving a blood transfusion increased during the first two years of the PPS (2011 and 2012) from 3.2 to 3.4 percent per month, respectively (Centers for Medicare & Medicaid Services 2014a). However, according to CMS's and the Commission's analysis, between 2013 and 2015, the rate of blood transfusions declined from 3.2 percent to 2.6 percent of beneficiaries per month, respectively.[8] The cumulative share of beneficiaries experiencing negative cardiovascular outcomes—stroke, acute myocardial infarction, and heart failure—associated with earlier higher ESA use (before 2011) generally declined (Centers for Medicare & Medicaid Services 2014a).

Two recently published studies found similar effects of the new outpatient dialysis PPS and the change in the Food and Drug Administration's ESA label on the outcomes of anemia management (Chertow et al. 2016, Wang et al. 2016). Based on a study population of incident (new) hemodialysis beneficiaries treated between January 2008 and June 2013, Wang and colleagues found that after the dialysis PPS was implemented, the rate of blood transfusions modestly increased but the risk of major adverse cardiovascular events and mortality were unchanged, and the risk of stroke significantly declined. In addition, Wang and colleagues also found that the risk of major adverse cardiovascular events and death for African American patients was significantly reduced. Based on a study population of dialysis beneficiaries treated between 2005 and 2012, Chertow and colleagues (2016) reported that rates of all-cause and cause-specific mortality declined as expected on the basis of secular trends, while rates of stroke, venous thromboembolic disease, and heart failure were lower than expected in 2012.

As discussed in our June 2014 report, clinical process measures may exacerbate the incentives in FFS to overprovide and overuse services (Medicare Payment Advisory Commission 2014b). For example, before 2011, targeting higher hemoglobin levels was associated

with higher ESA use among dialysis beneficiaries. In addition, some clinical process measures may be only weakly correlated with better health outcomes. A given hemoglobin level may reflect adequate anemia management for one patient, whereas the same level may lead to a different response in a different patient. Clinical outcomes, such as rates of stroke, are a better indicator of anemia management in the dialysis population. The Commission has stated that Medicare should transition over the next decade to a quality measurement system that uses a small number of population-based outcome measures (Medicare Payment Advisory Commission 2014b).

According to CMS's and the Commission's analyses, between 2011 and 2015, the share of beneficiaries dialyzing at home steadily increased from a monthly average of 8.9 percent to 10.6 percent (Centers for Medicare & Medicaid Services 2014a). While we are encouraged by this modest increase, differences by race persist: African Americans are less likely to use home methods. According to the Commission's analysis, African Americans account for 27 percent of home dialysis beneficiaries compared with about 36 percent of all dialysis beneficiaries.

Beginning around September 2014, the growth in PD, the predominant home method, may have slowed because of a shortage of solutions needed to perform this type of dialysis. The proportion of beneficiaries dialyzing at home remained steady between September 2014 and December 2015, ranging from a monthly average of 10.5 percent to 10.7 percent. The supply shortage resulted from the product's leading manufacturer (Baxter) experiencing increased PD demand and limited manufacturing capacity (Baxter 2014, Neumann 2014).

Because of the shortage, beginning in August 2014, the manufacturer gave each dialysis provider an allocation for how many new patients could be started on PD based on the provider's history of growth during the first six months of 2014 (Seaborg 2015). Although steps have been taken to increase the supply of PD solutions, the limitation on the number of new PD patients held through the end of 2015 (Baxter 2016).[9]

### Access to kidney transplantation

Kidney transplantation is widely regarded as a better ESRD treatment option than dialysis in terms of patients' clinical and quality of life outcomes. In addition, transplantation results in lower Medicare spending; in 2014, average Medicare spending for patients who had a functioning kidney transplant or received a kidney transplant was substantially lower than spending for dialysis patients ($34,559 vs. $90,143, respectively) (United States Renal Data System 2016). However, demand for kidney transplantation exceeds supply. Factors that affect access to kidney transplantation include the clinical allocation process and donation rates; patients' health literacy, clinical characteristics, and preferences; the availability of education for patients; clinician referral for transplant evaluation at a transplant center; and transplant center policies.

Between 2011 and 2015, according to the United Network for Organ Sharing, the number of kidney transplants increased in aggregate by 6 percent to 17,878 (United Network for Organ Sharing 2016). In 2015, African Americans were less likely than White patients to receive kidney transplants despite their threefold greater likelihood of developing ESRD; however, between 2011 and 2015, African Americans accounted for an increasing share of total transplants (Table 6-6). According to Ephraim and colleagues (2012), the lower rates of kidney transplantation for African Americans compared

**TABLE 6–6**

**Between 2011 and 2015, the number of kidney transplants increased, and African Americans and Hispanics accounted for an increasing share**

| | 2011 | 2015 |
|---|---|---|
| Total transplants | 16,816 | 17,878 |
| Share of live donors | 34% | 31% |
| Share of: | | |
| Whites | 52 | 46 |
| African Americans | 26 | 28 |
| Hispanics | 15 | 17 |
| Asians | 6 | 6 |
| Others | 2 | 2 |

Note: Totals may not sum to 100 percent due to rounding.

Source: United Network for Organ Sharing. 2016. National data. https://optn.transplant.hrsa.gov/data/view-data-reports/national-data/.

with other groups are associated with multiple factors, including immunological incompatibility with deceased donor kidneys; lower rates of referral for transplantation; lower rates of cadaver kidney donation; and lack of knowledge and suboptimal discussions about kidney transplantation among recipients, their families, and health care providers (Ephraim et al. 2012).

In 2010, to help inform beneficiaries diagnosed with Stage IV chronic kidney disease (CKD) (the disease stage before ESRD) about their treatment options and managing the disease and related comorbidities, MIPPA established Medicare payment for up to six sessions of kidney disease education (KDE) per beneficiary. Since its implementation, relatively few beneficiaries have been provided KDE services. About 3,400 beneficiaries were provided such services in 2014 and 2015 compared with about 2,900 beneficiaries in 2013 and about 4,200 beneficiaries in 2011 and in 2012. Medicare KDE spending in 2015 was about $500,000.[10]

Education efforts directed at patients can be effective in encouraging them to make an informed decision about their treatment, including home dialysis, in-center dialysis, and conservative care. For example, a recent review of educational interventions found a strong association between patient-targeted dialysis modality education and choosing and receiving PD (Devoe et al. 2016). According to the Government Accountability Office, payment limitations on the providers who can furnish KDE services and the beneficiaries who are eligible might constrain the service's use (Government Accountability Office 2015). MIPPA specified the categories of providers who can furnish KDE services—physicians, physician assistants, nurse practitioners, clinical nurse specialists, and certain providers of services located in rural areas.[11] MIPPA also specified that beneficiaries with Stage IV CKD are eligible for the benefit. Some stakeholders contend that other categories of beneficiaries, including those with Stage V CKD (i.e., ESRD) but who have not started dialysis and individuals who have already initiated hemodialysis, might also benefit from Medicare KDE coverage.

### The ESRD Comprehensive Care Initiative

The relatively high resource use of dialysis beneficiaries, particularly rates of hospital admissions and hospital readmissions, suggests that further improvements in quality are needed and that some dialysis beneficiaries might benefit from better care coordination. Under the authority of the Center for Medicare & Medicaid Innovation, the first round of the Comprehensive ESRD Care (CEC) Initiative began October 1, 2015, and is testing whether a new payment model implemented in FFS Medicare can improve the outcomes of dialysis beneficiaries as well as lower their Medicare per capita spending. The second round of the CEC model began in 2017.

Under this five-year initiative, ESRD Seamless Care Organizations (ESCOs), which consist of at least one dialysis facility and one nephrologist, will be held accountable for the clinical and financial (Part A and Part B) outcomes of prospectively matched dialysis beneficiaries. Of the 13 ESCOs participating in round 1, 12 are operated by 3 large dialysis organizations (Dialysis Clinic Inc., DaVita, and Fresenius), which CMS defines as organizations that operate more than 200 dialysis facilities, and 1 ESCO is operated by a small dialysis organization (Rogosin Institute), which operates fewer than 200 dialysis facilities. For the first performance year, the CEC model has approximately 16,000 beneficiaries associated with the 13 ESCOs.

In the first round of the CEC Initiative, the ESCOs operated by the three large dialysis organizations were held to two-sided risk-based payment, while the one small dialysis organization was held to one-sided risk-based payment. (Under two-sided risk, the provider is at financial risk if specified goals are not achieved but is rewarded if the goals are met. Under one-sided risk, the provider is not penalized financially if goals are not met.) The initial agreement period lasts for three years; thereafter, CMS and the ESCOs have the option of extending the agreement for an additional two years based on the ESCOs' performance. A summary of selected features of the model that includes beneficiary attribution and the calculation of shared savings can be found in the Commission's March 2016 report to the Congress. In May 2016, CMS announced a new solicitation for a second round of participants (for payment year 2). The additional 24 ESCOs accepted through the second application round began in January 2017. For the second payment year, CMS has added an optional two-sided risk payment option (in addition to a one-sided payment track) for small dialysis organizations.

The Commission has said that, if structured properly, a shared savings program—in this case, for ESRD providers—could present an opportunity to correct some of the undesirable incentives inherent in FFS payment and

reward providers who are doing their part to control costs and improve quality.

In addition to the CEC initiative, dialysis beneficiaries in selected geographic areas also have access to ESRD special needs plans (SNPs). Between November 2015 and 2016, there was a modest increase in ESRD SNP enrollment and the number of ESRD SNPs. As of November 2016, about 3,500 dialysis beneficiaries were enrolled in 10 SNPs operated by 4 managed care organizations in 6 states (Arizona, California, Colorado, Nevada, North Carolina, and Texas). By comparison, as of November 2015, 2,700 dialysis beneficiaries were enrolled in 5 SNPs operated by 3 managed care organizations in California and in Nevada. While the CEC initiative and ESRD SNPs enroll only dialysis beneficiaries, other accountable care organization models, such as those participating in the Medicare Shared Savings Program, might provide opportunities for beneficiaries with earlier stages of kidney disease to receive better care coordination, particularly in the management of kidney disease risk factors.

### The ESRD QIP and the dialysis star ratings system

CMS measures quality for each dialysis facility using two measurement systems, the ESRD Quality Incentive Program (QIP), which was mandated by MIPPA and implemented in 2012, and the dialysis star ratings system, which CMS established through a subregulatory process in 2015. In its comment letter to CMS, the Commission questioned why CMS finds a second quality system necessary for dialysis facilities (Medicare Payment Advisory Commission 2014a). We also raised concerns that beneficiaries and their families might be confused if a facility's star and QIP scores diverge, which could occur because the measurement systems use different methods and measures to calculate a facility's performance score.

## Providers' access to capital: Growth trends suggest access is adequate

Providers need access to capital to improve their equipment and open new facilities so they can accommodate the growing number of patients requiring dialysis. The two LDOs, as well as other renal companies, appear to have had adequate access to capital in 2016. For example, in 2016:

- DaVita formed a joint venture with New York's largest health care provider, Northwell Health, to provide integrated kidney care to patients in Queens and Long Island (Northwell Health 2016). In addition, DaVita acquired two physician groups—Family Health Care of Central Florida, a primary care group with 13 providers in Orlando, and Mountain View Medical Group, a physician group in Colorado Springs. Internationally, the company signed a joint venture agreement with an investment fund to collectively own a portion of DaVita's Asia-Pacific kidney care business.
- Fresenius announced plans to provide integrated health care management for patients with renal disease who are enrolled in one of seven Medicare Shared Savings Program accountable care organizations operated by Collaborative Health Systems and physician partners (*Business Wire* 2016). Fresenius entered into a joint venture partnership with MemorialCare Health System, an integrated delivery system, to operate 15 dialysis clinics in Orange and Los Angeles counties. Frenova Renal Research, a subsidiary of Fresenius Medical Care North America, opened a new office location in North Carolina and expanded its U.S. field-based staff in Florida, Illinois, Louisiana, New York, and North Carolina. Fresenius established a subsidiary (Unicyte AG) focusing on regenerative medicine. Internationally, the company purchased a Spanish hospital group for 5.76 billion euros ($6.42 billion) in its largest acquisition as it seeks to expand its German network across Europe.
- U.S. Renal Care announced that it is partnering with Liberty Administrative Services to share ownership and management responsibilities at nine Dallas-area dialysis clinics previously managed by Liberty Administrative Services. The clinics serve more than 500 patients.
- Nonprofit dialysis provider Satellite Healthcare acquired three dialysis centers in Laredo, Texas, from DSI Renal.

Providers' access to capital can be affected by factors such as nongovernment and government investigations and legal claims. In August 2016, CMS began investigating whether dialysis facilities and other providers have been steering patients eligible for or receiving Medicare, Medicaid, or both into individual market plans under the Affordable Care Act (Centers for Medicare & Medicaid Services 2016). Subsequently, one dialysis organization announced that it would

suspend support for applications for charitable premium assistance by patients enrolled in minimum essential Medicaid coverage who are seeking additional coverage from a 2017 Affordable Care Act plan (DaVita 2016). In addition, in July 2016, a large commercial payer filed a lawsuit in U.S. District Court alleging that a midsized publicly traded dialysis organization switched patients from Medicare and Medicaid coverage to plans operated by the commercial payer (Mathews 2016).

In public financial filings, both LDOs reported positive financial performance for 2015, including strong organic volume and revenue growth—that is, growth achieved apart from mergers and acquisitions. Since 2010, the two largest dialysis organizations have grown through large acquisitions and mergers of other dialysis facilities and other health care organizations. For example, during this period, both large dialysis organizations acquired midsized for-profit organizations: DaVita acquired DSI Renal and Fresenius acquired Liberty Dialysis. In addition, both organizations acquired large physician services organizations: DaVita purchased HealthCare Partners, which was at the time the largest operator of physician groups and networks, and Fresenius became a majority shareholder in Sound Physicians and acquired Cogent Healthcare.

In general, current trends in the profit status and consolidation among dialysis providers suggest that the dialysis industry is attractive to for-profit providers.

## Medicare payments and providers' costs

Each year, we examine the relationship between Medicare's payments and providers' costs as part of our assessment of payment adequacy. To make this assessment, we reviewed Medicare expenditures for outpatient dialysis services in 2015 and examined trends in spending under the PPS. We also reviewed evidence regarding providers' costs under the PPS.

### Medicare payments for outpatient dialysis services

In 2014 and 2015, Medicare spending for outpatient dialysis services remained relatively flat at $11.2 billion in both years. Per capita spending decreased by 1.2 percent, from about $29,200 to $28,850. The decline in per capita spending reflects two factors: (1) a statutory update of 0 percent in 2015 and (2) a decline (by about 0.8 percent) between 2014 and 2015 in the number of dialysis treatments per beneficiary.

### Part D spending for dialysis drugs

Under the dialysis PPS, the use of dialysis drugs included in the PPS payment bundle declined. By contrast during this period, the use (as measured by Medicare spending) of Part D dialysis drugs that are not yet included in the PPS payment bundle increased. In 2014 (the most recent year data are available), Part D spending for two categories of dialysis drugs (calcimimetics and phosphate binders) totaled $1.5 billion, an increase of 22 percent per year compared with 2011. During this period, on a per treatment basis, Part D spending for dialysis drugs increased by 19 percent per year.[12] In addition, between 2011 and 2014, Part D spending for dialysis drugs grew more rapidly than Part D spending for dialysis beneficiaries (22 percent vs. 15 percent, respectively). In 2014, Part D spending for dialysis drugs constituted 55 percent of dialysis beneficiaries' gross Part D spending. Medicare spending for Part D dialysis drugs is not included in the Commission's analysis of Medicare's payments and costs for dialysis facilities.

The Secretary intended that the dialysis PPS payment bundle, beginning in 2014, include Part D dialysis drugs. However, the Stephen Beck, Jr., Achieving a Better Life Experience Act of 2014 delayed bundling these drugs until 2025. Nevertheless, if an injectable equivalent (or form of administration other than an oral form) of the oral-only drug is approved by the Food and Drug Administration before 2025, CMS will include both the oral and non-oral versions in the PPS payment bundle (Centers for Medicare & Medicaid Services 2015).

Including dialysis drugs covered under Part D in the Part B payment bundle may lead to better management of drug therapy and improve beneficiaries' access to these medications since some beneficiaries lack Part D coverage or have coverage less generous than the Part D standard benefit. Potential incentives to use a Part D drug instead of a drug covered under the bundle—a situation that might not result in the best care—would be eliminated. One study that analyzed changes in processes of care under the PPS reported that use of calcimimetics and phosphate binders by small dialysis organizations increased under the PPS (Brunelli et al. 2013).[13] The decision-making process would be based on what is best for the patient. Giving the Secretary the flexibility to rebase the payment bundle after the oral-only dialysis drugs are included in the dialysis PPS payment bundle might lead to savings for beneficiaries and taxpayers.

In addition, including Part D dialysis drugs in the Part B PPS payment bundle might lead to improving the value of Medicare spending and more price competition:

- Including cinacalcet, which is prescribed to treat secondary hyperparathyroidism that can result from loss of kidney function, in the Part B PPS payment bundle could lead to efficiencies in the delivery of quality care. Based on results of a multicenter, prospective, randomized placebo-controlled trial, some clinicians concluded that the routine use of cinacalcet may not be warranted (Palmer et al. 2013).[14] Between 2013 and 2014, Part D spending for cinacalcet grew by 21 percent to $563 million in 2014.
- Multiple phosphate binders are marketed in the United States, and including them in the Part B payment bundle might increase price competition among the available products. According to researchers, the choice of which phosphate binder to prescribe is dependent on "physician preference, cost, reimbursement issues, tolerability, side effects, patient adherence, and other factors" (Nguyen et al. 2016). Palmer and colleagues (2016), in a recent meta-analysis of phosphate binders in patients with CKD, found no significant differences in all-cause mortality between any single agent versus placebo and concluded that "the failure of any agent to reduce mortality versus placebo suggests that a less aggressive approach to phosphate-lowering treatment may be entirely appropriate in all patients pending the availability of new evidence" (Palmer et al. 2016). Between 2013 and 2014, Part D spending for phosphate binders increased by 24 percent to $980 million.

### Providers' costs for outpatient dialysis services under the outpatient dialysis PPS

To assess the appropriateness of costs for dialysis services paid for under the dialysis PPS, we examine whether aggregate dialysis facility costs reflect costs that efficient providers would incur in furnishing high-quality care. For this analysis, we use 2014 and 2015 cost reports submitted to CMS by freestanding dialysis facilities. For those years, we look at the growth in the cost per treatment and how total treatment volume affects that cost.

**Cost growth under the PPS varied by cost category** Between 2014 and 2015, the cost per treatment rose by 0.5 percent, from about $243 per treatment to $244 per treatment. During this period, the cost per treatment for ESAs and other Part B injectable drugs that were separately billable before 2011 each declined by 6 percent. Together, these two cost categories accounted for 13 percent of the total cost of treatment in 2015. The cost per treatment decline for ESAs and other injectable drugs somewhat offset increases in the other major cost categories:

- Labor costs, which accounted for about 30 percent of the cost per treatment, increased by 2 percent.
- Administrative and general expenses and capital costs, which accounted for 25 percent and 16 percent of the cost per treatment, respectively, each increased by 1 percent.
- Supply costs, which accounted for about 10 percent of the cost per treatment, increased by 3 percent.

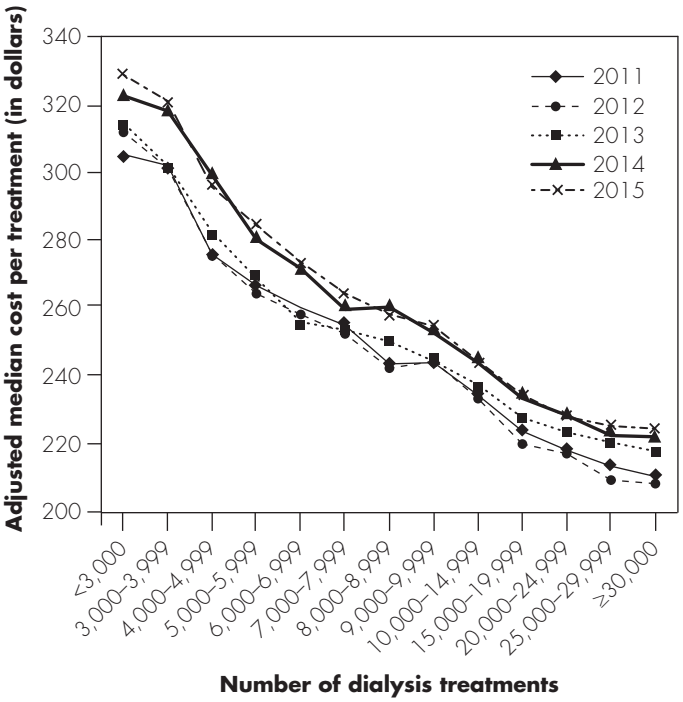
Variation in cost growth across freestanding dialysis facilities shows that some facilities were able to hold their cost growth well below that of others. For example, between 2014 and 2015, per treatment costs decreased by 4.7 percent for facilities in the 25th percentile of cost growth and increased by 3.7 percent for facilities in the 75th percentile.

It is unknown the extent to which some of the variation in costs among facilities is due to differences in the accuracy of the data that facilities report. In 2014 and 2015, we found substantial variation in the level of selected cost categories reported by the five leading dialysis organizations (as measured by the total number of facilities). For example, the cost per treatment for administrative and general services differed by roughly $25 among these organizations. We anticipate that CMS's audit of a representative sample of ESRD cost reports will examine the accuracy of facilities' cost reports.

**Cost per treatment is correlated with facility service volume** Cost per treatment is correlated with the total number of treatments a facility provides. For this analysis, we adjusted the cost per treatment to remove differences in the cost of labor across areas and included all treatments regardless of payer. Our analysis showed, in each year from 2011 through 2015, a statistically significant relationship between total treatments and cost per treatment (correlation coefficient equaled –0.5) (Figure 6-3, p. 176). That is, the greater the facility's service volume, the lower its cost per treatment. Facilities that qualified for increased Medicare payment due to low volume had substantially higher cost per treatment for capital and administrative and general services compared with all other facilities.

**FIGURE 6–3**

**Higher volume dialysis facilities have lower cost per treatment, 2011–2015**




Note: Cost per treatment is adjusted to remove differences in the cost of labor. Dialysis treatments include those paid for by all sources (not just Medicare-paid treatments).

Source: MedPAC analysis of 2011–2015 cost reports submitted by freestanding dialysis facilities to CMS and the end-stage renal disease wage index files.

### Medicare margin for freestanding facilities in 2015

The Commission assesses current payments and costs for dialysis services for freestanding dialysis facilities by comparing Medicare's payments with facilities' Medicare-allowable costs. The latest and most complete data available on payments and costs are from 2015. For 2015, we estimate that the aggregate Medicare margin was 0.4 percent (Table 6-7). Margins decidedly vary by treatment volume. In 2015, facilities in the lowest volume quintile had margins at or below –16.9 percent, and facilities in the top volume quintile had margins of 6.5 percent or greater.

Urban facilities had higher margins than rural facilities (1.3 percent and –5.1 percent, respectively). Much of the difference in margin between urban and rural facilities is accounted for by differences in total treatment volume. Urban dialysis facilities are larger on average than rural facilities with respect to number of treatment stations and total treatments provided. In 2015, urban facilities averaged 12,229 treatments, while rural facilities averaged 7,778 treatments (data not shown).

In evaluating the adequacy of payments, it is also important to assess whether providers have a financial incentive to expand the number of Medicare beneficiaries they serve. In considering whether to treat an additional patient, the provider compares the marginal revenue it will receive (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If Medicare payments are larger than the marginal costs of treating an additional beneficiary, a provider has a financial incentive to increase its volume of Medicare beneficiaries. In contrast, if marginal payments do not cover the marginal costs, the provider may have a disincentive to admit Medicare beneficiaries. To operationalize this concept, we compare payments for Medicare services with marginal costs, which is approximated as:

Marginal profit = (payments for Medicare services – (total Medicare costs – fixed building and equipment costs)) / Medicare payments

This formula gives a lower bound on the marginal profit because we ignore any potential labor costs that are fixed. For dialysis facilities, we find that excluding capital costs lowers the cost per treatment by nearly $40 and that Medicare payments exceed marginal costs by 16.6 percent, suggesting facilities with available capacity have an incentive to treat Medicare beneficiaries. This margin is a positive indicator of patient access.

### Projecting the Medicare margin for 2017

The aggregate Medicare margin for 2017 is projected to be –1.0 percent. This projection considers provider cost growth between 2014 and 2015 and the following policy changes that went into effect between 2015 (the year of our most recent margin estimates) and 2017:

- The Protecting Access to Medicare Act of 2014 (PAMA) mandated that the base payment rate be rebased in 2016 and 2017 to account for the reduced drug utilization under the dialysis PPS. This rebasing adjustment reduced the statutory update (based on the ESRD market basket offset by a productivity adjustment) by 1.25 percent in each year. The net payment update was 0.15 percent in 2016 and will be 0.55 percent in 2017.

**TABLE 6–7**

**Medicare margins in 2015 varied by type of freestanding dialysis facility**

| Provider type | Medicare margin | Percent of freestanding dialysis facilities | Percent of freestanding dialysis facility treatments |
|---|---|---|---|
| All | 0.4% | 100% | 100% |
| Urban | 1.3 | 80 | 87 |
| Rural | –5.1 | 20 | 13 |
| Treatment volume (quintile) | | | |
| Lowest | –16.9 | 20 | 7 |
| Second | –8.8 | 20 | 12 |
| Third | –2.8 | 20 | 17 |
| Fourth | 2.3 | 20 | 24 |
| Highest | 6.5 | 20 | 39 |

Note: Totals may not sum to 100 percent due to rounding.

Source: Compiled by MedPAC from 2015 cost reports and outpatient claims submitted by facilities to CMS and the 2015 Dialysis Compare database.

- Other regulatory changes are expected to result in increased payments in 2017 of 0.18 percent.
- Payments will be reduced by 0.17 percent and 0.13 percent, respectively, due to the ESRD QIP in 2016 and 2017.
- The sequester, which is now fully reflected in Medicare's payments to providers, reduced Medicare payments to providers by 2 percent beginning April 2013.
- A regulatory change beginning in 2016 eliminated the limit on the medical director compensation that facilities can report on their cost reports. Before 2016, Medicare imposed a limit on the amount of compensation that could be reported on facilities' cost reports, which was based on the Reasonable Compensation Equivalent limit for a board-certified physician of internal medicine (for a metropolitan area of greater than one million people) of $197,500.[15] This regulatory action essentially changed the definition of a Medicare-allowable cost that facilities can report on their cost report. If the limit on the reporting of medical director fees had not been eliminated in 2016, then the aggregate 2017 projected margin would be roughly the same as our estimate of the margin for 2015 (0.4 percent).

## How should Medicare payments change in 2018?

For 2018, PAMA sets the update to the outpatient dialysis payment base rate equal to the ESRD market basket index, less an adjustment for productivity (currently estimated at 0.5 percent) and a rebasing adjustment of 1 percentage point. Based on CMS's latest forecast of changes in the ESRD market basket costs for calendar year 2018 (2.2 percent), the update to the 2018 payment rate would be 0.7 percent. In addition to this statutory provision, the ESRD QIP is expected to decrease total payments by 0.14 percent in 2018.

### Update recommendation

The evidence on payment adequacy suggests that outpatient dialysis payments are adequate. It appears that facilities have become more efficient under the PPS, as measured by declining use of most injectable dialysis drugs.

**RECOMMENDATION 6**

**The Congress should increase the outpatient dialysis base payment rate by the update specified in current law for calendar year 2018.**

## RATIONALE 6

Most of our indicators of payment adequacy are positive, including beneficiaries' access to care, the supply and capacity of providers, volume of services, quality of care, and access to capital. Providers have become more efficient in the use of dialysis drugs under the PPS. The Medicare margin was 0.4 percent in 2015 and is projected to be –1.0 percent in 2017.

## IMPLICATIONS 6

### Spending

- In 2018, the statute sets the payment update at the market basket, net of the productivity adjustment and a rebasing adjustment of 1 percentage point. The Commission's recommendation would have no effect on federal program spending relative to the statutory update.

### Beneficiary and provider

- This recommendation is expected to have a minimal effect on reasonably efficient providers' willingness and ability to care for Medicare beneficiaries. We do not anticipate any negative effects on beneficiary access to care. ■

## Endnotes

1 The term *dialysis drugs* refers to the medications used to treat ESRD.

2 In this chapter, the term *beneficiaries* refers to individuals covered by Medicare, and *patients* refers to individuals who may or may not be covered by Medicare.

3 The 21st Century Cures Act lifts the prohibition on ESRD beneficiaries enrolling in MA beginning in 2021.

4 Age groups are 21 years and younger, 22 to 44 years, 45 to 64 years, 65 to 74 years, and 75 years and older.

5 For individuals entitled to Medicare based on ESRD, Medicare coverage does not begin until the fourth month after the start of dialysis, unless the individual had a kidney transplant or began training for self-care, including dialyzing at home.

6 These drug classes accounted for nearly all dialysis drug spending (about 97 percent) in 2010, the year before the start of the new payment method.

7 Between 2011 and 2014, adjusted hospitalization rates (per patient-year) for hemodialysis patients fell from 0.5 to 0.4 admissions for cardiovascular and infection events and from 0.2 to 0.1 admissions for vascular access events. Adjusted admission rates (per patient-year) for PD patients also declined for these ESRD-related complications and comorbidities during this period (United States Renal Data System 2016).

8 Blood transfusions are of concern to patients because they (1) carry a small risk of transmitting blood-borne infections to the patient, (2) may cause some patients to develop a reaction, and (3) are costly and inconvenient for patients. Blood transfusions are of particular concern for patients seeking kidney transplantation because they increase a patient's alloantigen sensitization, which can require a patient to wait to receive a transplant.

9 To alleviate the shortage, Baxter (1) received Food and Drug Administration approval to import PD solutions from Ireland, (2) bought PD solutions from Fresenius to distribute to its customers (Seaborg 2015), and (3) announced additional manufacturing capacity in 2015 (Baxter 2014). In addition, Fresenius announced its PD manufacturing facility would be operational in early 2017 and announced in November 2015 its partnership with a Swiss manufacturer to develop a portfolio of peritoneal technologies (Fresenius Medical Care 2015, Zumoff 2015).

10 This analysis used 100 percent of carrier and outpatient claims submitted for KDE services from 2011 through 2015.

11 MIPPA does not permit other providers (including registered nurses, social workers, and dieticians) and dialysis facilities to bill for KDE services. In 2014, KDE services were most frequently provided by nephrologists, nurse practitioners, or physician assistants in an office setting.

12 Part D spending per dialysis treatment is calculated by dividing total Part D spending for dialysis drugs by the total number of Part B dialysis treatments furnished by dialysis facilities to Medicare beneficiaries with and without Part D.

13 Between the fourth quarter of 2010 and the second quarter of 2011, use of cinacalcet increased from 19 percent to 27 percent of beneficiaries, and use of phosphate binders increased from 56 percent to 68 percent of beneficiaries (Brunelli et al. 2013).

14 The Evaluation of Cinacalcet Hydrochloride Therapy to Lower Cardiovascular Events trial—a multicenter, prospective, randomized, placebo-controlled trial—found that cinacalcet did not significantly reduce the risk of death or major cardiovascular events in patients with moderate to severe secondary hyperparathyroidism undergoing dialysis (Chertow et al. 2012).

15 Following audits by the Office of Inspector General and the Medicare administrative contractors in the 1980s that showed instances in which freestanding facilities compensated their medical directors and administrators excessively, CMS set limits for reasonable compensation when reporting medical director fees on dialysis facility cost reports. CMS discarded the limit based on the notion that limits are generally used when determining payment for providers that are reimbursed on a reasonable cost basis and are typically not used in PPSs that update payment rates using market basket methods.

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CHAPTER 7

# Post-acute care: The Congress and CMS must act to implement recommended changes to PAC payments

CHAPTER 7

# Post-acute care: The Congress and CMS must act to implement recommended changes to PAC payments

## Chapter summary

Post-acute care (PAC) providers offer important recuperation and rehabilitation services to Medicare beneficiaries after an acute care hospital stay. PAC providers include skilled nursing facilities (SNFs), home health agencies (HHAs), inpatient rehabilitation facilities (IRFs), and long-term care hospitals (LTCHs). In 2015, fee-for-service (FFS) program spending on PAC services totaled $60 billion.

The Commission has previously discussed the challenges to improving the accuracy of Medicare's payments and the shortcomings of the separate FFS payment systems for PAC (Medicare Payment Advisory Commission 2015, Medicare Payment Advisory Commission 2014). Over more than a decade, the Commission has worked extensively on PAC payment reform—pushing for closer alignment of costs and payments, more equitable payments across different types of patients, and outcomes-based quality measures (with payment tied to performance). While there has been some progress on the quality and value-based purchasing fronts, there have been few corrections to the known shortcomings of the SNF and HHA prospective payment systems (PPSs), and payments remain high relative to the costs of treating beneficiaries. As a result, the inequities in payment continue to encourage patient selection and to advantage some providers over others.

## In this chapter

- Challenges to improving Medicare's payments for post-acute care
- The Commission has called for a variety of quality initiatives
- The Commission's payment recommendations would lower and redistribute program spending
- Conclusion

The Commission has two goals in making payment recommendations. The *update* recommendations aim to ensure that payments are adequate so that beneficiary access is preserved while taxpayers and the long-run sustainability of the program are protected. The recommendations to *revise the payment systems* are intended to match program payments to the costs of treating patients with different care needs. Such targeting increases the equity of the program's payments so that providers have little financial incentive to treat some beneficiaries over others.

The cost to the program of not implementing the Commission's update recommendations is substantial. Across the four PAC settings, if this year's recommendations were implemented, we estimate that FFS program spending would be reduced by more than $30 billion over 10 years, all else being equal. The cost of past inaction is also considerable. Had the 2008 recommendations to eliminate the updates to payments for HHAs and SNFs been implemented, we estimate that FFS spending between 2009 and 2016 would have been $11 billion lower, without affecting access. The Commission also recommended that the payment systems for SNFs and HHAs be revised (in 2008 and 2011, respectively) to base payments on patient characteristics, not the amount of service furnished. Implementing these recommendations would have narrowed the differences in financial performance across providers within each setting by increasing payments for nonprofit and hospital-based providers and by lowering payments to freestanding and for-profit providers. The industries, on the whole, would still be profitable; they have historically demonstrated resilience in reconfiguring their service mix and costs in response to changes in payment policy.

The overpayments and misalignment of incentives for PAC within traditional FFS also distort the payments made by Medicare Advantage (MA) plans and alternative payment models (APMs) such as accountable care organizations and bundled payment initiatives. Because the costs and service use of FFS form the basis of APM payments and MA benchmarks, reducing FFS payment rates also would reduce the level and distribution of spending outside of traditional Medicare. Allowing these distortions to continue may also compromise the integrity of future APMs because the effects of the current PPSs may be difficult to correct with the APMs' design.

The cost to beneficiaries of not revising the PPSs is harder to quantify. Revising the SNF and HHA PPSs would encourage providers to focus on the care needs of patients rather than the financial advantage of furnishing certain services and treating certain patients over others. Rebalancing spending toward medically complex care would improve access for those patients who now may be less desirable for providers to treat.

The unnecessarily high level of spending and the inequity of payments across different types of patients has led the Commission to recommend changes to both the level of spending and the designs of the payment systems. Further, given the similarity of some of the patients treated in the four PAC settings but substantially different payments made by Medicare, in June 2016 the Commission recommended features of a unified payment system (Medicare Payment Advisory Commission 2016). Like the recommended designs of the HHA and SNF PPSs, the unified PAC PPS would base payments on patient characteristics. Transitioning to a PAC PPS could begin as early as 2021; until then, CMS should move forward with revisions to the SNF and HHA PPSs. With consistent incentives, these revised payment systems will give providers valuable experience in managing care under payment systems that tailor payments to the care needs of patients. ■

## Challenges to improving Medicare's payments for post-acute care

Improving Medicare's payments is challenging for a number of reasons. Perhaps most vexing is that, for any given patient, the need for post-acute care (PAC) is not clear, and there is limited evidence on which setting would be best and what mix of services would achieve the best outcomes. The availability and use of PAC services also varies widely by market, demonstrating the considerable overlap of clinical capabilities of some PAC providers. Reflecting this ambiguity and variation in service use, Medicare spending on PAC varies geographically more than any other service. Geographic areas (core-based statistical areas) with the highest and lowest per capita fee-for-service (FFS) spending (comparing the 10th and 90th percentiles) vary 22 percent for acute inpatient services and 24 percent for ambulatory services, but 200 percent (twofold) for post-acute services (Medicare Payment Advisory Commission 2011). Decisions about where to place patients often reflect several factors—the availability within a given market, the proximity to a beneficiary's home, patient and family preferences, and financial relationships between the referring hospital and the PAC provider—but not necessarily where the patient would receive the best care.

Medicare's PAC payment systems do not encourage efficient care. The home health agency (HHA) and skilled nursing facility (SNF) prospective payment systems (PPSs) encourage the provision of therapy services regardless of the patient's care needs. By paying per day, the SNF PPS may also encourage SNFs to extend lengths of stays. As a result, current practice patterns may not reflect efficient care. Medicare Advantage (MA) plans and providers participating in alternative payment models have different incentives, and there is some evidence that they have lower PAC use; they refer fewer patients to PAC, use lower cost PAC settings, and, in the case of SNFs, have shorter and less therapy-intensive stays—without appearing to harm patient outcomes (Colla et al. 2016, Dummit et al. 2016, Huckfeldt et al. 2017, Navathe et al. 2017, Winblad et al. 2017). In addition, one study comparing quality measures for short- and long-stay patients in nursing homes found mixed results between MA and FFS enrollees, with MA enrollees having better quality for some measures and worse quality for other measures (Chang et al. 2016). However, the evidence is limited, and differences between traditional FFS and the other payment models are not always statistically significant. More work needs to be done to better understand the mechanisms by which these cost and outcome results are achieved, the degree to which unmeasured differences in patient selection may explain the results, whether volume is induced (in the case of bundled payments), and whether results are scalable.

Across the four settings, Medicare requires providers to use different patient assessment tools, which undermines the program's ability to compare the patients admitted, the cost of care, and the outcomes patients achieve. Providers may appear to have higher costs or achieve worse outcomes when, in fact, they treat more complex patients. Adequate risk adjustment is needed to make fair comparisons across providers and give beneficiaries accurate information so they can make informed choices when selecting a PAC provider.

## The Commission has called for a variety of quality initiatives

Since 1999, the Commission has called for a variety of quality initiatives, including the collection of uniform patient assessment information, the reporting of outcomes-based quality measures, and implementation of value-based purchasing (VBP) policies. The Congress and CMS have acted on many of the Commission's recommendations, including the development of a common patient assessment tool, outcomes-based quality measures, and VBP for HHAs and SNFs (Table 7-1, p. 190). CMS has made no progress in developing a VBP program for inpatient rehabilitation facilities (IRFs) or long-term care hospitals (LTCHs).

To meet the requirements in the Improving Medicare Post-Acute Care Transformation Act of 2014, CMS has developed measures of function and cognition, skin integrity, Medicare spending per beneficiary, discharge to community, hospital readmissions, medication reconciliation, and incidence of major falls. However, not all of the measures are outcome based or uniformly defined across the settings, though such refinements may be made in the future. In its design of a unified PAC PPS, the Commission noted that a PAC-wide value-based purchasing policy could be adopted as a companion policy to the PAC PPS.

**TABLE 7–1**

**Post-acute care quality initiatives promoted by the Commission and the progress to date on implementation**

| Commission action | Congressional or CMS action |
|---|---|
| Recommended the collection of uniform patient assessment information (1999, 2005, 2010). | The Deficit Reduction Act of 2005 required the development and testing of a uniform assessment instrument. CMS tested and evaluated the tool (2011). |
| Reported outcomes-based quality measures in its payment adequacy work (including rates of risk-adjusted discharge to community and hospital readmission and changes in patient function). Recommended outcomes-based measures in inpatient rehabilitation facilities and home health agencies (2011, 2012). | The Improving Medicare Post-Acute Care Transformation Act of 2014 required the development of common outcomes-based measures (discharge to community; hospital readmission; Medicare spending per beneficiary; incidence of major falls; medication reconciliation; and changes in function, cognition, skin integrity) in the four settings. To meet these requirements, CMS has developed measures in all post-acute care settings. |
| Encouraged the expansion of Nursing Home Compare to include measures of key goals of post-acute care (2007). | CMS overhauled Nursing Home Compare and added four short-stay measures (2016). |
| Recommended a value-based purchasing program for skilled nursing facilities (2008, 2012). Included a value-based purchasing policy in discussion of companion policies to a post-acute care prospective payment system (2016). | The Protecting Access to Medicare Act of 2014 required a skilled nursing facility value-based purchasing program that will affect payments beginning October 2018. CMS implemented a demonstration value-based purchasing program for home health agencies in nine states in January 2016.<br><br>The Patient Protection and Affordable Care Act of 2010 required value-based purchasing pilots in long-term care hospitals and inpatient rehabilitation facilities; CMS has taken no action. |

## The Commission's payment recommendations would lower and redistribute program spending

Since 2008, the Commission has made recommendations to lower the level of program spending in each of the PAC settings, either by lowering payments by a fixed percentage or by eliminating annual updates to payment rates, or both. To redistribute payments more equitably between therapy and medically complex care, the Commission has recommended redesigns of the HHA and SNF payment systems (in 2011 and 2008, respectively), which together pay for almost 80 percent of Medicare PAC stays.

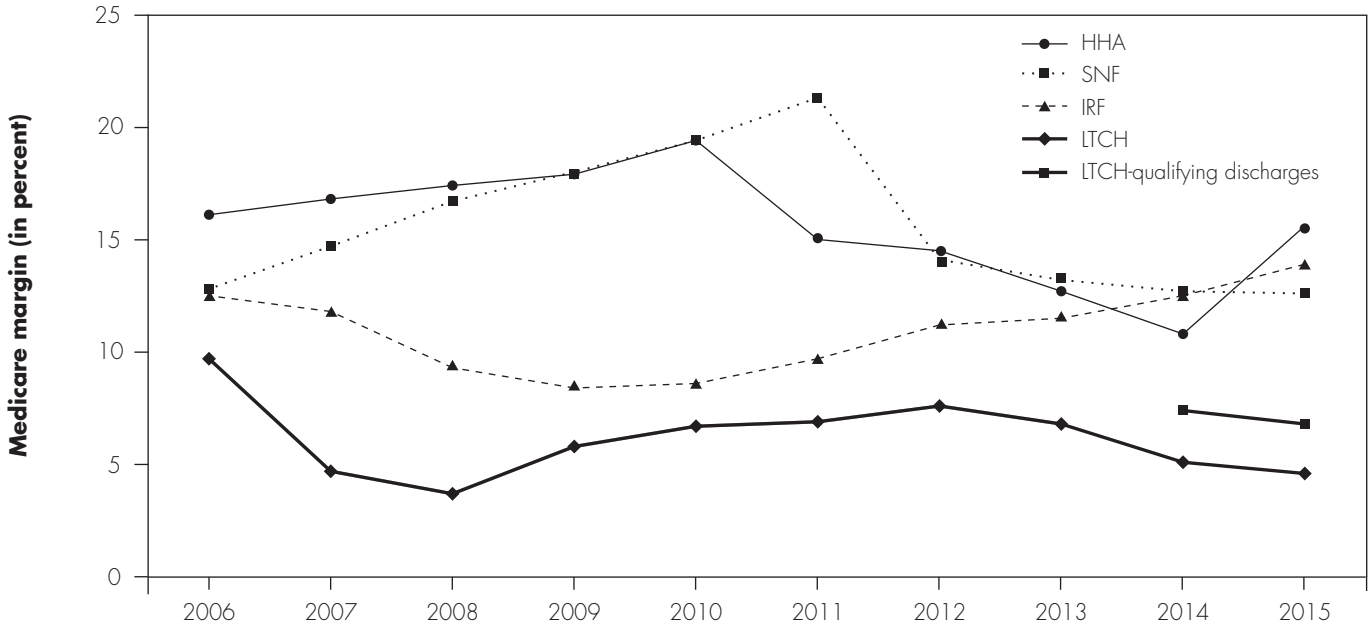
### The level of Medicare's payments for post-acute care is too high

Medicare margins for three of the PAC settings (HHA, SNF, and IRF) have been above 10 percent for most of the past 10 years (Figure 7-1). In each setting, Medicare margins increased substantially soon after the PPSs were implemented, indicating that the base rates were set too high, providers adjusted to the new payment rules, or some combination.

The margins for HHAs and SNFs have been especially high, even after rebasing and productivity and other payment adjustments mandated by the Congress. Over the last decade, HHA and SNF Medicare margins averaged 15.6 percent, while IRF margins averaged 10.9 percent. The average margin for LTCHs has been considerably lower, though still above 5 percent for most of the past 10 years and higher for stays that meet the criteria to receive LTCH PPS payments. Within each setting, disparities in financial performance across providers reflect differences in costs, admitting practices, coding strategies, and the amount of therapy provided. These margins indicate that many providers can exert control over their costs when there is fiscal pressure to do so and can generate payments that robustly exceed costs.

**FIGURE 7–1**

**Medicare margins have remained high for post-acute care providers**




Note: HHA (home health agency), SNF (skilled nursing facility), IRF (inpatient rehabilitation facility), LTCH (long-term care hospital). Medicare margin is calculated as (Medicare payments – Medicare costs) / Medicare payments. The Pathway for SGR Reform Act of 2013 established separate payment methodologies for cases that qualify as LTCH discharges and cases that do not. To qualify as an LTCH discharge, the stay must have been immediately preceded by an acute care hospital stay that included at least three days in an intensive care unit or the stay must have an LTCH principal diagnosis indicating prolonged mechanical ventilation. We did not calculate margins for LTCH-qualifying discharges before 2014.

Source: MedPAC analysis of Medicare cost reports 2006–2015.

## The Commission has recommended lowering the level of Medicare's payments for post-acute care

Because the level of program payments has been high relative to the cost of treating beneficiaries, the Commission, for many years, has recommended lowering and/or freezing Medicare's payment rates for PAC (Table 7-2). The Commission recommended no updates to payments (a 0 percent update) or reductions to payments each year since 2008 for HHAs, SNFs, and IRFs and since 2009 for LTCHs. Yet during this period, without Congressional action, SNF, IRF, and LTCH payments were increased. For HHAs, although the Patient Protection and Affordable Care Act of 2010 calls for annual rebasing of payments, the

**TABLE 7–2**

**Commission's payment recommendations since 2008**

| | Year(s) the Commission made the recommendation | | | |
|---|---|---|---|---|
| **Recommended action** | **SNF** | **HHA** | **IRF** | **LTCH** |
| No update (0 percent update) | 2008–2017 | 2008–2016 | 2008–2016 | 2009–2017 |
| Lower payments | 2012–2015 | 2009–2017 | 2017 | |
| Revise the payment system design | 2008–2017 | 2011–2017 | | |

Note: SNF (skilled nursing facility), HHA (home health agency), IRF (inpatient rehabilitation facility), LTCH (long-term care hospital). In some years, the Commission's recommendation spans multiple years, with no update to payments in some years and a reduction in payments in others.

mandated reductions were offset by payment updates and, consequently, do not go nearly far enough in realigning payments to costs. Given the continued high level of payments, the Congress and CMS need to correct the considerable overpayments in each of these settings.

The cost to the program of not implementing the update recommendations is substantial. Across the PAC settings, if this year's recommendations were enacted, we estimate that FFS program spending would be reduced by over $30 billion over the next 10 years, all else being equal. Looking back, the statutory and regulatory inaction has also been costly to the program. For example, we estimate that, had the 2008 update recommendations for HHAs and SNFs (for fiscal year 2009) been implemented, FFS program spending would have been $11 billion lower, all else being equal.

### The Commission has recommended increasing the equity of program payments for post-acute care

Because disparities in providers' financial performance partly reflect design features of the PPSs, the Commission has also recommended key revisions to the SNF (in 2008) and HHA (in 2011) payment systems that would increase the equity of payments. The Commission's recommended changes would base payments on the clinical, functional, and demographic characteristics of patients, not on the amount of therapy furnished. The revised designs would rebalance payments between therapy cases and medically complex cases, which would shift payments from the relatively more profitable (typically for-profit and freestanding facilities) to the relatively less profitable (typically nonprofit and hospital-based) providers. For example, we estimated that a redesigned SNF PPS would have raised spending to facilities with low shares of therapy days (by 16 percent), facilities with high nontherapy ancillary costs (by 12 percent), facilities with low shares of intensive therapy (by 32 percent), hospital-based facilities (by 21 percent), and nonprofit facilities (by 4 percent). These shifts in payments would have narrowed the differences in financial performance across the industry. Although CMS has extensive research underway on a new SNF PPS design, it has yet to include a revised design in a proposed rule. And while CMS has proposed an alternative design for the HHA PPS, there is no time line for its implementation.

For IRFs, the Commission's 2016 recommended changes to the outlier policy would redistribute FFS payments within the IRF PPS, ameliorating the financial burden for providers that have a relatively high share of costly cases whose acuity may not be well captured by the case-mix system. That same year, the Commission also recommended that the Secretary conduct focused medical record review of IRFs with unusual patterns of case mix and coding as an initial step in discerning whether observed differences reflect real differences in patient acuity. Other Commission efforts have focused on ensuring that program payments for the service-intensive, high-cost PAC settings are made only for patients who require this level of care. As early as 2007, the Commission identified the need to limit IRF payments to patients appropriate for this intensive level of care and since has supported CMS's efforts to do so.

Seeking to increase the equity in payments across PAC settings, the Commission recommended three payment reforms. First, in 2015, the Commission undertook extensive comparison of the patient characteristics and outcomes for 22 conditions frequently treated in both IRFs and SNFs. The Commission concluded there were no substantial differences in the patients treated and the outcomes in the two settings and recommended that the payment differences between IRFs and SNFs for these conditions be eliminated. By paying IRFs the lower SNF payment rates for the select conditions, we estimated that spending would be lower by between $1 billion and $5 billion over five years. Second, the Commission, in its March 2014 report, recommended changes to LTCH payments that would restrict LTCH payments to patients who are chronically critically ill (CCI). Payments for non-CCI patients would be aligned with those paid for similar patients under the acute care hospital PPS (the hospital PPS rates are much lower).

Last, in 2016, as required by the Congress, the Commission outlined the key design features of a unified payment system to span the four PAC settings (Medicare Payment Advisory Commission 2016). Underpinning this work is the recognition that many similar patients are treated across the four settings. Like the recommended designs for SNF and HHA PPSs, the unified PAC payment system bases payments on patient characteristics, not services furnished, and would redirect program payments toward medically complex patients and away from patients who receive therapy services unrelated to their care needs.

The research on the redesigns for the HHA and SNF PPSs is complete, and the Commission urges CMS to revise them without delay. The revised SNF and HHA payment systems and the unified PAC PPS encourage similar

provider behavior, so SNFs and HHAs will gain valuable experience managing care under the revised PPSs that will ease their transition to a unified payment system. Continuing its alignment of payments to patients' care needs, CMS could begin to implement a uniform PAC PPS as soon as 2021, using a transition that blends setting-specific and PAC PPS rates.

## Conclusion

The Commission has pushed for better quality measurement—developing and tracking risk-adjusted outcomes-based measures—and recommended tying payment to performance for PAC providers. In response, the Congress has required the Secretary to develop common quality measures, collect patient assessment information, and implement or test VBP for three of the PAC settings. Although the Commission has urged more uniformity in the measure definitions and risk adjustment that CMS developed, CMS is on track to meet its deadlines for quality reporting and assessment data collection. However, CMS has been less successful in implementing VBP in each of the four settings. With the advent of a uniform PPS, a uniform VBP program will be imperative.

Unfortunately, similar progress has not been made regarding PAC payment policy. CMS and the Congress have not substantially lowered PAC payments or revised the HHA and SNF PPSs. The cost of inaction is high along many dimensions. The program is paying more for services than it needs to, and its payment systems unfairly advantage some providers over others. By sending the wrong price signals, current payments encourage providers to furnish unnecessary care and to prefer to treat some patients over others. Given that FFS payment rates form the basis of Medicare Advantage benchmarks and a variety of current and future alternative payment models, the overpayments also affect non-FFS payments. From the taxpayers' perspective, unnecessarily high payments contribute to the projected insolvency of the Hospital Insurance Trust Fund, estimated to occur in 2028 (see Chapter 1). The Commission urges the Congress and CMS to implement its recommendations this year. By tying payments to the care needs of patients, the revised payment systems will begin to transition providers to a unified PPS to span the four PAC settings that the Commission believes could begin as early as 2021. ■

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CHAPTER 8

# Skilled nursing facility services

## RECOMMENDATION

**8** The Congress should eliminate the market basket updates for 2018 and 2019 and direct the Secretary to revise the prospective payment system (PPS) for skilled nursing facilities. In 2020, the Secretary should report to the Congress on the impacts of the reformed PPS and make any additional adjustments to payments needed to more closely align payments with costs.

**COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0**

CHAPTER 8

# Skilled nursing facility services

## Chapter summary

Skilled nursing facilities (SNFs) provide short-term skilled nursing and rehabilitation services to beneficiaries after a stay in an acute care hospital. In 2015, about 15,000 SNFs furnished 2.4 million Medicare-covered stays to 1.7 million fee-for-service (FFS) beneficiaries. Medicare FFS spending on SNF services was $29.8 billion in 2015.

### Assessment of payment adequacy

To examine the adequacy of Medicare's payments, we analyze beneficiaries' access to care (including the supply of providers and volume of services), quality of care, provider access to capital, and Medicare payments in relation to providers' costs to treat Medicare beneficiaries. Key measures indicate Medicare payments to SNFs are adequate. We also find that relatively efficient SNFs—facilities identified as providing relatively high-quality care at relatively low costs—had very high Medicare margins, suggesting that opportunities remain for other SNFs to achieve greater efficiencies.

***Beneficiaries' access to care***—Access to SNF services remains adequate for most beneficiaries.

- ***Capacity and supply of providers***—The number of SNFs participating in the Medicare program is stable. The vast majority (88 percent) of beneficiaries live in a county with three or more SNFs or swing bed facilities (rural hospitals with beds that can serve as either SNF beds or

## In this chapter

- Are Medicare payments adequate in 2017?
- How should Medicare payments change in 2018?
- Medicaid trends

acute care beds), and less than 1 percent live in a county without one. Between 2014 and 2015, the median occupancy declined slightly but remained high (86 percent), with one-quarter of SNFs having rates at or below 75 percent.

- ***Volume of services***—Covered admissions per FFS beneficiary increased between 2014 and 2015, consistent with increases in inpatient hospital admissions (a three-day inpatient stay is required for Medicare coverage of SNF services). At the same time, length of stay declined, resulting in a net reduction in covered days.

***Quality of care—***Between 2014 and 2015, the community discharge rate and the rates of hospital readmissions (during SNF stay and within 30 days after discharge) improved. The functional change measures were essentially unchanged.

***Providers' access to capital***—Because most SNFs are part of nursing homes, we examine nursing homes' access to capital. Access to capital was adequate in 2016 but getting tighter and is expected to remain so in 2017. Lending wariness reflects broad changes in post-acute care, not the adequacy of Medicare's payments. Medicare is regarded as a preferred payer of SNF services.

***Medicare payments and providers' costs—***In 2015, the average Medicare margin was 12.6 percent—the 16th year in a row that the average was above 10 percent. Margins continued to vary greatly across facilities, reflecting differences in costs and shortcomings in the SNF prospective payment system (PPS) that favor treating rehabilitation patients over medically complex patients. The marginal profit, a measure of the relative attractiveness of treating Medicare beneficiaries, was at least 20.4 percent. The projected Medicare margin for 2017 is 10.6 percent.

Last year, the Commission recommended that payment rates remain the same for two years while the Secretary undertakes revising the payment system. Then, in year 3, the Secretary should evaluate the need to make additional adjustments to payments to align them with providers' costs. The circumstances of the SNF PPS remain unchanged. Medicare still needs to revise the PPS. Medicare's overpayments for therapy services have gotten larger (so providers still have an incentive to furnish therapy services of questionable value), and payments for nontherapy ancillary services (most notably drugs) are even more poorly targeted than in prior years.

Regarding the need to rebase payments, several factors indicate that the level of payments remains too high. First, Medicare margins have been above 10 percent for 16 years; the marginal profit in 2016 was high, suggesting that facilities with available beds have an incentive to admit Medicare patients. Costs vary widely for

reasons unrelated to case mix and wages, and, since 2003, cost growth has been at or above the market basket for all years but one. Over 1,000 SNFs (9 percent of the facilities included in the analysis) have been able to keep costs consistently well below Medicare payment rates while maintaining relatively high quality. Finally, where possible to examine, Medicare Advantage (managed care) payment rates to SNFs are considerably lower than the program's FFS payments.

Based on these factors, the Commission recommends that no update to SNF payment rates be made for two years (2018 and 2019) while the SNF PPS is revised. Then, in 2020, the Secretary should evaluate the need to make further adjustments to payments to align them with costs. The chapter on post-acute care (Chapter 7) conveys the Commission's increasing frustration with the lack of statutory or regulatory action to lower the level of payments and revise the SNF payment system.

## Medicaid trends

As required by the Patient Protection and Affordable Care Act of 2010, we report on Medicaid use, spending, and non-Medicare (private-payer and Medicaid) margins. Medicaid finances mostly long-term care services provided in nursing homes but also covers copayments for low-income Medicare beneficiaries (known as dual-eligible beneficiaries) who stay more than 20 days in a SNF. The number of Medicaid-certified facilities declined slightly (–0.5 percent) between 2015 and 2016. CMS estimates that total spending on nursing home services increased between 2014 and 2015 and again in 2016. In 2015, the average total margin, reflecting all payers (including managed care, Medicaid, Medicare, and private insurers) and all lines of business (such as hospice, ancillary services, home health care, and investment income) was 1.6 percent, down slightly from 2014. The average non-Medicare margin (that includes all payers and all lines of business except Medicare FFS SNF services) was –2.0 percent, also lower than in 2014 (–1.5 percent). ■

## Background

Skilled nursing facilities (SNFs) provide short-term skilled nursing care and rehabilitation services, such as physical and occupational therapy and speech–language pathology services. Examples of SNF patients include those recovering from surgical procedures such as hip and knee replacements or from medical conditions such as stroke and pneumonia. In 2015, almost 1.7 million fee-for-service (FFS) beneficiaries (4.4 percent of all Part A FFS users) used SNF services at least once; program spending on SNF services was $29.8 billion, or about 8 percent of FFS spending (Boards of Trustees 2016, Office of the Actuary 2016b). Medicare's median payment per day was $463 and its median payment per stay was $18,361.[1] About 20 percent of hospitalized beneficiaries were discharged to SNFs.

Medicare covers up to 100 days of SNF care per spell of illness after a medically necessary inpatient hospital stay of at least 3 days.[2] For beneficiaries who qualify for a covered stay, Medicare pays 100 percent of the payment for the first 20 days of care. Beginning with day 21, beneficiaries are responsible for copayments. For 2017, the copayment is $164.50 per day.

The term *skilled nursing facility* refers to a provider that meets Medicare requirements for Part A coverage.[3] Most SNFs (more than 90 percent) are dually certified as SNFs and nursing homes (which typically provide less intensive, long-term care services). Thus, a facility that provides skilled care often also provides long-term care services that Medicare does not cover. Medicaid pays for the majority of nursing facility days. In 2016, CMS finalized rules overhauling the requirements nursing homes must meet to participate in the Medicare and Medicaid programs (Centers for Medicare & Medicaid Services 2016b). The rule included changes to infection control, patient's rights, staff training and competencies, care planning, arbitration agreements, and order writing by dieticians and therapists. CMS estimated that the regulations will raise the average provider's costs by $62,900 in the first year and by $55,000 in subsequent years. The required changes will be phased in over three years, with the first phase implemented on November 28, 2016. Although the law banned facilities' pre-dispute arbitration clauses, there is a temporary injunction against the ban taking effect.

The SNF industry is highly fragmented and characterized by independent providers and local and regional chains. The mix of facilities where beneficiaries seek skilled nursing care has shifted over time toward freestanding and for-profit facilities (Table 8-1). In 2015, almost all facilities (95 percent) were freestanding, and for-profit facilities accounted for a majority of Medicare stays

**TABLE 8–1**

**Freestanding SNFs and for-profit SNFs account for the majority of facilities, Medicare stays, and Medicare spending**

| | Facilities | | Medicare-covered stays | | Medicare spending | |
|---|---|---|---|---|---|---|
| **Type of SNF** | **2010** | **2015** | **2010** | **2015** | **2010** | **2015** |
| Total number | 15,207 | 15,052 | 2,418,442 | 2,359,374 | $26.2 billion | $27.2 billion |
| Freestanding | 94% | 95% | 93% | 95% | 96% | 97% |
| Hospital based | 6 | 5 | 7 | 5 | 4 | 3 |
| Urban | 70 | 72 | 81 | 83 | 83 | 85 |
| Rural | 30 | 28 | 19 | 17 | 17 | 15 |
| For profit | 70 | 70 | 70 | 71 | 74 | 75 |
| Nonprofit | 25 | 24 | 25 | 24 | 22 | 21 |
| Government | 5 | 6 | 5 | 4 | 3 | 4 |

Note: SNF (skilled nursing facility). Totals may not sum to 100 percent due to rounding and missing values. The spending numbers included here are slightly lower than those reported by the Office of the Actuary. The count of SNFs is slightly lower than what is reported in CMS's Survey and Certification Providing Data Quickly system.

Source: MedPAC analysis of the Provider of Services and Medicare Provider Analysis and Review files for 2010 and 2015.

and spending. Hospital-based facilities made up a small share of facilities, stays, and spending (5 percent or less). In 2015, 70 percent of SNFs were for profit, but they accounted for a slightly higher share of stays and Medicare payments (71 percent and 75 percent, respectively).

Medicare-covered FFS SNF days typically comprise a small share of a facility's total patient days but a disproportionately larger share of the facility's revenues. In freestanding facilities in 2015, the median Medicare share of total facility days was 11 percent, but Medicare accounted for 21 percent of facility revenue, a decline from 2010 when FFS Medicare comprised 23 percent of facility revenue (data not shown).

The most common hospital conditions of patients referred to SNFs for post-acute care are joint replacement, septicemia, kidney and urinary tract infections, hip and femur procedures (except major joint replacement), pneumonia, and heart failure and shock. Compared with other beneficiaries, SNF users are older, frailer, and disproportionately female, disabled, living in an institution, and dually eligible for Medicare and Medicaid (Medicare Payment Advisory Commission 2013).

## SNF prospective payment system and its shortcomings

Medicare uses a prospective payment system (PPS) to pay SNFs for each day of service.[4] Information gathered from a standardized patient assessment instrument—the Minimum Data Set—is used to classify patients into case-mix categories, called resource utilization groups (RUGs). RUGs differ depending on the services SNFs provide to a patient (such as the amount and type of rehabilitation therapy and the use of respiratory therapy and specialized feeding), the patient's clinical condition (such as whether the patient has pneumonia), and the patient's need for assistance in performing activities of daily living (ADLs). Medicare's payment system for SNF services is described in the Commission's *Payment Basics*, available on the Commission's website.[5] Although the payment system is referred to as "prospective," two features undermine how prospective it is: The system makes payments for each day of care (rather than set a payment for the entire stay), and it bases payments partly on the minutes of rehabilitation therapy furnished to a patient. Both features result in providers having some control over how much Medicare will pay them for their services.

Almost since its inception, the SNF PPS has been criticized for encouraging the provision of excessive rehabilitation therapy services and not accurately targeting payments for nontherapy ancillary (NTA) services such as drugs (Government Accountability Office 2002, Government Accountability Office 1999, White et al. 2002). Under current policy, therapy payments are not proportional to costs but, instead, rise faster than providers' therapy costs increase (Medicare Payment Advisory Commission and The Urban Institute 2015). The Office of Inspector General (OIG) of the Department of Health and Human Services also found that the difference between the payments for and the costs of therapy services increased as the amount of therapy provided per day increased (Office of Inspector General 2015). Further, payments for NTA services are included in the nursing component, even though NTA costs vary much more than nursing care costs and are not correlated with them.

In 2008, the Commission recommended revising the PPS to base therapy payments on patient characteristics (not service provision), remove payments for NTA services from the nursing component, establish a separate component within the PPS that adjusts payments for NTA services, and implement an outlier payment policy (Medicare Payment Advisory Commission 2008). An outlier policy would offer some financial protection by partly compensating providers that treat exceptionally costly patients. An outlier case would be defined on a stay basis, not on a day basis, because the financial risk to a facility is determined by its losses over the stay, not for any given day. In 2012, the Commission recommended revising and rebasing the SNF PPS to address both the distribution and level of payments (Medicare Payment Advisory Commission 2012).

The Commission's recommended revisions to the PPS would more closely align payments with patient characteristics and target payments for NTA services (Medicare Payment Advisory Commission and The Urban Institute 2015). Assuming no other changes in patient mix or care delivery, payments in aggregate would not change but would result in considerable redistribution of payments. In 2014, payments under a revised SNF PPS would have increased 32 percent for facilities with relatively low shares of intensive therapy and 12 percent for facilities with relatively high NTA costs per day; payments would have decreased 7 percent for facilities with high shares of intensive therapy and 2 percent for facilities with low NTA costs per day.[6] Payments would also increase for facilities with high shares of clinically complex and special care days (we refer to these days collectively as "medically complex").[7] Based on the mix

of patients and therapy practices, payments would have increased 21 percent for hospital-based facilities, 4 percent for nonprofit facilities, and 4 percent for rural facilities and would have decreased only 1 percent for for-profit facilities. The effects on individual facilities could have varied substantially depending on their mix of patients and current therapy practices.

The American Health Care Association (AHCA), an organization representing long-term care and post-acute care (PAC) providers, has also developed a proposal to revise the SNF PPS, basing payments on a SNF stay (Moran Company 2015). The proposal's design uses broadly defined clinical groups based on the patient's condition and reason for SNF care, but not the amount of therapy furnished to a patient. This proposal would also lower payments to for-profit facilities (because they furnish more intensive therapy and their stays are longer) and would raise payments to nonprofit facilities (because they furnish less intensive therapy and their stays are shorter). CMS does not, however, have the authority to implement a stay-based PPS.

Based on its work examining SNFs' billing practices and analysis of therapy costs and payments, OIG recommended that CMS evaluate the extent to which therapy payments should be reduced, change the method for paying for therapy, adjust Medicare payments to eliminate any increase unrelated to patient characteristics, and strengthen the oversight of SNF billing (Office of Inspector General 2015). CMS concurred with these recommendations and stated it was working on an alternative to the current PPS design. This year, OIG will examine the documentation at selected SNFs to see whether, for each day, patients are assigned to the appropriate case-mix group (Office of Inspector General 2016).

### CMS's revisions of the SNF PPS

CMS's work on alternative designs for the SNF PPS began 13 years ago in response to a legislative requirement (the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000) to conduct research on potential refinements of the SNF PPS (Liu et al. 2007, Maxwell et al. 2003, Urban Institute 2004). Although CMS has taken several steps to enhance payments for medically complex care, it has not revised the PPS's basic design to target payments for NTAs or to base payments for rehabilitation therapy services on patient characteristics rather than the amount of service furnished.[8] Changes were made to the case-mix groups and the counting of therapy minutes, yet the overall accuracy of Medicare's payments has steadily eroded. Payments for NTA services are unrelated to the cost of this care, and therapy payments are increasingly not proportional to the costs of therapy services. As a result, the PPS continues to advantage providers that furnish therapy services unrelated to a patient's condition and avoid patients with high NTA costs (Medicare Payment Advisory Commission and The Urban Institute 2015).

In 2014, CMS began work to revise the SNF PPS. First, it reviewed alternative ways to pay for therapy and later that year announced it was expanding the scope of its research to consider revisions of the entire PPS. Since 2015, it has gathered four expert panels to receive input on aspects of possible design features before it proposes a revised PPS.[9] The designs under consideration are consistent with those recommended by the Commission. The panels have discussed basing payments on patient characteristics (not the amount of therapy provided), creating separate components to establish payments for NTA services and speech–language pathology services, recalculating the nursing indexes, and front-loading the daily payments to reflect the higher costs incurred early on in a stay (Acumen LLC 2016). Because payments would no longer be driven by the amount of rehabilitation therapy provided to patients, an alternative design is likely to move money from rehabilitation patients to medically complex patients and from for-profit and freestanding SNFs to hospital-based and nonprofit providers.

## Are Medicare payments adequate in 2017?

To examine the adequacy of Medicare's FFS payments, we analyze beneficiaries' access to care (including the supply of providers and volume of services), quality of care, providers' access to capital, Medicare FFS payments in relation to costs to treat Medicare beneficiaries, and changes in payments and costs. We also compare the performance of SNFs that have relatively high and low Medicare margins and compare relatively efficient SNFs with other SNFs.

### Beneficiaries' access to care: Access is stable for most beneficiaries

We do not have direct measures of access, in part because the need for SNF care, as opposed to needing a different PAC service or none at all, is not well defined. Instead, we consider the supply and capacity of providers and evaluate changes in service volume.

**TABLE 8–2** **SNF admissions increased but stays were shorter in 2015 compared with 2014**

| Volume measure | 2010 | 2012 | 2013 | 2014 | 2015 | Percent change 2014–2015 |
|---|---|---|---|---|---|---|
| Covered admissions per 1,000 FFS enrollees | 71.5 | 68.0 | 66.5 | 65.6 | 67.7 | 3.2% |
| Covered days per 1,000 FFS enrollees | 1,938 | 1,861 | 1,835 | 1,808 | 1,792 | –0.9 |
| Covered length of stay (in days) | 27.1 | 27.4 | 27.6 | 27.6 | 26.5 | –4.0 |

Note: SNF (skilled nursing facility), FFS (fee-for-service). FFS beneficiaries include users and nonusers of SNF services. Data include 50 states and the District of Columbia.

Source: Centers for Medicare & Medicaid Services 2016c.

### Capacity and supply of providers: Supply remains stable

The number of SNFs participating in the Medicare program in 2016 is stable at 15,307. In 2016, there were a handful of new facilities (79), the majority of which were for profit, and an even smaller number of terminations, most of which were voluntary (Centers for Medicare & Medicaid Services 2016a). The industry is fragmented, with few large national chains and many more local or regional systems. Of the 50 largest nursing facility companies, most are privately held.

In 2015, over 88 percent of beneficiaries lived in counties with three or more SNFs or swing bed facilities (rural hospitals with beds that can serve as either SNF beds or acute care beds). Less than 1 percent of beneficiaries lived in a county without a SNF or swing bed facility, and another 11 percent lived in counties with one or two SNFs or swing bed facilities.

Between 2014 and 2015, median occupancy rates for freestanding SNFs declined slightly (from 87 percent to 86 percent) but remained high for freestanding facilities. Occupancy rates at hospital-based facilities remained at 81 percent. Although these median rates are high, one-quarter of freestanding facilities had occupancy rates at or below 75 percent, indicating capacity for more admissions. The median occupancy rate for freestanding SNFs in rural areas was lower than average (82 percent), and facilities located in areas with small populations (fewer than 2,500 people) had even lower median occupancy rates (78 percent).

### Between 2014 and 2015, SNF admissions increased while stays shortened

In 2015, 4.4 percent of FFS beneficiaries used SNF services, the same share as in 2014. Between 2014 and 2015, SNF admissions per FFS enrollee increased over 3 percent (Table 8-2) (Centers for Medicare & Medicaid Services 2016c). We examine service use for FFS beneficiaries because the CMS data on users, days, and admissions do not include service use by beneficiaries enrolled in Medicare Advantage (MA) plans. Covered days per 1,000 FFS enrollees declined slightly. The combination of more admissions but fewer days resulted in a 4 percent decline in covered length of stay. Increases in hospital admissions are a key driver of the increase in SNF stays.

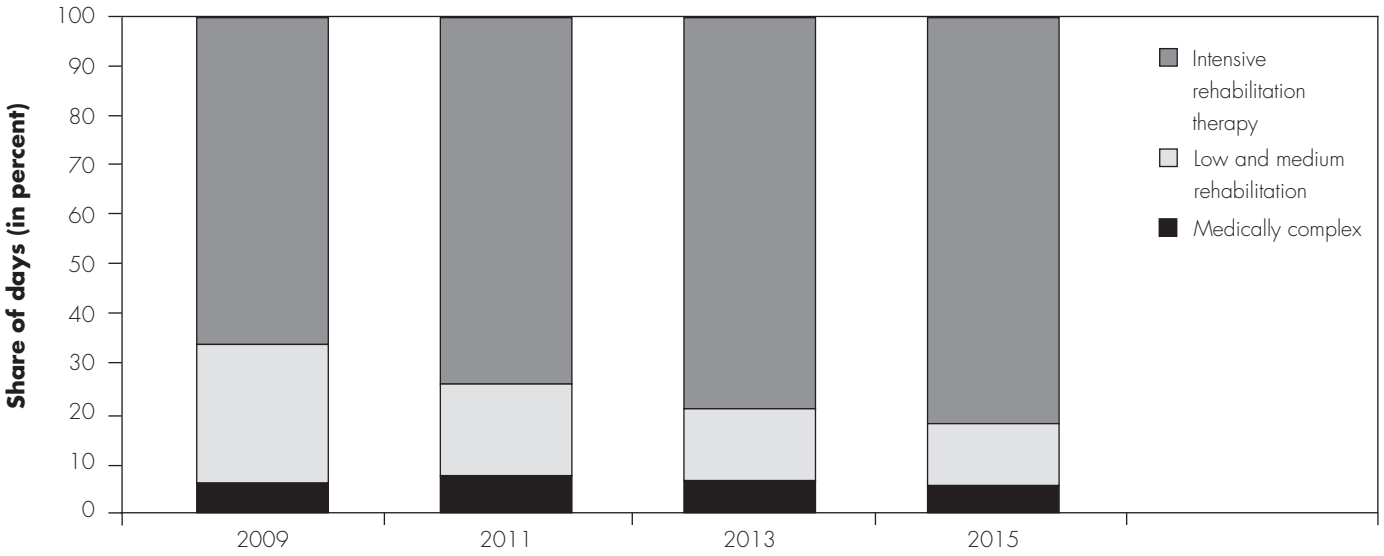
### Service mix reflects biases in PPS design

Between 2002 and 2015, the share of days classified into rehabilitation case-mix groups in freestanding facilities increased from 78 percent to 94 percent.[10] During the same period, the share of intensive therapy days as a share of total days rose from 29 percent to 82 percent. The most recent changes indicate the continued intensification of therapy provision (Figure 8-1). Between 2011 and 2015, the share of intensive therapy days increased from 74 percent to 82 percent. The share of days assigned to the highest rehabilitation case-mix groups (the ultra-high groups) increased from 47 percent to 57 percent (data not shown).

Facilities differed in the amount of intensive therapy they provided, though the differences by ownership have gotten smaller over time. In 2015, for-profit facilities and facilities located in urban areas had higher shares of intensive therapy (83 percent for each group) compared with nonprofit facilities (80 percent) and facilities in rural and frontier areas (76 percent and 54 percent, respectively). Though their levels of intensive therapy are lower, rural SNFs, frontier SNFs, and nonprofit SNFs expanded their days of intensive therapy much more than urban SNFs and for-profit SNFs. Hospital-based facilities had lower shares of intensive therapy days (61 percent)

**FIGURE 8–1**

**The share of intensive therapy days in freestanding SNFs continues to increase**




Note: SNF (skilled nursing facility). Freestanding SNFs account for 97 percent of SNF days. "Medically complex" refers to days assigned to clinically complex and special care case-mix groups. "Intensive rehabilitation therapy" refers to days assigned to ultra-high and very high rehabilitation case-mix groups.

Source: MedPAC analysis of cost reports for freestanding SNFs 2009–2015.

compared with freestanding facilities (83 percent). The presence of inpatient rehabilitation facilities in the county did not appear to influence the share of intensive therapy days at SNFs.

Changes in the frailty of beneficiaries at admission to a SNF do not explain the increases in therapy. Compared with the average SNF user in 2012, the average SNF user in 2015 had slightly lower ability (4 percent lower) to perform ADLs (as measured by a modified Barthel score), a slightly lower (3 percent lower) risk score (measuring a patient's comorbidities), and was the same age (78 years old). Over the same period, for the 10 individual ADLs we examined, the shares of SNF users requiring the most help decreased for 8 activities and increased for 2 activities.[11] Similarly, OIG found that SNFs had increased their billing for the highest levels of therapy even though beneficiary characteristics—including age and reasons for and the severity levels of the preceding hospital stay—remained unchanged (Office of Inspector General 2015).

In 2016, the Department of Justice continued its enforcement of the False Claims Act, investigating fraud and abuse of therapy billings in SNFs. The inquiries focus on providers that assign large shares of days to case-mix groups with the most intense levels of therapy, keeping patients longer than necessary to continue billing for rehabilitation care, billing for more minutes than actually provided, and other issues related to billing and documentation requirements that can maximize reimbursement. During the year, the department settled three cases (Department of Justice 2016a, Department of Justice 2016b, Department of Justice 2016c).

The share of medically complex days (those assigned to the clinically complex or special care case-mix groups) continued to be low (6 percent). Because rehabilitation days remain highly profitable, the PPS continues to encourage providers to furnish enough therapy to convert medically complex days to rehabilitation days. That said, most SNFs admit patients assigned to medically complex case-mix groups, and the presence of a long-term care hospital in the county does not appear to influence the share of medically complex days in SNFs. Hospital-based units were disproportionately represented in the group of SNFs with the highest shares (defined as the top quartile) of medically complex admissions.

## Measures of skilled nursing facility quality

Regarding skilled nursing facility (SNF) quality, the Commission examines risk-adjusted rates of readmission to the hospital, discharge back to the community, and change in functional status during the SNF stay.

The community discharge measure includes beneficiaries discharged to a community setting (including assisted living) and excludes those discharged to an inpatient setting (e.g., an acute care hospital or nursing home) within one day of the SNF discharge. The measure also excludes beneficiaries who die within 1 day of the SNF discharge and beneficiaries who are readmitted to an acute care hospital within 30 days of admission to the SNF (Kramer et al. 2015). Beneficiaries who are discharged to a nursing home are not counted as community discharges, although the risk adjustment method (and the comorbidities) captures some of the differences in patient health status between beneficiaries discharged home and those discharged to a nursing home.[12]

The readmission measures count patients whose primary diagnosis for rehospitalization was considered potentially avoidable; that is, the condition typically can be managed in the SNF setting. The potentially avoidable conditions include congestive heart failure, electrolyte imbalance/dehydration, respiratory infection, septicemia, urinary tract or kidney infection, hypoglycemia and diabetic complications, anticoagulant complications, fractures and musculoskeletal injuries, acute delirium, adverse drug reactions, cellulitis/wound infection, pressure ulcers, and blood pressure management. The count excludes readmissions that were likely to have been planned (e.g., inpatient chemotherapy or radiation therapy) and readmissions that signal a premature discharge from the hospital. We separately measure readmissions that occur during the SNF stay and those that occur within 30 days of discharge from the SNF.

The observed readmission and community discharge rates were risk adjusted for medical comorbidity, cognitive comorbidity, mental health comorbidity, function, and clinical conditions (e.g., surgical wounds and shortness of breath). The rates reported are the average risk-adjusted readmission rates for all facilities with 25 or more stays (20 stays for the postdischarge readmission measure). Demographics (including race, gender, and age categories except younger than age 65 years) were not important in explaining differences in readmission and community discharge rates after controlling for beneficiaries' comorbidities, mental illness, and functional status (Kramer et al. 2014).[13]

*(continued next page)*

Though access does not appear to be an issue in general, industry representatives and patient advocates report that some providers are reluctant to admit patients with high NTA costs (such as those requiring expensive antibiotics). The Commission's recommended design would increase payments for medically complex patients and improve the targeting of payments to patients who require high-cost NTA services. Likewise, the designs under consideration by CMS could increase payments for these patients by basing therapy payments on patient characteristics (rather than therapy minutes) and by adding a separate component to establish payments for NTA services (Acumen LLC 2016). Providers may also avoid patients who are likely to require long stays and exhaust their Medicare benefits because a facility's daily payments may decline if the patient becomes eligible for Medicaid or if the stay results in bad debt.

### Quality of care: Some measures improved while others were unchanged

The Commission tracks three broad categories of SNF quality indicators: risk-adjusted rates of readmission, discharge back to the community, and change in functional status during the SNF stay. We use these measures because they reflect the goals of most beneficiaries: to return home, avoid a rehospitalization, and improve or maintain function. Between 2013 and 2015, the rates of readmissions and discharge to the community improved while the two measures of functional change were essentially unchanged.

## Measures of skilled nursing facility quality (cont.)

Two risk-adjusted measures of functional change gauge the share of a facility's stays during which patients' function improves (the rate of improvement in one, two, or three mobility measures—bed mobility, transfer, and ambulation) and the share of stays during which patients' functioning does not decline (including stays with improvement and stays with no change), given the prognosis of the facility's patients. Change is measured by comparing initial and discharge assessments. For patients who go on to use long-term nursing home care, the assessment closest to the end of Medicare coverage is used, as long as it is within 30 days of the end of the SNF stay. Although the initial assessment often occurs toward the end of the first week of the stay, the Minimum Data Set information pertains to the number of times over the past week that assistance was provided, rather than the recorded functional status at a single point in time. Therefore, any measurement error due to the reliance on an assessment conducted at the end of the first week of the stay is unlikely and would not affect our ability to examine quality trends over time, unless changes occur from year to year when initial assessments are conducted.

The initial assessment conducted during each stay is used to assign the patient to 1 of 22 case-mix groups using 3 measures of mobility—bed mobility, transfer, and ambulation (Kramer et al. 2014). This classification system acts as a form of risk adjustment, differentiating patients based on their expected ability to perform the three mobility-related activities of daily living (ADLs). A patient's prognosis is measured using the patient's ability to eat and dress because these two ADLs encompass cognitive functioning and other dimensions of physical functioning that facilitate rehabilitation.

Risk-adjusted rates compare a facility's observed rates with its expected rates ((actual rate / expected rate) × the national average rate) based on the mix of patients across functional outcome groups. Each facility-level measure combines the functional-status information for the three mobility measures. ■

### Rates of readmissions and the community discharge rate improved

Over the past five years, the rates of risk-adjusted potentially avoidable readmissions and the rate of discharge to the community improved (see text box on measures of SNF quality). The readmission rate during the SNF stay measures how well the SNF avoids potentially avoidable readmissions by detecting, monitoring, and furnishing adequate care to prevent hospitalizations. The postperiod measure indicates how well facilities prepare beneficiaries and their caregivers for safe and appropriate transitions to the next health care setting (or home).

Between 2011 and 2015, average readmission rates during the SNF stay declined 2 percentage points to 10.4 percent in 2015. Over the same period, the readmission rate for the 30 days after discharge from the SNF declined almost a percentage point (to 5.0 percent in 2015) and the community discharge rates increased to 38.8 percent (Table 8-3, p. 208).[14]

The lower readmission rates during the SNF stay in part reflect the increased attention from hospitals to avoid readmission penalties by partnering with SNFs with low readmission rates. Hospitals are increasingly establishing preferred provider networks with higher quality SNFs, hoping to lower their own readmission rates in exchange for increased referrals to SNFs (Evans 2015). In addition, many SNFs want to secure volume from MA plans and accountable care organizations by demonstrating improvements in their readmission rates. The AHCA has a goal for its members to lower their 30-day all-cause, all-patient readmission rate. The association claims that as of December 2015, 19 percent of members had achieved a 30 percent reduction in readmissions or achieved a rehospitalization rate below 10 percent (across all patients, not just Medicare) (American Health Care Association 2016). Despite these improvements, their members' average readmission rate in the fourth quarter of 2015 remained higher than the nonmember rate (17.5 percent for its members compared with 17.0 for nonmembers nationally) and had smaller reductions over four years

**TABLE 8–3**

**Risk-adjusted rates of community discharge and potentially avoidable readmissions, 2011–2015**

| Measure | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|
| Discharged to the community | 33.2% | 35.6% | 37.5% | 37.6% | 38.8% |
| Potentially avoidable readmissions: | | | | | |
| During SNF stay | 12.4 | 11.4 | 11.1 | 10.8 | 10.4 |
| During 30 days after discharge from SNF | 5.9 | 5.6 | 5.5 | 5.6 | 5.0 |

Note: SNF (skilled nursing facility). Higher rates of discharge to the community indicate better quality. Higher readmission rates indicate worse quality. Rates are the average of facility rates and are calculated for all facilities with 25 or more stays, except the rate of potentially avoidable readmissions during the 30 days after discharge, which is reported for all facilities with 20 or more stays.

Source: Analysis of fiscal year 2011 through fiscal year 2015 Minimum Data Set and hospital claims data.

(–8.4 percent for its members compared with –8.6 percent decline by nonmembers).

As part of the Protecting Access to Medicare Act of 2014, the Congress enacted a SNF readmission policy, with facilities to begin publicly reporting readmission rates in October 2017. The law requires the Secretary of the Department of Health and Human Services to develop an all-condition, risk-adjusted, potentially preventable readmission measure by October 2016. A value-based purchasing program will adjust a facility's payments based on its readmission rate starting in October 2018, beginning with an all-cause rate and moving to a potentially preventable rate as soon as practicable.

### No improvement in patients' functional status

Most beneficiaries receive rehabilitation therapy, and the amount of therapy furnished to them has steadily increased over time. Yet patients vary considerably in their expected improvement during the SNF stay. Some patients are likely to improve in several ADLs during their SNF stay, while others with chronic and degenerative diseases may expect, at best, to maintain their function. We measure SNF performance on both aspects of patient function on a risk-adjusted basis (see text box on SNF quality measures, pp. 206–207).

The average risk-adjusted rates of functional change—rate of improvement in one, two, or three mobility ADLs (bed mobility, transfer, and ambulation) and the rate of no decline in mobility—were essentially unchanged between 2011 and 2015 (Table 8-4). These risk-adjusted rates consider the likelihood that a patient's functionality will change, given the functional ability at admission. Even though the program paid for more therapy during this period, the average functional status of beneficiaries did not improve. However, functional levels were maintained despite shorter SNF stays.

**TABLE 8–4**

**Mean risk-adjusted functional outcomes in SNFs show little change between 2011 and 2015**

| Composite measure | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|
| Rate of improvement in one or more mobility ADLs | 43.6% | 43.6% | 43.6% | 43.4% | 43.5% |
| Rate of no decline in mobility | 87.2 | 87.3 | 87.2 | 87.1 | 87.1 |

Note: SNF (skilled nursing facility), ADL (activity of daily living). The three mobility ADLs include bed mobility, transfer, and ambulation. The rate of mobility improvement refers to the average rates of improvement in bed mobility, transfer, and ambulation, weighted by the number of stays included in each measure. Stays with improvement in one, two, or three of these ADLs are counted in the improvement measure. The rate of stays with no decline in mobility is the share of stays with no decline in any of the three mobility ADLs. Rates are the average of facility rates and are calculated for all facilities with 25 or more stays.

Source: Analysis of fiscal year 2011 through fiscal year 2015 Minimum Data Set data.

**TABLE 8–5**

**SNF quality measures varied considerably across SNFs, 2015**

| Quality measure | Risk-adjusted rate | | | |
|---|---|---|---|---|
| | Mean | 25th percentile | 75th percentile | Ratio of 75th to 25th percentile |
| Discharged to the community | 38.8% | 30.8% | 47.7% | 1.6 |
| Potentially avoidable readmissions during SNF stay | 10.4 | 7.4 | 12.9 | 1.7 |
| Potentially avoidable readmissions within 30 days after discharge from SNF | 5.0 | 3.1 | 6.5 | 2.1 |
| Average improvement across the three mobility ADLs | 43.5 | 35.5 | 51.8 | 1.5 |
| No decline in mobility during SNF stay | 87.1 | 82.7 | 92.6 | 1.1 |

Note: SNF (skilled nursing facility), ADL (activity of daily living). Higher rates of discharge to community indicate better quality. Higher readmission rates indicate worse quality. "Mobility improvement" is the average of the rates of improvement in bed mobility, transfer, and ambulation, weighted by the number of stays included in each measure. "No decline in mobility" is the share of stays with no decline in any of the three mobility ADLs. Rates are the average of facility rates and calculated for all facilities with 25 or more stays, except the rates of potentially avoidable readmissions during the 30 days after discharge, which are reported for all facilities with 20 or more stays.

Source: Analysis of fiscal year 2015 Minimum Data Set and hospital claims data.

### Large variation in quality measures indicates considerable room for improvement

Considerable variation exists across the industry in the quality measures we track. We found one-quarter of facilities in 2015 had risk-adjusted community discharge rates at or below 30.8 percent, whereas the best performing quarter of facilities had rates of 47.7 percent or higher (Table 8-5). Similar variation was seen in readmissions during the SNF stay: The worst performing quartile had rates at or above 12.9 percent, whereas the best quartile had rates at or below 7.4 percent. Finally, rates of readmission in the 30 days after discharge from the SNF varied most—a twofold difference between the 25th percentile and the 75th percentile. The amount of variation across and within the groups suggests considerable room for improvement, all else being equal. There was less variation in the mobility measures.

Over the past five years, nonprofit SNFs and hospital-based SNFs have had higher rates of community discharges and fewer readmissions (that is, better rates) during the SNF stay. However, hospital-based SNFs generally have had higher (that is, worse) readmission rates during the 30 days after discharge from the SNF, indicating an opportunity for them to do a better job transitioning patients to their next setting.

Medicare is increasingly focused on measuring the value of the care it purchases. In 2018, CMS will implement a value-based purchasing program that will affect payments, beginning with an all-cause all-condition readmission measure that will be replaced with a measure of potentially avoidable readmissions as soon as practicable. In addition, this year, CMS has expanded the number of short-stay quality measures reported in Nursing Home Compare, a Medicare-run website that displays comparative information about SNFs and nursing homes to help beneficiaries select a provider. Until recently, 8 of the 11 quality measures focused on long-stay care. Of the three short-stay measures (the share of residents with pressure sores that are new or worsened, the share of residents who self-report moderate or severe pain, and the share of residents who newly received antipsychotic medication), none capture the main goals of SNF care. To correct this shortcoming, CMS added four measures to the Nursing Home Compare website and to CMS's star rating methodology: rates of discharge to the community, emergency room visits, rehospitalization within the first 30 days of a SNF stay, and improvement in function. Though the measure definitions differ from those used by the Commission, they capture key dimensions of care for short-stay patients.

## Providers' access to capital: Lending in 2016

The vast majority of SNFs operate within nursing homes; therefore, in assessing SNFs' access to capital, we look at the availability of capital for nursing homes. Although

Medicare makes up the minority share of almost all facilities' revenues, many operators see Medicare as their best payer.

Access to capital was adequate in 2016 but getting tighter (and more expensive) and is expected to remain so in 2017. Lending wariness reflects broad changes in post-acute care, not the adequacy of Medicare's payments. Medicare is regarded as a preferred payer of SNF services.

Many market analysts report that, during 2016, capital has been generally available, but some lenders are cautious for several reasons. First, analysts expect SNF volume to decline as bundled payments shorten stays or eliminate them entirely (with beneficiaries discharged home). Analysts note that the transition from FFS to alternative payment models (including accountable care organizations (ACOs), bundled payment, and value-based purchasing) will require many SNFs to change their practices and enhance their capabilities to achieve and report good outcomes. Another factor is the expanded enrollment of beneficiaries in MA and the accompanying lower SNF days and revenues. Finally, the Department of Justice's investigations into therapy billing practices will require some providers to change their current therapy practices. One analyst commented that the industry is in the midst of sorting out the "right" level of SNF utilization. As evidence of the wariness of this sector by some, real estate investment trusts (REITs) with large SNF holdings have moved their SNF holdings into separate REITs or have sold a portion of their SNF assets. In November, Kindred Healthcare announced its exit from the SNF sector, noting it will partner with SNFs rather than operate its own facilities (Kindred 2016b).

On the other hand, some companies have added SNFs to their portfolios to position themselves for payment reforms spanning the PAC settings, knowing the aging demographics will continue to fuel demand for these services (Diversicare 2016b, Ensign Group 2016a, Irving Levin Associates Inc. 2016a). Analysts we spoke with also observed that while alternative payment models raise the uncertainty of this sector's financial performance, the models will create opportunities for those providers that successfully partner with hospitals to secure admissions, achieve good quality outcomes, and effectively coordinate the care for their patients. One analyst expects to see continued consolidation as SNFs partner with health care systems or ready themselves for ACOs (Connole 2016). As evidence of the demand for SNF properties, the average price per bed increased 12 percent between 2014 and 2015, driven in part by the volume of relatively high-end sales (over $100,00 per bed) and buyers believing a facility in the right market with the right patient mix can be successful (Irving Levin Associates Inc. 2016b). One analyst noted that while capital is available for the real estate side of the business, there was less available for operators to make the investments in their capabilities to treat higher acuity patients (Kaufmann 2016).

As payment reforms shift risk from payer to provider, providers seek to lower their costs through consolidation and integration of services across the PAC continuum and to prove their value (Cain Brothers 2016). Strategies include expanding holdings to include multiple PAC service lines (such as home health and hospice), solidifying presence across the continuum within select markets, aligning with hospital referral sources, and developing the data and analytics to track outcome measures. Referring partners want to see SNF performance on multiple measures (such as the 5-star rating system, the facility's state survey results, readmission rates, community discharge, patient satisfaction, and average length of stay (Kuebrich 2016)). Some providers have increased staff training and quality improvement activities to lower rehospitalizations and increase staff retention (a perennial problem).

To date, most SNFs offer both subacute and long-term care services. We continue to hear that the nursing home industry is increasingly bifurcated into providers with the capabilities to furnish skilled nursing care (also called subacute or transitional care) and meet the challenges posed by alternative payment models and another group of SNFs without those capabilities. For this latter group, long-term care will constitute a growing share of their facility volume. Some analysts we spoke with thought that operators will concentrate on one segment or the other and then match their service provision and cost structures accordingly.

Analysts noted that good operators will continue to have adequate access to capital but that lenders have gotten more selective and have increased their underwriting requirements. In conducting their due diligence on potential borrowers, lenders review the quality of the potential borrower's management team, cash flow and amount of debt, operating trends (volume, occupancy, payer mix, and patient mix), quality of care, ability to carry out strategic plans to shift payer or service mix, and the specificity of the facility's plans to meet performance goals. Lenders continue to focus on facilities with high

Medicare and private-payer mixes, facilities furnishing PAC as opposed to long-term care, and those with the potential to expand their share of PAC patients.

The Department of Housing and Urban Development (HUD) continues to be an important lending source. In fiscal year 2016, HUD financed 287 projects, with the insured amount totaling $2.8 billion (Department of Housing and Urban Development 2016). Since 2014, HUD has played a smaller lending role, in large part because low-cost borrowing and widely available capital sources have made HUD only one of many alternative lenders (Swett 2015). Refinancing, rather than new construction or renovation, continues to make up the majority of HUD loans.

Given the program's high payments relative to other payers, any lender reluctance is not a statement about the adequacy of Medicare's payments to SNFs: Medicare continues to be a preferred payer. Rather, it reflects the uncertainty surrounding the transition away from utilization-driven FFS and toward value-based care.

## Medicare payments and providers' costs: Medicare margins remained high in 2015

In 2015, the aggregate Medicare margin was 12.6 percent. Margins for individual facilities continue to be highly variable, depending on the facility's share of intensive therapy days, size, and cost per day. The variations in Medicare margins and costs per day were not attributable to differences in patient demographics: High-margin facilities had higher case-mix indexes and higher shares of dual-eligible and minority beneficiaries. Differences by ownership were considerable, with for-profit facilities having much higher Medicare margins than nonprofit facilities. The 9 percent of freestanding facilities defined as relatively efficient consistently furnished relatively low-cost, higher quality care and had substantial Medicare margins over three consecutive years. Some MA plans' payment rates were considerably lower than Medicare's FFS payment rates, and the disparity is unlikely to be explained by differences in patient mix. These facts strongly suggest that SNFs can provide high-quality care at lower payment rates.

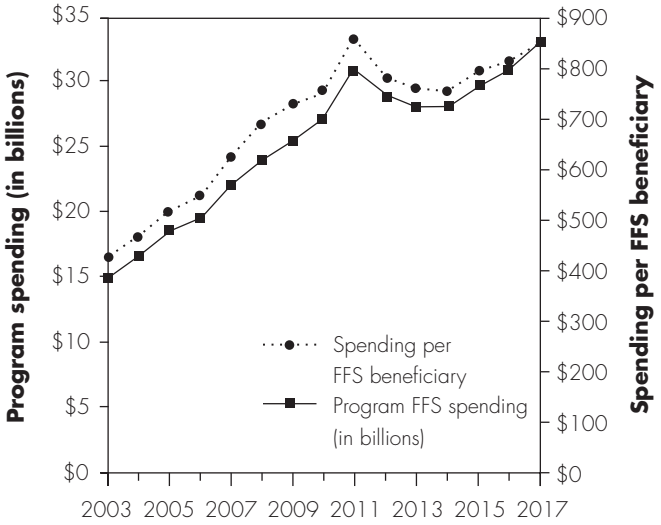
### Trends in FFS spending and cost growth

In 2015, Medicare FFS spending for SNF services was $29.8 billion, about 6 percent higher than in 2014. The CMS Office of the Actuary estimates FFS spending for SNF services in fiscal year 2016 was $31.1 billion (Figure 8-2) (Office of the Actuary 2016b). In 2011, payments were unusually high because the rates for the new case-mix classification system included an adjustment that was too large for the mix of therapy modalities assumed in setting the rates. The industry took advantage of the new policies by quickly shifting its mix of modalities, and payments increased by over 14 percent in 2011. To correct for the excessive payment, CMS revised the adjustment downward in 2012, and total payments declined between 2012 and 2014. Since 2014, the growth in spending has averaged 5.7 percent a year. CMS projects spending in fiscal year 2017 to increase almost 7 percent to $33.2 billion. On a per FFS beneficiary basis, spending in 2015 ($796) was about 4 percent higher than in 2014.

From 2003 to 2015, the cumulative increase in payments per day outpaced the increase in cost per day (Figure 8-3, p. 212). During this period, costs per day rose 46 percent while payments grew 49 percent. Since 2004, the cost increases were equal to or larger than the market basket increases in every year except one (2012), but total

**FIGURE 8–2**

**After a temporary slowdown, SNF spending growth returns to prior pace, 2003–2017**

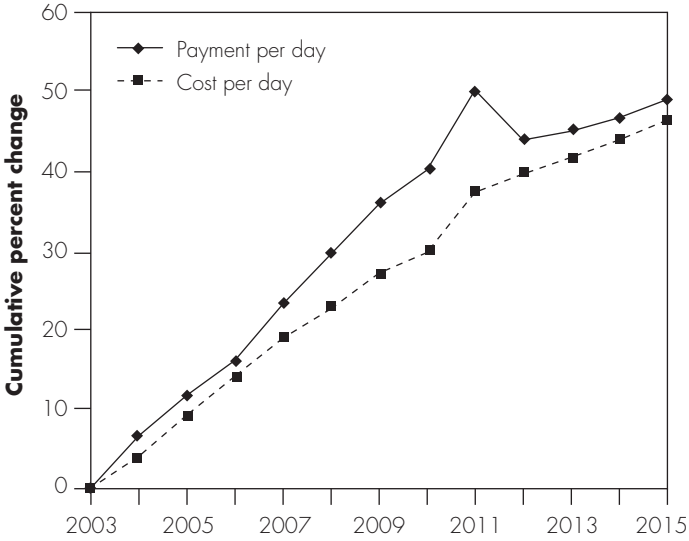



Note: SNF (skilled nursing facility), FFS (fee-for-service). Fiscal year spending is shown. Data for 2016 and 2017 are estimates.

Source: Office of the Actuary 2016b.

**FIGURE 8–3**

**Cumulative growth in Medicare cost and payments per SNF day, 2003–2015**




Note: SNF (skilled nursing facility).

Source: MedPAC analysis of freestanding SNF Medicare cost reports from 2003–2015.

payments rose even more. As a result, SNFs remained highly profitable on average. When Medicare lowered its rates by 11 percent in 2012 to correct for the previous year's overpayments, providers kept their cost growth in that year below the market basket increase.

Between 2012 and 2015, costs have grown more quickly for nonprofit SNFs compared with for-profit SNFs. Cumulatively, costs grew 10.3 percent for nonprofit facilities compared with 7.4 percent for for-profit SNFs. The differences in growth were larger for routine and administrative costs compared with ancillary costs. During this same period, routine costs increased 9.2 percent for nonprofit SNFs, but almost half that (4.7 percent) for for-profit SNFs. In addition to higher cost growth, nonprofit facilities also had a standardized cost per day (adjusted for differences in wages and case mix) that was about 9 percent higher than the cost per day in for-profit facilities.

### SNF Medicare margins remain high

The Medicare margin is a key measure of the adequacy of the program's payments because it compares Medicare's payments with providers' costs to treat beneficiaries. An all-payer total margin, in contrast, reflects the financial performance of the entire facility across all lines of business (such as ancillary and therapy services, hospice, and home health care) and all payers (including Medicaid, private insurers, and managed care) and is presented as context for the Commission's update recommendation.

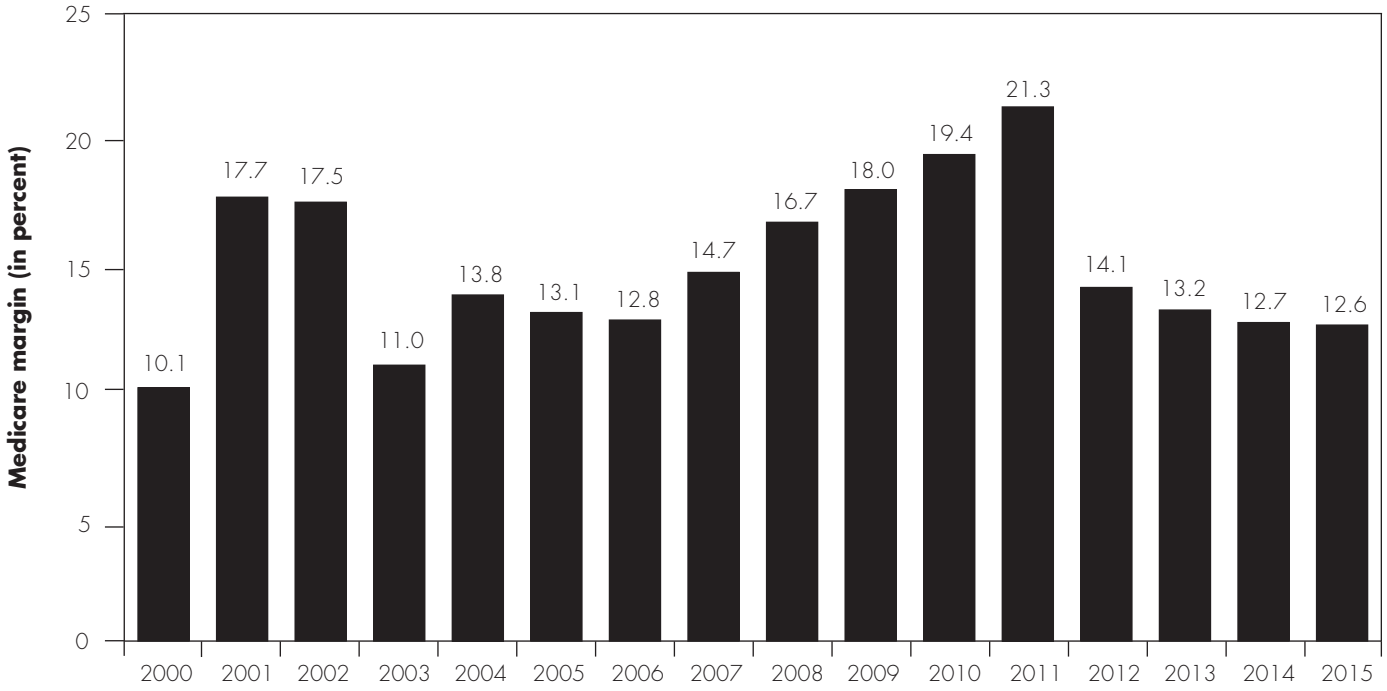
In 2015, the aggregate Medicare margin for freestanding SNFs was 12.6 percent, the 16th consecutive year of Medicare margins above 10 percent (Figure 8-4). In aggregate, SNFs were able to maintain their margins despite productivity adjustments that lowered the market basket updates and despite the federal budget sequester that began lowering payments in April 2013 by 2 percent per year. The combined impact of these policies would have been greater but was offset by the continued increase in the share of days assigned to the highest payment case-mix groups (the ultra-high and very high rehabilitation groups) and a steady decline in the share of days assigned to medically complex and low and medium rehabilitation case-mix groups. In 2011, the Medicare margin was 21.3 percent, reflecting the large increase in payments because of the implementation of the new case-mix groups and an incorrect adjustment factor. Despite reductions to correct SNF payments the following year, Medicare margins remained high in 2012 (14.1 percent).

In 2015, hospital-based facilities (3 percent of program spending on SNFs) continued to have extremely negative Medicare margins (–69 percent), in part because of the higher cost per day reported by hospitals. Previous analysis by the Commission found that routine costs in hospital-based SNFs were higher, reflecting more staffing, higher skilled staffing, and shorter stays (over which to allocate costs) (Medicare Payment Advisory Commission 2007). However, hospital administrators consider their SNF units in the context of the hospital's overall financial performance and mission. Hospitals with SNFs can lower their inpatient lengths of stay by transferring patients to their SNF beds, thus making inpatient beds available to treat additional inpatient admissions. As a result, hospital-based SNFs can contribute to the bottom-line financial performance of hospitals: Hospitals with SNFs had lower inpatient costs per case and higher inpatient Medicare margins than hospitals without SNFs.

### Marginal profit: A measure of the financial attractiveness of Medicare patients

Another consideration in evaluating the adequacy of Medicare payments is the assessment of whether providers have a financial incentive to expand the number of

**FIGURE 8–4** **Aggregate freestanding SNF Medicare margins have been above 10 percent since 2000**




Note: SNF (skilled nursing facility).

Source: MedPAC analysis of freestanding SNF cost reports, 2000–2015.

Medicare beneficiaries they serve. In considering whether to treat a patient, the provider compares the marginal revenue it will receive for treating one additional patient (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume, in this case, to treat one additional patient. If Medicare payments do not cover a facility's marginal costs, the provider could have a disincentive to admit Medicare beneficiaries. To operationalize this concept, we compare payments for Medicare services to marginal costs, approximated as:

Marginal profit = (payments for Medicare services – (total Medicare costs – fixed building and equipment costs)) / Medicare payments

This comparison is a lower bound on the marginal profit because we ignore any potential labor costs that are fixed. For providers with available data, the marginal profit in 2015 was at least 20.4 percent. Because Medicare payments far exceed facilities' marginal costs, facilities with available beds have an incentive to admit Medicare patients, also signifying a positive indicator of patient access.

### High and widely varying SNF Medicare margins indicate reforms to the PPS are still needed

The persistently high Medicare margins and their wide variation indicate that the PPS needs to be revised and rebased so that payments more closely match patient characteristics, not the services provided to them. In 2015, one-quarter of freestanding SNFs had Medicare margins of 21 percent or higher, while another quarter of freestanding SNFs had margins of 2.4 percent or lower (Table 8-6, p. 214). One-fifth (about the same share as last year) of SNFs had negative Medicare margins (data not shown).

Over the past 10 years, for-profit facilities' Medicare margins have averaged about 10 percentage points higher than nonprofit facilities' margins. In 2015, the disparity

**TABLE 8–6**

**Variation in freestanding SNF Medicare margins reflects the mix of cases and cost per day, 2015**

| Provider group | Medicare margin |
|---|---|
| All providers | 12.6% |
| For profit | 15.0 |
| Nonprofit | 4.4 |
| Rural | 10.5 |
| Urban | 13.0 |
| Frontier | 3.2 |
| 25th percentile of Medicare margins | 2.4 |
| 75th percentile of Medicare margins | 21.0 |
| Intensive therapy: High share of days | 14.6 |
| Intensive therapy: Low share of days | 6.5 |
| Medically complex: High share of days | 8.2 |
| Medically complex: Low share of days | 13.6 |
| Small (20–50 beds) | 2.4 |
| Large (100–199 beds) | 13.8 |
| Standardized cost per day: High | 2.8 |
| Standardized cost per day: Low | 24.8 |
| Standardized cost per discharge: High | 9.9 |
| Standardized cost per discharge: Low | 14.8 |

Note: SNF (skilled nursing facility). The margins are aggregates for the facilities included in the group. "Low" is defined as facilities in the lowest 25th percentile; "high" is defined as facilities in the highest 25th percentile. "Frontier" refers to SNFs located in counties with six or fewer people per square mile. "Standardized cost" refers to Medicare costs adjusted for differences in area wages and the case mix (using the nursing component's relative weights) of Medicare beneficiaries.

Source: MedPAC analysis of 2015 freestanding SNF Medicare cost reports.

continued: Nonprofit facilities had an average Medicare margin of 4.4 percent, while the average for-profit margin was 15.0 percent. The disparity reflects differences in facilities' costs, size, and service provision. Nonprofit facilities have higher costs per day (about 9 percent higher) and, since 2011, have had higher cost growth compared with for-profit facilities. The higher costs for nonprofit facilities are partly due to their smaller size. In 2015, the median nonprofit facility had 85 beds compared with 103 beds for the median for-profit facility; therefore, the nonprofits may not be able to achieve the same economies of scale as larger facilities. On the revenue side, nonprofits had somewhat lower shares of the more profitable ultra-high and very high therapy days compared with for-profit facilities (80 percent compared with 83 percent) and shorter lengths of stay, both of which would lower their payments per stay.

Facilities with the highest SNF margins had high shares of intensive rehabilitation therapy and low shares of medically complex days. Facilities with high shares of intensive therapy had Medicare margins that averaged 8 percentage points higher than facilities with low shares of these days (14.6 percent compared with 6.5 percent) (Table 8-6). Despite the payment increases for medically complex cases in October 2010, there remains a large difference (about 5 percentage points) in the financial performance in 2015 between facilities with high and low shares of these days. Lower cost SNFs and larger SNFs had higher Medicare margins than higher cost SNFs and smaller SNFs. The Medicare margin for facilities with the lowest cost per day (the bottom quartile of cost per day) was 24.8 percent, while the margin for facilities with the highest cost per day (the top quartile of cost per day) was 2.8 percent.

Differences in costs and revenues between freestanding facilities in the top and bottom quartiles of Medicare margins underscore the need to revise the PPS and more closely align payments with costs. The highest margin SNFs had lower daily costs (their costs were 70 percent of the costs of low-margin SNFs), and their revenues per day were 16 percent higher, driven partly by having higher shares of intensive therapy days (Table 8-7). Compared with lower margin SNFs, higher margin SNFs had higher shares of dually eligible beneficiaries, minority beneficiaries, and Medicaid days. It is possible that given their higher Medicaid shares (and the lower payments typically made by Medicaid), these facilities make an extra effort to keep their costs low and consequently have higher Medicare margins. Facilities with higher margins also treated more patients assigned to case-mix groups with the highest payment weights (as measured by the weights for the nursing component of the rate) and had lower shares of patients classified into medically complex case-mix groups.[15]

These differences in financial performance illustrate why the PPS needs to be revised. Even after CMS expanded the number of medically complex case-mix groups and shifted spending away from therapy care, the PPS continues to result in higher Medicare margins for facilities providing higher amounts of intensive therapy. A PPS design based

**TABLE 8–7**

**Cost and revenue differences explain variation in Medicare margins for freestanding SNFs in 2015**

| Characteristic | SNFs in the top margin quartile | SNFs in the bottom margin quartile | Ratio of SNFs in the top margin quartile to SNFs in the bottom margin quartile |
|---|---|---|---|
| **Cost measures** | | | |
| Standardized cost per day | $261 | $373 | 0.70 |
| Standardized ancillary cost per day | $116 | $159 | 0.73 |
| Standardized routine cost per day | $146 | $208 | 0.70 |
| Standardized cost per discharge | $10,973 | $14,148 | 0.78 |
| Average daily census (patients) | 89 | 65 | 1.37 |
| Average length of stay (days) | 43 | 37 | 1.16 |
| **Revenue measures** | | | |
| Medicare payment per day | $505 | $435 | 1.16 |
| Medicare payment per discharge | $22,183 | $16,120 | 1.38 |
| Share of days in intensive therapy | 87% | 78% | 1.12 |
| Share of medically complex days | 3% | 4% | 0.75 |
| Medicare share of facility revenue | 25% | 14% | 1.79 |
| **Patient characteristics** | | | |
| Case-mix index | 1.40 | 1.31 | 1.07 |
| Share dual-eligible beneficiaries | 30% | 20% | 1.50 |
| Share minority beneficiaries | 10% | 4% | 2.50 |
| Share very old beneficiaries | 23% | 27% | 0.85 |
| Medicaid share of days | 64% | 56% | 1.14 |
| **Facility mix** | | | |
| Share for profit | 88% | 57% | N/A |
| Share urban | 79% | 66% | N/A |

Note: SNF (skilled nursing facility), N/A (not applicable). Values shown are medians for the quartile. Top margin quartile SNFs ($n$=3,144) were in the top 25 percent of the distribution of Medicare margins. Bottom margin quartile SNFs ($n$=3,143) were in the bottom 25 percent of the distribution of Medicare margins. "Standardized cost" refers to Medicare costs adjusted for differences in area wages and the case mix (using the nursing component's relative weights) of Medicare beneficiaries. "Intensive therapy" days are days classified in ultra-high and very high rehabilitation case-mix groups. "Medically complex" includes days assigned to clinically complex and special care case-mix groups. "Very old beneficiaries" are 85 years and older.

Source: MedPAC analysis of freestanding 2015 SNF cost reports.

on patient characteristics (such as the one recommended by the Commission) would redistribute Medicare spending to SNFs according to their mix of patients, not the amount of therapy provided.

Ownership of low-margin and high-margin facilities did not mirror the industry mix. Although for-profit facilities made up almost three-quarters of all freestanding SNFs, they constituted a smaller share (57 percent) of the low-margin facilities and a higher share (88 percent) of the high-margin group. Similarly, high-margin SNFs were disproportionately urban, comprising 79 percent of this group compared with 71 percent of all freestanding SNFs.

### High margins achieved by relatively efficient SNFs

The Commission is required by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 to consider the costs associated with efficient providers. The Commission follows two principles when selecting a set of efficient providers. First, the providers must do

**TABLE 8–8**

**Financial performance of relatively efficient SNFs is a combination of lower cost per day and higher revenues per day**

| Performance in 2015 | Type of SNF: Relatively efficient | Type of SNF: Other SNFs | Ratio of relatively efficient to other SNFs |
|---|---|---|---|
| Community discharge rate | 48.9% | 38.6% | 1.27 |
| Readmission rate | 8.7% | 10.3% | 0.85 |
| Standardized cost per day | $283 | $308 | 0.92 |
| Standardized cost per discharge | $9,185 | $12,188 | 0.75 |
| Medicare revenue per day | $504 | $459 | 1.10 |
| Medicare margin | 19.4% | 11.6% | 1.67 |
| Total margin | 3.4% | 1.5% | 2.24 |
| Facility case-mix index | 1.43 | 1.36 | 1.06 |
| Medicare average length of stay | 33 days | 39 days | 0.83 |
| Occupancy rate | 88% | 86% | 1.02 |
| Average daily census | 101 | 81 | 1.20 |
| Share ultra-high therapy days | 64% | 53% | 1.22 |
| Share medically complex days | 4.3% | 4.2% | 1.03 |
| Medicaid share of facility days | 57% | 61% | 0.94 |
| Share urban | 77% | 65% | N/A |
| Share for profit | 79% | 68% | N/A |
| Share nonprofit | 13% | 20% | N/A |

Note: SNF (skilled nursing facility), N/A (not applicable). The number of freestanding facilities included in the analysis was 11,794. SNFs were identified as "relatively efficient" based on their cost per day and two quality measures (community discharge and readmission rates) between 2012 and 2014. Relatively efficient SNFs were those in the best third of the distribution for one measure and not in the worst third for any measure in each of three years and were not a facility under "special focus" by CMS. Costs per day and per discharge were standardized for differences in case mix (using the nursing component relative weights) and wages. Quality measures were rates of risk-adjusted community discharge and readmission for patients with potentially avoidable conditions within 100 days of hospital discharge. Quality measures were calculated for all facilities with at least 25 stays. "Ultra-high therapy days" include days assigned to ultra-high case-mix groups. "Medically complex days" includes days assigned to clinically complex and special care case-mix groups. Table shows the medians for the measure.

Source: MedPAC analysis of quality measures and Medicare cost report data for 2012–2015.

relatively well on both cost and quality metrics. Second, the performance has to be consistent, meaning that the provider cannot have poor performance on any metric over three years. The Commission's approach is to develop a set of criteria and then examine how many providers meet them. It does not establish a set share (for example, 10 percent) of providers to be considered efficient and then define criteria to meet that pool size.

To identify efficient SNFs, we examined the financial performance of freestanding SNFs with consistent cost and quality performance on two measures (see text box on identifying efficient providers). To measure costs, we looked at costs per day that were adjusted for differences in area wages and case mix. To assess quality, we examined risk-adjusted rates of community discharge and potentially avoidable readmissions that occurred during the SNF stay. To be included in the relatively efficient group, a SNF had to be in the best third of the distribution of at least one measure and not in the bottom third on any measure for three consecutive years. This year, we also required that SNFs not be part of CMS's Special Focus Facility Initiative for any portion of time covered by the definition (2012–2014).[16] This criterion excluded four facilities from the pool of efficient providers. Having applied the cost, quality, and special-focus exclusions,

## Identifying relatively efficient skilled nursing facilities

We defined relatively efficient skilled nursing facilities (SNFs) as those with relatively low costs per day and good quality care for three years in a row, 2012 through 2014. The cost per day was calculated using cost report data and was adjusted for differences in case mix (using the nursing component relative weights) and wages. Quality measures were risk-adjusted rates of community discharge and potentially avoidable readmissions during the SNF stay. Only facilities with at least 25 stays were included in the quality measures.

The method we used to assess performance attempts to limit drawing incorrect conclusions about performance based on poor data. Using three years to categorize SNFs as efficient (rather than just one year) avoids categorizing providers based on random variation or on one "unusual" year. In addition, by first assigning a SNF to a group and then examining the group's performance in the next year, we avoided having a facility's poor data affect both its own categorization and the assessment of the group's performance. Thus, a SNF's erroneous data could result in its inaccurate assignment to a group, but because the group's performance is assessed with data from later years, these "bad" data would not directly affect the assessment of the group's performance.

Of the 1,007 facilities identified as efficient, only 5 percent of SNFs were in the best third on all three measures. Just over half were in the best third for at least one quality measure but were not in the best cost third, less than a quarter were in the lowest cost third but not in the best third on either quality measure, and less than one-quarter were in the best third for the cost and at least one quality measure. ■

we found that 9 percent (1,007 of the 11,794 facilities included in the analysis) provided relatively low-cost, high-quality care, a small increase from the 8 percent reported last year. Of these, 60 percent were identified as efficient last year.

Our analyses found that SNFs can have relatively low costs and provide relatively good quality care while maintaining high margins (Table 8-8). Compared with other SNFs in 2015, relatively efficient SNFs had community discharge rates that were 27 percent higher and readmission rates that were 15 percent lower. Standardized costs per day were 8 percent lower than for other SNFs.

We did not find significant differences between relatively efficient and other SNFs in terms of occupancy rates, but efficient SNFs had higher daily censuses (101 compared with 81). Efficient facilities had more complex case mixes (driven in part by higher therapy intensity) but shorter stays. In terms of case-mix days, efficient providers had higher shares of the most intensive therapy days and comparable shares of medically complex days. The higher therapy intensity raised their daily Medicare payments relative to all SNFs, indicating that, in addition to controlling their costs, efficient providers pursued revenue strategies to maximize their Medicare payments. The median Medicare margin for efficient SNFs was 19.4 percent, and their total margin (for all payers and all lines of business) was 3.4 percent. Relatively efficient facilities were more likely to be urban and for profit. Efficient SNFs were located in 44 states, including 3 in frontier locations.

We recognize that a SNF may appear to be efficient with respect to the care it provides but may not be when considering a patient's entire episode of care. For example, SNFs that discharge patients to other post-acute care services may keep their own costs low but shift costs to other settings, thus increasing total Medicare program spending. In the future, we may compare providers' costs for an episode of care.

### FFS payments for SNF care are considerably higher than managed care/MA payments for four publicly traded nursing home companies

Another indicator that Medicare's payments under the SNF PPS are too high is the comparison of FFS and managed care/MA payments. (We create a combined term because MA makes up the majority of the rates reported as "managed care payments.") We compared Medicare FFS and managed care/MA payments at four nursing home

**TABLE 8–9**

**Comparison of Medicare fee-for-service and managed care/ MA daily payments in 2016 to four companies**

| Company | Medicare payment: FFS | Medicare payment: Managed care (MA) | Ratio of FFS to MA payment |
|---|---|---|---|
| Diversicare | $457 | $388 | 1.18 |
| Ensign Group | 581 | 425 | 1.37 |
| Genesis HealthCare | 513 | 464 | 1.11 |
| Kindred Healthcare | 577 | 464 | 1.24 |

Note: MA (Medicare Advantage), FFS (fee-for-service). MA makes up the majority of managed care payments. The Genesis rate is reported as "insurance," which includes managed care but excludes Medicaid managed care and private pay. The Kindred rate is reported for MA.

Source: Third quarter 10–Q 2016 reports available at each company's website.

companies where such information was publicly available. For these four companies, Medicare's FFS payments averaged 23 percent higher than MA rates (Table 8-9). MA makes up the majority of the managed care business at most SNFs. It is possible that smaller companies have less leverage and do not negotiate similarly low rates. We also do not know how these rates compare with those paid to smaller chains and independent facilities.

Although making a direct comparison is complicated, we compared the patient characteristics of beneficiaries enrolled in FFS and MA plans in 2015 and found small differences that do not explain the lower payments typically made by MA plans.[17] Compared with FFS beneficiaries, MA enrollees were the same age, had slightly higher Barthel scores (less than two points, indicating slightly more independence), and had slightly lower (2 percent) risk scores (indicating fewer comorbidities).[18] The considerably lower MA payments indicate some facilities accept much lower payments to treat MA enrollees who are not much different in terms of case mix from FFS beneficiaries. Some publicly traded firms report seeking managed care patients as a business strategy, indicating that the rates are attractive.

### Total margins remained the same in 2015 as in 2013

The average total margin for freestanding SNFs in 2015 remained positive (1.6 percent), declining slightly from 2014 (1.9 percent). A total margin reflects services to all patients (public and private, including managed care) across all lines of business (for example, long-term care, hospice, home health care, and ancillary services) and revenue sources (for example, including investment income). Total margins are driven in large part by state policies regarding the level of Medicaid payments and the ease of entry into a market (e.g., whether there is a requirement for a certificate of need).

The publicly traded companies we examined report several strategies to spread their risk and enhance their revenues: expanding into other lines of business (home health care, hospice, home care, and outpatient therapy); increasing their managed care and private-payer business; partnering with hospitals and health systems to secure volume; and diversifying geographically. Companies also report strategies aimed at increasing their quality, including enhancing their staffs' competencies, improving care transitions, offering quality-based incentive bonuses, lowering staff turnover rates, and developing the ability to track outcomes (Diversicare 2016a, Ensign Group 2016a, Ensign Group 2016b, Genesis HealthCare 2016, Kindred Healthcare 2016a, Kindred Healthcare 2016c).

Because Medicaid payments are lower than Medicare FFS payments, some representatives in the industry argue that high Medicare payments are needed to subsidize losses on Medicaid residents. Such a policy is ill advised for several reasons (see text box on not subsidizing other payments). In addition to Medicare's share of facility revenues, other factors that shape a facility's total financial performance are its share of revenues from MA and private payers (both generally considered favorable, though perhaps not as favorable as traditional FFS), its other lines of business (such as ancillary, home health,

## Medicare's skilled nursing facility payments should not subsidize payments from Medicaid or other payers

Medicare payments, which are financed by taxpayer contributions to the trust fund, currently subsidize payments from other payers, most notably Medicaid. High Medicare payments may also subsidize payments from private payers. Industry representatives contend that this subsidy should continue. The Commission believes such cross-subsidization is not advisable for several reasons. First, this strategy results in poorly targeted subsidies. Facilities with high shares of Medicare payments would receive the most in subsidies from higher Medicare payments, while facilities with low Medicare shares—presumably the facilities with the greatest need—would receive the smallest subsidies. Shares of Medicare and Medicaid patients vary widely across facilities (Table 8-10). As a result, the impact of the Medicare subsidy would vary considerably across facilities, putting more dollars into facilities with high Medicare use (and low Medicaid use), which are likely to have higher Medicare margins than other facilities. If the Congress wishes to help nursing homes with high Medicaid payer mix, a better targeted and separately financed program could be established to do so.

In addition, Medicare's subsidy does not discriminate among states with relatively high and low Medicaid payments. If Medicare raises or maintains its high payment levels, states could be encouraged to further reduce their Medicaid payments and, in turn, create pressure to raise Medicare rates. Higher Medicare payments could further encourage providers to select patients based on payer source or to rehospitalize dual-eligible patients to qualify them for a Medicare-covered, higher payment stay. Finally, Medicare's high payments represent a subsidy of trust fund dollars (and taxpayer support) to the low payments made by states and private payers. If the Congress wishes to help certain nursing facilities (such as those with high Medicaid shares), it would be more efficient to do so through a separate, targeted policy. ■

**TABLE 8–10**

**Medicare and Medicaid shares vary widely across freestanding skilled nursing facilities, 2015**

| | Percentile of facility days | | | | |
|---|---|---|---|---|---|
| **Payer** | **10th** | **25th** | **Median** | **75th** | **90th** |
| Medicare share | 5% | 7% | 11% | 17% | 27% |
| Medicaid share | 0 | 40 | 61 | 73 | 81 |

Source: MedPAC analysis of skilled nursing facility Medicare cost reports, 2015.

and hospice services), and nonpatient sources of income (such as investment income).

### Payments and costs for 2017

In assessing the payment update for 2017, the Commission considers the relationship between SNF costs and Medicare payments in 2015. To estimate costs for 2016 and 2017, we assumed cost growth equal to the market basket and no behavioral changes. For 2017, we included Medicare's share (based on the Medicare share of nursing facility revenues) of the estimated cost of the nursing home regulation included in the final rule for these regulations (Centers for Medicare & Medicaid Services 2016b). To estimate 2017 payments, we began with reported 2015 payments and increased payments by the market basket net of the productivity adjustment for both

2016 and 2017 (as required by the Patient Protection and Affordable Care Act of 2010 (PPACA)). For 2016, the update was also offset by a forecast error correction. There were no other policy changes between 2015 and 2017 to consider in our modeling. The final rules for the SNF PPS included an update to payments of 1.2 percent for 2016 payments in 2016 and 2.6 percent for 2017. The larger increase in 2017 reflects higher projected cost growth, a smaller productivity adjustment, and no forecast error. The projected 2017 Medicare margin is 10.6 percent. Without the impact of the nursing home regulations, we estimate the margin would be 11.2 percent.

## How should Medicare payments change in 2018?

In considering how payments should change for 2018, we note that the broad circumstances of SNFs have not changed since the Commission made its recommendation last year to eliminate the market basket increases for 2017 and 2018 while the Secretary revises the SNF PPS. The recommendation also stated that in 2019, the Secretary should evaluate the need for additional adjustments to more closely align payments and costs.

Our analyses confirm that the SNF PPS needs to be revised. Payments are increasingly unrelated to the costs of care or to a patient's characteristics, despite the many changes made to the payment system. The overpayments for therapy services have gotten larger, strengthening the existing incentive to furnish therapy services. At the same time, the payments for NTA services are unrelated to these services' costs, making payments even more poorly targeted than they had been. Broad payment reforms (such as bundled payments, accountable care organizations, and a unified PAC PPS) rely on FFS rates as benchmarks, so the importance of the accuracy of FFS payments to SNFs remains.

Regarding the need to rebase payments, aggregate Medicare margins for SNFs have been above 10 percent since 2000. In 2015, the marginal profit was 20 percent, indicating facilities with an available bed have an incentive to admit Medicare patients. Further, the variation in Medicare margins is not related to differences in patient characteristics and location since cost differences remain after adjusting for differences in wages, case mix, and beneficiary demographics. Rather, differences in financial performance reflect the amount of therapy furnished to patients, differences in costs per day, and cost control. Relatively efficient SNFs, with relatively low costs and high quality, have Medicare margins of 19 percent. FFS payments were considerably higher than the MA payments made to some SNFs, suggesting some facilities are willing to accept much lower rates than FFS payments to treat Medicare beneficiaries. These factors show that the PPS continues to exert too little pressure on providers. The industry has shown it is nimble at responding to the level of Medicare's payments. Even in years when CMS lowered payments, providers tempered their practices so that aggregate payments increased.

### RECOMMENDATION 8

**The Congress should eliminate the market basket updates for 2018 and 2019 and direct the Secretary to revise the prospective payment system (PPS) for skilled nursing facilities. In 2020, the Secretary should report to the Congress on the impacts of the reformed PPS and make any additional adjustments to payments needed to more closely align payments with costs.**

### RATIONALE 8

This recommendation calls for both lower payments and a revised PPS design. Payments would not be increased for 2018 and 2019 while a revised PPS is implemented. With the projected Medicare margin at 10.6 percent in 2017, Medicare payments appear to be more than adequate to accommodate SNF cost growth without updates in 2018 and 2019. The Commission recognizes the need to proceed cautiously but deliberately to help minimize unintended disruptions caused by rebasing. Therefore, a final adjustment to the level of payments (in 2020) should not be considered until initial impacts can be assessed. By comparison, current law calls for a 1 percent increase in 2018 (as required by Section 411 of the Medicare Access and CHIP Reauthorization Act of 2015) and an estimated 2.2 percent increase for 2019 (market basket increase minus productivity).

The recommendation also requires that the PPS be revised to increase the equity in payments for different types of stays. Under a revised design, payments would increase for medically complex stays and decrease for stays that include intensive therapy that is unrelated to a patient's care needs. In 2015, the Commission estimated that payments would increase 32 percent for facilities with low shares of intensive therapy and 12 percent for facilities with high NTA costs per day. Based on their mix of

patients and therapy practices, payments were estimated to increase 21 percent for hospital-based facilities. While a needs-based design would improve the equity in payments and narrow the disparities in financial performance that result from the mix of cases facilities treat and therapy practices, it would not, and should not, address disparities that result from providers' inefficiencies.

The Commission believes that a two-year horizon to implement a revised design is feasible. The Commission first recommended a revised design in 2008 and since then has continued to develop and communicate alternative design features that redirect payments toward medically complex care (Medicare Payment Advisory Commission 2012, Medicare Payment Advisory Commission 2009, Medicare Payment Advisory Commission 2008, Medicare Payment Advisory Commission and The Urban Institute 2015). The Commission has grown increasingly frustrated with the lack of statutory and regulatory actions to lower the level of payments and implement a revised payment system.

The Commission is focused on ensuring beneficiaries' access to SNF care. The recommended changes should not impair beneficiary access; in fact, they could improve access to services for beneficiaries who are disadvantaged by the design of the current payment system. At the same time, the industry, including SNFs with higher concentrations of medically complex patients, should be paid adequately to furnish needed services. The Commission will continue to monitor beneficiary access, quality of care, and financial performance and may consider future recommendations based on industry performance.

**IMPLICATIONS 8**

### Spending

- Relative to current law, this recommendation would lower program spending by between $750 million and $2 billion for fiscal year 2018 and between $5 billion and $10 billion over five years. Savings occur because current law requires market basket increases for 2017 (offset by a productivity adjustment, as required by PPACA) and a 1 percent increase in 2018.

### Beneficiary and provider

- We do not expect an adverse effect on beneficiary access. Revising the prospective payment system would raise payments for medically complex cases, making providers more likely to admit and treat beneficiaries with such care needs. Access for these patients should increase. Even if a SNF with poor financial performance were to close, most beneficiaries live in counties with multiple providers and therefore would continue to have a SNF in the county. Given the current level of payments, we do not expect the recommendation to affect providers' willingness or ability to care for Medicare beneficiaries. Aggregate provider payments would be lower than under current law, but the recommendation would reduce the disparities in Medicare margins across providers by increasing payments to hospital-based and nonprofit SNFs and lowering them to for-profit and freestanding SNFs. Effects on individual providers would be a function of their mix of patients and current practice patterns. The recommendation would not eliminate all of the differences in Medicare margins across providers because of their large cost differences.

## Medicaid trends

Section 2801 of the Patient Protection and Affordable Care Act of 2010 requires the Commission to examine spending, use, and financial performance trends in the Medicaid program for providers with a significant portion of revenues or services associated with the Medicaid program. We report nursing home spending trends for Medicaid and financial performance for non-Medicare payers. Medicaid revenues and costs are not reported in the Medicare cost reports. In a joint publication with the Medicaid and CHIP Payment Access Commission, we report on characteristics, service use, and spending for dual-eligible beneficiaries (Medicare Payment Advisory Commission and the Medicaid and CHIP Payment and Access Commission 2016).

Medicaid covers nursing home (long-term care) and skilled nursing care provided in nursing facilities. Medicaid also pays for long-term care services that Medicare does not cover. For beneficiaries who are dually eligible for Medicaid and Medicare, Medicaid pays the Medicare copayments required of beneficiaries beginning on day 21 of a SNF stay.

### Count of Medicaid-certified nursing homes

The number of nursing facilities certified as Medicaid providers has stayed relatively stable, with a small decline

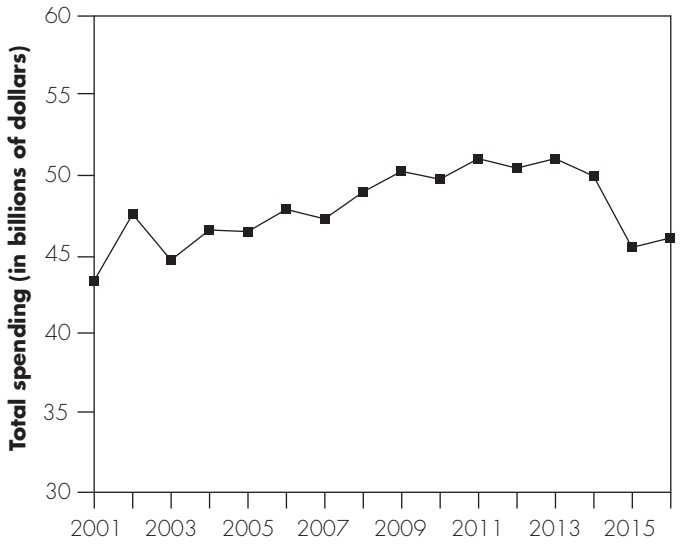
**TABLE 8–11** **The number of nursing homes treating Medicaid enrollees stayed relatively stable in 2016**

| | 2006 | 2008 | 2010 | 2012 | 2014 | 2015 | 2016 | Percent change 2015–2016 |
|---|---|---|---|---|---|---|---|---|
| Number of facilities | 15,299 | 15,190 | 15,117 | 15,073 | 15,048 | 15,052 | 14,971 | –0.5% |

Source: Certification and Survey Provider Enhanced Reporting on CMS's Survey and Certification Providing Data Quickly system, 2006–2016.

between 2015 and 2016 (Table 8-11). The decline in number may reflect the expansion in some states of home- and community-based services (HCBS), which allow beneficiaries to remain in their homes rather than in an institution. State HCBS waivers and federal initiatives have accelerated the trend toward HCBS. In fiscal years 2015 and 2016, 46 states expanded the number of beneficiaries served by HCBS, an increase from 42 states in fiscal year 2014 and 33 states in fiscal year 2013 (Smith et al. 2016). This number continues to increase in 2017, with 47 states expanding the number of beneficiaries served by HCBS.

**FIGURE 8–5** **Total Medicaid spending on nursing home services, 2001–2016**




Source: Total spending data are from CMS, Office of the Actuary (2016a).

## Spending

CMS estimates that $46 billion was spent in 2016 on Medicaid-funded nursing home services (combined state and federal funds) (Office of the Actuary 2016a) (Figure 8-5). Between 2015 and 2016, CMS estimates that Medicaid spending on nursing home services increased by 1.4 percent. CMS projects that spending will grow by 0.16 percent in 2017. This lower increase in spending is in part due to an increased use of managed care organizations (MCOs), and expenditures from MCOs are reported separately from the nursing facility spending data. Year-to-year changes in spending have been variable, increasing in some years and decreasing in others, with overall spending increasing 6.2 percent from 2001 to 2016. The large decrease in spending in 2015 reflects the increased enrollment in MCOs.

Analysis of Medicaid rate-setting trends found that 19 states restricted (froze or reduced) rates paid to nursing homes in 2016, while 31 states and the District of Columbia (DC) increased rates (Smith et al. 2016). In 2017, 31 states and DC again plan to increase rates, and 19 states plan to restrict them. While fewer states raised rates from previous years (36 states and DC increased rates in 2015), the number of states cutting nursing facility rates is dropping. Of the 19 states restricting rates in 2016 and 2017, 4 states cut rates in 2016, and only 1 state cut rates for 2017. States continue to use provider taxes to raise federal matching funds. In fiscal year 2016, 44 states and DC levied provider taxes on nursing homes, and all plan to continue to do so in fiscal year 2017.

## Non-Medicare and total margins in nursing homes

Total margins reflect all payers (including Medicaid, private insurers, and managed care) across all lines of business (for example, nursing home care, hospice care, ancillary services, home health care, and investment

**TABLE 8–12**

**In the past 10 years, non-Medicare margins have been negative, but total margins have been positive in freestanding SNFs**

| Type of margin | 2008 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|
| Total margin | 2.2% | 3.5% | 3.8% | 1.8% | 1.9% | 1.9% | 1.6% |
| Non-Medicare margin | –2.4 | –1.5 | –2.6 | –2.0 | –1.9 | –1.5 | –2.0 |

Note: SNF (skilled nursing facility). "Total margin" includes the revenues and costs associated with all payers and all lines of business. "Non-Medicare margin" includes the revenues and costs associated with Medicaid and private payers for all lines of business.
Source: MedPAC analysis of freestanding 2008–2015 SNF cost reports.

income). In 2015, total margins were positive (1.6 percent). The median total margin was 1.7 percent, with margins at the 25th and 75th percentiles ranging from –1.0 percent to 4.3 percent, respectively. Total margins have declined since 2011, reflecting the impact of PPACA reductions to Medicare payments and the growing share of managed care payments that are lower than Medicare's FFS payments.

Non-Medicare margins reflect the profitability of all services except Medicare FFS SNF services. The aggregate non-Medicare margin in 2015 was –2.0 percent, a decline from 2014 (Table 8-12). ■

## Endnotes

1 Throughout this chapter, "beneficiary" refers to an individual whose SNF stay coverage (Part A) is paid for by Medicare. Some beneficiaries who no longer qualify for Medicare coverage remain in the facility to receive long-term care services, which are not covered by Medicare. During long-term care stays, beneficiaries may receive care such as physician services, outpatient therapy services, and prescription drugs that are paid for separately under the Part B and Part D benefits. Services furnished outside the Part A–covered stay are not paid under the SNF PPS and are not considered in this chapter. Except where specifically noted, the chapter examines FFS Medicare spending and service use and excludes services and spending for SNF services furnished to beneficiaries enrolled in Medicare Advantage plans. Some beneficiaries also qualify for Medicaid and are referred to as "dual-eligible beneficiaries."

2 A spell of illness begins when a beneficiary has not had hospital care or skilled care in a SNF for 60 consecutive days. Observation days and emergency room stays do not count toward the three-day requirement.

3 For services to be covered, the SNF must meet Medicare's requirements of participation and agree to accept Medicare's payment rates. Medicare's requirements relate to many aspects of staffing and care delivery, such as requiring a registered nurse in the facility for 8 consecutive hours per day and licensed nurse coverage 24 hours a day, providing physical and occupational therapy services and speech–language pathology services as delineated in each patient's plan of care, and providing or arranging for physician services 24 hours a day in case of an emergency.

4 The program pays separately for some services, including certain chemotherapy drugs; certain customized prosthetics; certain ambulance services; Part B dialysis; emergency services; and certain outpatient services provided in a hospital (such as computed tomography, MRI, radiation therapy, and cardiac catheterizations).

5 The *SNF Payment Basics* is available at http://medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_16_snf_final.pdf?sfvrsn=0.

6 Intensive therapy days are those classified in the ultra-high and very high rehabilitation case-mix groups. Rehabilitation groups are based on minutes of rehabilitation provided per week. "Ultra-high rehabilitation" includes patients who receive more than 720 minutes per week; "very high rehabilitation" includes patients who receive 500–719 minutes per week.

7 There are two broad categories of medically complex case-mix groups: clinically complex and special care. Clinically complex groups are used to classify patients who have burns, surgical wounds, hemiplegia, or pneumonia or who receive chemotherapy, oxygen therapy, intravenous medications, or transfusions while a SNF patient. Special care groups include patients who are comatose; have quadriplegia, chronic obstructive pulmonary disease, septicemia, diabetes requiring daily injections, fever with specific other conditions, cerebral palsy, multiple sclerosis, Parkinson's disease, respiratory failure, a feeding tube, pressure ulcers of specific sizes, or foot infections; receive radiation therapy or dialysis while a resident; or require parenteral or intravenous feedings or respiratory therapy for seven days.

8 Over the past 7 years, CMS changed the definitions of the existing case-mix groups and added 13 case-mix groups for medically complex days. It also shifted program dollars from therapy care to medically complex care, lowered payments for therapy furnished to multiple beneficiaries at the same time rather than in one-on-one sessions, required providers to reassess patients when the provision of therapy changed or stopped (which would, in turn, change assignments in case-mix groups), and required end-of-therapy assessments to prevent paying for therapy services after they have been discontinued.

9 Summaries of the technical expert panels are available at https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/SNFPPS/therapyresearch.html.

10 Medically complex days make up the other 6 percent of days. See endnote 7 for the definition of *medically complex*.

11 The eight ADLs for which SNF users required less assistance included bladder control, transfer, walk in the facility corridor, self-feeding, toileting, dressing, performing personal hygiene, and bed mobility. The measures for two ADLs increased: the share of the most dependent for bathing and the share of beneficiaries who were always incontinent.

12 Separate models (with their own covariates) are used to estimate expected community discharge rates for different discharge destinations (e.g., discharged home with home health care, discharged home without home health care, and discharged to a nursing home).

13 With inclusion of the other covariates, age categories were not found to be significant in explaining variation in outcomes and were dropped from the models, except for the model explaining differences in readmission during the 30 days postdischarge for community-residing beneficiaries younger than 65.

14 The readmission rates of patients during their SNF stay and in the period after discharge cannot simply be added to get a combined rate because, in the combined measure, a stay is counted only once, even if the patient was readmitted during the SNF stay and in the post-stay period. In contrast, each relevant stay is counted separately in each measure.

15 We use the nursing component (as opposed to the payment weight of the case-mix group) to avoid distorting the measure of patient complexity by the amount of therapy furnished, which could be unrelated to patient care needs. We used the indexes adjusted for CMS's policy decisions to shift payments toward certain case-mix groups and away from others (White 2012). Because the nursing weights for intensive therapy are relatively high, a facility can have both a high case-mix index and a moderate or low share of medically complex patients.

16 The Special Focus Facility Initiative is a program to stimulate improvements in the quality of care at nursing homes with a history of serious quality problems. The initiative targets homes with a pattern over three years of more frequent and more serious problems (including harm or injury to residents) detected in their annual facility surveys. Facilities that improve and maintain those improvements can "graduate" from the program. Providers that do not improve face civil monetary penalties (fines) and eventual termination from Medicare and Medicaid.

17 We compared the assessments conducted at the beginning of stays (the "day 5" assessment). MA plans are not required to submit these assessments, and we cannot determine what share of plans submit them or the possible bias of assessments that are submitted.

18 Other Commission work has examined the financial incentives for MA plans to code comorbidities. That work found that MA risk scores were about 4 percent higher than for similar patients in FFS after accounting for coding differences (Medicare Payment Advisory Commission 2016). If this level of upcoding is representative of Medicare beneficiaries who use SNF services, risk scores for MA enrollees were even lower (that is, they had fewer comorbidities) than reported compared with FFS beneficiaries who used SNF services.

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CHAPTER 9

# Home health care services

## RECOMMENDATION

**9** The Congress should reduce home health payment rates by 5 percent in 2018 and implement a two-year rebasing of the payment system beginning in 2019. The Congress should direct the Secretary to revise the prospective payment system to eliminate the use of the number of therapy visits as a factor in payment determinations, concurrent with rebasing.

**COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0**

CHAPTER 9

# Home health care services

## Chapter summary

Home health agencies (HHAs) provide services to beneficiaries who are homebound and need skilled nursing or therapy. In 2015, about 3.5 million Medicare beneficiaries received care, and the program spent about $18.1 billion on home health care services. In that year, over 12,300 agencies participated in Medicare.

### Assessment of payment adequacy

The indicators of payment adequacy for home health care are generally positive.

***Beneficiaries' access to care*—**Access to home health care is generally adequate: Over 99 percent of beneficiaries lived in a ZIP code where a Medicare home health agency operated in 2015, and 86 percent lived in a ZIP code with five or more agencies.

- ***Capacity and supply of providers*—**In 2015, the number of agencies fell slightly by 0.9 percent after a long period of growth. From 2004 to 2014, the number of agencies increased by 63 percent. The decline in 2015 was concentrated in areas that experienced sharp increases in supply in prior years.
- ***Volume of services*—**In 2015, the volume of services increased by 0.3 percent, reversing a three-year trend of modest decline. The total number

## In this chapter

- Are Medicare payments adequate in 2017?
- How should Medicare payments change in 2018?

of users increased slightly, while the average number of episodes per home health user declined by 0.6 percent. From 2002 to 2015, home health utilization increased substantially, with the number of episodes increasing by over 60 percent and the episodes per home health user increasing from 1.6 to 1.9 episodes. Episodes not preceded by a hospitalization account for most of the growth in this period, and, between 2001 and 2015, these episodes increased from about half to two-thirds of total episodes.

***Quality of care—***In 2015, performance on quality measures improved. The share of beneficiaries reporting improvement in walking and transferring increased; the share of beneficiaries hospitalized during their home health spell decreased from 27.8 percent to 25.4 percent.

***Providers' access to capital—***Access to capital is a less important indicator of Medicare payment adequacy for home health care because this sector is less capital intensive than other health care sectors. The major publicly traded for-profit home health companies had sufficient access to capital markets for their credit needs. Several acquisitions by large post-acute care companies to expand home health capacity indicate this sector is an attractive market to investors.

***Medicare payments and providers' costs—***Between 2014 and 2015, Medicare spending increased by 2.3 percent to $18.1 billion. For more than a decade, payments have consistently and substantially exceeded costs in the home health prospective payment system (PPS). In 2015, Medicare margins for freestanding agencies averaged 15.6 percent and averaged 16.5 percent between 2001 and 2014. The marginal profit for HHAs in 2015 was 18.1 percent. The Commission projects that Medicare margins for 2017 will equal 13.7 percent. Two factors have contributed to payments exceeding costs: Agencies have reduced episode costs by lowering the number of visits provided, and cost growth has been lower than the annual payment updates for home health care.

The high Medicare margins of home health agencies have led the Commission to recommend a 5 percent reduction in the base rate for 2018 and a two-year rebasing beginning in 2019. The chronic overpayments Medicare has made need to be addressed. These two actions should help to better align payments with actual costs, ensuring better value for beneficiaries and taxpayers without impeding access to home health care services.

We are also recommending, as we have for the last five years, that Medicare eliminate the use of the number of therapy visits as a payment factor in the home health PPS beginning in 2019. A review of utilization trends and further research

by the Commission and others suggest that this aspect of the PPS creates financial incentives that distract agencies from focusing on patient characteristics when setting plans of care. Eliminating the number of therapy visits as a payment factor would base home health payment solely on patient characteristics, a more patient-focused approach to payment. ■

## Background

Medicare home health care consists of skilled nursing, physical therapy, occupational therapy, speech therapy, aide services, and medical social work provided to beneficiaries in their homes. To be eligible for Medicare's home health benefit, beneficiaries must need intermittent (fewer than eight hours per day) skilled care to treat their illnesses or injuries and must be unable to leave their homes without considerable effort. Medicare requires that a physician certify a patient's eligibility for home health care and that a patient receiving services be under the care of a physician. In contrast to coverage for skilled nursing facility services, Medicare does not require a preceding hospital stay to qualify for home health care. Also, unlike for most services, Medicare does not require copayments or a deductible for home health services. In 2015, about 3.5 million Medicare beneficiaries received home care, and the program spent $18.1 billion on home health services. Between 2001 and 2015, Medicare spending for home health care more than doubled and currently accounts for about 5 percent of fee-for-service (FFS) spending.

Medicare pays for home health care in 60-day episodes. Payments for an episode are adjusted for patient severity based on patients' clinical and functional characteristics and the number of therapy visits provided. If beneficiaries need additional covered home health services at the end of the initial 60-day episode, another episode commences and Medicare pays for an additional episode. Episodes delivered to beneficiaries in rural areas receive a 3 percent payment increase through 2017. (An overview of the home health prospective payment system (PPS) is available at http://medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_16_hha_final.pdf?sfvrsn=0.) Coverage for additional episodes generally has the same requirements as the initial episode (i.e., the beneficiary must be homebound and need skilled care).

In 2011, Medicare implemented a requirement that a beneficiary have a face-to-face encounter with the physician ordering home health care. The encounter must take place in the 90 days preceding or 30 days following the initiation of home health care. Contacts through nonphysician practitioners or authorized telehealth services may be used to satisfy the requirement.

### Use and growth of the home health benefit have varied substantially because of changes in coverage and payment policy

The delivery of the home health benefit has changed substantially since the 1980s. Implementation of the inpatient hospital PPS in 1983 led to increased use of home health services as hospital lengths of stay decreased. Medicare tightened coverage of some services, but the courts overturned these curbs in 1988. After this change, the number of home health agencies (HHAs), users, and services expanded rapidly in the early 1990s. Between 1990 and 1995, the number of annual users increased by 75 percent, and the number of visits more than tripled to about 250 million a year. Spending increased more than fourfold between 1990 and 1995, from $3.7 billion to $15.4 billion. As the rates of use and the duration of home health spells increased, there was concern that the benefit was serving more as a long-term care benefit (Government Accountability Office 1996). Further, many of the services provided were believed to be improper. For example, in one analysis of 1995 to 1996 data, the Office of Inspector General found that about 40 percent of the services in a sample of Medicare claims did not meet Medicare requirements for reimbursement, mostly because services did not meet Medicare's standards for a reasonable and necessary service, patients did not meet the homebound coverage requirement, or the medical record did not document that a billed service was provided (Office of Inspector General 1997).

The trends of the early 1990s prompted increased program integrity actions, refinements of coverage standards, temporary spending caps through an interim payment system (IPS), and replacement of the cost-based payment system with a PPS in 2000.[1] Between 1997 and 2000, the number of beneficiaries using home health services fell by about 1 million, and the number of visits fell by 65 percent (Table 9-1, p. 236). The mix of services changed from predominantly aide services in 1997 to predominantly nursing visits in 2000, and therapy visits increased between 1997 and 2015 from 10 percent of visits to 37 percent. Between 1997 and 2000, total spending for home health services declined by 52 percent. The reduction in payments had a swift effect on the supply of agencies, and by 2000, the number of agencies had fallen by 31 percent. However, after this period, the PPS was implemented, and service use and agency supply rebounded at a rapid pace. Between 2001 and 2015, the number of home health episodes rose from 3.9 million to 6.6 million (data not shown). The

**TABLE 9–1**

**Changes in supply and utilization of home health care, 1997–2015**

| | 1997 | 2000 | 2014 | 2015 | Percent change 1997–2000 | Percent change 2000–2014 | Percent change 2014–2015 |
|---|---|---|---|---|---|---|---|
| Agencies | 10,917 | 7,528 | 12,461 | 12,346 | –31% | 66% | –1% |
| Total spending (in billions) | $17.7 | $8.5 | $17.7 | $18.1 | –52 | 108 | 2 |
| Users (in millions) | 3.6 | 2.5 | 3.4 | 3.5 | –31 | 37 | 1 |
| Number of visits (in millions) | 258.2 | 90.6 | 115.1 | 115.1 | –65 | 27 | <0.1 |
| Visit type (percent of total) | | | | | | | |
| Skilled nursing | 41% | 49% | 52% | 52% | 20 | 5 | –2 |
| Home health aide | 48 | 31 | 12 | 10 | –37 | –62 | –10 |
| Therapy | 10 | 19 | 36 | 37 | 101 | 85 | 5 |
| Medical social services | 1 | 1 | 1 | 1 | 1 | –32 | <0.1 |
| Number of visits per user | 73 | 37 | 34 | 33 | –49 | –9 | –1 |
| Percent of FFS beneficiaries who used home health services | 10.5% | 7.4% | 9.1% | 9.1% | –30 | 23 | 1 |

Note: FFS (fee-for-service). Medicare did not pay on a per episode basis before October 2000. Yearly figures presented in the table are rounded, but figures in the percent change columns were calculated using unrounded data.

Source: Home health standard analytical file 2015; *Health Care Financing Review*, Medicare and Medicaid Statistical Supplement 2002.

number of agencies in 2015 was 12,346. Almost all the new agencies since implementation of the PPS have been for-profit providers (data not shown).

The steep declines in services under the IPS did not appear to adversely affect the quality of care beneficiaries received; one analysis found that patient satisfaction with home health services was mostly unchanged in that period (McCall et al. 2004, McCall et al. 2003). In 2004, the Commission also concluded that the quality of care did not decline between use of the IPS and the implementation of the PPS (Medicare Payment Advisory Commission 2004). The similarity in quality of care under the IPS and the PPS suggests that the payment reductions in the Balanced Budget Act of 1997 led agencies to reduce costs and utilization without a measurable difference in the quality of patient care.

## Medicare has always overpaid for home health services under the PPS

Payments for home health care have substantially exceeded costs since Medicare established the PPS. In 2001, the first year of the PPS, average Medicare margins equaled 23 percent (Figure 9-1). The high margins in the first year suggest that the PPS established a base rate well in excess of costs. The base rate assumed that the average number of visits per episode would decline about 15 percent between 1998 and 2001, while the actual decline was about 32 percent (Table 9-2). In addition, agencies have been able to hold the rate of episode cost growth below 1 percent in many years, lower than the rate of inflation assumed in the home health payment update. Consequently, HHAs were able to garner extremely high average payments relative to the cost of services provided. Since 2001, agencies have been able to reduce visits further, and between 2001 and 2014, margins have averaged 16.5 percent (Figure 9-1). Furthermore, the reported margins may be low. An audit of 2011 cost reports by CMS found that a sample of 98 agencies overstated their costs by 8 percent; adjusting for the overstatement of costs, margins for this year would have been in excess of 20 percent.

## Changes to payment for home health services required by the Patient Protection and Affordable Care Act of 2010

In 2010, the Commission recommended that Medicare lower home health payments to make them more consistent with costs, a process referred to as payment

**TABLE 9–2**

**Medicare visits per episode before and after implementation of PPS**

| Type of visit | Visits per episode 1998 | 2001 | 2014 | 2015 | Percent change in: 1998–2001 | 2001–2014 | 2014–2015 |
|---|---|---|---|---|---|---|---|
| Skilled nursing | 14.1 | 10.5 | 9.8 | 9.6 | –25% | –7% | –1.9% |
| Therapy (physical, occupational, and speech–language pathology) | 3.8 | 5.2 | 6.5 | 7.1 | 39 | 29 | 5.3 |
| Home health aide | 13.4 | 5.5 | 2.2 | 2.0 | –59 | –60 | –9.0 |
| Medical social services | 0.3 | 0.2 | 0.1 | 0.1 | –36 | –32 | –27.9 |
| Total | 31.6 | 21.4 | 18.8 | 18.8 | –32 | –12 | –0.2 |

Note: PPS (prospective payment system). The PPS was implemented in October 2000. Data exclude low-utilization episodes. Yearly figures presented in the table are rounded, but figures in the percent change columns were calculated using unrounded data.

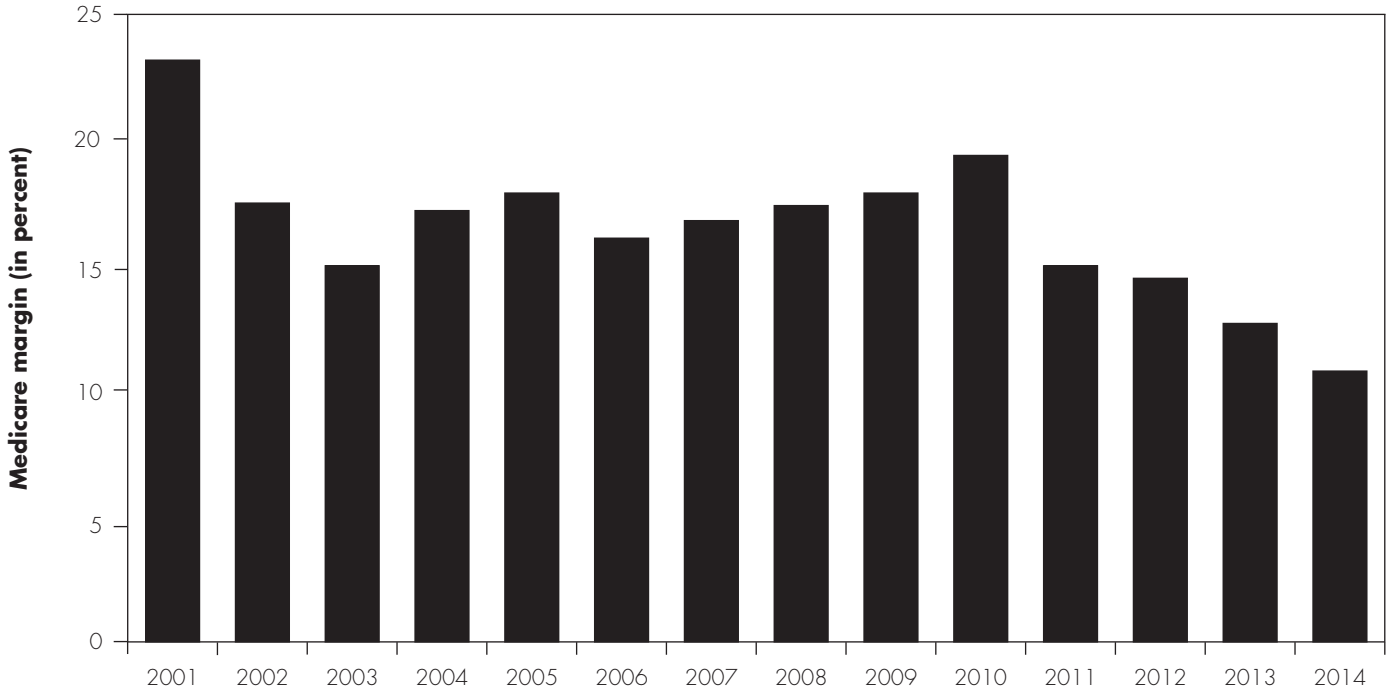
Source: Home health standard analytic file.

rebasing. The Patient Protection and Affordable Care Act of 2010 (PPACA) included several reductions intended to address home health care's high Medicare payments, including rebasing the payment system. However, these policies will not likely achieve the Commission's goal of making payments more consistent with actual costs.

PPACA calls for the annual rebasing adjustment to be offset by the payment update for each year from 2014 through 2017. CMS set the rebasing reduction to the maximum amount permitted under the PPACA formula, which was equal to 3.5 percent of the 2010 base rate, or an annual reduction of $81 per 60-day episode. However,

**FIGURE 9–1**

**Medicare margins of freestanding home health agencies have remained high since 2001**




Source: Medicare cost reports.

**TABLE 9–3**

**Impact of PPACA rebasing on payments for 60-day episodes**

| | Annual percent change | | | | Cumulative change, 2014–2017 |
|---|---|---|---|---|---|
| | 2014 | 2015 | 2016 | 2017 | |
| Rebasing adjustment | –2.8% | –2.7% | –2.7% | –2.8% | –11.4% |
| Legislated payment update | 2.3 | 2.1 | 1.9 | 1.9 | 8.5 |
| Net payment reduction | –0.6 | –0.7 | –0.8 | –0.9 | –3.0 |

Note: PPACA (Patient Protection and Affordable Care Act of 2010). Effects of payment changes are multiplicative.

Source: MedPAC analysis based on data from CMS.

the size of the base rate has increased since 2010, so this reduction will actually be less than 3.5 percent and, in fact, has averaged about 2.75 percent in each year from 2014 through 2017. In addition, over this period, the payment update has offset these reductions, resulting in a cumulative net payment reduction of 3 percent (Table 9-3). This modest reduction will likely leave substantial margins for HHAs, margins that have exceeded 10 percent since the implementation of PPS.

PPACA required the Commission to assess the impact of these payment changes on quality of care and beneficiary access (Medicare Payment Advisory Commission 2014). To meet this mandate, the Commission examined the historical relationship between changes in payment and changes in quality and access for the 2001 through 2012 period. The volume of episodes grew substantially in this period, even in years that Medicare reduced home health payments. From 2001 through 2010, episode volume for urban, rural, for-profit, and nonprofit providers grew on a per beneficiary basis. These increases in utilization occurred in years in which the average episode payment decreased as well as in years in which the average episode payment increased, suggesting that PPACA's modest payment reduction has not had a negative effect on access. Utilization decreased slightly in 2011 and 2012, but these declines coincided with policy changes intended to address potential overuse, such as the face-to-face visit requirement and antifraud efforts in several high-use areas. The slowdown also coincided with an economy-wide slowdown in health spending and utilization.

The Commission examined three quality measures to assess the relationship between past payment reductions and quality, and the results suggest that payment changes during this period did not have a significant effect. During the 2001 to 2012 period, HHAs' overall rate of unexpected hospitalization during the home health episode—an indicator of poor quality—remained steady at about 28 percent, while average payment per episode increased in most years.[2] This finding suggests that hospitalization was not sensitive to changes in payments; that is, higher payments to HHAs did not lead to fewer hospitalizations, and conversely, lower payments did not lead to higher hospitalization rates. Performance on two functional measures of quality—the share of patients demonstrating improvement in walking and the share of patients demonstrating improvement in transferring—generally increased during this period. These increases in quality occurred in years in which the average payment per episode decreased as well as in years in which the average payment per episode increased, suggesting that changes in payment have little direct relationship to rates of functional improvement.

The Commission will continue to review access to care and quality as data for additional years become available. However, experience suggests that the small PPACA rebasing reductions will not change average episode payments significantly. HHA margins are likely to remain high under the current rebasing policy, and quality of care and beneficiary access to care are unlikely to be negatively affected.

## Ensuring appropriate use of home health care is challenging

Policymakers have long struggled to define the role of the home health benefit in Medicare (Benjamin 1993). From the outset, there was a concern that setting a narrow policy could result in beneficiaries using other, more expensive services, while a policy that was too broad could lead to wasteful or ineffective use of the home

health benefit (Feder and Lambrew 1996). Medicare relies on the skilled care and homebound requirements as primary determinants of home health eligibility, but these broad coverage criteria permit beneficiaries to receive services in the home even though they are capable of leaving home for medical care, which most home health beneficiaries do (Wolff et al. 2008). Medicare does not provide any incentives for beneficiaries or providers to consider alternatives to home health care, such as outpatient services. Beneficiaries who meet program coverage requirements can receive an unlimited number of home health episodes and face no cost sharing. In addition, the program relies on agencies and physicians to follow program requirements for determining beneficiary needs, but evidence from prior years suggests that they do not consistently follow Medicare's standards (Cheh et al. 2007, Office of Inspector General 2001). Concerns about ensuring the appropriate use of home health episodes not preceded by a hospitalization, which have increased faster than post-acute episodes, led the Commission to recommend a copayment for these episodes (Medicare Payment Advisory Commission 2011).

Even when enforced, the standards permit a broad range of services. For example, the skilled care requirement mandates that a beneficiary need therapy or nursing care to be eligible for the home health benefit. The intent of the skilled services requirement is that the home health benefit serve a clear medical purpose and not be an unskilled, personal-care benefit. However, Medicare's coverage standards do not require that skilled visits compose the majority of the home health services a patient receives. For example, in about 6 percent of episodes in 2014, most services provided were visits from an unskilled home health aide. Assistance with activities of daily living is a common part of post-acute care in institutional settings. However, the home health benefit is unique in that many episodes are provided without a preceding hospital stay (see Table 9-7, p. 243). These episodes raise questions about whether Medicare's broad standards for coverage are adequate to ensure that skilled care remains the focus of the home health benefit.

### Fraud and abuse are continuing challenges in home health care

In 2010, the Commission made a recommendation to curb wasteful and fraudulent home health services (Medicare Payment Advisory Commission 2010). This recommendation calls on the Health and Human Services Secretary to use the department's authorities under current law to examine providers with aberrant patterns of utilization for possible fraud and abuse. PPACA permits Medicare to implement temporary moratoriums on the enrollment of new agencies in areas believed to have a high incidence of fraud. In 2013, Medicare implemented moratoriums for home health agencies in the Chicago, Dallas, Detroit, Houston, and Miami-Dade areas (Fort Lauderdale was later included). CMS expanded these moratoriums statewide in Florida, Illinois, Michigan, and Texas in 2016. There have also been numerous criminal prosecutions for home health fraud, most notably in Detroit and Miami. However, the Commission observes that many areas continue to have aberrant patterns of utilization. For example, even though Miami has been an area of concentrated effort by CMS and law enforcement agencies, this area still has a utilization rate well in excess of other areas. The persistence of aberrant utilization patterns suggests that continued, or perhaps even expanded, efforts by all enforcement agencies are needed to address the scope of fraud in many areas. In addition, Medicare has other regulatory powers, such as requiring HHAs to hold surety bonds, but has not exercised this authority.[3]

A CMS review of 2015 services found that 59 percent of home health claims were missing information needed to justify eligibility for services or appropriate use; in 2016, Medicare expanded its administrative review of home health claims to address the high rate of erroneous claims. This rate led CMS to launch a preclaims review process, targeted at Florida, Illinois, Massachusetts, Michigan, and Texas.[4] The review began in Illinois in August 2016, and CMS intends to expand it to the other four states in the future. The initiative focuses on incentivizing agencies to improve their documentation since incomplete documentation of a beneficiary's eligibility or need for home health services was a major factor in 2015's high error rate. Agencies that do not comply with preclaims review will be subject to automatic postpayment review of claims and reduced final payments and may be subject to payment reductions.

## Are Medicare payments adequate in 2017?

The Commission reviews several indicators to determine the level at which payments will be adequate to cover the costs of an efficient provider in 2017. We assess beneficiary access to care by examining the supply of home health providers and annual changes in the volume

**TABLE 9–4**

**Number of participating home health agencies increased significantly from 2004 to 2014, but declined slightly in 2015**

| | 2004 | 2008 | 2012 | 2014 | 2015 | Percent change 2004–2014 | Percent change 2014–2015 |
|---|---|---|---|---|---|---|---|
| Active agencies | 7,651 | 9,787 | 12,311 | 12,461 | 12,346 | 63% | –0.9% |
| Number of agencies per 10,000 FFS beneficiaries | 2.1 | 2.8 | 3.3 | 3.3 | 3.3 | 57 | –0.7 |

Note: FFS (fee-for-service). "Active agencies" includes all agencies operating during a year, including agencies that closed or opened.

Source: CMS's Provider of Service file and 2016 annual report of the Boards of Trustees of the Medicare trust funds.

of services. The review also examines quality of care, access to capital, and the relationship between Medicare's payments and providers' costs. Overall, the Medicare payment adequacy indicators for HHAs are positive.

## Beneficiaries' access to care: Almost all beneficiaries live in an area served by home health care

Supply and volume indicators show that almost all beneficiaries have access to home health services. In 2015, over 99 percent of beneficiaries lived in a ZIP code served by at least one HHA, 97.5 percent lived in a ZIP code served by two or more HHAs, and 86 percent lived in a ZIP code served by five or more agencies. These findings are consistent with our prior reviews of access.[5]

### Supply of providers: Agency supply surpasses previous peak

Since 2004, the number of HHAs in Medicare has increased by over 4,600 agencies, totaling 12,346 agencies in 2015 (Table 9-4). The number of agencies declined slightly in 2015 relative to the prior year, but even with this decline, nationwide the number of agencies is now higher than the previous peak in the 1990s when supply exceeded 10,900 agencies.

The decline was concentrated in Texas and Florida, states that experienced higher than average increases in supply in prior years. These states have been targeted by a myriad of antifraud measures, including criminal investigations and moratoriums on the entry of new agencies in some parts of the two states. The number of agencies exiting the program has increased in recent years in these states, and the moratorium has likely stopped the entry of new agencies. Even with the declines in these states, however, the supply of agencies in the two states is more than three times the supply of agencies that were available there in 2004, with supply exceeding 3,700 agencies in 2016.

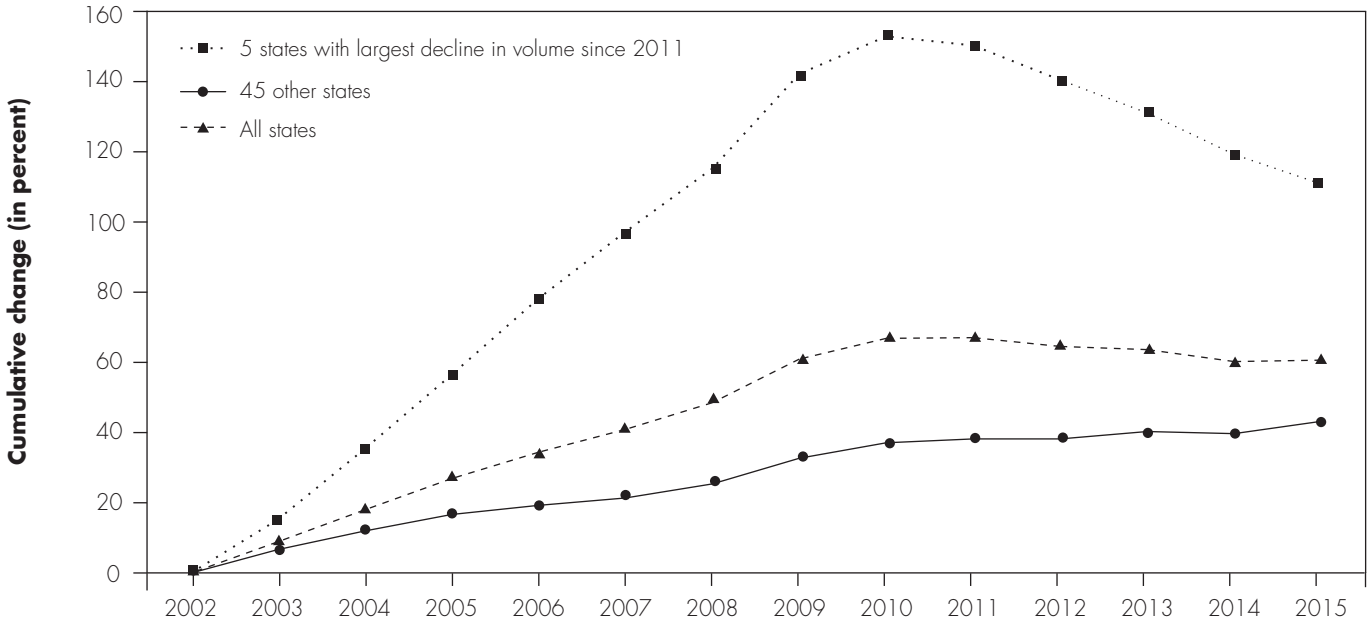
From 2004—when 99 percent of beneficiaries lived in a ZIP code served by an HHA—to 2015, the number of agencies per 10,000 FFS beneficiaries rose 57 percent, from 2.1 to 3.3 (Table 9-4). Most of the new agencies were for profit. However, supply varies significantly among states. In 2015, Texas averaged 9.9 agencies per 10,000 beneficiaries, while New Jersey averaged less than 1 agency per 10,000 beneficiaries. The extreme variation demonstrates that the number of providers is a limited measure of capacity because agencies can vary in size; for example, in New Jersey, the average agency provided 3,136 episodes compared with 342 episodes per agency for Texas. Also, because home health care is not provided in a medical facility, agencies can adjust their service areas as local conditions change. Even the number of employees may not be an effective metric because agencies can use contract staff to meet their patients' needs.

### Episode growth increased slightly in 2015, halting several years of decline

Episode volume reversed the recent trend of utilization decline with a small increase of 0.3 percent in 2015, or about 17,000 episodes. Though overall volume declined from 2012 to 2014, this decline was preceded by a period of rapid growth (Figure 9-2 and Table 9-5). Between 2002 and 2011, total episodes increased by 67 percent from 4.1 million episodes to 6.9 million episodes. The decline since 2011 has been concentrated in a few states, with five states (Florida, Illinois, Louisiana, Tennessee and Texas) accounting for most of the decline in episodes. However, utilization in these five states more than doubled in the

**FIGURE 9–2**

**Cumulative change in home health episode volume since 2002 for different groups of states**




Note: "Five states with largest decline in volume since 2011" include Florida, Illinois, Louisiana, Tennessee, and Texas.

Source: MedPAC analysis of home health standard analytic file from CMS.

**TABLE 9–5**

**Fee-for-service home health care services have increased significantly since 2002**

| | | | | | | | | Percent change | |
|---|---|---|---|---|---|---|---|---|---|
| | 2002 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2002–2014 | 2014–2015 |
| Home health users (in millions) | 2.5 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.5 | 37.3% | 0.9% |
| Share of beneficiaries using home health care | 7.2% | 9.4% | 9.4% | 9.2% | 9.2% | 9.1% | 9.1% | 25.8 | 1.1 |
| Episodes (in millions): | 4.1 | 6.8 | 6.9 | 6.7 | 6.7 | 6.6 | 6.6 | 60.2 | 0.3 |
| Per home health user | 1.6 | 2.0 | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 | 17.7 | –0.6 |
| Per FFS beneficiary | 0.12 | 0.19 | 0.19 | 0.18 | 0.18 | 0.17 | 0.17 | 48.1 | 0.4 |
| Payments (in billions) | $9.6 | $18.4 | $18.4 | $18.0 | $17.9 | $17.7 | $18.1 | 84.4 | 2.3 |
| Per home health user | 3,803 | 5,679 | 5,347 | 5,247 | 5,156 | 5,156 | 5,225 | 35.6 | 1.3 |
| Per home health episode | 2,645 | 3,084 | 2,916 | 2,900 | 2,896 | 2,908 | 2,965 | 12.1 | 1.9 |
| Per FFS beneficiary | 274 | 540 | 504 | 484 | 476 | 468 | 478 | 70.5 | 2.4 |

Note: FFS (fee-for-service). Percent change is calculated on numbers that have not been rounded; payment per episode excludes low-utilization payment adjustment cases.

Source: MedPAC analysis of home health standard analytical file.

**TABLE 9–6**

**Changes in volume have varied among states since 2011**

| | Number of episodes (in millions) | | Change in the number of episodes (in millions) 2011–2015 | Percent change 2011–2015 |
|---|---|---|---|---|
| | 2011 | 2015 | | |
| All states | 6.9 | 6.6 | –0.3 | –4.1% |
| California | 0.4 | 0.6 | 0.1 | 24.8 |
| 5 states with highest home health volume growth in 2002–2011 | 2.6 | 2.2 | –0.4 | –15.8 |
| All other states | 3.8 | 3.8 | * | 0.6 |

Note: "Five states with highest home health volume growth in 2002–2011" include Florida, Illinois, Louisiana, Tennessee, and Texas. Yearly figures presented in the table are rounded, but figures in the change columns were calculated using unrounded data.
*Increased by fewer than 100,000 episodes.

Source: Home health standard analytical file, Medicare Provider and Analysis Review file, and skilled nursing facility standard analytical file for 2011 and 2015.

2002 to 2011 period, higher than in most other areas (Figure 9-2, p. 241).

The changes in average payment per full episode (defined as comprising more than four visits) underscore the limited impact of the PPACA rebasing policy that was implemented in 2014.[6] Average payment per episode increased in the first two years of rebasing, and average payment per episode in 2015, the second year of rebasing, was 2.3 percent higher than average payment per episode in 2013, before rebasing was implemented (Table 9-5, p. 241). The growth is even more remarkable since Medicare implemented additional reductions during this period, such as reductions for changes in coding practices. As the Commission has noted in the past, agencies have been successful in increasing payment through higher reported case-mix severity, without incurring the higher costs that higher severity should incur. If the trend continues, it is likely that average payment per episode in 2017, the last year of rebasing, will be higher than in 2013.

The decline in home health utilization between 2011 and 2014 reflects changes in both the demand for home health services and the supply of agencies. The number of hospital discharges, a common source of referrals, has declined since 2009, mitigating the demand for post-acute services. The period has also seen relatively low growth in economy-wide health care spending. In addition, several actions have been taken to curb fraud, waste, and abuse in Medicare home health care. The Department of Justice and other enforcement agencies have launched a number of investigative efforts that scrutinize Medicare home health agencies. CMS has implemented moratoriums on new agencies in several areas that have seen rapid growth in supply and utilization, including Florida, Illinois, and Texas. In 2011, Medicare implemented a PPACA requirement that physicians have a face-to-face encounter with the beneficiary for home health services to be covered.

The decline in volume since 2011 has not been uniform across the country (Table 9-6). Since 2011, Florida, Illinois, Louisiana, Tennessee, and Texas (the five states with the fastest growing volume before 2011) have seen a decline of about 15.8 percent compared with an increase in volume of 24.8 percent in California. The remaining 44 states have seen 0.6 percent growth. This variation across states emphasizes that many areas continue to see growth despite the overall drop in volume since 2011. The volume decrease in areas that have been targeted by program integrity efforts suggests that these efforts can address excessive or unwarranted services, and the expansion of these efforts to other areas with excessive growth rates is appropriate.

The types of episodes that have declined and increased also vary by region. Over 90 percent of the decline in Florida, Louisiana, Illinois, Tennessee, and Texas has been for episodes that are not preceded by a hospitalization or post-acute care (PAC) use. The decline

**TABLE 9–7**

**Home health episodes not preceded by hospitalization or PAC stay increased at a higher rate than other episodes**

| | Number of episodes (in millions) | | | Percent change | |
|---|---|---|---|---|---|
| | 2001 | 2011 | 2015 | 2001–2011 | 2011–2015 |
| Episodes preceded by a hospitalization or PAC stay | 1.9 | 2.2 | 2.2 | 14.8% | 1.0% |
| Episodes not preceded by a hospitalization or PAC stay | 2.1 | 4.7 | 4.4 | 127.4 | –6.5 |
| Total | 3.9 | 6.9 | 6.6 | 74.0 | –4.1 |

Note: PAC (post-acute care). "Episodes preceded by a hospitalization or PAC stay" indicates the episode occurred fewer than 15 days after a stay in a hospital (including in a long-term care hospital), skilled nursing facility, or inpatient rehabilitation facility. "Episodes not preceded by a hospitalization or PAC stay" indicates that there was no hospitalization or PAC stay in the 15 days before the episode began. Numbers may not sum to totals due to rounding.

Source: 2015 home health standard analytical file, Medicare Provider and Analysis Review file 2015, and 2015 skilled nursing facility standard analytical file.

in posthospital and PAC episodes in these five states has been comparatively modest. In California, 88 percent of the increase in volume has been for episodes not preceded by a hospitalization or PAC use. For the other 44 states, episodes with prior hospitalization or PAC use have decreased slightly, while those without prior hospital or PAC services have increased slightly.

The decline in volume, even though it is concentrated, raises concerns that some agencies avoid certain types of patients for financial or other considerations. However, an examination of patient attributes over this period indicates that patient characteristics have not, for the most part, shifted. For example, a review of 27 common Medicare conditions demonstrated that the rate of these conditions had not shifted significantly in 2011 to 2014, both nationally and for the three categories of states in Table 9-6. The clinical characteristics of home health patients have not shifted significantly in states that experienced volume growth or decline.

### Home health care spells of service have increased in length and shifted in focus to episodes that are not preceded by a hospitalization

Between 2002 and 2011, the number of episodes per user increased from 1.6 to 2.0 and has declined slightly since then. The long-term increase since 2002 indicates that beneficiaries receive home health care for longer periods of time than previously and suggests that, for some beneficiaries, home health care serves more as a long-term care benefit. These concerns are similar to those in the mid-1990s that led to major program integrity activities and payment reductions. The increase in episodes coincides with Medicare's PPS incentives that encourage additional volume: The unit of payment per episode encourages more service (more episodes per beneficiary), and the PPS design makes higher payments for the third and later episodes in a consecutive spell of home health episodes.

The rise in the average number of episodes per beneficiary coincides with a relative shift away from using home health care as a PAC service (Table 9-7). Between 2001 and 2011, episodes not preceded by a hospitalization or PAC stay increased by about 127 percent, while between 2011 and 2015, volume dropped by 6.5 percent. In contrast, from 2001 to 2011, episodes preceded by a prior PAC stay or hospitalization increased by almost 15 percent and have continued to increase slightly in recent years. However, between 2001 and 2015, the higher cumulative growth of episodes not preceded by inpatient or institutional PAC service has shifted the share of these episodes from 53 percent to 67 percent.

### Episodes that qualify for additional payment based on therapy services account for an increasing share of volume

Since the 2001 implementation of the home health PPS, Medicare has used the number of therapy visits as a factor in payment, and, not surprisingly, episodes that qualify for these payments have increased faster than those that do not.[7] In past work, the Commission has found that agencies that provide more therapy episodes tend to be more

**TABLE 9–8** **Most counties with the highest rates of beneficiaries using home health in 2015 were rural**

| State | County | Share of FFS beneficiaries using home health services | Episodes per user | Episodes per 100 FFS beneficiaries |
|---|---|---|---|---|
| National average | | 9.1% | 1.9 | 17 |
| TX | Duval | 37 | 4.4 | 161 |
| TX | Brooks | 30 | 4.2 | 126 |
| TX | Willacy | 27 | 3.9 | 105 |
| TX | Jim Hogg | 27 | 4.2 | 114 |
| TX | Jim Wells | 26 | 4.0 | 103 |
| TX | Zapata | 24 | 3.9 | 95 |
| LA | East Carroll | 24 | 3.9 | 94 |
| OK | Choctaw | 24 | 4.0 | 95 |
| TX | Starr | 24 | 3.8 | 91 |
| MS | Claiborne | 22 | 2.3 | 52 |
| OK | Coal | 22 | 3.0 | 67 |
| FL | Miami-Dade* | 21 | 2.2 | 47 |
| OK | Greer | 21 | 3.2 | 67 |
| TX | Falls* | 21 | 3.3 | 70 |
| TX | Webb* | 21 | 3.9 | 80 |
| KY | Cumberland | 20 | 3.6 | 73 |
| TX | Milam | 20 | 3.3 | 66 |
| LA | Madison | 20 | 3.9 | 78 |
| TX | Baylor | 20 | 3.3 | 66 |
| TX | Kleberg | 19 | 3.4 | 66 |
| OK | Atoka | 19 | 3.5 | 68 |
| TX | Wilbarger | 19 | 3.7 | 71 |
| TN | Hancock | 19 | 2.9 | 55 |
| TX | Hidalgo* | 19 | 3.4 | 65 |
| MS | Holmes | 19 | 3.1 | 59 |

Note: FFS (fee-for-service).
*Urban county; all others rural.

Source: MedPAC analysis of the 2015 home health standard analytical file and the 2015 Medicare denominator file.

profitable. The higher profitability and rapid growth in the number of these episodes suggest that financial incentives are causing agencies to favor therapy services when possible. In 2011 and 2016, the Commission recommended that Medicare eliminate the use of the number of therapy visits provided in an episode as a payment factor, a recommendation that has yet to be implemented.

CMS has acknowledged the issue with therapy in the home health PPS and has made a number of efforts to address it, including lowering payments and increasing oversight requirements. However, despite these efforts, the share of episodes qualifying for additional payment because of therapy use continues to increase. Under the current PPS, additional therapy visits increase payments once six or more visits are provided in an episode, and the share of these episodes increased between 2008 and 2015 from 37 percent to 46 percent. In 2016, CMS announced it was developing a new home health case-mix system that ends the use of therapy visits provided as a payment factor, as well as several other changes intended to improve the system. The new system would be consistent with the

**TABLE 9–9** **Average home health agency performance on select quality measures**

| | 2004 | 2008 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|
| Rate of hospitalization | 27.7% | 28.8% | 27.5% | 26.5% | 27.8% | 25.4% |
| Share of an agency's beneficiaries with improvement in: | | | | | | |
| Walking | 35.9% | 41.9% | 52.5% | 54.4% | 56.0% | 66.9% |
| Transferring | 49.2 | 48.1 | 48.9 | 50.5 | 51.3 | 63.3 |

Note: All data are for fee-for-service beneficiaries only and are risk adjusted for differences in patient condition among home health patients.

Source: MedPAC analysis of data provided by the University of Colorado.

Commission's recommendation, but it is unclear when CMS plans to implement it.

### Rural add-on payments are poorly targeted and most payments benefit areas that do not have low utilization

An add-on payment of 3 percent for each home health care episode provided to beneficiaries in rural areas expires in 2017. The intent of the add-on is presumably to bolster access, but the high level of utilization in many rural areas results in the poor targeting of Medicare's per episode add-on, with most payments made to areas with higher than average utilization. For example, 77 percent of the episodes that received the add-on payments in 2015 were in rural counties with utilization higher than the median utilization for all counties. Rural counties in the lowest fifth of utilization accounted for just 2 percent of the episodes that received the rural add-on payment.

In its June 2012 report to the Congress, the Commission noted that Medicare should target rural payment adjustments to those areas that have access challenges (Medicare Payment Advisory Commission 2012). The large share of payments made to rural areas with above-average utilization does nothing to improve access to care in those areas and raises payments in markets that appear to be more than adequately served by HHAs. Some of the counties with aberrant patterns of utilization suggestive of fraud and abuse are rural; for example, 21 of the 25 top-use counties in 2015 are rural areas (Table 9-8). Higher payments in areas without access problems can encourage the entry or expanded operations of agencies that seek to exploit Medicare's financial incentives. More targeted approaches that limit rural add-on payments to areas with access problems should be pursued.

## Quality of care: Quality measures generally held steady or improved

Medicare reports several quality measures on its Home Health Compare website, from which we obtained recent trend data (Table 9-9). The risk-adjusted rate of hospitalization during the home health stay has decreased in recent years but remains over 25 percent. In 2015, the share of patients improving in walking and transferring increased.

Like most categories of providers, the performance of HHAs varies significantly on these quality measures. For example, regarding the share of patients demonstrating improvement in walking in 2015, the values ranged from 44 percent for the agency at the 25th percentile of the distribution to 66 percent for the agency at the 75th percentile. This broad variation indicates that opportunities exist for improving performance, particularly for low-performing agencies.

Moreover, the annual data indicating improved quality should be viewed with caution:

- These data reflect agency assessment practices, which may reflect the incentive to show improved agency performance to attract patient referrals or seek financial reward for better performance. HHAs self-report these data, and some measures are difficult to independently verify.
- The functional improvement data are collected only for beneficiaries who do not have their home health care stays terminated by a hospitalization, which means that beneficiaries included in the measure are probably healthier and more likely to have positive outcomes.

- The risk adjustment models for these measures rely on the relationship between patient characteristics and an outcome measure for a base year of data. Since these models are used to risk adjust for later time periods, the relationship in the original model could have changed. Using a single model for an extended period permits comparison across time, but it also may introduce distortions if the impact of risk factors varies across longer periods of time.

### Medicare initiated a value-based purchasing program for HHAs in 2016

In 2016, Medicare initiated a value-based purchasing (VBP) model for home health care. The model will test whether home health agencies in nine states (Arizona, Florida, Iowa, Maryland, Massachusetts, Nebraska, North Carolina, Tennessee, and Washington) improve or maintain high quality when they are subject to a VBP incentive. Under the demonstration, agencies with higher performance receive bonuses while those with lower scores receive lower payments relative to current levels. Agency performance is evaluated against separate improvement and attainment scores, with payment tied to the higher of these two scores.

CMS will use 2015 as the baseline year for performance, with 2016 as the first year for performance measurement. The first payment adjustment begins January 1, 2018, applied to that year based on 2016 performance data. Between 2018 and 2021, the payment withhold increases from 3 percent to 8 percent. Agencies that do not have the number of episodes (20) required to produce data for at least 5 measures will not be subject to the payment adjustment.

CMS's home health VBP model adopts a scoring approach similar to that used in the hospital VBP program, including allocating points based on achievement or improvement and calculating those points based on industry benchmarks and thresholds. For each measure, agencies receive points along an achievement range, a scale between the achievement threshold and a benchmark.

The VBP program is an important step forward for moving Medicare away from volume-rewarding FFS incentives, and the Commission has recommended an incentive to reduce rehospitalizations for HHAs. Compared with its predecessor demonstration, the VBP design has been strengthened in that participation is compulsory for the agencies active in the nine states selected. The prior VBP demonstration was voluntary, and agencies with low quality could avoid penalties by not participating. In addition, by 2021, the demonstration places a significant portion of payments at risk (8 percent), which should ensure that even agencies with relatively high margins have an incentive to maintain or improve quality.

However, the Commission noted several changes in our 2017 comment letter that could improve the VBP program. The program uses 20 measures, complicating the administration of the program and making it difficult for agencies to focus on quality improvement efforts. The Commission also recommended that the program focus on rewarding attainment (or the absolute level of performance) and not improvement. An agency's absolute level of performance matters most to a beneficiary and is best encouraged by rewarding attainment. In addition, rewarding improvement creates potential inequities in that agencies with equal or better achievement scores receive smaller incentive payments than agencies with lower attainment scores but higher improvement scores. The greatest rewards in a VBP program should flow to the agencies with the best quality, and attainment-based scoring better achieves this goal.

## Providers' access to capital: Access to capital for expansion is adequate

Few HHAs access capital through publicly traded shares or through public debt such as issuing bonds. HHAs are not as capital intensive as other providers because they do not require extensive physical infrastructure, and most are too small to attract interest from capital markets. Information on publicly traded home health care companies provides some insight into access to capital, but it has limitations. Publicly traded companies may have other lines of business in addition to Medicare home health care, such as hospice, Medicaid-covered services, and private-duty nursing. Also, publicly traded companies are a small portion of the total number of agencies in the industry. For these reasons, access to capital is a smaller consideration for home health than for most other health care sectors receiving Medicare payment.

Analysis of for-profit companies indicates that they had adequate access to capital in 2016. Firms continued to expand home health capacity. For example, in 2016, Almost Family Incorporated purchased the home health division of Community Health, adding 74 new home health agencies. LHC Group purchased a controlling interest in 11 additional home health agencies in 2016. Kindred Corporation purchased Gentiva, previously one of the largest stand-alone home health companies. These

**TABLE 9–10**

**Medicare margins for freestanding home health agencies, 2014 and 2015**

| | Medicare margin | | Percent of agencies, 2015 | Percent of episodes, 2015 |
|---|---|---|---|---|
| | 2014 | 2015 | | |
| All | 10.8% | 15.6% | 100% | 100% |
| Geography | | | | |
| Majority urban | 11.2 | 16.0 | 83 | 83 |
| Majority rural | 8.5 | 13.2 | 17 | 17 |
| Type of ownership | | | | |
| For profit | 12.2 | 16.7 | 78 | 78 |
| Nonprofit | 6.4 | 12.1 | 22 | 22 |
| Volume quintile | | | | |
| First (smallest) | 4.0 | 7.4 | 20 | 3 |
| Second | 5.4 | 9.6 | 20 | 6 |
| Third | 7.6 | 12.4 | 20 | 11 |
| Fourth | 10.0 | 13.8 | 20 | 19 |
| Fifth (largest) | 12.5 | 17.6 | 20 | 61 |

Note: Agencies were classified as majority urban if they provided more than 50 percent of episodes to beneficiaries in urban counties and were classified as majority rural if they provided more than 50 percent of episodes to beneficiaries in rural counties.

Source: MedPAC analysis of home health cost report files from CMS.

acquisitions by publicly traded companies suggest that access to capital remains adequate.

## Medicare payments and providers' costs: Payments increased and cost per episode decreased in 2015

In 2015, average Medicare payments per episode increased by about 2.8 percent for freestanding agencies. Total spending increased by 2.3 percent to $18.1 billion. The average cost per episode decreased by 3.4 percent in 2015, a greater decline relative to the average annual decrease of about 0.1 percent for the last five years. Low or no cost growth has been typical for home health care, and in some years cost per episode declined. The ability of HHAs to keep costs low in most years has contributed to their high margins under the Medicare PPS.

### Medicare margins increased in 2015

In 2015, HHA margins in aggregate were 15.6 percent for freestanding agencies (Table 9-10). Financial performance varied from 0.5 percent for an agency at the 25th percentile of the margin distribution to 24.5 percent for an agency at the 75th percentile (not shown in table). For-profit agencies had higher margins than nonprofit agencies, and urban agencies had slightly higher margins than rural agencies. (These margins include the effects of the budget sequester in effect since 2013.)

The Commission includes hospital-based HHAs in the analysis of inpatient hospital margins because these agencies operate in the financial context of hospital operations. Margins for hospital-based agencies in 2015 were –14.8 percent. The lower margins of hospital-based agencies are chiefly due to their higher costs, some of which may be due to overhead costs allocated to the HHA from its parent hospital. Hospital-based HHAs help their parent institutions financially if they can shorten inpatient stays, lowering expenses in the most costly setting.

The financial performance in 2014 and 2015 permits an examination of the financial impact of the first two years of rebasing. In both years, the margins have remained high, reflecting the Commission's concerns that the PPACA policy would not make sufficient reductions. The actual performance contrasts starkly with the home health industry's predictions. In 2013, the industry predicted that Medicare margins for freestanding agencies in 2014

would be 4.96 percent and 0.96 percent in 2015. These are significantly lower than the actual performance of 10.8 percent and 15.6 percent, respectively.

### Marginal profits

Another consideration in evaluating the adequacy of payments is to assess whether providers have a financial incentive to increase the number of Medicare beneficiaries they serve. In considering the financial incentive to treat more Medicare patients, the provider compares the marginal revenue it will receive (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If Medicare payments are larger than the marginal costs of treating an additional beneficiary, a provider has a financial incentive to increase its volume of Medicare patients. In contrast, if marginal payments do not cover the marginal costs, the provider may have a disincentive to admit Medicare beneficiaries. To operationalize this concept, we compare payments for Medicare services with marginal costs, which is approximated as:

Marginal profit = (payments for Medicare services – (total Medicare costs – fixed building and equipment costs)) / Medicare payments

On average, the marginal profit for HHAs was approximately 18.1 percent in 2015. These HHAs can generate profit from additional volume, indicating they have a financial incentive to serve more Medicare beneficiaries.

### Relatively efficient HHAs serve patients similar to all other HHAs' patients

Across all health care sectors, the Commission follows two principles when selecting a set of efficient providers. First, the providers must do relatively well across cost and quality metrics. Second, the performance has to be consistent, meaning that the provider cannot have poor performance on any metric over a three-year period. The Commission's approach is to develop a set of criteria and then examine how many providers meet them. It does not establish a set share of providers to be considered efficient and then define criteria to meet that pool size.

We examined the quality and cost efficiency of freestanding HHAs to identify a cohort that demonstrated better performance on these metrics relative to its peers (Table 9-11). The cost measure was on a per episode basis, adjusted for risk (patient's health status) and local wages; the quality measure was risk adjusted and counted hospitalizations. Our approach categorized an HHA as relatively efficient if the agency was in the lowest (best) third on at least one measure (either low cost per episode or a low hospitalization rate) and was not in the highest (worst) third of either measure for three consecutive years (2012 to 2014). About 15 percent of agencies met these criteria in this period.

In 2014, relatively efficient agencies compared with other HHAs had median margins that were about 9 percentage points higher, a median hospitalization rate that was 8 percentage points lower, and a median cost per visit that was 11 percent lower. Relatively efficient HHAs provided more episodes but 1.6 fewer visits per episode. The mix of nursing, therapy, aide, and social services visits did not differ significantly between relatively efficient and other HHAs. Efficient providers tended to provide fewer episodes in rural areas and had a lower share of episodes admitted from the community.

## Medicare margins remain high in 2017

In modeling 2017 payments and costs, we incorporate policy changes that will go into effect between the year of our most recent data, 2015, and the year for which we are making the margin projection, 2017. The major changes are:

- rebasing payment changes of –0.5 percent in 2016 and –0.1 percent in 2017 (the net impact of the PPACA rebasing adjustments, partially offset by the payment updates for each year);
- coding adjustments of –0.97 percent in 2016 and 2017 consistent with CMS's policy;
- assumed nominal case-mix growth of 0.5 percent in 2016 and 2017;
- 3 percent add-on for episodes provided in rural areas in 2016 and 2017; and
- assumed episode cost growth of 0.5 percent per year.

On the basis of these policies and assumptions, the Commission projects a margin of 13.7 percent in 2017. This projection assumes that the budget sequester of 2 percent remains in effect through 2017.

The Commission has revised its assumptions for projecting margins based on our experience last year. In

**TABLE 9–11**

**Performance of relatively efficient home health agencies in 2014**

| Provider characteristics | All | Relatively efficient providers | All other providers |
|---|---|---|---|
| Number of agencies | 4,443 | 668 | 3,775 |
| Share of for-profit agencies | 87% | 75% | 89% |
| **Median:** | | | |
| Medicare margin | 9.8% | 17.5% | 8.6% |
| Hospitalization during stay and following 30 days (rate) | 24.7% | 18.2% | 26.0% |
| Cost per visit, standardized for wages | $143 | $130 | $146 |
| Patient severity case-mix index | 0.98 | 1.04 | 0.97 |
| **Visits per episode** | | | |
| Average visits per episode | 17.3 | 16.0 | 17.6 |
| **Share of visits by type** | | | |
| Skilled nursing visits | 53% | 55% | 52% |
| Aide visits | 10% | 8% | 11% |
| MSS visits | 1% | 1% | 1% |
| Therapy visits | 36% | 37% | 35% |
| **Size** (number of 60-day payment episodes) | | | |
| Median | 484 | 536.5 | 470 |
| Mean | 2,036 | 1,182 | 2,187 |
| **Share of episodes** | | | |
| Low-use episode | 8% | 10% | 8% |
| Outlier episode | 2% | 2% | 2% |
| Community-admitted episodes | 68% | 56% | 71% |
| Share of episodes provided to rural beneficiaries | 16% | 5% | 18% |

Note: MSS (medical social services). Sample includes freestanding agencies with complete data for three consecutive years (2012–2014). A home health agency is classified as relatively efficient if it is in the best third of performance for quality or cost and is not in the bottom third of either measure for three consecutive years. Low-use episodes are those with 4 or fewer visits in a 60-day episode. Outlier episodes are those that received a very high number of visits and qualified for outlier payments. Community-admitted episodes are those episodes that were not preceded by a hospitalization or prior post-acute care stay.

Source: Medicare cost reports and standard analytic file.

the 2016 March report to the Congress, we estimated that margins for 2016 would equal 8.8 percent, almost half of the actual margin we report for 2015 in this year's report. Margins in 2015 increased approximately 5 percentage points because of a 3.4 percent decrease in costs and 2.3 percent increase in payment per episode. The Commission does not assume that these trends are sustainable; thus, for projecting margins in 2017, we have assumed nominal case-mix growth of 0.5 percent a year and estimated annual cost growth of 0.5 percent a year.

## How should Medicare payments change in 2018?

Our review of the Medicare home health benefit indicates that access is more than adequate in most areas and that Medicare payments are substantially in excess of costs. On the basis of these findings, the Commission has concluded that home health payments need to be significantly reduced. In addition to payment adequacy, the Commission is concerned that the current payment system

provides a financial incentive for agencies to favor therapy services when delivering care. Though PPACA includes a provision intended to lower payments, the reductions under this provision are modest, and substantial margins for many agencies are likely to remain, particularly those that are efficient or focus on higher paying services.

## RECOMMENDATION 9

**The Congress should reduce home health payment rates by 5 percent in 2018 and implement a two-year rebasing of the payment system beginning in 2019. The Congress should direct the Secretary to revise the prospective payment system to eliminate the use of the number of therapy visits as a factor in payment determinations, concurrent with rebasing.**

## RATIONALE 9

The data for 2015, the second year of rebasing under PPACA, indicate that Medicare continues to overpay for home health care and will likely continue to do so unless additional reductions are made. Under current policy, it appears likely that the average payment per episode in 2017 will be higher than the average payment in effect before rebasing. While the PPACA rebasing has restrained the increase in home health payments, the margins for 2015 and projected margin for 2017 indicate that payments will be substantially greater than costs unless significant additional reductions occur.

An immediate reduction of 5 percent in 2018 would represent a significant action to address the magnitude of the overpayments embedded in Medicare's rates. Subsequently, CMS should implement a revised rebasing beginning in 2018. Under the rebasing policy, CMS would assess the average margins of home health agencies in the most recent year of data available (using audited cost reports to the extent feasible) and reduce payments in 2019 and 2020. The experience of the PPACA rebasing indicates that the continued updating of payments using the market basket update has undermined the goal of lowering payments, and a revised policy should not include these updates. In determining the amount by which to reduce payments, CMS could also use information on the costs of efficient providers, not just the average provider, since data suggest that efficient providers can deliver adequate service for lower costs. With these adjustments, payments should be better aligned with costs compared with current policy.

The recommendation also calls for an end to the use of the number of therapy visits as a payment factor in the PPS when rebasing begins in 2019. The current system relies on a series of visit-number thresholds that increase payments beginning with 6 or more therapy visits and topping out at 20 visits per episode. Increasing the number of therapy visits increases payments significantly, sometimes by hundreds of dollars for a single additional visit. A Senate Finance Committee investigation of the therapy management practices of publicly traded home health companies concluded that CMS needs to eliminate the therapy thresholds in the home health PPS (Committee on Finance 2011). The continued use of these thresholds distorts the incentives of the payment system and distracts HHAs from focusing on patient needs and characteristics when delivering services. CMS has developed a new case-mix system that does not use therapy visits as a factor, and this recommendation would direct the Congress to establish a deadline for implementing this change.

The distributional effects of implementing a revised PPS would generally decrease payments for agencies that provide relatively more therapy episodes and raise it for those that provide fewer of these services. The Commission estimates that a revised PPS would increase payments for nonprofit HHAs by 4.8 percent and increase them for hospital-based HHAs by 3.9 percent. Payments would fall by 2.1 percent for for-profit HHAs and by 0.8 percent for freestanding HHAs. In general, payments would be redistributed from agencies that have higher than average margins to those with lower than average financial performance.

Because the current rural add-on payment is poorly targeted and most of the funds are paid to rural areas with high utilization levels, we conclude that the add-on should not be extended. Overall margins for rural providers were 13.2 percent, indicating that, like urban providers, on average these HHAs are paid well in excess of costs and generally do not need an additional subsidy. The untargeted higher payments in all rural areas do not create value for the beneficiary or the taxpayer. Future efforts to address the needs of rural areas should identify specific access problems and develop targeted policies that focus on the identified problems. The design of the current rural add-on payment does not fulfill this principle, and extending the policy appears unwarranted and inefficient.

## IMPLICATIONS 9

### Spending

- The recommendation would lower payments by $750 million to $2 billion in 2018 and by more than $10 billion in 2018 to 2022.

**Beneficiary and provider**

- The payment reductions would lower payments for all providers. The elimination of therapy thresholds would redistribute payments among providers, generally raising payments for providers that furnish therapy less frequently, and lowering them for providers that deliver relatively more therapy. Lowering payments should not affect providers' willingness to deliver appropriate home health care. Beneficiary access should not be adversely affected, and it should be improved for patients requiring nontherapy care.
- The removal of therapy visits as a payment factor would be redistributive, after accounting for the effects of the recommendation mentioned above to reduce payments. The Commission estimates that a revised PPS would increase payments for nonprofit HHAs by 4.8 percent and decrease them by 2.1 percent for for-profit agencies. Payments would rise by 3.9 percent for facility-based home health agencies and fall by 0.8 percent for freestanding agencies. ■

# Endnotes

1 The Balanced Budget Act of 1997 ended coverage of home health care for the sole purpose of venipuncture services.

2 The rate is risk adjusted and excludes hospitalizations that were not planned in advance or part of a normal course of treatment (for instance, organ transplant).

3 Surety bond firms review an HHA's organizational and financial integrity and agree to cover the Medicare obligations, up to a set amount, for those agencies that the surety bond firm believes are low risk. A surety bond covers liabilities that occur when an agency does not repay funds it owes Medicare (for example, when an agency is found to have improperly billed for services) (Government Accountability Office 1999). Requiring a surety bond would prevent Medicare participation by agencies that a surety firm judges to be high risk.

4 Under preclaims review, agencies must submit records establishing a beneficiary's eligibility for home health services before sending a final claim requesting payment. Medicare has committed to reviewing these submissions within 10 days of receipt. If CMS's review affirms a patient's eligibility for services, the agency may proceed with billing for the episode. If the submission does not contain sufficient information for an affirmative finding, the agency may submit additional information. An agency may submit a final claim for payment after services have been rendered, even if it does not have an affirmative preclaims review decision, but the claim will be subject to the full postpayment medical review process. If an agency submits a final claim for payment without an attempt at preclaim review, the claim will undergo prepayment review. After the first three months of the start of the demonstration in each state, final payment will be reduced by 25 percent for any claim that did not have a successful preclaim review.

5 As of November 2016, our measure of access is based on data collected and maintained as part of CMS's Home Health Compare database. The service areas listed are postal ZIP codes where an agency has provided services in the past 12 months. This definition may overestimate access because agencies need not serve the entire ZIP code to be counted as serving it. At the same time, the definition may understate access if HHAs are willing to serve a ZIP code but did not receive a request in the previous 12 months. The analysis excludes beneficiaries with unknown ZIP codes.

6 Medicare makes a case-mix-adjusted 60-day episode payment when more than 4 visits are provided. Episodes with four or fewer visits (low-utilization episodes) are paid on a per visit basis.

7 Between 2008 and 2015, episodes with six or more therapy visits, which qualify for additional payments, increased by 4.4 percent a year, compared with 1.0 percent a year for home health utilization overall.

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CHAPTER 10

# Inpatient rehabilitation facility services

## RECOMMENDATION

**10** The Congress should reduce the Medicare payment rate for inpatient rehabilitation facilities by 5 percent for fiscal year 2018.

**COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0**

*(Additionally, the Commission reiterates its March 2016 recommendations on the inpatient rehabilitation facility prospective payment system. See text box, p. 269.)*

CHAPTER 10

# Inpatient rehabilitation facility services

## Chapter summary

Inpatient rehabilitation facilities (IRFs) provide intensive rehabilitation services to patients after an illness, injury, or surgery. Rehabilitation programs at IRFs are supervised by rehabilitation physicians and include services such as physical and occupational therapy, rehabilitation nursing, speech–language pathology, and prosthetic and orthotic services. In 2015, Medicare spent $7.4 billion on fee-for-service (FFS) IRF care provided in about 1,180 IRFs nationwide. About 344,000 beneficiaries had more than 381,000 IRF stays. On average, Medicare accounts for about 60 percent of IRFs' discharges.

### Assessment of payment adequacy

Our indicators of Medicare payment adequacy for IRFs are generally positive.

***Beneficiaries' access to care***—Our analysis of IRF supply and volume of services provided suggests that capacity remains adequate to meet demand.

- ***Capacity and supply of providers***—After declining for several years, the total number of IRFs increased between 2013 and 2014 and remained relatively stable in 2015 at 1,182 facilities nationwide. Over time, the number of hospital-based and nonprofit IRFs has declined, while the number of freestanding and for-profit IRFs has increased. In 2015, the average IRF occupancy rate was 65 percent, indicating that capacity is adequate to meet demand for IRF services.

## In this chapter

- Are Medicare payments adequate in 2017?
- How should Medicare payments change in 2018?

- ***Volume of services***—Between 2014 and 2015, the number of FFS cases rose 1.5 percent to 381,000 cases.

***Quality of care—***The Commission tracks three broad categories of IRF quality indicators: risk-adjusted facility-level change in motor and cognitive function during the IRF stay, rates of discharge to the community and skilled nursing facilities, and rates of readmission to the acute care hospital. Between 2011 and 2015, there were small improvements in rates of readmission and discharge to the community as well as in two measures of functional change.

***Providers' access to capital—***The parent institutions of hospital-based IRFs continue to have good access to capital. The major freestanding IRF chain, which accounted for 46 percent of all freestanding IRFs in 2015 and about a quarter of all Medicare IRF discharges, also has very good access to capital. We were not able to determine the ability of other freestanding facilities to raise capital. Large post-acute care companies continue to pursue vertical integration strategies intended to position them for a changing reimbursement environment.

***Medicare payments and providers' costs—***Between 2014 and 2015, the aggregate IRF Medicare margin rose from 12.4 percent to 13.9 percent, despite sequester reductions. The aggregate margin has risen steadily since 2009. Medicare margins in freestanding IRFs were especially high. Higher margins in freestanding IRFs were driven largely by unit costs that were considerably lower than those of hospital-based IRFs. Higher costs in hospital-based IRFs appear due, in part, to a lack of efficiency. Hospital-based IRFs are typically small and have lower occupancy rates, so they do not enjoy the same economies of scale as their larger, freestanding counterparts. In addition, hospital-based IRFs are far less likely than freestanding IRFs to be for profit and therefore may be less focused on controlling costs to maximize returns to investors. At the same time, the Commission has found evidence suggesting that providers differ in their assessment and coding of patients' motor and cognitive function. As a result, though aggregate payments may be more than sufficient, payments for some IRFs may be too low relative to the costs incurred in treating their patients, while payments for other IRFs may be too high. Further, there are notable differences in freestanding and hospital-based IRFs' mix of cases, which suggests that some case types are more profitable than others, resulting in higher margins for facilities that admit larger shares of these cases. Despite the lower margins of hospital-based IRFs, Medicare payments to hospital-based IRFs in 2015 exceeded marginal costs by 20.5 percent, indicating that hospital-based IRFs with available beds have a strong incentive to admit Medicare patients. Medicare payments to freestanding IRFs exceeded marginal costs by 41.5 percent. We project that IRFs' aggregate Medicare margin will be 14.3 percent in 2017.

The Commission recommended that the update to IRF payments be eliminated for fiscal year 2009 and has continued to recommend a 0 percent update for every year since. However, in the absence of legislative action, CMS is required by statute to apply an adjusted market basket increase. Thus, payments have continued to rise. At the same time, growth in costs per case has been low. From 2009 to 2015, the cumulative increase in payments per case was 14.2 percent, while costs per case rose 8.3 percent. The gap between payment and cost growth has been particularly wide for freestanding IRFs. In 2015, margins for freestanding IRFs reached an all-time high of 26.7 percent. Although in recent years annual cost growth in hospital-based IRFs has been below 2 percent, higher overall costs in these facilities have led to lower margins. Still, Medicare payments to hospital-based IRFs continue to exceed marginal costs by a significant amount.

The high aggregate margin for IRFs in 2015 and our projected 2017 margin suggest that Medicare payments substantially exceed the costs of caring for beneficiaries. Absent congressional action, payments to IRFs will continue to increase in fiscal year 2018. The combination of low cost growth and increasing average payments has resulted in overpayments that contribute to Medicare's long-run sustainability challenges.

On the basis of these factors, the Commission recommends that the IRF payment rate for fiscal year 2018 be reduced by 5 percent. The reduction in the payment rate should be coupled with an expansion of the high-cost outlier pool, as previously recommended by the Commission, to redistribute payments within the IRF prospective payment system and reduce the impact of potential misalignments between IRF payments and costs. ■

## Background

After illness, injury, or surgery, some patients need intensive, inpatient rehabilitative care, including physical, occupational, and speech therapy. Such services can be provided in inpatient rehabilitation facilities (IRFs).[1] To qualify as an IRF, a facility must meet Medicare's conditions of participation for acute care hospitals and must be primarily focused on treating conditions that typically require intensive rehabilitation, among other requirements. IRFs can be freestanding facilities or specialized units within acute care hospitals. To qualify for a covered IRF stay, a beneficiary must be able to tolerate and benefit from intensive therapy and must have a condition that requires frequent and face-to-face supervision by a rehabilitation physician. Other patient admission criteria also apply. In 2015, Medicare spent $7.4 billion on IRF care provided in about 1,180 IRFs nationwide. About 344,000 beneficiaries had more than 381,000 IRF stays. On average, Medicare accounts for about 60 percent of IRFs' discharges.

Since January 2002, Medicare has paid IRFs under a per discharge prospective payment system (PPS).[2] Under the IRF PPS, Medicare patients are assigned to case-mix groups (CMGs) based on the patient's primary reason for inpatient rehabilitation, age, and level of motor and cognitive function. Within each of these CMGs, patients are further categorized into one of four tiers based on the presence of specific comorbidities that have been found to increase the cost of care. Each CMG tier has a designated weight that reflects the average relative costliness of cases in the group compared with that of the average Medicare IRF case.[3] The CMG weight is multiplied by a base payment rate and then adjusted to reflect geographic differences in the wages IRFs pay. The payment is further adjusted based on the IRF's share of low-income patients. Additional adjustments are made for IRFs that are teaching facilities and for IRFs located in rural areas.

The IRF PPS has outlier payments for patients who are extraordinarily costly. High-cost outlier payments are intended to offer providers some financial protection against exceptionally high-cost cases. Outlier payments can also help ensure continued access for patients who are predictably more likely than others to be exceptionally costly compared with the usual payment for the case type. Under the IRF payment system, Medicare provides extra payments, in addition to the usual PPS payment, for a case if its costs exceed a threshold. The outlier payment for a case is equal to 80 percent of costs above the threshold. The cost threshold is equal to the sum of the IRF's usual payment for the CMG plus a fixed loss amount. CMS sets the fixed loss amount each year at a level that it estimates will result in aggregate outlier payments exhausting the funds available in the outlier pool, which is currently set at 3 percent of total IRF payments. (For fiscal year 2017, the fixed loss amount is $7,984 per outlier case, adjusted for the applicable wage index and other facility-specific characteristics.) The outlier pool is funded by an offset to the national base payment amount, which reduces all CMG payment rates by the same percentage.

In 2015, about 8 percent of IRF cases received high-cost outlier payments, although this share varied by case type. For example, about 13 percent of cases with spinal cord injury and more than 10 percent of stroke cases were high-cost outliers. By contrast, less than 6 percent of cases with other neurological conditions were outliers. Outlier cases were also distributed unevenly among IRFs. About 13 percent of cases in hospital-based IRFs were high-cost outliers compared with less than 3 percent of cases in freestanding IRFs.

### Medicare facility requirements for IRFs

To qualify as an IRF for Medicare payment, facilities must meet the Medicare IRF classification criteria. The first criterion is that providers must meet the Medicare conditions of participation for acute care hospitals. They must also:

- have a preadmission screening process to determine that each prospective patient is likely to benefit significantly from an intensive inpatient rehabilitation program;
- ensure that the patient receives close medical supervision and provide—through qualified personnel—rehabilitation nursing, physical therapy, and occupational therapy and, as needed, speech–language pathology and psychological (including neuropsychological) services, social services, and orthotic and prosthetic services;
- have a medical director of rehabilitation with training or experience in rehabilitation who provides services in the facility on a full-time basis for freestanding IRFs or at least 20 hours per week for hospital-based IRF units;

## The IRF compliance threshold ("60 percent rule")

The inpatient rehabilitation facility (IRF) compliance threshold requires that no less than 60 percent of all patients (Medicare and other) admitted to an IRF have as a primary diagnosis or comorbidity at least 1 of 13 conditions specified by CMS.[4] The intent of the compliance threshold is to distinguish IRFs from acute care hospitals. If an IRF does not meet the compliance threshold, then Medicare pays for all its cases on the basis of the inpatient hospital prospective payment system rather than the IRF prospective payment system.

The compliance threshold was originally set at 75 percent of an IRF's cases, though before 2004 few IRFs likely reached that threshold due to inconsistent enforcement of the rule.[5] CMS began consistently enforcing compliance in 2004 and enacted revisions to some of the qualifying conditions.[6] The combination of renewed enforcement of the threshold and additional restrictions resulted—as intended—in a substantial decline in the volume of Medicare patients treated in IRFs. As volume declined, occupancy rates, the number of IRF beds, and the number of facilities also fell. Average case-mix severity and cost per case increased as IRFs shifted their mix of cases to more complex conditions that counted toward the threshold. The compliance threshold was permanently capped at 60 percent in 2007 by the Medicare, Medicaid, and SCHIP Extension Act of 2007. Since then, the industry has stabilized.

Compliance is determined annually at the beginning of each facility's cost reporting period. Determining compliance can be complex. A case is first evaluated for compliance based on the impairment group code (IGC), which describes the primary reason for inpatient rehabilitation.[7] (IGCs are also used to assign cases to case-mix groups for payment purposes.) If compliance cannot be determined based on the IGC, the case is evaluated for compliance based on the patient's International Classification of Diseases (ICD) diagnosis codes. Compliance is evaluated by Medicare's administrative contractors either through review of a random sample of medical records or, more commonly, through the less resource-intensive "presumptive" method, developed by CMS. The presumptive method uses a computer program to compare a facility's Inpatient Rehabilitation Facility–Patient Assessment Instrument (IRF–PAI) assessments for all Medicare patients (fee-for-service and Medicare Advantage) for

*(continued next page)*

- use a coordinated interdisciplinary team approach led by a rehabilitation physician that includes a rehabilitation nurse, a social worker or case manager, and a licensed therapist from each therapy discipline involved in the patient's treatment; and
- meet the compliance threshold, which requires that no less than 60 percent of all patients admitted to an IRF have as a primary diagnosis or comorbidity at least 1 of 13 conditions specified by CMS (see text box on the IRF compliance threshold).

### Medicare coverage criteria for beneficiaries

Medicare applies additional criteria that govern whether IRF services are covered for an individual Medicare beneficiary. In 2010, CMS clarified coverage criteria regarding which patients are appropriate to be treated in an IRF, when therapy must begin, and how and when beneficiaries are evaluated. For an IRF claim to be considered reasonable and necessary, the patient must be reasonably expected to meet the following requirements at admission:

- The patient requires active and ongoing therapy in at least two modalities, one of which must be physical or occupational therapy.
- The patient can actively participate in and benefit from intensive therapy that most typically consists of three hours of therapy a day at least five days a week.

## The IRF compliance threshold ("60 percent rule") (cont.)

the year with a list of eligible codes. The diagnosis codes included on the list are ones that CMS believes demonstrate either that the patient meets criteria for the medical conditions that may be counted toward an IRF's compliance percentage or that the patient has a comorbidity that could cause significant decline in function such that the patient would require intensive rehabilitation (Centers for Medicare & Medicaid Services 2014).

The presumptive method was designed to approximate medical record review, but in practice the method has tended to overestimate an IRF's compliance percentage. To improve the accuracy of the presumptive method, in fiscal year 2016, CMS removed a large number of ICD diagnosis codes from the list used to qualify for presumptive compliance. These codes were removed because, without supporting documentation, they do not provide sufficient information to indicate that the patient would reasonably require intensive inpatient rehabilitation (Centers for Medicare & Medicaid Services 2014). Examples include nonspecific or miscellaneous diagnosis codes and codes for arthritis conditions that would meet the compliance criteria only if severity and prior treatment criteria are met, which can be determined only through medical record review.

To assess the impact of the new presumptive criteria, the Commission applied the new criteria to 2013 IRF–PAI records. Under the old criteria, 75 percent of all Medicare cases in 2013 were presumed to be compliant, and more than 98 percent of IRFs met or exceeded the compliance threshold. Under the new presumptive criteria, we estimate that only 66 percent of Medicare cases would have been compliant in 2013, and 23 percent of IRFs would have fallen short of the compliance threshold, assuming no behavioral change. We found that, among the most common conditions in IRFs, cases admitted for rehabilitation following hip or knee replacement would be most affected under the new rules, with the share of cases meeting compliance falling from 83 percent to 33 percent. The Commission expects IRFs will shift their mix of cases to ensure continued compliance with the threshold.

The Commission has supported CMS's effort to tighten the requirements for compliance to ensure that IRF payments are made only to providers that furnish IRF-level services to beneficiaries who need and can tolerate that level of care. We continue to encourage the agency to explore further refinements to the 60 percent rule. ■

- The patient is sufficiently stable at the time of admission to actively participate in the intensive rehabilitation program.
- The patient requires supervision by a rehabilitation physician. This requirement is satisfied by physician face-to-face visits with a patient at least three days a week.

### Patterns of use in IRFs

Beginning in 2004, after CMS's renewed enforcement of the compliance threshold and restrictions on some of the qualifying conditions, the total number of fee-for-service (FFS) IRF cases fell and the mix of cases treated by IRFs shifted markedly. IRFs began to admit a higher share of patients with diagnoses that met the revised compliance threshold, such as stroke, brain injury, and other neurological conditions. The growth in other neurological conditions—including multiple sclerosis, Parkinson's disease, neuromuscular disorders, and polyneuropathy—was particularly striking. Between 2004 and 2014, the number of other neurological conditions grew 98 percent, even as the total number of Medicare IRF cases declined 21 percent. The number of cases with brain injuries (traumatic and nontraumatic combined) rose 74 percent over the same period. (Notably, the number of cases with other orthopedic conditions and debility also rose, though neither category is among the 13 conditions that count toward the compliance threshold.)[8] Between 2004 and 2015, as a share of IRF cases, other neurological conditions rose from 5.2 percent to 13.0 percent, and brain

**TABLE 10–1**

**The share of IRF cases with other neurological conditions grew rapidly from 2009 to 2014 but remained stable in 2015**

| Condition | Percent of Medicare FFS IRF cases | | | | Meets compliance threshold | Percentage point change | | |
|---|---|---|---|---|---|---|---|---|
| | 2004 | 2009 | 2014 | 2015 | | 2004–2009 | 2009–2014 | 2014–2015 |
| Stroke | 16.6% | 20.5% | 19.5% | 19.8% | yes | 3.9 | –0.9 | 0.2 |
| Other neurological conditions | 5.2 | 9.0 | 13.0 | 13.0 | yes | 3.8 | 4.0 | 0.0 |
| Fracture of the lower extremity | 13.1 | 15.1 | 12.2 | 11.5 | yes | 2.0 | –2.9 | –0.7 |
| Debility | 6.2 | 9.3 | 10.3 | 10.7 | no | 3.1 | 1.0 | 0.4 |
| Brain injury | 3.9 | 7.3 | 8.7 | 9.3 | yes | 3.4 | 1.4 | 0.6 |
| Other orthopedic conditions | 5.2 | 6.4 | 7.7 | 7.9 | no | 1.3 | 1.3 | 0.1 |
| Major joint replacement of lower extremity | 24.1 | 11.7 | 7.7 | 6.8 | * | –12.4 | –4.0 | –0.9 |
| Cardiac conditions | 5.3 | 4.9 | 5.6 | 6.0 | no | –0.3 | 0.6 | 0.4 |
| Spinal cord injury | 4.2 | 4.4 | 4.7 | 4.7 | yes | 0.2 | 0.2 | 0.1 |
| All other | 16.3 | 11.3 | 10.6 | 10.5 | ** | –5.0 | –0.7 | –0.1 |

Note: IRF (inpatient rehabilitation facility), FFS (fee-for-service). "Other neurological conditions" includes multiple sclerosis, Parkinson's disease, polyneuropathy, and neuromuscular disorders. "Fracture of the lower extremity" includes hip, pelvis, and femur fractures. Patients with debility have generalized deconditioning not attributable to other conditions. "Other orthopedic conditions" excludes fractures of the hip, pelvis, and femur, and hip and knee replacements. "All other" includes conditions such as amputations, arthritis, and pain syndrome. The compliance threshold requires that at least 60 percent of an IRF's patients have 1 of 13 specified diagnoses or have a comorbidity that could cause significant decline in functional ability such that the patient requires intensive rehabilitation. All Medicare FFS IRF cases with valid patient assessment information were included in this analysis. Yearly figures presented in the table are rounded, but figures in the percentage point change columns were calculated using unrounded data.
*Cases admitted for rehabilitation after major joint replacement of the lower extremity count toward the compliance threshold if joint replacement was bilateral, if the patient had a body mass index of 50 or greater, or if the patient was age 85 or older.
**Case types in the "all other" category that meet the compliance threshold include congenital deformity, amputation, major multiple trauma, burns, and certain arthritis cases.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS.

injuries rose from 3.9 percent to 9.3 percent (Table 10-1). The most common case type in IRFs in 2015 was stroke, accounting for 19.8 percent of Medicare cases.

The distribution of case types differs by type of IRF (Table 10-2). For example, in 2015, only 16 percent of cases in freestanding for-profit IRFs were admitted for rehabilitation following a stroke, compared with 24 percent of cases in hospital-based nonprofit IRFs. Likewise, 20 percent of cases in freestanding for-profit IRFs were admitted with other neurological conditions, roughly double the share admitted to hospital-based IRFs.

### High-margin IRFs have a different mix of cases

A previous Commission analysis of differences in the mix of cases across IRFs suggested the possibility that patient selection contributes to provider profitability (Medicare Payment Advisory Commission 2016). We found that IRFs with the highest margins in 2013 had a higher share of other neurological cases and a lower share of stroke cases (Figure 10-1).[9] Further, we observed differences in the types of stroke and other neurological conditions admitted to high-margin and low-margin IRFs. Stroke cases in the highest margin IRFs were two-and-a-half times more likely than those in the lowest margin IRFs to have no paralysis (Figure 10-2, p. 266). Likewise, other neurological cases in the highest margin IRFs were almost three times more likely than those in the lowest margin IRFs to have a neuromuscular disorder (such as amyotrophic lateral sclerosis or muscular dystrophy) as opposed to conditions like multiple sclerosis or Parkinson's disease (Figure 10-3, p. 267).

As noted in our March 2016 report to the Congress, these findings suggest the possibility that, under the IRF PPS, some case types are more profitable than others. Research is needed to assess variation in costs within the IRF CMGs and differences in relative profitability across CMGs. Identifying and reducing variation within CMGs and properly calibrating payments with costs for each group is necessary to avoid overpayments and reduce financial

**TABLE 10–2**

**IRF patient mix differed by provider type, selected conditions, 2015**

| | Freestanding | | Hospital based | |
|---|---|---|---|---|
| **Condition** | **For profit** | **Nonprofit** | **For profit** | **Nonprofit** |
| Stroke | 16% | 22% | 21% | 24% |
| Other neurological conditions | 20 | 6 | 11 | 9 |
| Fracture of the lower extremity | 11 | 9 | 16 | 11 |

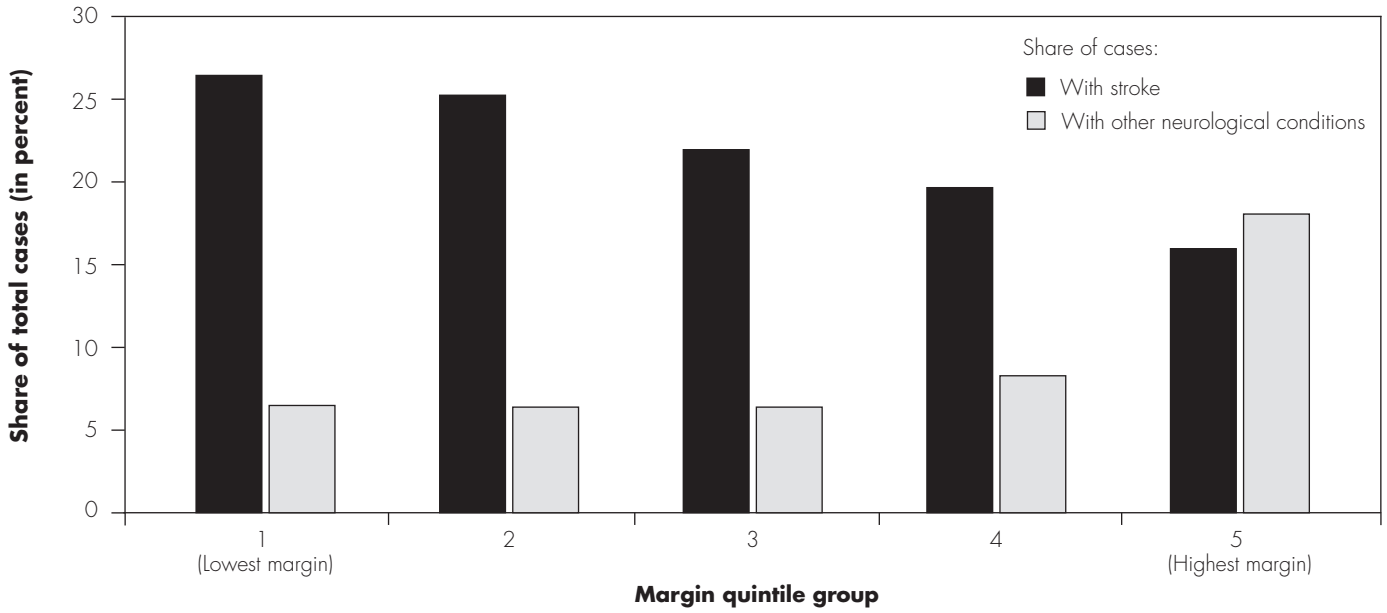
Note: IRF (inpatient rehabilitation facility). "Other neurological conditions" includes multiple sclerosis, Parkinson's disease, polyneuropathy, and neuromuscular disorders. "Fracture of the lower extremity" includes hip, pelvis, and femur fractures. All Medicare fee-for-service IRF cases with valid patient assessment information were included in this analysis.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS.

incentives for providers to admit certain types of cases and avoid others. In the short term, the Commission has recommended that the Secretary effect changes to reduce potential misalignments between IRF payments and costs by redistributing payments within the IRF PPS through the high-cost outlier pool (see text box on March 2016 recommendations, p. 269). Expanding the outlier pool would increase outlier payments for the most costly cases, easing the financial burden for IRFs that have a relatively high share of these cases.

**FIGURE 10–1**

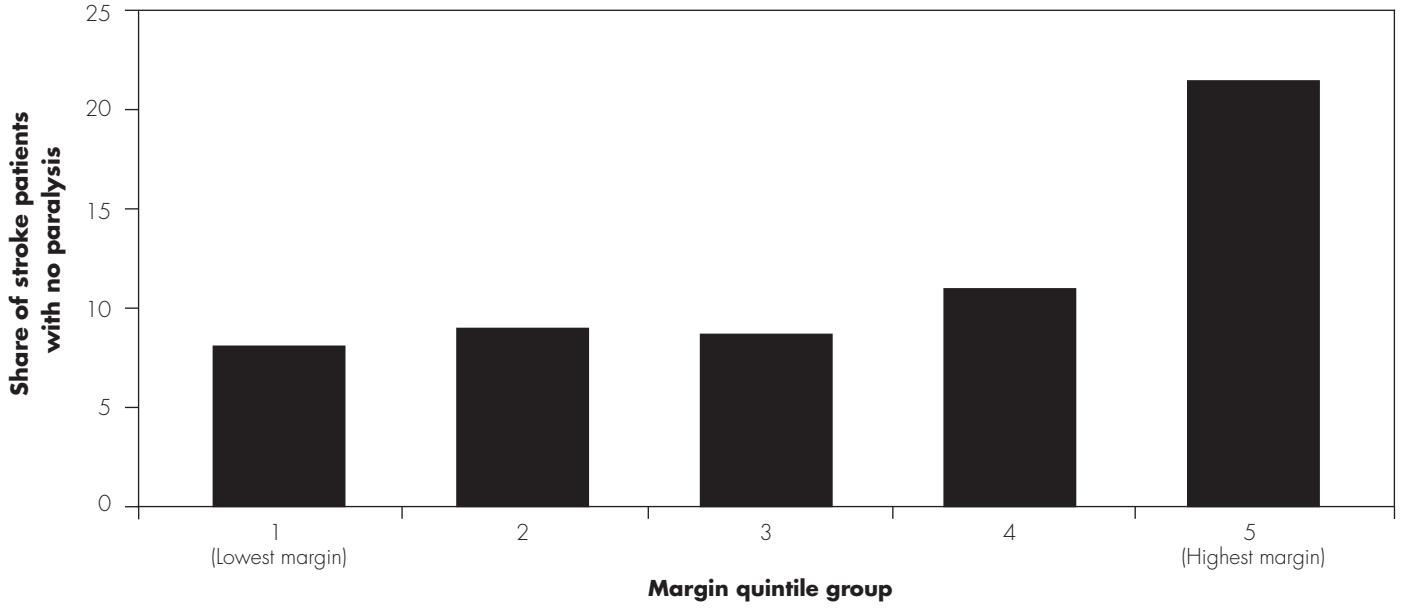
**IRFs with the highest margins had more cases with other neurological conditions, fewer cases with stroke, 2013**




Note: IRF (inpatient rehabilitation facility). IRFs were ranked by their 2013 Medicare margins and then sorted into five equal-sized groups (quintiles). "Other neurological conditions" includes multiple sclerosis, Parkinson's disease, polyneuropathy, and neuromuscular disorders. Cases that did not have an acute care hospital discharge within 30 days of admission to the IRF were excluded from this analysis.

Source: MedPAC analysis of Medicare Provider Analysis and Review data, Inpatient Rehabilitation Facility–Patient Assessment Instrument data, and cost report data from CMS.

**FIGURE 10–2** **Stroke cases in the highest margin IRFs were more likely to have no paralysis, 2013**




Note: IRF (inpatient rehabilitation facility). IRFs were ranked by their 2013 Medicare margins and then sorted into five equal-sized groups (quintiles). Cases that did not have an acute care hospital discharge within 30 days of admission to the IRF were excluded from this analysis.

Source: MedPAC analysis of Medicare Provider Analysis and Review data, Inpatient Rehabilitation Facility–Patient Assessment Instrument data, and cost report data from CMS.

## Patient assessment may not be uniform across IRFs

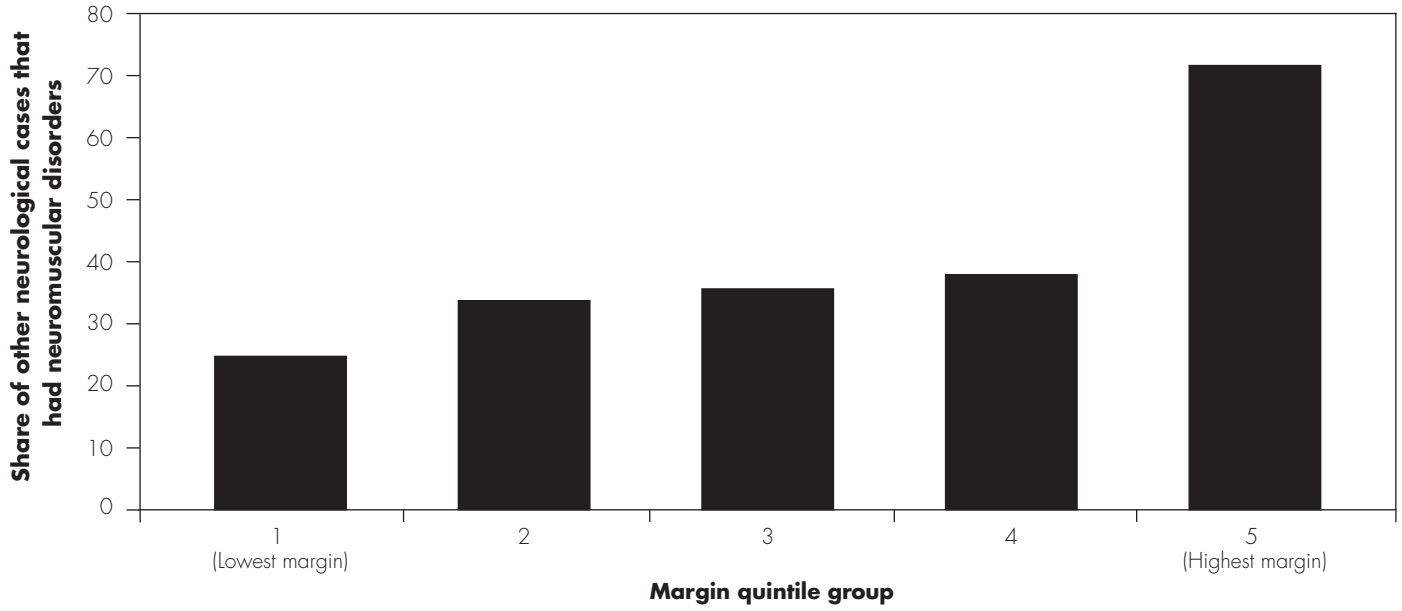
A previous Commission analysis of acute care hospital claims data and data from the Inpatient Rehabilitation Facility–Patient Assessment Instrument (IRF–PAI) suggested the possibility that IRFs differ in their assessment of patients' motor and cognitive function (Medicare Payment Advisory Commission 2016, Medicare Payment Advisory Commission 2015). In that analysis, we examined IRF patient assessment data from 2013 and administrative data from those IRF patients' immediately preceding acute care hospital stays.[10] To control for differences in the mix of case types across IRFs, we examined patient characteristics in the IRF and in the preceding acute care hospital stay by patients' type of condition, as coded by the IRF at IRF admission.[11] Our approach allowed us to compare patient characteristics as coded in the acute care hospital with those coded in the IRF. Ideally, we would evaluate IRF patient characteristics by comparing IRF patient assessment data with complete patient assessment information recorded for the beneficiary during the preceding acute care hospital stay. However, because acute care hospitals do not submit patient assessment data to CMS, no such data exist. Nevertheless, though acute care hospital claims data do not provide information about a patient's motor function and provide only limited information about a patient's cognition, they can tell us about patients' diagnoses, severity of illness, and relative resource requirements during the hospital stay preceding admission to the IRF.[12]

Overall, when we compared patients in high-margin and low-margin IRFs, we found that patients in high-margin IRFs were less severely ill and resource intensive during the acute care hospitalization that preceded the IRF stay:

- Patients in high-margin IRFs had, on average, a lower case-mix index in the acute care hospital as well as a lower level of severity of illness and a shorter length of stay.
- Patients in high-margin IRFs were less likely to have been high-cost outliers in the acute care hospital or to have spent four or more days in the hospital intensive care or coronary care unit.

**FIGURE 10–3**

**Other neurological cases in the highest margin IRFs were more likely to have neuromuscular disorders, 2013**




Note: IRF (inpatient rehabilitation facility). IRFs were ranked by their 2013 Medicare margins and then sorted into five equal-sized groups (quintiles). "Other neurological conditions" includes multiple sclerosis, Parkinson's disease, polyneuropathy, and neuromuscular disorders. "Neuromuscular disorders" includes amyotrophic lateral sclerosis and muscular dystrophy. Cases that did not have an acute care hospital discharge within 30 days of admission to the IRF were excluded from this analysis.

Source: MedPAC analysis of Medicare Provider Analysis and Review data, Inpatient Rehabilitation Facility–Patient Assessment Instrument data, and cost report data from CMS.

But once patients were admitted to and assessed by the IRF, the average patient profile changed, with patients treated in high-margin IRFs appearing to be more disabled than those in low-margin IRFs (as measured by motor impairment scores). This pattern persisted across case types.

We found that the difference in average motor impairment scores between high-margin and low-margin IRFs was particularly wide for stroke cases with no paralysis: Cases in the highest margin IRFs had a motor impairment score that was 18 percent lower, on average, than cases in the lowest margin IRFs. (In IRFs, motor impairment is measured using a 13-item Functional Independence Measure™ (FIM™) scale to assess the level of disability in motor functioning and the burden of care for a patient's caregivers. Lower scores indicate greater disability and generally result in higher payment.) Indeed, in 2013, nonparalyzed stroke patients in the highest margin IRFs had an average motor FIM score (29.0) that was almost the same as the average motor score of paralyzed stroke patients in the lowest margin IRFs (29.2) (Table 10-3, p. 268). This finding was surprising because stroke patients with paralysis typically have worse motor function than stroke patients without paralysis. All else being equal, Medicare's payment for these two types of stroke patients with a motor FIM score of 29.0 would be the same—even though stroke patients with no paralysis had an IRF length of stay that was, on average, more than two days shorter than that of stroke patients with paralysis.

As noted in our March 2016 report to the Congress, the consistent finding that high-margin IRFs have patients who are, on average, less severely ill in the acute care hospital but appear more functionally disabled upon assessment in the IRF suggests that assessment and coding practices contribute to greater profitability in some IRFs, especially given the comparatively low level of costs and cost growth observed in high-margin facilities. Providers may differ in their assessment and coding of patients' motor and cognitive function, which may result in payments that are not properly aligned with the resource

**TABLE 10–3**

**Nonparalyzed stroke patients in the highest margin IRFs had the same average motor impairment score as stroke patients with paralysis in the lowest margin IRFs, 2013**

| Type of stroke case | Average motor impairment score: Lowest margin IRFs | Average motor impairment score: Highest margin IRFs |
|---|---|---|
| With paralysis | 29.2 | 24.6 |
| Without paralysis | 35.3 | 29.0 |

Note: IRF (inpatient rehabilitation facility). Average motor impairment scores were calculated using the motor Functional Independence Measure™ (FIM™) coded by the IRF. The motor FIM measures the level of disability in motor functioning at IRF admission on a 91-point scale. Higher FIM scores indicate higher levels of function. IRFs were ranked by their 2013 Medicare margins and then sorted into five equal-sized groups (quintiles). Lowest margin IRFs (quintile 1) had a mean margin of –36.6 percent, while highest margin IRFs (quintile 5) had a mean margin of 31.1 percent. Stroke cases with paralysis include patients with left body involvement, right body involvement, and bilateral involvement. Cases that did not have an acute care hospital discharge within 30 days of admission to the IRF were excluded from this analysis.

Source: MedPAC analysis of Medicare Provider Analysis and Review data, Inpatient Rehabilitation Facility–Patient Assessment Instrument data, and cost report data from CMS.

needs of patients. Some IRFs may receive payments that are too high relative to the costs incurred in treating their patients, while other IRFs may receive payments that are too low.

These findings led the Commission to recommend that CMS ensure payment accuracy and help improve program integrity by reviewing medical records merged with IRF patient assessment data, reassessing inter-rater reliability across IRFs, and conducting other research as necessary (see text box on March 2016 recommendations).

## Are Medicare payments adequate in 2017?

To assess whether payments for fiscal year 2017 are adequate to cover the costs providers incur and how much providers' costs are expected to change in the coming year (2018), we examine several indicators of payment adequacy. Specifically, we assess beneficiaries' access to care by examining the capacity and supply of IRFs and changes over time in the volume of services provided, quality of care, providers' access to capital, and the relationship between Medicare payments and providers' costs.

### Beneficiaries' access to care: IRF supply and service volume suggest sufficient access

We have no direct indicator of beneficiaries' access to IRF care. Although there are criteria for admission to an IRF, it is not clear when IRF care is necessary or beneficial for a given patient or when another, lower cost post-acute care provider (such as a skilled nursing facility) could provide appropriate care. The absence of IRFs in some areas of the country makes it particularly difficult to assess the need for IRF care since beneficiaries in areas without IRFs presumably receive similar services in other settings. Nevertheless, our analysis of IRF supply and volume of services provided suggests that capacity remains adequate to meet demand.

#### Number of IRFs and occupancy rates suggest adequate capacity and supply

After declining for several years, the total number of IRFs increased between 2013 and 2014 and remained relatively stable in 2015 at 1,182 facilities nationwide (Table 10-4, p. 270). Each state and the District of Columbia had at least one IRF. In general, IRFs are concentrated in highly populated states that have large Medicare populations. IRFs are not the sole provider of rehabilitation services in communities; skilled nursing facilities (SNFs), home health agencies, comprehensive outpatient rehabilitation facilities, and independent therapy providers also furnish rehabilitation services (though not all provide inpatient care). Given the number and distribution of these other rehabilitation therapy providers, it is unlikely that many areas exist where IRFs are the only provider of rehabilitation therapy services available to Medicare beneficiaries.

In 2015, about 78 percent of IRFs were distinct units in acute care hospitals; the remaining 22 percent were freestanding facilities. However, because hospital-based units have, on average, fewer beds and a lower share of Medicare discharges, they accounted for only 52 percent of Medicare discharges. Overall, 30 percent of IRFs were for-profit entities. Freestanding IRFs were far more likely to be for profit than were hospital-based IRFs (70 percent vs. 19 percent, respectively; data not shown). About 50

## The Commission reiterates its March 2016 recommendations on the IRF prospective payment system

### Recommendation 9-2

**The Secretary should conduct focused medical record review of inpatient rehabilitation facilities that have unusual patterns of case mix and coding.**

### Rationale 9-2

The Commission's finding that high-margin inpatient rehabilitation facilities (IRFs) have patients who are, on average, less severely ill in the acute care hospital but appear more functionally disabled in the IRF suggests the possibility that coding practices contribute to greater profitability in some IRFs. Providers may differ in their assessment of patients' motor and cognitive function, resulting in payments for some IRFs that are too high relative to the costs incurred in treating their patients. To improve the accuracy of payments and protect program integrity, CMS should review medical records merged with IRF patient assessment data, reassess inter-rater reliability across IRFs, and conduct other research as necessary. Because medical record review is resource intensive, CMS should begin by focusing on providers that have an atypical mix of cases, such as a high concentration of neuromuscular disorders and stroke cases without paralysis, and on providers that have anomalous patterns of coding, such as wide discrepancies in their patients' levels of severity as coded in the acute care hospital compared with that coded in the IRF. However, system-wide assessment of payment accuracy is also needed.

### Implications 9-2

#### Spending

- Implementing this recommendation could result in changes to the payment system that would be budget neutral but could also reduce Medicare's spending on IRF services if CMS were to make payment adjustments to account for assessment and coding differences across providers or for coding changes that do not reflect real case-mix change. CMS would incur some administrative expenses to conduct these activities.

#### Beneficiary and provider

- We do not expect this recommendation to have adverse effects on Medicare beneficiaries with respect to access to care or out-of-pocket spending or on providers' willingness and ability to care for Medicare beneficiaries.

### Recommendation 9-3

**The Secretary should expand the inpatient rehabilitation facility outlier pool to redistribute payments more equitably across cases and providers.**

### Rationale 9-3

The Commission's finding that high-margin IRFs may be selecting certain types of cases suggests that some case-mix groups (CMGs) may be more profitable than others. At the same time, our finding that IRFs may differ in their assessments of patients' motor and cognitive function suggests that the IRF CMGs may not be adequately capturing differences in patient acuity and costs across cases and providers. The potential for financial loss may therefore be greater for some providers than for others. Expanding the outlier pool would increase outlier payments for the most costly cases, easing the financial burden for IRFs that have a relatively high share of these cases.

### Implications 9-3

#### Spending

- This recommendation would be implemented in a budget-neutral manner and should not have an overall impact on spending.

#### Beneficiary and provider

- We do not expect this recommendation to have adverse effects on Medicare beneficiaries with respect to access to care or out-of-pocket spending. This recommendation may relieve the financial pressure on some providers and may improve equity among providers by diminishing the effects of inaccurate coding. ■

**TABLE 10–4**

**The number of for-profit and freestanding IRFs continues to grow**

| Type of IRF | Share of Medicare FFS discharges | 2004 | 2006 | 2008 | 2010 | 2013 | 2014 | 2015 | Average annual change 2004–2006 | 2006–2013 | 2013–2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| All IRFs | 100% | 1,221 | 1,225 | 1,202 | 1,179 | 1,161 | 1,177 | 1,182 | 0.2% | –0.8% | 0.9% |
| Urban | 92 | 1,024 | 1,018 | 1,001 | 981 | 977 | 1,013 | 1,020 | –0.3 | –0.6 | 2.2 |
| Rural | 8 | 197 | 207 | 201 | 198 | 184 | 164 | 162 | 2.5 | –1.7 | –6.2 |
| Freestanding | 48 | 217 | 217 | 221 | 233 | 243 | 251 | 262 | 0.0 | 1.6 | 3.8 |
| Hospital based | 52 | 1,004 | 1,008 | 981 | 946 | 918 | 926 | 920 | 0.2 | –1.3 | 0.1 |
| Nonprofit | 42 | 768 | 758 | 738 | 729 | 677 | 681 | 681 | –0.7 | –1.6 | 0.3 |
| For profit | 50 | 292 | 299 | 291 | 294 | 322 | 338 | 352 | 1.2 | 1.1 | 4.6 |
| Government | 7 | 161 | 168 | 173 | 156 | 155 | 149 | 138 | 2.2 | –1.1 | –5.6 |

Note: IRF (inpatient rehabilitation facility), FFS (fee-for-service). The number of facilities are for the calendar year. The large decline in the number of rural IRFs between 2013 and 2014 is due primarily to changes in the core-based statistical areas, as defined by the Office of Management and Budget, which determine whether geographic areas are considered urban or rural. Because of these changes, 19 IRFs that were previously considered rural are now designated urban.

Source: MedPAC analysis of Provider of Services data and Medicare Provider Analysis and Review data from CMS.

percent of Medicare IRF discharges in 2015 were from for-profit facilities. Over time, the number of hospital-based and nonprofit IRFs has declined, while the number of freestanding and for-profit IRFs has increased. Between 2004 and 2015, the number of hospital-based IRFs fell by 8 percent, while the number of freestanding IRFs rose by 21 percent.

Between 2013 and 2015, the number of rural IRFs fell, on average, by about 6 percent per year. Most of that decline, however, was due to changes in 2014 to the core-based statistical areas (CBSAs), as defined by the Office of Management and Budget, which determine whether geographic areas are considered urban or rural (Centers for Medicare & Medicaid Services 2015). Because of these changes, 19 IRFs that were previously considered rural were designated urban in 2014.

In 2015, 26 IRFs closed; most were hospital-based units. At the same time, 31 new IRFs opened, more than half of them hospital-based units. Acute care hospitals may find that IRF units help reduce inpatient lengths of stay. Previous Commission analyses have found that hospitals with IRF units have higher inpatient margins than hospitals without such units (Medicare Payment Advisory Commission 2015).

In 2015, the average IRF occupancy rate was 65 percent, up from 64 percent in 2014. Occupancy rates were higher in freestanding IRFs (69 percent) than in hospital-based IRFs (62 percent). These rates suggest that capacity is more than adequate to meet demand for IRF services.

### IRF volume increased in 2015

The number of Medicare FFS IRF cases grew rapidly throughout the 1990s and the early years of the IRF PPS, reaching a peak of about 495,000 in 2004. After CMS renewed its enforcement of the compliance threshold in 2004, IRF volume declined substantially, falling almost 8 percent per year from 2004 to 2008 (Table 10-5). At that point, volume began to increase slowly, rising less than 1 percent per year from 2008 to 2014. Between 2014 and 2015, the number of FFS cases grew somewhat more quickly, rising 1.5 percent to about 381,000 cases.

In 2015, the number of IRF cases per 10,000 FFS beneficiaries was 101, up 1.7 percent from the previous year. Relatively few Medicare beneficiaries use IRF services because, to qualify for Medicare coverage, IRF patients must be able to tolerate and benefit from rehabilitation therapy that is intensive, which is typically

**TABLE 10–5** **The number of IRF cases and the average payment per case increased in 2015**

| | 2004 | 2006 | 2008 | 2010 | 2013 | 2014 | 2015 | Average annual change 2004–2008 | Average annual change 2008–2014 | Average annual change 2014–2015 |
|---|---|---|---|---|---|---|---|---|---|---|
| Number of cases | 495,349 | 404,633 | 356,312 | 359,307 | 373,118 | 375,590 | 381,339 | –7.9 % | 0.9% | 1.5% |
| Cases per 10,000 FFS beneficiaries | 135.6 | 111.9 | 100.4 | 99.7 | 99.1 | 99.3 | 101.0 | –7.2 | –0.2 | 1.7 |
| Payment per case | $13,290 | $15,380 | $16,646 | $17,085 | $18,258 | $18,632 | $19,116 | 5.8 | 1.9 | 2.6 |
| ALOS (in days) | 12.7 | 13.0 | 13.3 | 13.1 | 12.9 | 12.8 | 12.7 | 1.3 | –0.6 | –0.7 |
| Users | 449,362 | 369,269 | 323,897 | 325,506 | 337,704 | 338,887 | 343,562 | –7.9 | 0.8 | 1.4 |

Note: IRF (inpatient rehabilitation facility), FFS (fee-for-service), ALOS (average length of stay).

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS.

interpreted to mean at least three hours of therapy a day for at least five days a week. Still, compared with all Medicare beneficiaries, those admitted to IRFs in 2015 were disproportionately over age 85. The use rate of IRFs among Medicare's FFS population continues to be more than twice that of the Medicare Advantage (MA) population (see text box on use of IRFs by MA beneficiaries, pp. 272–273).

## Quality of care: Improvement since 2011 for most measures

The Commission tracks three broad categories of IRF quality indicators: risk-adjusted facility-level change in functional and cognitive status during the IRF stay, rates of discharge to the community and to SNFs, and rates of readmission to the acute care hospital. Between 2011 and 2015, there were small improvements in rates of readmission and discharge to the community, as well as in two measures of functional change.

### Risk-adjusted rates of potentially avoidable rehospitalization, discharge to community, and discharge to SNF

Avoidable rehospitalizations expose beneficiaries to hospital-acquired infections and increase the number of transitions between settings, which are disruptive to patients and can result in medical errors (such as medication errors). In addition, they unnecessarily increase Medicare spending. There has been relatively little research on rehospitalization of IRF patients in aggregate, though some studies have focused on one or more rehabilitation impairment categories (DeJong et al. 2009, Galloway et al. 2013, Ottenbacher et al. 2014, Schneider et al. 2013, Schneider et al. 2012). However, research regarding rehospitalization of SNF and nursing home patients has identified several contributing factors that may be within a post-acute care facility's control. These factors include staffing level, skill mix, and frequency of staff turnover; drug management; and adherence to transitional care protocols, such as discharge counseling, medication reconciliation, patient education regarding self-care, and communication among providers, staff, and the patient's family (Grabowski et al. 2008, Kane et al. 2003, Konetzka et al. 2008a, Konetzka et al. 2008b, Lau et al. 2005, Mustard and Mayer 1997).

The Commission's rates of rehospitalization during the IRF stay and during the 30 days after discharge are risk adjusted and reflect those readmissions that are potentially avoidable with adequate care in the IRF setting (Kramer et al. 2015).[13] The measure of readmission in the 30 days after discharge reflects how well facilities prepare

## Comparison of Medicare Advantage and Medicare fee-for-service patients' use of inpatient rehabilitation facility services

Patients who reside in areas with inpatient rehabilitation facilities (IRFs) typically have alternatives for rehabilitation care, including skilled nursing facilities and home health agencies. Alternative post-acute care settings are generally less costly but typically offer less intensive rehabilitation and medical services. For many patients, any number of settings could provide appropriate care for their conditions. Because Medicare Advantage (MA) plans have incentives to manage care for beneficiaries in a cost-efficient manner, we examined how the population characteristics and use rates of the higher cost IRF services in the MA population compared with use in the fee-for-service (FFS) population.

Medicare requires IRFs to submit patient assessment data for both FFS and MA patients. We examined 2015 data from the Inpatient Rehabilitation Facility–Patient Assessment Instrument (IRF–PAI) and found that the use rate of IRFs among the FFS population in 2015 was more than double that of MA patients (Table 10-6). On average, MA enrollees who used IRFs were slightly younger than FFS IRF users (age 73.6 years vs. 75.3 years, respectively) and had similar functional status at admission, as measured by average Functional Independence Measure™ motor and cognitive scores. On average, as measured by the IRF case-mix weight, MA IRF patients were more complex than their FFS counterparts, and their average length of stay was more than a day longer. MA enrollees who used IRFs were more likely than FFS beneficiaries to be admitted to hospital-based IRFs (60.7 percent vs. 50.2 percent, respectively).

The mix of case types among MA IRF cases was different from that among FFS IRF cases (Table 10-7). A much larger share of MA IRF patients were admitted for rehabilitation after a stroke—36 percent versus 20 percent for FFS IRF patients. MA IRF patients were less likely than FFS patients to be admitted for rehabilitation for other neurological conditions (9 percent vs. 13 percent, respectively), fractures of the lower extremity (8 percent vs. 12 percent, respectively), and debility (6 percent vs. 11 percent, respectively).

The disparity in use rates suggests that MA plans are more selective in the types of cases they authorize to receive care in IRFs, with more complex rehabilitation cases such as strokes and spinal cord injuries more likely to be referred to IRFs. However, a few caveats must be noted. First, this analysis did not control

*(continued next page)*

**TABLE 10–6** **FFS beneficiaries had higher IRF use rate, lower severity than MA enrollees, 2015**

| | FFS patients | MA patients |
|---|---|---|
| Cases per 1,000 beneficiaries | 10.3 | 3.7 |
| Admitted to hospital-based IRF | 50.2% | 60.7% |
| Average age | 75.3 | 73.6 |
| Case-mix weight | 1.33 | 1.41 |
| ALOS (in days) | 12.7 | 13.9 |
| Average FIM™ motor score at admission | 28.7 | 28.5 |
| Average FIM™ cognitive score at admission | 22.2 | 21.7 |

Note: FFS (fee-for-service), IRF (inpatient rehabilitation facility), MA (Medicare Advantage), ALOS (average length of stay), FIM™ (Functional Independence Measure™). The motor FIM measures the level of disability in motor functioning on a 91-point scale. The cognitive FIM measures the level of cognitive impairment at IRF admission on a 35-point scale. Higher FIM scores indicate higher levels of function.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS.

## Comparison of Medicare Advantage and Medicare fee-for-service patients' use of inpatient rehabilitation facility services (cont.)

for the availability of IRFs in areas with high MA market penetration. In addition, the IRF use rate could be affected by potential differences in the need for rehabilitation services in the MA population. Finally, we cannot rule out the possibility that reporting bias affects our results. Though CMS requires IRFs to submit patient assessment data for all their Medicare patients, only FFS payment is contingent on submission of the IRF–PAI. IRFs are therefore highly motivated to submit the IRF–PAI for FFS Medicare patients. By contrast, an MA plan's payment for IRF services delivered to an enrollee is not dependent on IRF–PAI submission. Providers therefore may be less likely to submit the IRF–PAI for MA enrollees. ■

**TABLE 10–7** **Mix of case types among FFS IRF cases differed from that of MA IRF cases, 2015**

| | Share of all cases | |
|---|---|---|
| **Type of case** | **FFS patients** | **MA patients** |
| Stroke | 20% | 36% |
| Other neurological conditions | 13 | 9 |
| Fracture of the lower extremity | 12 | 8 |
| Debility | 11 | 6 |
| Brain injury | 9 | 11 |
| Other orthopedic | 8 | 4 |
| Major joint replacement of the lower extremity | 7 | 6 |
| Cardiac conditions | 6 | 4 |
| Spinal cord injury | 5 | 7 |
| Amputation | 3 | 4 |
| All other | 8 | 5 |

Note: FFS (fee-for-service), IRF (inpatient rehabilitation facility), MA (Medicare Advantage). "Other neurological conditions" includes multiple sclerosis, Parkinson's disease, polyneuropathy, and neuromuscular disorders. "Fracture of the lower extremity" includes hip, pelvis, and femur fractures. Patients with debility have generalized deconditioning not attributable to other conditions. "Other orthopedic conditions" excludes fractures of the hip, pelvis, and femur, and hip and knee replacements. "All other" includes conditions such as arthritis and pain syndrome. Columns may not sum to 100 percent due to rounding.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS.

beneficiaries and their caregivers for safe and appropriate transitions to the home or the next health care setting.

Between 2011 and 2015, the national average for the rate of risk-adjusted potentially avoidable readmissions during the IRF stay declined from 2.9 percent to 2.4 percent (Table 10-8, p. 274). (Lower rates are better.) A similar pattern was observed in the rate of risk-adjusted potentially avoidable readmissions within 30 days after discharge from an IRF: Between 2011 and 2015, the national average declined from 5.0 percent to 4.2 percent.

We also examined rates of discharge to the community and to SNFs. We found that between 2011 and 2015, the national average for the risk-adjusted community discharge rate increased from 74.0 percent to 76.0 percent. (Higher rates are better.)[14] The national average for the risk-adjusted rate of discharge to SNFs was essentially unchanged.

### Risk-adjusted gains in motor function and cognition

To qualify for coverage of IRF care, beneficiaries must require, be able to participate in, and benefit from

**TABLE 10–8**

**Risk-adjusted rates of discharge to the community and potentially avoidable rehospitalizations have improved**

| Measure | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|
| Potentially avoidable rehospitalizations during IRF stay | 2.9% | 2.6% | 2.5% | 2.5% | 2.4% |
| Discharged to a SNF | 6.9 | 6.7 | 6.7 | 6.9 | 6.8 |
| Discharged to the community | 74.0 | 75.2 | 75.8 | 76.2 | 76.0 |
| Potentially avoidable rehospitalizations during 30 days after discharge from IRF | 5.0 | 4.6 | 4.6 | 4.5 | 4.2 |

Note: IRF (inpatient rehabilitation facility), SNF (skilled nursing facility). High rates of discharge to the community indicate better quality. High rates of rehospitalization and discharge to SNF indicate worse quality. Rates are the average of facility rates and calculated for all facilities with 25 or more stays.

Source: Analysis of Inpatient Rehabilitation Facility–Patient Assessment Instruments from CMS.

intensive rehabilitation therapy. To observe the extent to which IRFs help improve the motor function and cognition of the beneficiaries they treat, we use a risk-adjusted measure of gains in these areas. Our measures reflect the extent to which patients' motor skills and cognition improved during the IRF stay, given their level of function at admission and how much improvement they would be expected to make. Some patients, such as a relatively healthy 68-year-old recovering from an elective hip replacement, are likely to improve across several activities of daily living during their IRF stay. Other patients, such as an 85-year-old suffering from debility following a prolonged acute care hospital stay, may be expected to make only modest improvements during the IRF stay.

Functional status at admission and discharge is measured using the motor and cognitive scores on the IRF–PAI. The IRF–PAI incorporates the 18-item FIM scale to assess the level of disability in motor and cognitive functioning and the burden of care for a patient's caregivers (Deutsch et al. 2005). Scores for each of the 18 FIM items can be summed to calculate a motor score (based on 13 FIM items) and a cognitive score (based on 5 FIM items). The motor score at discharge can range from 13 to 91, while the cognitive score can range from 5 to 35, with higher scores indicating more functional independence. To measure observed improvement in motor function and cognition, we subtracted the respective FIM scores at admission from the FIM scores at discharge to calculate FIM motor and cognitive gains (Kramer et al. 2015). A larger number indicates more improvement in functional independence and cognition between admission and discharge. Each risk-adjusted rate was calculated by comparing a facility's observed rate with its expected rate and multiplying this ratio by the national rate.

**TABLE 10–9**

**Mean risk-adjusted functional outcomes have improved**

| | Risk-adjusted gain in function | | | | |
|---|---|---|---|---|---|
| Measure | 2011 | 2012 | 2013 | 2014 | 2015 |
| Motor FIM™ gain | 22.3 | 22.7 | 23.1 | 23.6 | 23.8 |
| Cognitive FIM™ gain | 3.6 | 3.7 | 3.8 | 3.9 | 3.9 |

Note: IRF (inpatient rehabilitation facility), FIM™ (Functional Independence Measure™). The motor FIM measures the level of disability in motor functioning on a 91-point scale. The cognitive FIM measures the level of cognitive impairment on a 35-point scale. FIM gain is calculated as the FIM score at discharge minus the FIM score at admission. Higher FIM gain indicates more improvement. Mean FIM gain averages the change of all facilities with 25 or more stays.

Source: Analysis of Inpatient Rehabilitation Facility–Patient Assessment Instruments from CMS.

**TABLE 10–10** **Performance on risk-adjusted quality measures varied across IRFs in 2015**

| Measure | Risk-adjusted rate | | |
|---|---|---|---|
| | Mean | 25th percentile | 75th percentile |
| Motor FIM™ gain | 23.8 | 21.1 | 26.2 |
| Cognitive FIM™ gain | 3.9 | 3.0 | 4.7 |
| Potentially avoidable rehospitalizations during IRF stay | 2.4% | 1.6% | 3.2% |
| Discharged to a SNF | 6.8 | 4.3 | 8.8 |
| Discharged to the community | 76.0 | 72.9 | 79.3 |
| Potentially avoidable rehospitalizations during 30 days after discharge from IRF | 4.2 | 3.0 | 5.3 |

Note: IRF (inpatient rehabilitation facility), FIM™ (Functional Independence Measure™), SNF (skilled nursing facility). The motor FIM measures the level of disability in motor functioning on a 91-point scale. The cognitive FIM measures the level of cognitive impairment on a 35-point scale. FIM gain is calculated as the FIM score at discharge minus the FIM score at admission. Higher FIM gains indicate more improvement. High rates of discharge to the community indicate better quality. High rates of rehospitalization and discharge to SNF indicate worse quality. Mean rates are calculated for all facilities with 25 or more Medicare stays per year. Percentiles are calculated separately for each measure.

Source: Analysis of Inpatient Rehabilitation Facility–Patient Assessment Instruments from CMS.

In 2015, the mean gain (positive change) in the motor FIM score during an IRF stay was 23.8, while the mean gain for the cognitive FIM score was 3.9 (Table 10-9). (Bigger gains are better.) The average risk-adjusted gain in IRF patients' motor and cognitive FIM scores increased from 2011 to 2015. However, changes in motor function and cognition must be interpreted with caution. Because payment is based in part on patients' functional status at admission—with higher payments associated with lower functional status—providers have a financial incentive to improve their documentation and coding to more fully account for each patient's rehabilitation needs. While improvements in documentation and coding can appropriately improve measurement of patients' motor and cognitive function, resulting changes in reported FIM scores may not reflect real change in patients' level of disability. If IRFs improve their documentation and coding more at admission than at discharge, FIM gains may increase over time but may not reflect real improvements in patients' motor and cognitive gains. As a result, reported gains in motor and cognitive function may be overstated.

### Variation in quality measures across IRFs

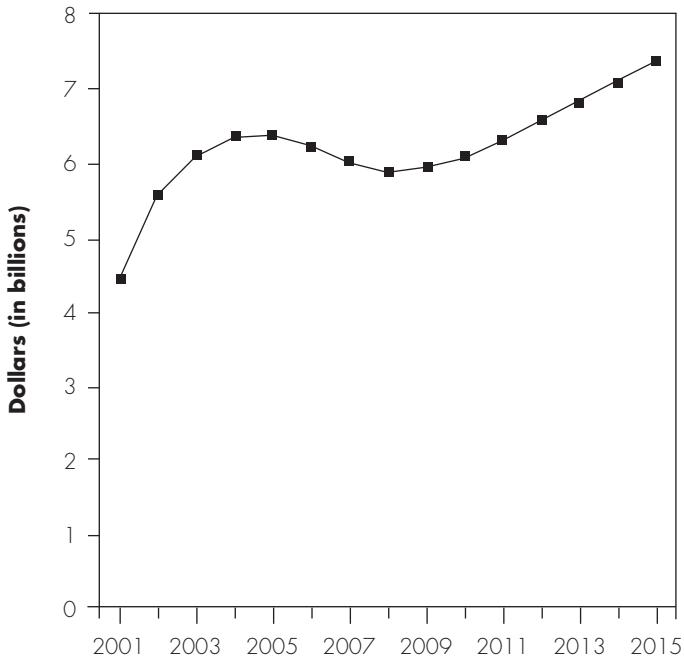
The measures we examined varied across providers (Table 10-10). We found that the worst performing quartile of IRFs had a risk-adjusted rate of discharge to a SNF higher than 8.8 percent in 2015, whereas the best performing quartile of providers had rates of 4.3 percent or less. (A lower rate of discharge to a SNF is better.) Risk-adjusted rates of discharge to the community varied less: The worst performing quartile of IRFs had a community discharge rate lower than 72.9 percent, while the best performing quartile of providers had rates of 79.3 percent or more. (A higher rate of discharge to the community is better.) Variation was also seen in rehospitalization rates: The worst performing quartile had risk-adjusted rates of potentially avoidable readmissions during the IRF stay that were at or above 3.2 percent, whereas the best quartile had rates at or below 1.6 percent. (A lower rate of readmissions is better.)

## Providers' access to capital: IRFs appear to have adequate access to capital

More than three-quarters of IRF providers are hospital-based units that would access any necessary capital through their parent institutions. Overall, as detailed in the hospital chapter (Chapter 3), hospitals' access to capital remained strong in 2015 and 2016 due to low interest rates and continued improvement in profitability. The three major bond-rating agencies reported both higher revenue growth at nonprofit hospitals and lower expense growth (Fitch Ratings 2016, Moody's Investors Service 2016b, Standard & Poor's Ratings Services 2016). The agencies attributed revenue growth to improvements in payer mix, increased utilization of acute inpatient services, payment rate increases from Medicare and commercial payers, and

**FIGURE 10–4**

**Program spending for IRF services has grown steadily since 2008**




Note: IRF (inpatient rehabilitation facility).

Source: Office of the Actuary 2016.

merger and acquisition activity. The agencies attributed lower expense growth to several factors, including modest growth in capital expenditures due to a focus on outpatient capacity and the nearly complete implementation of electronic health records systems, declining debt burden, and continued cost containment strategies. The level of hospital bond issuances increased dramatically from 2015 to 2016, reflecting hospitals' strong financial position and continuing low interest rates.

As for freestanding IRFs, market analysts continue to rate access to capital as good for the industry's largest chain, which owned 46 percent of all freestanding IRFs in 2015 and accounted for about a quarter of all Medicare IRF discharges. This assessment is reflected in the chain's continued expansion of IRF capacity. The chain acquired shares in several IRFs through joint ventures in 2015 and reported that it has five new IRFs in the construction pipeline, with operations expected to start in late 2016, 2017, and 2018 (Healthsouth Corporation 2016). The chain also acquired one of the nation's largest providers of home health care in late 2014 as part of a vertical integration strategy intended to position the company for a changing reimbursement environment. Other large post-acute care companies are pursuing this strategy, too. For example, the industry's largest long-term care hospital chain also operates 100 hospital-based IRFs, along with home health and hospice agencies. Companies believe that providing a continuum of post-acute services will allow them to better coordinate care, improve transitions, reduce lengths of stay, and prevent avoidable hospitalizations, thereby allowing them to adjust to reimbursement pressures and making them desirable partners in coordinated care delivery models and bundled payment arrangements (Healthsouth Corporation 2016, Kindred Healthcare 2016, Moody's Investors Service 2016a).

## Medicare payments and providers' costs: Medicare margins were high and increased in 2015

The aggregate Medicare margin in IRFs has risen steadily since 2009, reaching 13.9 percent in 2015, despite sequester reductions. Medicare margins in freestanding IRFs were especially high. Higher margins in freestanding IRFs were driven largely by lower unit costs. In addition, freestanding IRFs are far more likely than hospital-based IRFs to be for profit and therefore may be more focused on controlling costs to maximize returns to investors. At the same time, the Commission has found evidence suggesting that providers differ in their assessment and coding of patients' motor and cognitive function, resulting in payments for some IRFs that are too high relative to the costs incurred in treating their patients, while payments for other IRFs may be too low. Further, there are notable differences in freestanding and hospital-based IRFs' mix of cases. Some case types may be more profitable than others, resulting in higher margins for facilities that admit larger shares of these cases. Given the difference in financial performance across IRFs, we examined freestanding and hospital-based IRFs' marginal profit to assess whether both types of providers have a financial incentive to expand the number of Medicare beneficiaries they serve. We found that in 2015, Medicare payments exceeded marginal costs by a substantial amount—20.5 percent for hospital-based IRFs and 41.5 percent for freestanding IRFs—suggesting that IRFs with available beds have an incentive to admit Medicare patients. This finding is a positive indicator of patient access, even in IRFs with lower margins.

### Trends in spending and cost growth

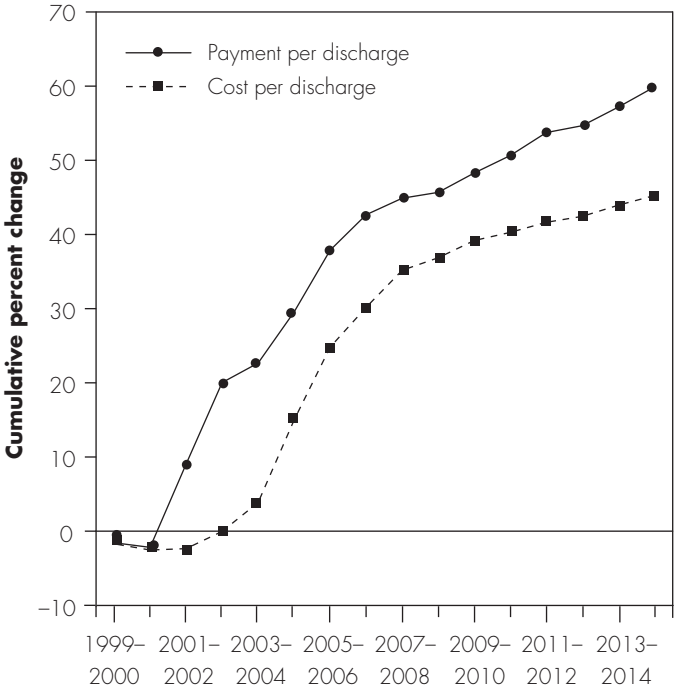
The Office of the Actuary projects that Medicare FFS spending for IRF services in fiscal year 2015 was $7.4

billion (Figure 10-4). Program spending has been growing, on average, more than 3 percent per year since 2008, reversing a downward trend that began in 2004. Beginning that year, renewed enforcement of the compliance threshold and restrictions of some of the qualifying conditions resulted in a substantial reduction in the number of Medicare patients treated in IRFs. (This reduction was consistent with the underlying reason for the compliance threshold—to direct only the most clinically appropriate cases to this intensive, costly post-acute care setting.) Between 2005 and 2008, program spending for IRF services fell 8 percent.[15] The decline in volume slowed in 2008 and reversed in 2009, after the Congress permanently capped the compliance threshold at 60 percent. Medicare spending for IRF services began to grow again at that point.

As the IRF patient population shifted to patients with more severe conditions who counted toward the compliance threshold, case-mix severity and cost per discharge increased. However, from 1999 to 2015, the cumulative increase in payments per discharge outpaced the increase in costs per discharge (Figure 10-5). From 1999 to 2014, payments per discharge grew 57 percent compared with 44 percent growth in costs per discharge. Between 2014 and 2015, payments per discharge increased 2.7 percent, while costs per discharge increased 1.2 percent.

**FIGURE 10–5**

**IRFs' payments per discharge increased cumulatively more than costs, 1999–2015**




Note: IRF (inpatient rehabilitation facility). Percent changes are calculated based on consistent two-year cohorts.

Source: MedPAC analysis of Medicare cost report data from CMS.

### Differences in standardized costs suggest economies of scale

Adjusting IRF costs per discharge for differences in wages, case mix, high-cost outliers, and short-stay cases permits a standardized comparison of costs across types of IRFs nationwide. The median standardized cost per discharge for all IRFs in 2015 was $14,960 (Table 10-11, p. 278). Costs were inversely related to the size of the IRF. IRFs with 10 or fewer beds had a median standardized cost per discharge that was 56 percent higher than that of IRFs with 65 or more beds ($18,085 vs. $11,621, respectively). Still, even controlling for the number of beds, hospital-based IRFs had higher standardized costs (data not shown). Previous Commission analyses suggest that some of the difference between the standardized costs of hospital-based and freestanding IRFs is due to discrepancies across providers in the assessment of patients' motor and cognitive function. In comparing costs across providers, the Commission standardizes costs using provider case mix. In IRFs, case mix is based in part on the functional status of patients. If assessment of patients' functional status is not reasonably consistent across providers, then differences in case mix may not reflect real differences in patient acuity. To the extent that this inconsistency occurs, facilities with an average case mix that is higher than warranted will have lower standardized costs than they otherwise would.

We stratified IRFs into quartiles of standardized costs to compare the characteristics of facilities with the lowest and highest costs in 2015 (Table 10-12, p. 279). IRFs in the lowest cost quartile had a median standardized cost per discharge that was 43 percent less than that of IRFs in the highest cost quartile ($11,124 vs. $19,443, respectively). The difference in Medicare margins between low-cost and high-cost IRFs was very large. IRFs in the lowest cost quartile had a median Medicare margin of 28.5 percent compared with –22.0 percent for IRFs in the highest cost quartile.

**TABLE 10–11**

**IRFs with fewer beds had much higher standardized costs per discharge, 2015**

| Type of IRF | Median standardized cost per discharge |
|---|---|
| All IRFs | $14,960 |
| Hospital based | 15,847 |
| Freestanding | 11,436 |
| Nonprofit | 15,574 |
| For profit | 12,960 |
| Government | 16,601 |
| Urban | 14,608 |
| Rural | 17,724 |
| Number of beds | |
| 1 to 10 | 18,085 |
| 11 to 24 | 16,169 |
| 25 to 64 | 13,619 |
| 65 or more | 11,621 |

Note: IRF (inpatient rehabilitation facility). Cost per discharge is standardized for differences in area wages, mix of cases, and prevalence of high-cost outliers, short-stay outliers, and transfer cases. Government-owned facilities operate in a different financial context from other facilities, so their costs are not necessarily comparable.

Source: MedPAC analysis of Medicare cost report and Medicare Provider Analysis and Review data from CMS.

IRFs with the lowest costs tended to be larger. The median number of beds was 50 compared with 17 in the highest cost quartile (Table 10-12). IRFs with the lowest costs also had a higher median occupancy rate than IRFs in the highest cost quartile (74 percent vs. 49 percent, respectively). These results suggest that low-cost IRFs benefit from economies of scale. Low-cost facilities were disproportionately freestanding and for profit. Still, 36 percent of the IRFs in the lowest cost quartile were hospital based, and 29 percent of the IRFs in this group were nonprofit. By contrast, in the highest cost quartile, 94 percent were hospital based and 59 percent were nonprofit.

### Margins vary widely

Between 2014 and 2015, the aggregate IRF Medicare margin rose from 12.5 percent to 13.9 percent, despite sequester reductions (Table 10-13, p. 280). From 2009 to 2015, the aggregate margin rose steadily after a period of declining, although healthy, margins.

Financial performance in 2015 varied across IRFs. Medicare margins in freestanding IRFs were especially high. In 2015, the aggregate margin for freestanding IRFs (which accounted for 48 percent of Medicare discharges from IRFs) was 26.7 percent (Table 10-13, p. 280). The top quartile of freestanding IRFs had margins greater than 33.9 percent (data not shown). Hospital-based IRFs (accounting for 52 percent of Medicare IRF stays) had an aggregate margin of 2.0 percent; the top quartile had margins greater than 11.5 percent.

Higher unit costs were the primary driver of differences in financial performance between freestanding and hospital-based IRFs. Freestanding IRFs had a median standardized cost per discharge that was about 28 percent higher than that of hospital-based IRFs ($11,436 vs. $15,847, respectively) (Table 10-11). Hospital-based IRFs are far more likely than freestanding IRFs to be nonprofit, which may contribute to the disparity in unit costs. But even nonprofit freestanding IRFs had a median standardized cost per discharge that was 20 percent lower than that of hospital-based IRFs. Previous Commission analysis of underlying cost components found that hospital-based IRFs had higher costs than freestanding IRFs across all cost categories, with the biggest difference in routine costs (Medicare Payment Advisory Commission 2015).

Nevertheless, one-quarter of hospital-based IRFs had Medicare margins greater than 11 percent, indicating that many hospitals can manage their IRF units profitably. Further, despite the comparatively low average margin in hospital-based IRFs, evidence suggests that these units make a positive financial contribution to their parent hospitals. Commission analysis found that in 2013, the aggregate Medicare margin for inpatient hospitals with IRF units was a percentage point higher than that of hospitals without IRF units (Medicare Payment Advisory Commission 2015).

Margins varied by ownership, with for-profit IRFs having a higher aggregate Medicare margin than nonprofit IRFs (25.0 percent vs. 3.6 percent, respectively) (Table 10-13, p. 280). Among freestanding IRFs, nonprofit facilities (which accounted for 7 percent of Medicare discharges from IRFs) had an aggregate margin of 14.0 percent. Freestanding for-profit IRFs (which accounted for 41 percent of Medicare discharges from IRFs) had an aggregate margin of 29.4 percent. Among hospital-based IRFs, the aggregate margin for nonprofit units (which accounted for 35 percent of IRF discharges) was 1.5 percent, while that margin for for-profit units (10 percent

of discharges from IRFs) was 6.1 percent. Between 2014 and 2015, for freestanding IRFs, the total (all-payer) margin—that is, the margin across all lines of business—remained almost static, falling from 10.7 percent to 10.6 percent.[16]

Several factors account for the disparity in margins between hospital-based and freestanding IRFs. First, hospital-based IRFs appear to be less stringent in their cost control. Commission analysis of IRF cost growth for consistent two-year cohorts found that the cumulative increase between 1999 and 2015 in costs per case for hospital-based IRFs grew 61 percent compared with 24 percent growth in costs per case for freestanding IRFs. Because they are typically small and have relatively few cases, hospital-based IRFs likely achieve fewer economies of scale than their freestanding counterparts. In 2015, 65 percent of hospital-based IRFs had fewer than 25 beds, compared with 7 percent of freestanding IRFs. Only 4 percent of hospital-based IRFs had 65 or more beds compared with 34 percent of freestanding IRFs. Further, occupancy rates were lower in hospital-based IRFs than in their freestanding counterparts (62 percent vs. 69 percent, respectively). As a result, hospital-based IRFs had, on average, about 400 cases (all payers) in 2015 compared with almost 1,160, on average, for freestanding IRFs.

At the same time, freestanding IRFs are far more likely than hospital-based IRFs to be for profit and therefore likely to be more focused on controlling costs to maximize returns to investors. Analysis of freestanding IRFs' cost data found that the cumulative increase in costs per case for nonprofit IRFs has far outstripped that for for-profit IRFs. From 1999 to 2015, costs per case for freestanding nonprofit IRFs grew 47 percent, compared with 19 percent growth in costs per case for freestanding for-profit IRFs.

In general, hospital-based IRFs have a much larger share of cases with extraordinarily high costs. In 2015, 13 percent of hospital-based IRF cases qualified for high-cost outlier payments, compared with just 2 percent of freestanding IRF cases. Indeed, 85 percent of IRF outlier payments were made to hospital-based facilities. Though these payments diminish per case losses, they do not completely cover per case costs. It is not clear whether the large number of outlier cases in hospital-based IRFs stems from differences in efficiency, unmeasured case complexity, or both. A previous Commission analysis raised concerns that providers can differ in their assessment and coding of patients' motor and cognitive functions, which would result in payments that are not properly aligned with the resource needs of patients (Medicare Payment Advisory Commission 2016). Though Medicare's payments in aggregate appear to be more than sufficient, some IRFs may receive payments that are too low relative to the costs incurred in treating their patients, while other IRFs receive payments that are too high.

Finally, there are notable differences in hospital-based and freestanding IRFs' mix of cases. A larger share of hospital-based IRFs' patients than those of freestanding IRFs were admitted with stroke as the primary reason for

**TABLE 10–12**

**Low standardized costs led to high margins for both hospital-based and freestanding IRFs in 2015**

| Characteristic | Quartile: Lowest cost | Quartile: Highest cost |
|---|---|---|
| Median cost per discharge | | |
| All | $11,124 | $19,443 |
| Hospital based | 11,756 | 19,434 |
| Freestanding | 10,610 | 19,881 |
| Median Medicare margin | | |
| All | 28.5% | –22.0% |
| Hospital based | 22.1 | –22.0 |
| Freestanding | 32.0 | –25.0 |
| Median | | |
| Number of beds | 50 | 17 |
| Occupancy rate | 74% | 49% |
| Case-mix index | 1.30 | 1.23 |
| Share of facilities that are: | | |
| Hospital based | 36% | 94% |
| Freestanding | 64 | 6 |
| Nonprofit | 29 | 59 |
| For profit | 67 | 23 |
| Government | 4 | 18 |
| Urban | 93 | 71 |
| Rural | 7 | 29 |

Note: IRF (inpatient rehabilitation facility). Cost per discharge is standardized for differences in area wages, mix of cases, and prevalence of high-cost outliers, short-stay outliers, and transfer cases. Government-owned facilities operate in a different financial context from other facilities, so their costs are not necessarily comparable.

Source: MedPAC analysis of Medicare cost report and Medicare Provider Analysis and Review data from CMS.

**TABLE 10–13**

**IRF Medicare margins increased in 2015**

| Type of IRF | Share of Medicare discharges, 2015 | Margins | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 2004 | 2006 | 2008 | 2010 | 2012 | 2013 | 2014 | 2015 |
| All IRFs | 100% | 16.7% | 12.5% | 9.3% | 8.6% | 11.2% | 11.5% | 12.5% | 13.9% |
| Hospital based | 52 | 12.2 | 9.9 | 3.9 | –0.6 | 0.6 | –0.1 | 1.1 | 2.0 |
| Freestanding | 48 | 24.7 | 17.5 | 18.2 | 21.4 | 23.9 | 24.6 | 25.3 | 26.7 |
| Nonprofit | 42 | 12.8 | 10.9 | 5.3 | 2.1 | 2.4 | 1.2 | 2.3 | 3.6 |
| For profit | 50 | 24.4 | 16.3 | 16.9 | 19.6 | 22.9 | 23.6 | 24.0 | 25.0 |
| Government | 7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Urban | 92 | 17.0 | 12.8 | 9.6 | 9.0 | 11.6 | 11.9 | 12.9 | 14.2 |
| Rural | 8 | 13.2 | 10.0 | 6.9 | 4.7 | 6.5 | 6.0 | 6.4 | 8.6 |
| Number of beds | | | | | | | | | |
| 1 to 10 | 2 | 3.7 | –3.6 | –4.9 | –10.3 | –6.8 | –11.3 | –10.4 | –7.8 |
| 11 to 24 | 22 | 10.5 | 7.3 | 1.2 | –3.3 | –1.3 | –0.8 | –0.2 | –0.5 |
| 25 to 64 | 47 | 18.3 | 13.7 | 10.1 | 10.6 | 12.2 | 13.2 | 14.4 | 16.1 |
| 65 or more | 28 | 21.5 | 17.8 | 17.3 | 17.5 | 21.0 | 20.0 | 20.7 | 22.7 |

Note: IRF (inpatient rehabilitation facility), N/A (not applicable). Government-owned facilities operate in a different financial context from other facilities, so their margins are not necessarily comparable. Their margins are not presented separately here, although they are included in the margins for other groups (e.g., "all IRFs"), where applicable. Percentages may not sum to 100 due to rounding.

Source: MedPAC analysis of cost report data from CMS.

rehabilitation (23 percent vs. 17 percent, respectively). Compared with freestanding IRFs, hospital-based IRFs also admitted a somewhat larger share of patients needing rehabilitation after fracture of a lower extremity (13 percent vs. 11 percent, respectively). Freestanding IRFs admitted larger shares than hospital-based IRFs of cases with other neurological conditions (18 percent vs. 9 percent, respectively) and other orthopedic conditions (11 percent vs. 6 percent, respectively). Notably, the impairment groups of other neurological conditions and other orthopedic conditions encompass a broader range of conditions than do many of the other impairment groups. This clinical heterogeneity can allow favorable selection of patients within these groups based on their likely costs of care. Cases with other neurological conditions also count toward the compliance threshold, so IRFs with higher shares of these cases may be able to more easily meet the requirements of the 60 percent rule while keeping down costs. Further, some case types may be more profitable than others, resulting in higher margins for facilities that admit larger shares of these cases.

Given the difference in financial performance across IRFs, it is useful to consider whether IRFs generally have a financial incentive to expand the number of Medicare beneficiaries they serve. In considering whether to treat a patient, a provider compares the additional revenue it will receive (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If Medicare's per case payment is larger than the marginal cost of treating an additional beneficiary, a provider has a financial incentive to increase its volume of Medicare patients. On the other hand, if marginal payments do not cover the marginal costs, the provider has a disincentive to admit Medicare beneficiaries. To operationalize this concept, we compare payments for Medicare services with marginal costs, a comparison that is approximated as:

Marginal profit = (payments for Medicare services – (total Medicare costs – fixed building and equipment costs)) / Medicare payments

The result is a lower bound on the marginal profit because we ignore any potential labor costs that are fixed. For IRFs with available data, we find that Medicare payments exceed marginal costs by a substantial amount—20.5 percent for hospital-based IRFs and 41.5 percent for freestanding IRFs—suggesting that IRFs with available beds have an incentive to admit Medicare patients. This finding is a very positive indicator of patient access, even in IRFs with lower margins.

## How should Medicare payments change in 2018?

To estimate 2017 payments, costs, and margins with 2015 data, the Commission considers policy changes effective in 2016 and 2017, including those in the Patient Protection and Affordable Care Act of 2010 (PPACA). Those changes that affect our estimate of the 2017 margin include:

- a market basket increase of 2.4 percent for fiscal year 2016, offset by PPACA-required reductions totaling 0.7 percentage point, for a net update of 1.7 percent;
- a market basket increase of 2.7 percent for fiscal year 2017, offset by PPACA-required reductions totaling 1.05 percentage points, for a net update of 1.65 percent; and
- changes to the high-cost outlier fixed loss amount in 2016 and 2017, which will increase payments.

Given historical trends, we expect cost growth to be below market basket levels. Though the sequester reduction will decrease payments, we expect growth in payments to continue to exceed cost growth.

Considering these assumptions, we project an aggregate Medicare margin of 14.3 percent for IRFs in 2017.

The Commission recommended that the update to IRF payments be eliminated for fiscal year 2009 and has continued to recommend a 0 percent update for every year since. However, in the absence of legislative action, CMS is required by statute to apply an adjusted market basket increase. Thus, payments have continued to rise. At the same time, growth in costs per case has been low. From 2009 to 2015, the cumulative increase in payments per case was 14.2 percent, while costs per case rose 8.3 percent. The gap between payments and costs per case for freestanding IRFs has grown even wider: From 2009 to 2015, the cumulative increase in payments per case for freestanding IRFs was 14.7 percent, compared with 4.2 percent growth in costs per case. In 2015, margins for freestanding IRFs reached an all-time high of 26.7 percent. Freestanding nonprofit IRFs had a margin of 14.0 percent, while freestanding for-profit facilities had a margin of 29.4 percent.

Although, in recent years, annual cost growth in hospital-based IRFs has been below 2 percent, higher overall costs in these facilities have led to lower margins. Higher costs in hospital-based IRFs appear due in part to a lack of efficiency. Hospital-based IRFs are typically small and do not enjoy the same economies of scale as their larger, freestanding counterparts. In addition, hospital-based IRFs are far less likely than freestanding IRFs to be for profit and therefore may be less focused on controlling costs to maximize returns to investors. At the same time, Commission analyses suggest that payments are not properly aligned with the resource needs of patients, which could contribute to the margin differential between hospital-based and freestanding IRFs. The Commission also has noted that the mix of patients in IRFs differs and has raised concerns that some types of cases are less profitable than others. Despite their lower margins, Medicare payments to hospital-based IRFs in 2015 exceeded marginal costs by 20.5 percent, indicating that hospital-based IRFs with available beds have a strong incentive to admit Medicare patients. Further, acute care hospitals may find that IRF units help reduce acute care lengths of stay. Previous Commission analyses have found that hospitals with IRF units have higher inpatient margins than hospitals without such units.

The high aggregate margin for IRFs in 2015 and a projected margin for 2017 that is even higher indicate that Medicare payments substantially exceed the costs of caring for beneficiaries. Absent congressional action, payments to IRFs will continue to increase in fiscal year 2018. The combination of low cost growth and increasing average payments has resulted in overpayments that contribute to Medicare's sustainability challenges in the long run. As noted above, between 2009—the first year in which the Commission recommended eliminating the IRF payment update—and 2015, the cumulative increase in payments per case for all IRFs was 14.2 percent, while costs per case rose 8.3 percent, a difference of more than 5 percentage points.

Reducing the payment rate for IRFs would better align Medicare payments with the costs of IRF care. Such a

reduction in the payment rate should be coupled with an expansion of the high-cost outlier pool, as previously recommended by the Commission, to redistribute payments within the IRF PPS and reduce the impact of potential misalignments between IRF payments and costs. Currently, the outlier pool is set at 3 percent of total IRF payments. Expanding the outlier pool would increase outlier payments for the most costly cases, ameliorating the financial burden for IRFs that have a relatively high share of these cases. The expanded outlier pool would be funded by an offset to the national base payment amount, which would further reduce all CMG payment rates by the same percentage across the board. As noted in our March 2016 report to the Congress, expanding the outlier pool could increase payments for providers who are less efficient as well as for providers whose patients' acuity is not well captured by the case-mix system. Nevertheless, because of concerns about the accuracy of Medicare's payments for resource-intensive cases, the Commission continues to believe that an expanded outlier pool is warranted in the near term. Over the longer term, however, CMS must ensure the accuracy of Medicare's payments by determining that IRFs' assessment and coding correctly reflect patients' level of disability. Research is also needed to assess variation in costs within the IRF CMGs and differences in relative profitability across CMGs. In the future, CMS could enact payment system reforms that necessitate reassessment of IRF outlier payments and adjustments to the outlier policy, including a return to a smaller outlier pool.

The Commission estimates that reducing the payment rate for IRFs by 5 percent and expanding the outlier pool from 3 percent to 5 percent would decrease total payments to IRFs by 5 percent. We estimate that, in aggregate, payments to freestanding IRFs would decrease by 6.1 percent; to hospital-based IRFs, by 4.0 percent; to for-profit IRFs, by 5.9 percent; and to nonprofit IRFs, by 4.4 percent. We estimate that payments to IRFs with the lowest margins would remain unchanged, while payments to IRFs with the highest margins would fall by 6.5 percent.

## RECOMMENDATION 10

**The Congress should reduce the Medicare payment rate for inpatient rehabilitation facilities by 5 percent for fiscal year 2018.**

## RATIONALE 10

The combination of low historical cost growth and increasing average payments has resulted in overpayments to IRFs. The high aggregate margin in 2015 and our projected margin for 2017, which is even higher, indicate that Medicare payments substantially exceed the costs of caring for beneficiaries. These overpayments contribute to Medicare's sustainability challenges in the long run. The Commission recommended that the update to IRF payments be eliminated for fiscal year 2009 and has continued to recommend a 0 percent update for every year since. However, CMS has been required by statute to apply an adjusted market basket increase each year. Between 2009 and 2015, the cumulative increase in payments per case for all IRFs was 14.2 percent, while costs per case rose 8.3 percent, a difference of more than 5 percentage points. Reducing the payment rate for IRFs by 5 percent would better align Medicare payments with the costs of IRF care.

## IMPLICATIONS 10

### Spending

- The Medicare Access and CHIP Reauthorization Act of 2015 limits the payment update for IRFs in fiscal year 2018 to 1 percent. Relative to this current law, the Commission's recommendation would decrease Medicare spending by between $250 million and $750 million in 2018 and by between $1 billion and $5 billion over five years.

### Beneficiary and provider

- We do not expect this recommendation to have an adverse effect on Medicare beneficiaries' access to care or out-of-pocket spending. This recommendation could increase the financial pressure on some providers, but the effect would be ameliorated by an accompanying expansion in the high-cost outlier pool. We expect that relatively efficient providers will continue to be willing and able to care for Medicare beneficiaries. ■

## Endnotes

1 More frequently, Medicare beneficiaries receive inpatient rehabilitation services in skilled nursing facilities (SNFs), in part because nationwide there are many more SNFs than IRFs.

2 More information about the prospective payment system for IRFs is available at http://medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_16_irf_final.pdf?sfvrsn=0.

3 Patients with a length of stay of fewer than four days are assigned to a single CMG, regardless of diagnosis, age, level of motor or cognitive function, or presence of comorbidities.

4 The 13 conditions are stroke; spinal cord injury; congenital deformity; amputation of a lower limb; major multiple trauma; hip fracture; brain injury; certain other neurological conditions (multiple sclerosis, Parkinson's disease, cerebral palsy, and neuromuscular disorders); burns; three arthritis conditions for which appropriate, aggressive, and sustained outpatient therapy has failed; and hip or knee replacement when it is bilateral, the patient's body mass index is greater than or equal to 50, or the patient is age 85 or older.

5 Analysis of proprietary data from eRehabData® for a sample of IRFs suggests that, before implementation of the IRF PPS, many facilities fell short of the 75 percent threshold. Using medical record review, eRehabData estimated that in 2002, the share of Medicare IRF cases with one of the specified conditions that count toward the compliance percentage was 42 percent (Russell 2015).

6 CMS's major revisions to the compliance threshold policy in 2004 were to (1) increase the number of conditions that count toward the threshold from 10 to 13 (by redefining the arthritis conditions that counted) and (2) revise the qualifying conditions of major joint replacement—a condition that was commonly treated in IRFs—such that only a specific subset of patients with that condition would count toward the compliance threshold.

7 An impairment group code is not an International Classification of Diseases (ICD) code but, rather, one of a separate unique set of codes specifically developed for the IRF PPS for assigning the primary reason for admission to an IRF.

8 Cases with noncompliant conditions may count toward the compliance threshold if they have specified comorbidities.

9 This analysis of IRF claims and assessment data from 2013 excluded cases that did not have an acute care hospital discharge within 30 days before the IRF admission. Excluding IRF cases that were not recently discharged from an acute care hospital was important because post-acute cases in IRFs may differ from cases that are admitted from the community, and freestanding IRFs typically have a higher share of cases admitted from the community than hospital-based IRFs do.

10 For this analysis, the Commission matched fee-for-service IRF claims and assessment data from 2013 with claims for IRF patients' preceding acute care hospital services. About 87 percent of IRF claims in 2013 could be linked to an acute care hospital discharge within 30 days before the IRF admission date. The vast majority of these post-acute IRF cases (96 percent) had an acute care hospital discharge within three days of the IRF admission. IRF cases that did not have an acute care hospital discharge within 30 days before the IRF admission were excluded from the analysis.

11 IRFs assign each patient to an impairment group that indicates the primary reason for inpatient rehabilitation. These impairment groups can be collapsed into 21 rehabilitation impairment categories (e.g., stroke, traumatic brain injury, and other neurological conditions). We looked at IRF patient characteristics both by impairment group and by the collapsed rehabilitation impairment categories.

12 For each impairment group, we examined patients' average case-mix index in the acute care hospital (a measure of resource intensity in the hospital) as well as the average severity of illness using the all-patient refined–diagnosis-related groups. We also looked at the average length of stay in the hospital, the average length of stay in an intensive care or coronary care unit, and whether patients had been high-cost outliers in the hospital.

13 These potentially avoidable readmissions are identified by the primary diagnosis for the hospital readmission at the time of hospital discharge. The potentially avoidable readmissions we measure are respiratory-related illness (pneumonia, influenza, bronchitis, chronic obstructive pulmonary disease, and asthma); sepsis; congestive heart failure; fractures or fall with a major injury; urinary tract or kidney infection; blood pressure management; electrolyte imbalance; anticoagulant therapy complications; diabetes-related complications; cellulitis or wound infection; pressure ulcer; medication error or adverse drug reaction; and delirium.

14 Our measure of community discharge does not give IRFs credit for discharging a Medicare beneficiary to the community if the beneficiary is subsequently readmitted to an acute care hospital within 30 days of the IRF discharge.

15 Medicare spending for IRF services was also affected when CMS reduced the IRF standard payment conversion factor by 1.9 percent in 2006 and 2.6 percent in 2007 to adjust for changes in IRF coding practices that CMS determined did not reflect real changes in IRF patients' acuity.

16 Because of the structure of the Medicare cost report, all-payer margins for hospital-based IRFs reflect a margin for the entire hospital rather than for the IRF unit alone. Therefore, we examine an all-payer margin only for freestanding IRFs.

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CHAPTER 11

# Long-term care hospital services

## RECOMMENDATION

**11** The Congress should eliminate the update to the payment rates under the long-term care hospital prospective payment system for fiscal year 2018.

**COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0**

CHAPTER 11

# Long-term care hospital services

## Chapter summary

Long-term care hospitals (LTCHs) provide care to beneficiaries who need hospital-level care for relatively extended periods. To qualify as an LTCH for Medicare payment, a facility must meet Medicare's conditions of participation for acute care hospitals and certain Medicare patients must have an average length of stay greater than 25 days. In 2015, Medicare spent $5.3 billion on care provided in LTCHs nationwide. About 116,000 fee-for-service (FFS) beneficiaries had roughly 131,000 LTCH stays in about 426 LTCHs. On average, Medicare FFS beneficiaries account for about two-thirds of LTCHs' discharges.

### Assessment of payment adequacy

***Beneficiaries' access to care*—**We have no direct measures of beneficiaries' access to needed LTCH services. Instead, we consider the capacity and supply of LTCH providers and changes over time in the volume of services they furnish. Trends suggest that access to care has been maintained.

- ***Capacity and supply of providers*—**Growth in the number of LTCHs filing Medicare cost reports slowed considerably in recent years because of two moratoriums. The first, imposed by the Medicare, Medicaid, and SCHIP Extension Act of 2007 and subsequent legislation, was in effect through December 28, 2012. The second moratorium was established in the Pathway to SGR Reform Act of 2013 and amended by the Protecting

## In this chapter

- Are Medicare payments adequate in 2017?
- How should Medicare payments change in 2018?

Access to Medicare Act of 2014. This moratorium is effective from April 1, 2014, through September 30, 2017. Using cost report data, we estimate that the number of LTCHs and LTCH beds decreased by about 2 percent in 2015.

- ***Volume of services*—**From 2014 to 2015, the number of LTCH cases decreased by 2.1 percent. Controlling for the number of FFS beneficiaries, we found that the number of LTCH cases per beneficiary declined during this period by 2.0 percent, continuing a trend of decreasing per capita LTCH use that began in 2012.

***Quality of care*—**LTCHs began submitting quality of care data to CMS starting in fiscal year 2013. CMS began releasing provider-level quality data publicly for two measures beginning in mid-December 2016 and plans to release two additional measures in the spring of 2017. Because quality data only recently became available, we continued to use claims data for our 2015 analysis. We found stable non-risk-adjusted rates of readmission, death in the LTCH, and death within 30 days of discharge across the top 25 LTCH diagnoses.

***Providers' access to capital*—**For the past few years, the availability of capital to LTCHs has not reflected current Medicare payment rates but, rather, uncertainty regarding possible changes to Medicare's regulations and legislation governing LTCHs. The criteria to receive the higher LTCH payment rate specified in the Pathway for SGR Reform Act of 2013, beginning with cost reporting periods starting in fiscal year 2016, provide more long-term regulatory certainty for the industry compared with recent years. However, payment reductions implemented by CMS and a congressional moratorium on new LTCH beds and facilities through September 2017 continue to limit future opportunities for growth and reduce the industry's need for capital.

***Medicare payments and providers' costs*—**From 2007 until 2012, LTCHs held cost growth below the rate of increase in the market basket index, a measure of inflation in the prices of goods and services LTCHs buy to provide care. Between 2012 and 2015, Medicare payments continued to increase, albeit more slowly than provider costs, resulting in an aggregate 2015 Medicare margin of 4.6 percent. Financial performance in 2015 varied across LTCHs, reflecting differences in cost control and responses to payment incentives. Marginal profit, an indicator of whether LTCHs with excess capacity have an incentive to admit more Medicare patients, equaled 20 percent in 2015, consistent with last year's analysis. We expect changes in admission patterns and cost structure will occur in response to the patient-specific criteria implemented beginning in fiscal year 2016.

We project that LTCHs' aggregate Medicare margin for these qualifying cases will be 5.4 percent in 2017, which reflects current policy. On the basis of these indicators, the Commission concludes that LTCHs can continue to provide Medicare beneficiaries with access to safe and effective care and accommodate changes in their costs with no update to LTCH payment rates in fiscal year 2018. This update recommendation applies to the Medicare LTCH prospective payment system base payment rate. That is, it applies to payments for discharges that meet the criteria specified in the Pathway for SGR Reform Act of 2013 and to the portion of the blended payment that reflects the LTCH payment rate for discharges that do not meet the specified criteria. ■

## Background

Patients with chronic critical illness—those who exhibit metabolic, endocrine, physiologic, and immunologic abnormalities that result in profound debilitation and often ongoing respiratory failure—frequently need hospital-level care for extended periods. Some are treated in long-term care hospitals (LTCHs). These facilities can be freestanding or colocated with other hospitals as hospitals within hospitals (HWHs) or satellites. To qualify as an LTCH for Medicare payment, a facility must meet Medicare's conditions of participation for acute care hospitals (ACHs) and certain Medicare patients must have an average length of stay greater than 25 days.[1] By comparison, the average Medicare length of stay in ACHs is about five days. In 2015, Medicare spent $5.3 billion on care provided in LTCHs nationwide. About 116,000 beneficiaries had roughly 131,000 LTCH stays. On average, Medicare fee-for-service (FFS) beneficiaries account for about two-thirds of LTCHs' discharges.

Since October 2002, Medicare has paid LTCHs prospective per discharge rates based primarily on the patient's diagnosis and the facility's wage index.[2] Under this prospective payment system (PPS), LTCH payment rates are based on the Medicare severity long-term care diagnosis related group (MS–LTC–DRG) patient classification system, which groups patients primarily according to diagnoses and procedures. MS–LTC–DRGs include the same groupings used in ACHs paid under the inpatient PPS (IPPS) but have relative weights specific to LTCH patients, reflecting the average relative costliness of cases in the group compared with that of the average LTCH case. The LTCH PPS has outlier payments for patients who are extraordinarily costly.[3] The LTCH PPS pays differently for short-stay outlier cases (patients with shorter than average lengths of stay), reflecting CMS's contention that Medicare should adjust payment rates for patients with relatively short stays to reflect the reduced costs of caring for them (see text box discussing short-stay outliers, pp. 294–295).

In fiscal year 2016, CMS began phasing in a payment change for LTCH cases that do not meet certain criteria specified in the Pathway for SGR Reform Act of 2013 (see text box discussing LTCH legislation, pp. 296–297). Under the new dual payment structure, qualifying Medicare cases will be paid under the LTCH PPS if the patient had an immediately preceding ACH stay that included 3 or more days in an intensive care unit (ICU) or if the patient received mechanical ventilation services for at least 96 hours in the LTCH. LTCH cases not meeting the specified criteria receive a "site-neutral" rate based on the lesser of an IPPS-comparable amount or 100 percent of the cost for the case. The Commission recommended in March 2014 that LTCH rates be paid only for cases that received eight or more days of care in an ICU or received prolonged mechanical ventilation services during the previous ACH stay (see text box discussing the Commission's recommendations for LTCHs, p. 299).

The payment changes associated with the LTCH criteria policy are being phased in over three years beginning with cost reporting periods starting October 1, 2015.[4] Cases not meeting the specified criteria receive payment equal to 50 percent of the LTCH PPS rate and 50 percent of the site-neutral rate for the first two full years of implementation. Fiscal year 2019 will be the first year the policy will be fully in effect for all LTCH facilities.

## Are Medicare payments adequate in 2017?

To address whether payments for 2017 are adequate to cover the costs that providers incur in furnishing services to Medicare beneficiaries and how much providers' costs are expected to change in the coming year (2018), we examine several indicators of payment adequacy. Specifically, we assess beneficiaries' access to care (by examining the capacity and supply of LTCH providers and changes over time in the volume of services furnished), quality of care, providers' access to capital, and the relationship between Medicare payments and providers' costs.

### Beneficiaries' access to care: Growth over time in supply and volume suggests continued access to care

We have no direct measures of beneficiaries' access to needed LTCH services. The absence of LTCHs in many areas of the country does not necessarily equate an inadequacy of supply since beneficiaries in areas without LTCHs have access to similar services in other settings, including ACHs and skilled nursing facilities (SNFs).

## Payment for short-stay outliers in long-term care hospitals

In the long-term care hospital (LTCH) payment system, Medicare can adjust payments for cases with short stays. CMS defines a short-stay outlier (SSO) case as having a length of stay less than or equal to five-sixths of the geometric average length of stay for the case type. The SSO policy reflects CMS's contention that patients with lengths of stay similar to those in acute care hospitals (ACHs) should be paid at rates comparable with the cases paid under the ACH inpatient prospective payment system (IPPS). About 26.6 percent of LTCH discharges received SSO payment adjustments in fiscal year 2015, but this share varied across types of LTCHs. For example, in fiscal year 2015, 26.0 percent of for-profit LTCHs' cases were SSOs compared with 29.8 percent of nonprofit LTCHs' cases.

The amount Medicare pays to LTCHs for an SSO case is the lowest of:

- 100 percent of the cost of the case,
- 120 percent of the per diem amount for the Medicare severity long-term care diagnosis related group (MS–LTC–DRG) multiplied by the patient's length of stay,
- the full MS–LTC–DRG payment, or
- a blend of the IPPS amount for the same type of case and 120 percent of the MS–LTC–DRG per diem amount. The LTCH per diem payment amount makes up more of the total amount as the patient's length of stay increases.

CMS applies a different standard to cases with "very short" lengths of stay—those with stays less than or equal to the IPPS average length of stay for the same type of case plus one standard deviation. These cases are called very short-stay outliers (VSSOs). VSSOs are also paid the lowest of four payment amounts: the first three listed previously or an amount comparable with the IPPS payment rate rather than a blended amount. In fiscal year 2015, about 12.2 percent of LTCH discharges were VSSOs; 45 percent of VSSOs received payment equal to 100 percent of costs, and another 45 percent received an amount equal to the IPPS per diem payment. As with SSOs, the share of

*(continued next page)*

Although we found LTCHs located in just 8.5 percent of counties, these LTCHs served beneficiaries from over 90 percent of counties nationwide. Based on the relatively clustered nature of the location of LTCHs, we consider the overall capacity and supply of LTCH providers and changes over time in the volume of services they furnish.

### Capacity and supply of providers: Supply stabilized during the congressionally mandated moratorium

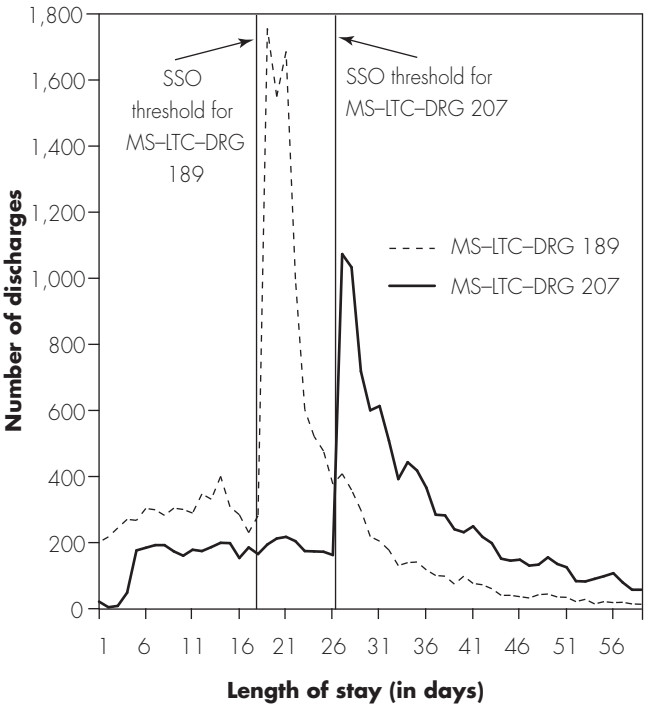
The Medicare, Medicaid, and SCHIP Extension Act of 2007 (MMSEA) and subsequent legislation imposed a limited moratorium on new LTCHs and new beds in existing LTCHs from December 29, 2007, through December 28, 2012. During this time, new LTCHs were able to enter the Medicare program only if they met specific exceptions to the moratorium.[5] The Pathway for SGR Reform Act of 2013 and subsequent legislation implemented a new moratorium from April 1, 2014, through September 30, 2017.[6] That moratorium originally provided exceptions that allowed the establishment of new LTCHs and new LTCH satellites (that is, the law permitted certain new LTCHs in their entirety); however, the 21st Century Cures Act expanded the exceptions to also permit increases in the number of certified beds in existing facilities.

It is difficult to determine the precise number of LTCHs because of variations in Medicare's data sources on these facilities. The Commission has found inaccuracies in the

## Payment for short-stay outliers in long-term care hospitals (cont.)

**FIGURE 11–1**

**Many LTCH cases in fiscal year 2015 were discharged in the period immediately following the short-stay outlier threshold**




Note: LTCH (long-term care hospital), SSO (short-stay outlier), MS–LTC–DRG (Medicare severity long-term care diagnosis related group). Cases in MS–LTC–DRG 189 are those with pulmonary edema and respiratory failure. Cases in MS–LTC–DRG 207 are those with a respiratory system diagnosis that received prolonged mechanical ventilation.

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS.

VSSOs varied across type of LTCH. For example, in fiscal year 2015, 12.0 percent of for-profit LTCHs' cases were VSSOs compared with 13.1 percent of nonprofit LTCH cases.

If we consider only the cases in 2015 that would meet the new criteria to receive the LTCH prospective payment system (PPS) standard federal rate, the Commission estimates that in fiscal year 2016, 28.6 percent of cases would be SSOs. Fifty-two percent of these SSO cases—or 15 percent of all LTCH cases that qualify to receive the LTCH PPS standard federal payment rate—would be VSSOs.

VSSO cases were more likely to be of an extreme severity level and to require prolonged mechanical ventilation compared with SSO and longer stay cases. Many LTCH SSO and VSSO cases were short because the beneficiary was readmitted to an ACH or died. In 2015, 26 percent of VSSO cases were readmitted to an ACH, while 14 percent of SSOs and only 5 percent of longer stay cases were readmitted. Similarly, 44 percent of VSSO cases died in the LTCH compared with 22 percent of SSO cases and 7 percent of longer stays. The remaining VSSO cases included beneficiaries discharged from the LTCH, typically to another post-acute care setting. Of these cases, only 25 percent were still living one year after discharge compared with about half of SSO and more than half of non-SSO cases.

Generally, for the same case type, the IPPS payment is substantially less than the LTCH payment under the LTCH PPS. For example, for a case assigned to the diagnosis group called respiratory system diagnosis with prolonged mechanical ventilation (MS–LTC–DRG 207), the standard IPPS payment in 2017 is $31,821, while the standard LTCH payment is $78,760. LTCHs therefore have a strong financial incentive to keep patients until their lengths of stay exceed the SSO threshold for the relevant case type, and they appear to respond to that incentive (Figure 11-1). Analysis of lengths of stay by MS–LTC–DRG for 2015 shows that the number of discharges rose sharply immediately after the SSO threshold. This pattern held true across MS–LTC–DRGs and for every category of LTCH. The data strongly suggest that LTCHs' discharge decisions are influenced by financial incentives in addition to clinical indicators. CMS could lessen these financial incentives by better aligning the incremental payments for short-stay cases to the provider's incremental costs. ■

## Long-term care hospital legislation

The Pathway for SGR Reform Act of 2013 included several provisions related to long-term care hospitals (LTCHs), including changes to payment rates for some cases, changes to the 25-percent rule, and a moratorium on new LTCHs.

### "Site-neutral" payments

The Pathway for SGR Reform Act of 2013 established "site-neutral" payments for specified cases in LTCHs, beginning in fiscal year 2016. Under the law, the LTCH payment rate applies only to qualifying LTCH discharges that had an acute care hospital (ACH) stay immediately preceding LTCH admission and for which:

- the ACH stay included at least 3 days in an intensive care unit or
- the discharge is assigned to a Medicare severity long-term care diagnosis related group (MS–LTC–DRG) based on the receipt of mechanical ventilation services for at least 96 hours.

All other LTCH discharges—including any discharges assigned to psychiatric or rehabilitation MS–LTC–DRGs, regardless of intensive care unit use—are paid an amount based on Medicare's ACH inpatient prospective payment system (PPS) or 100 percent of the costs of the case, whichever is lower. These site-neutral payments are being phased in over a two-year period. In cost reporting periods starting fiscal year 2016, cases that do not meet the specified criteria receive a blended rate of one-half the standard LTCH payment and one-half the site-neutral payment. In cost reporting periods starting on or after October 1, 2017, these cases will receive 100 percent of the site-neutral payment rate. Given LTCHs' varying cost reporting periods, the Commission expects fiscal year 2019 to be the first full year in which this policy is completely phased in.

### New criteria to receive the LTCH payment rate

To qualify as an LTCH for Medicare payment, a facility must meet Medicare's hospital conditions of participation and certain Medicare patients must have an average length of stay greater than 25 days. Under the Pathway for SGR Reform Act of 2013, beginning in fiscal year 2016, CMS calculates the LTCH average length of stay only for Medicare fee-for-service cases that are not paid the site-neutral rate. In addition, for cost reporting periods starting on or after October 1, 2019, an LTCH must have no more than 50 percent of its cases paid at the site-neutral rate to continue to receive the LTCH payment rate for eligible cases.

### The "25-percent rule"

In fiscal year 2005, CMS established the 25-percent rule to set a limit on the share of an LTCH's cases that can be admitted from certain referring ACHs and reduce payments for some LTCHs that exceed the threshold. After the threshold is reached, the LTCH is paid the lesser of the LTCH PPS rate or an amount equivalent to the acute care hospital PPS rate for patients discharged from the host acute care hospital. CMS established the 25-percent rule in an attempt to prevent LTCHs from functioning as units of ACHs; decisions about admission, treatment, and discharge in both ACHs and LTCHs were to be made for clinical rather than financial reasons. The 25-percent rule uses payment adjustments to create disincentives for LTCHs to admit a large share of their patients from a single ACH.

The 25-percent rule initially applied only to LTCH hospitals within hospitals (HWHs) and LTCH satellites. In July 2007, CMS extended the rule to apply to freestanding LTCHs also. The Congress delayed full implementation of the 25-percent rule so that most HWHs and satellites were paid standard LTCH rates for eligible patients admitted from their host hospitals as long as the share of Medicare admissions from the host hospital did not exceed 50 percent (instead of the more restrictive 25 percent threshold) until cost reporting periods that began on or after July 1, 2016.

*(continued next page)*

## Long-term care hospital legislation (cont.)

In its final 2017 payment rule, CMS revised the 25-percent rule for LTCHs without colocated facilities to apply to discharges that meet two criteria: first, the discharge must occur during fiscal year 2017; second, the discharge must occur during LTCH cost reporting periods that start on or after July 1, 2016. For LTCHs that include colocated facilities, the 25-percent rule applies to discharges that occurred starting in fiscal year 2017, in cost reporting periods beginning on or after October 1, 2016. In the 21st Century Cures Act, enacted on December 13, 2016, the Congress further delayed the implementation of the 25-percent rule for LTCHs until fiscal year 2018.

### Moratorium on new LTCHs

The Protecting Access to Medicare Act of 2014 amended the Pathway for SGR Reform Act of 2013 by imposing a moratorium on new facilities and new beds in existing facilities beginning April 1, 2014. The moratorium allows certain exceptions for new LTCHs but not for increases in the number of certified beds in existing LTCHs or satellite facilities. The moratorium expires on September 30, 2017.[7] Subsequently, the Congress expanded the exceptions to the moratorium in the 21st Century Cures Act to include increases in the number of certified beds in existing LTCHs or satellite facilities retroactive to April 1, 2014. ■

ownership data in Medicare's Provider of Services file, so we examine Medicare cost report data to assess the number of LTCH beds and facilities. We consistently found that growth in the number of LTCHs filing Medicare cost reports slowed considerably in the later years of the moratorium (Table 11-1, p. 298). However, between 2012 and 2013 and again between 2013 and 2014, a larger than usual number of facilities made changes to their cost reporting period. Cost report data indicate 391 LTCHs filed valid cost reports in 2015, 8 fewer than in 2014 on net.[8] Twenty-one facilities were excluded from this year's analysis because of their submission of partial year cost reports—most of which were from two small LTCH chains.[9] These data also show that the number of LTCH beds nationwide decreased about 1.5 percent in 2015. The anomalous cost reporting trends during this period make it difficult to accurately compare changes in the number of LTCH facilities and LTCH beds using cost report data. Using data from Medicare's Provider of Services file, the Commission found that a majority of the new LTCHs filing cost reports in 2014 were for-profit facilities.[10] Consistent with historical trends, the Commission estimates that in 2015, more than 75 percent of LTCHs were for profit and 95 percent were located in urban areas. In our analysis of urban and rural facilities, the data presented for 2015 are not comparable with prior years because CMS adopted new core-based statistical area (CBSA) codes based on the 2010 census for LTCHs beginning fiscal year 2015. This change reclassified as urban several facilities previously classified as rural. Applying the former CBSA codes to the 2015 data results in 368 facilities classified as urban and 23 facilities as rural.

#### Volume of services: Number of LTCH users decreased

Beneficiaries' use of LTCH services suggests that access is adequate. Growth in the number of FFS LTCH cases was high in the first years of the LTCH PPS, but the number of cases declined from 2005 to 2007 (Table 11-2, p. 300). Much of this decrease is consistent with the decline in beneficiaries' enrollment in FFS Medicare and their increased enrollment in Medicare Advantage plans. CMS regulations that reduced payments for LTCH services also likely slowed growth in LTCH admissions during that period and beyond. From 2007 to 2012, the number of LTCH cases per capita (per 10,000 FFS beneficiaries) increased by an annual average rate of 0.8 percent. Between 2012 and 2014, the number of LTCH cases per capita decreased by 3.0 percent, consistent with decreases in acute care hospital discharges and skilled nursing facility admissions. However, LTCH cases per 10,000 FFS beneficiaries further decreased by 2.0 percent between 2014 and 2015.

**TABLE 11–1**

**The number of LTCHs has decreased since 2012**

| Type of LTCH | Congressionally imposed moratorium 2009 | 2010 | 2011 | 2012 | 2013* | Congressionally imposed moratorium 2014* | 2015* | Average annual change 2009–2012 | 2012–2015 | 2014–2015 |
|---|---|---|---|---|---|---|---|---|---|---|
| Hospitals with valid cost reports | 411 | 417 | 421 | 426 | 411 | 399 | 391 | 1.2% | * | * |
| Hospitals in Provider of Services file | 427 | 438 | 437 | 437 | 432 | 422 | 426 | 0.8 | –0.8% | 0.9% |
| Urban | 389 | 392 | 397 | 401 | 385 | 373 | 372 | 1.0 | ** | ** |
| Rural | 22 | 25 | 24 | 25 | 26 | 26 | 19 | 4.4 | ** | ** |
| Nonprofit | 79 | 82 | 77 | 78 | 78 | 73 | 65 | –0.4 | * | * |
| For profit | 313 | 314 | 324 | 328 | 315 | 308 | 310 | 1.6 | * | * |
| Government | 19 | 21 | 20 | 20 | 18 | 18 | 16 | 1.7 | * | * |

Note: LTCH (long-term care hospital). The Medicare, Medicaid, and SCHIP Extension Act of 2008 and subsequent legislation imposed a moratorium on new LTCHs and new LTCH beds in existing facilities from December 29, 2007, through December 29, 2012. The Pathway for SGR Reform Act of 2013 and subsequent legislation implemented a new moratorium from April 1, 2014, through September 30, 2017.
*Data for 2013 through 2015 should not be compared with prior years because of an anomalous number of facilities that underwent an acquisition and change in cost reporting period.
**CMS adopted new core-based statistical area (CBSA) codes for LTCHs beginning fiscal year 2015; this change reclassified as urban several facilities previously classified as rural, and therefore the number of facilities between 2014 and 2015 should not be compared. Applying the old CBSA definition to the 2015 data results in 368 facilities classified as urban and 23 facilities classified as rural.

Source: MedPAC analysis of cost report data and the Medicare Provider of Services file from CMS.

Compared with all Medicare beneficiaries, those admitted to LTCHs are disproportionately disabled (under age 65), over age 85, or diagnosed with end-stage renal disease. They are also more likely to be African American. The higher rate of LTCH use by African American beneficiaries may be due to the concentration of LTCHs in areas of the country with larger African American populations (Dalton et al. 2012, Kahn et al. 2010). Another contributing factor may be a greater incidence of critical illness in this population (Mayr et al. 2010). At the same time, African American beneficiaries may be more likely to opt for LTCH care since they are less likely to choose withdrawal from mechanical ventilation in the ICU, have do not resuscitate orders, or elect hospice care (Barnato et al. 2009, Borum et al. 2000, Diringer et al. 2001).

LTCH patient discharges are concentrated in a relatively small number of diagnosis groups. In fiscal year 2015, the top 25 LTCH diagnoses made up 66 percent of all LTCH discharges (Table 11-3, p. 302). The most frequently occurring diagnosis was pulmonary edema and respiratory failure (MS–LTC–DRG 189). Respiratory system diagnosis with ventilator support for 96 or more hours (MS–LTC–DRG 207) was the second most frequently occurring diagnosis. Nine of the top 25 diagnoses, representing almost 36 percent of all LTCH cases, were respiratory conditions—a statistic that has been relatively stable since the 2008 implementation of the MS–LTC–DRGs.

Not unexpectedly, the MS–LTC–DRGs become even more concentrated when we consider only the cases that would have qualified to receive the LTCH PPS standard federal payment rate if the dual payment rate had been in effect at the time of discharge. The top 25 qualifying diagnoses would have accounted for approximately 78 percent of these cases.[11] More than half of these cases involved diagnoses that were respiratory conditions or involved prolonged mechanical ventilation. Given the implementation of criteria for receiving the LTCH PPS standard federal payment rate, we would expect to see an increase in the concentration of diagnoses over time.

## Commission recommendations for long-term care hospitals

The Commission has maintained that long-term care hospitals (LTCHs) should serve only the most medically complex patients—the chronically critically ill (CCI)—and has determined that the best available proxy for intensive resource needs in LTCH patients is intensive care unit (ICU) length of stay during an immediately preceding acute care hospital (ACH) stay. The Commission has also long held that payments to providers should be properly aligned with patients' resource needs. Further, subject to risk differentials, payment for the same services should be comparable regardless of where the services are provided. In March 2014, the Commission recommended that the LTCH payment system be reformed to better align payments for both CCI and non-CCI cases across LTCH and ACH settings.

The research supporting this recommendation consistently describes CCI patients as having long ACH stays with heavy use of intensive care services (Carson et al. 2008, Donahoe 2012, MacIntyre 2012, Nelson et al. 2010, Wiencek and Winkelman 2010, Zilberberg et al. 2012, Zilberberg et al. 2008). Further, in site visits and technical expert panel discussions conducted by Kennell and Associates Inc. and RTI under contract with CMS, LTCH representatives and ACH critical care physicians agreed that medically stable post-ICU patients are appropriate candidates for LTCH care (Centers for Medicare & Medicaid Services 2013, Dalton et al. 2012). In CMS's Post-Acute Care Payment Reform Demonstration, length of stay in the ICU was significantly associated with post-acute care case complexity, and long ICU stays were a distinguishing characteristic of LTCH patients (Gage et al. 2011).

The Commission recommended that the Congress limit standard LTCH payments to cases that spent eight or more days in an ICU during an immediately preceding ACH stay. The Commission's analysis of inpatient prospective payment system (IPPS) claims data found that cases with eight or more days in an ICU accounted for about 6 percent of all Medicare discharges and had a geometric mean cost per discharge that was four times that of IPPS cases with seven or fewer ICU days. Further, these cases were concentrated in a small number of Medicare severity diagnosis related groups that correspond with the "ideal" LTCH patients described by LTCH representatives and critical care clinicians (Dalton et al. 2012).

Setting the ICU length of stay threshold for CCI cases at eight days captures a large share of LTCH cases requiring prolonged mechanical ventilation—a service specialty of many LTCHs. However, the Commission was concerned that LTCH care could be appropriate for some patients requiring mechanical ventilation even if they did not spend eight or more days in an ICU during an immediately preceding ACH stay. For LTCH cases that did not spend eight or more days in an ICU during an immediately preceding ACH stay, the Commission recommended that the Secretary of Health and Human Services set the payment rates equal to those of ACHs. The Commission recommended that savings from this policy be used to create additional inpatient outlier payments for CCI cases in IPPS hospitals.

The Pathway for SGR Reform Act of 2013 mandated changes to the LTCH prospective payment system, including limiting standard LTCH payments to cases that spent at least three days in an ICU during an immediately preceding ACH stay or to discharges that received an LTCH principal diagnosis indicating prolonged mechanical ventilation. The Commission remains concerned that a threshold of fewer than eight days is too low to distinguish truly CCI patients and thus will allow Medicare to continue to pay too much for many cases that could be cared for appropriately in other settings at a lower cost to the program. ■

### Quality of care: Meaningful measures not available, but trends for gross indicators are improving

LTCHs began reporting a limited set of quality measures to CMS in fiscal year 2013 (see text box discussing quality measures, p. 301). CMS intended to begin reporting quality data publicly on four measures in the fall of 2016; however, public reporting of two of these measures has been delayed until the spring of 2017. Public reporting on two other measures, the rate of pressure ulcers that

**TABLE 11–2**

**The number of Medicare LTCH cases and users continued to decrease between 2014 and 2015**

| | | | | | | | | Average annual change | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2004 | 2005 | 2007 | 2012 | 2013 | 2014 | 2015 | 2007–2012 | 2012–2014 | 2014–2015 |
| Cases | 121,955 | 134,003 | 129,202 | 140,463 | 137,827 | 133,984 | 131,134 | 1.7% | –2.3% | –2.1% |
| Cases per 10,000 FFS beneficiaries | 33.4 | 36.4 | 36.2 | 37.7 | 36.6 | 35.4 | 34.7 | 0.8 | –3.0 | –2.0 |
| Spending (in billions) | $3.7 | $4.5 | $4.5 | $5.5 | $5.5 | $5.4 | $5.3 | 4.3 | –1.7 | –0.4 |
| Spending per FFS beneficiary | $101.3 | $122.2 | $126.0 | $148.8 | $146.6 | $141.7 | $141.4 | 3.4 | –2.4 | –0.2 |
| Payment per case | $30,059 | $33,658 | $34,769 | $39,493 | $40,070 | $40,015 | $40,718 | 2.6 | 0.7 | 1.8 |
| Average length of stay (in days) | 28.5 | 28.2 | 26.9 | 26.2 | 26.5 | 26.3 | 26.6 | –0.5 | 0.2 | 1.0 |
| Users | 108,814 | 119,282 | 114,299 | 123,652 | 121,532 | 118,288 | 116,088 | 1.6 | –2.2 | –1.9 |

Note: LTCH (long-term care hospital), FFS (fee-for-service).

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS and the annual report of the Boards of Trustees of the Medicare trust funds.

are new or worsened and the rate of unplanned hospital readmission within 30 days after discharge from an LTCH, began in mid-December of 2016. Because of the timing of this data release, the Commission continues this year to assess aggregate trends in the quality of LTCH care by examining in-facility mortality rates, mortality within 30 days of discharge, and readmissions from LTCHs to ACHs. LTCH cases are highly concentrated in a few MS–LTC–DRGs, and the vast majority of LTCH patients have multiple diagnoses and comorbidities.

For this report, we analyzed unadjusted readmission and mortality rates for the top LTCH diagnoses from 2010 to 2015. Although rates of readmission and death can vary from year to year, over the 5-year period, we found stable or declining rates of readmissions to ACHs and stable or declining mortality rates for these diagnoses, both in the facility and 30 days postdischarge. However, we caution that these measures are not risk adjusted and, therefore, trends may be muted or exaggerated by changes in patient mix over time.

In aggregate, in 2015, 9 percent of LTCH cases were readmitted to an ACH directly from the LTCH, 13 percent died in the LTCH, and another 12 percent died within 30 days of discharge from the LTCH. Mortality rates varied markedly by diagnosis group. For example, among patients with a principal diagnosis of septicemia with prolonged ventilator support (MS–LTC–DRG 870), 32 percent died in the LTCH and 14 percent died within 30 days of discharge. By comparison, among patients assigned to the diagnosis group called "aftercare, musculoskeletal system and connective tissue with complication or comorbidity" (MS–LTC–DRG 560), only 1 percent died in the LTCH and an additional 2 percent died within 30 days of discharge. Among the highest volume MS–LTC–DRGs in 2015, patients with a diagnosis of complications of treatment with major complication or comorbidity (MS–LTC–DRG 919) had the highest readmission rate (15 percent).[12]

If we consider only cases that would have qualified to receive the LTCH PPS standard federal payment rate if the dual payment structure had been in effect at the time of discharge, the unadjusted rates of readmission directly from the LTCH, death in the LTCH, and death within 30 days of discharge would have been higher for a vast majority of highest volume MS–LTC–DRGs compared with all cases. This difference is expected given the greater severity of

## Quality measures for long-term care hospitals

The Patient Protection and Affordable Care Act of 2010 required CMS to establish a quality reporting program for long-term care hospitals (LTCHs) by fiscal year 2014 and further stipulated that LTCHs not participating in the program would have their annual payment update reduced by 2 percentage points starting in 2014. Beginning October 1, 2013, LTCHs receive a full payment update only if they successfully report on three quality measures—catheter-associated urinary tract infections (CAUTIs), central line–associated bloodstream infections (CLABSIs), and new or worsened pressure ulcers. Data on incidences of CAUTIs and CLABSIs are collected through the National Healthcare Safety Network (NHSN), an Internet-based surveillance system maintained by the Centers for Disease Control and Prevention (CDC). The data elements needed to calculate the pressure ulcer measure are collected using a data collection instrument called the LTCH Continuity Assessment Record and Evaluation (CARE) Data Set. These data are not yet available for analysis.

In 2014, CMS added two measures to the LTCH quality reporting program: the share of LTCH patients assessed for and appropriately given an influenza vaccine and influenza vaccination coverage among facility health care personnel. Facilities collect data on patient vaccination using the LTCH CARE Data Set, while the CDC's NHSN collects data on vaccination of LTCH health care personnel. Payment updates for fiscal year 2016 and after will be affected by LTCHs' reporting on these two measures.

In 2015, LTCHs were required to begin reporting facility-acquired cases of *Clostridium difficile* and methicillin-resistant *Staphylococcus aureus* through the CDC NHSN. Reductions of LTCH payment updates for failing to report on these two measures will begin in fiscal year 2017. At that time, CMS plans to start using claims data to calculate LTCHs' rates of all-cause unplanned readmissions to acute care hospitals.

CMS intends to add 4 more measures to the program beginning in fiscal year 2018, which will bring the total number of measures to 12. In January 2016, LTCHs began reporting on ventilator-associated events (such as pneumonia, sepsis, and pulmonary embolism) through the CDC NHSN. In April 2016, CMS began collecting data on the following three measures using the LTCH CARE Data Set: share of patients experiencing one or more falls resulting in major injury, change in mobility among LTCH patients who require ventilator support, and share of LTCH patients with an admission and discharge assessment and care plan that address patient function.

In its fiscal year 2017 final rule, CMS finalized three additional measures for payment determinations beginning in fiscal year 2018 to meet the requirements specified by the Improving Medicare Post-Acute Care Transformation Act of 2014 (IMPACT). CMS developed measures of total estimated Medicare spending per beneficiary, discharge to community, and potentially preventable 30-day postdischarge readmission measures for post-acute care providers to meet IMPACT's requirements to develop measures regarding resource use and other indicators. CMS also finalized a quality measure to address IMPACT's requirement to develop a quality measure regarding medication reconciliation for use beginning with 2020 payment determination. This measure requires facilities to conduct drug regimen reviews with follow-up for identified issues.

CMS began public reporting of two LTCH quality measures in mid-December of 2016, including the share of patients with pressure ulcers that are new or worsened and the rate of the all-cause unplanned readmissions. The Commission has not yet analyzed these data. CMS intends to begin public reporting on the CAUTI and CLABSI measures in the spring of 2017. ■

illness and case mix for this group of beneficiaries. In 2015, 10 percent of LTCH cases that would have qualified to receive the LTCH PPS standard federal rate under the dual payment structure were readmitted to an ACH directly from the LTCH, 17 percent died in the LTCH, and another 13 percent died within 30 days of discharge from the LTCH. Mortality rates for qualifying cases continued to vary markedly by diagnosis group.

**TABLE 11–3**

**The top 25 MS–LTC–DRGs made up two-thirds of LTCH discharges in 2015**

| MS–LTC–DRG | Description | Discharges | Percentage |
|---|---|---|---|
| 189 | Pulmonary edema and respiratory failure | 16,685 | 12.7% |
| 207 | Respiratory system diagnosis with ventilator support 96+ hours | 15,024 | 11.5 |
| 871 | Septicemia without ventilator support 96+ hours with MCC | 8,946 | 6.8 |
| 177 | Respiratory infections and inflammations with MCC | 3,462 | 2.6 |
| 592 | Skin ulcers with MCC | 3,458 | 2.6 |
| 539 | Osteomyelitis with MCC | 3,064 | 2.3 |
| 208 | Respiratory system diagnosis with ventilator support <96 hours | 2,801 | 2.1 |
| 682 | Renal failure with MCC | 2,612 | 2.0 |
| 949 | Aftercare with CC/MCC | 2,540 | 1.9 |
| 919 | Complications of treatment with MCC | 2,265 | 1.7 |
| 559 | Aftercare, musculoskeletal system and connective tissue with MCC | 2,083 | 1.6 |
| 314 | Other circulatory system diagnoses with MCC | 1,940 | 1.5 |
| 870 | Septicemia with ventilator support 96+ hours | 1,852 | 1.4 |
| 4 | Tracheostomy with ventilator support 96+ hrs or primary diagnosis except face, mouth and neck without major OR procedure | 1,828 | 1.4 |
| 862 | Postoperative and post-traumatic infections with MCC | 1,823 | 1.4 |
| 166 | Other respiratory system OR procedures with MCC | 1,758 | 1.3 |
| 190 | Chronic obstructive pulmonary disease with MCC | 1,723 | 1.3 |
| 853 | Infectious and parasitic diseases with OR procedure with MCC | 1,694 | 1.3 |
| 193 | Simple pneumonia and pleurisy with MCC | 1,690 | 1.3 |
| 291 | Heart failure and shock with MCC | 1,641 | 1.3 |
| 570 | Skin debridement with MCC | 1,634 | 1.2 |
| 638 | Diabetes with CC | 1,598 | 1.2 |
| 981 | Extensive OR procedure unrelated to principal diagnosis with MCC | 1,576 | 1.2 |
| 560 | Aftercare, musculoskeletal system and connective tissue with CC | 1,421 | 1.1 |
| 602 | Cellulitis with MCC | 1,376 | 1.0 |
| | Top 25 MS–LTC–DRGs | 86,494 | 66.0 |

Note: MS–LTC–DRG (Medicare severity long-term care diagnosis related group), LTCH (long-term care hospital), MCC (major complication or comorbidity), CC (complication or comorbidity), OR (operating room). MS–LTC–DRGs are the case-mix system for LTCH facilities. The sum of column components may not equal the stated total due to rounding.

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS.

## Providers' access to capital: Continued short-term uncertainty slows investment

Access to capital allows LTCHs to maintain, modernize, and expand their facilities. If LTCHs were unable to access capital, it might in part reflect problems with the adequacy of Medicare payments since Medicare accounts for about half of LTCH total revenues. However, for the past several years, the level of capital investment has reflected more about uncertainty regarding changes to regulations and legislation governing LTCHs than about current Medicare payment rates. Although the criteria to receive the higher LTCH payment rate specified in the Pathway for SGR Reform Act of 2013 provide more long-term regulatory certainty for the industry compared with recent years, short-run uncertainties regarding the industry's ability to comply with the new patient criteria have resulted in low levels of capital investment. Further, payment reductions implemented by CMS and congressional moratoriums on new LTCH beds and facilities from December 2007 through December 2012 and again from April 2014 through

September 2017 continue to limit future opportunities for growth and reduce the industry's need for capital.

LTCHs and LTCH companies have been positioning themselves for the changing payment environment. For example, in this primarily for-profit industry, Kindred Healthcare Inc. (Kindred), which owns about 20 percent of LTCHs, has continued to pursue an "integrated care market" strategy and diversify its portfolio through ownership, operation, or networks of post-acute care providers and LTCHs in a single market (Kindred Healthcare 2013).[13,14] This strategy is intended to improve the chain's ability to control its mix of patients and costs and limit the impact of payment policy changes in any one post-acute care sector. As part of this strategy, in 2015, Kindred acquired Gentiva Health Services, a large provider of home health and hospice care, and Centerre Healthcare Corporation, an inpatient rehabilitation hospital company (Cain Brothers 2014, Kindred Healthcare 2014). At the same time, Select Medical Corporation (Select), which operates about 25 percent of LTCH facilities, has also been diversifying its portfolio. For example, in June 2015, Select finalized the acquisition of Concentra Inc., a health care company that provides medical services to employers and patients through a joint venture. Concentra Inc., previously a subsidiary of Humana, provides services including urgent care, occupational medicine, physical therapy, primary care, and wellness programs (Select Medical 2015).

Both major LTCH chains have shifted their portfolios over the last year through closures and sales. For example, Kindred reduced the number of LTCHs in its portfolio from 95 to 82, while Select has reduced the number of LTCHs it operates from 109 to 104. During 2016, Kindred acquired five LTCHs from Select, and Select acquired three hospitals from Kindred. In addition, in October 2016, Kindred Healthcare Inc. completed an agreement to sell 12 LTCHs (a total of 783 licensed beds) to Curahealth (Kindred Healthcare 2016a, Kindred Healthcare 2016b, Select Medical 2016).

## Medicare's payments and providers' costs: Cost growth exceeded payment growth

From 2007 until 2012, LTCHs held cost growth below the rate of increase in the market basket index, a measure of inflation in the prices of goods and services LTCHs buy to provide care. Beginning in 2009, payments increased at a faster rate than the rate of provider costs. Starting after 2012, however, Medicare payments increased more slowly than the rate of provider costs. This trend has continued, resulting in an aggregate 2015 Medicare margin of 4.6 percent compared with 7.6 percent in 2012. Financial performance in 2015 varied across LTCHs, reflecting differences in cost control and response to payment incentives.

### Reductions in the number of LTCH cases slowed spending growth in 2014 and 2015

In the first three years of the LTCH PPS, Medicare spending for LTCH services grew rapidly, climbing an average of 29 percent per year. CMS's subsequent changes to LTCH payment policies slowed growth in spending between 2005 and 2008 to less than 1 percent per year. MMSEA halted or rolled back the implementation of some CMS regulations designed to address issues of excessive payments to LTCHs. As a result, between 2008 and 2010, spending jumped more than 6 percent per year.[15] Although some of the MMSEA provisions continued through fiscal year 2013, spending growth between 2010 and 2013 slowed to 2.1 percent per year on average, in part because of PPACA-mandated reductions in Medicare's LTCH payment rate beginning in 2011.[16] Between 2013 and 2015, spending decreased by an average of just over 1 percent per year.

### LTCHs continue to restrain cost growth

LTCHs appear to be responsive to changes in payment, adjusting their costs per case when payments per case change. In the first years of the PPS, cost per case increased rapidly after a surge in payment per case (Figure 11-2, p. 304). However, starting in 2007, growth in cost per case slowed considerably because regulatory changes to Medicare's payment policies for LTCHs slowed growth in payment per case.

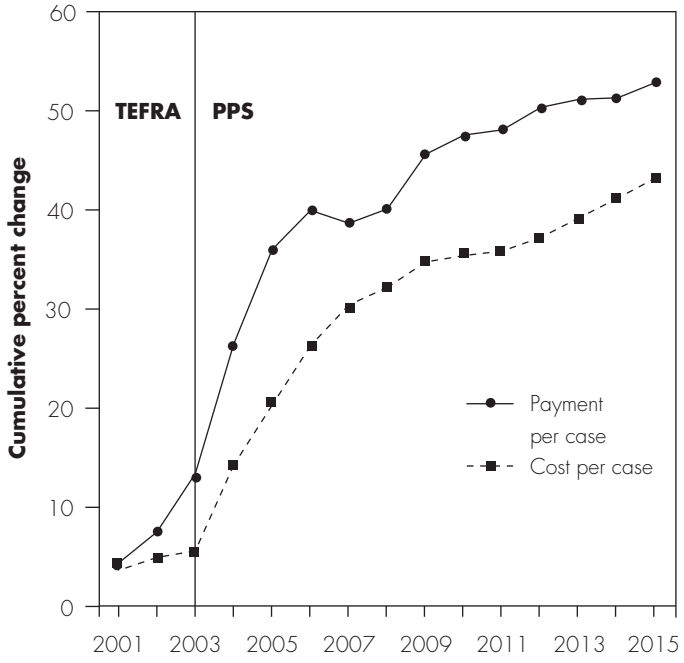
For most of the past decade, LTCHs have held cost growth below the rate of market basket increases, likely because of ongoing concerns about possible changes to Medicare's payment policies for LTCH services. The slowest growth in average cost per case occurred between 2009 and 2011, when it increased less than 1 percent per year. Between 2012 and 2015, the average cost per case increased by about 2 percent per year, including 2.1 percent between 2014 and 2015 (Figure 11-2, p. 304).

### Aggregate LTCH margins decreased

After the LTCH PPS was implemented in fiscal year 2003, margins rose rapidly for all LTCH provider types, climbing

**FIGURE 11–2**

**LTCHs' per case costs increased more than payments in 2015**




Note: LTCH (long-term care hospital), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system). Percentage changes are calculated based on consistent two-year cohorts of LTCHs.

Source: MedPAC analysis of Medicare cost report data from CMS.

to 11.9 percent in 2005 (data not shown in Table 11-4). At that point, margins began to fall as growth in payments per case leveled off. In 2008, LTCH margins averaged 3.7 percent, the lowest since the implementation of the LTCH PPS in 2003 (Table 11-4). From 2009 through 2012, LTCH margins began to climb again as providers consistently held cost growth below that of payment growth. CMS began implementing a downward adjustment in response to unexpected changes in coding practices that increased payments to LTCHs relative to CMS's estimates in the first year of the PPS, fiscal year 2003. These adjustments in 2013, 2014, and 2015 were intended to bring payments to LTCHs more in line with what would have been spent under the previous payment method, decreasing the standard federal payment rate by about 3.75 percent in total. In 2013, the aggregate LTCH margin fell from 7.6 percent to 6.8 percent, primarily because of the first year of a three-year phase-in of the downward adjustment for budget neutrality and the effect of budget sequestration beginning April 1, 2013 (Table 11-4). As anticipated, the margin fell again in 2014 to 5.1 percent. In 2015, the third and final year of the downward adjustment for budget neutrality, the aggregate LTCH margin fell to 4.6 percent.

### Differences in cost growth across the industry

Financial performance in 2015 varied across LTCHs. For-profit LTCHs (which account for more than three-quarters of all LTCHs and 84 percent of LTCH discharges) had the highest margins at about 6 percent. Margins for nonprofit LTCHs (which account for less than 20 percent of all LTCHs and 13 percent of LTCH discharges) were –6 percent. Between 2014 and 2015, the for-profit LTCH margin decreased by 0.5 percentage point, while the nonprofit LTCH margins fell by about 3.6 percentage points. These declines resulted from growth in cost that exceeded growth in payment per case. However, because this analysis includes all facilities with valid cost reports for 2015, some of the change is a result of different facilities reporting data in each of the years examined. If we constrain the analysis to the same cohort of providers for 2014 and 2015, the for-profit LTCH margin in those two years decreased by 0.5 percentage point, from 6.9 percent to 6.4 percent. In the same one-year period, nonprofit LTCH margins fell 2 percentage points, from –3.1 percent to –5.2 percent (data not shown).

With the exception of 2014, nonprofit LTCHs have generally experienced higher cost growth than for-profit entities. In 2015, nonprofit LTCHs again experienced a higher rate of cost growth compared with for-profit LTCHs. When we examine cumulative cost growth over the last decade, we find that for-profit facilities exhibited cost growth levels about one-third lower than that of nonprofit LTCHs.

The comparatively poor financial performance of nonprofit LTCHs reflects a number of differences in providers' ability to control their costs. First, though occupancy rates in 2014 for the two groups were fairly similar (65.7 percent for nonprofit LTCHs vs. 68.6 percent for for-profit LTCHs), nonprofit LTCHs were smaller and had fewer total cases than for-profit LTCHs (an average of 438 vs. 520, respectively). About 68 percent of nonprofit LTCHs had fewer than 50 beds compared with about half of for-profit LTCHs. Nonprofit LTCHs were therefore less likely than for-profit LTCHs to benefit from economies of scale. In addition, nonprofit LTCHs tend to be less able to control their input costs than for-profit LTCHs that are members of large chains. For-profit LTCH chains that own other types of post-acute care providers in a single market likely have a distinct advantage over other LTCHs because

**TABLE 11–4**

**The aggregate LTCH Medicare margin fell slightly in 2015**

| Type of LTCH | Share of discharges | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|---|---|
| All | 100% | 3.7% | 5.8% | 6.7% | 6.9% | 7.6% | 6.8% | 5.1% | 4.6% |
| Urban | 95 | 4.0 | 6.1 | 7.0 | 7.1 | 7.7 | 7.0 | 5.1 | 4.6* |
| Rural | 5 | –4.0 | –3.6 | 0.0 | 2.7 | 3.2 | 2.5 | 4.1 | 2.8* |
| Nonprofit | 13 | –2.5 | –0.7 | –0.3 | 0.3 | –0.3 | –1.1 | –2.4 | –6.0 |
| For profit | 84 | 5.3 | 7.4 | 8.3 | 8.4 | 9.2 | 8.6 | 6.9 | 6.4 |
| Government | 2 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

Note: LTCH (long-term care hospital), N/A (not applicable). Margins for government-owned providers are not shown. They operate in a different context from other providers, so their margins are not necessarily comparable.
*CMS adopted new core-based statistical area (CBSA) codes for LTCHs beginning fiscal year 2015; this change reclassified several facilities as urban that had previously been classified as rural, and therefore the margins across categories of urban and rural of facilities between 2014 and 2015 should not be compared. Applying the old CBSA definition to 2015, we calculated both an urban margin and a rural margin equal to 4.6 percent in 2015. The decrease in margin shown above is solely attributed to the change in facilities classified as urban and rural.

Source: MedPAC analysis of Medicare cost report data from CMS.

they are better able to control their mix of patients and lengths of stay (which is especially true if the providers are vertically integrated). Nonprofit LTCHs had a larger share of cases with extraordinarily high costs (21.3 percent of nonprofit LTCHs' cases qualified for high-cost outlier payments vs. 14.3 percent of for-profit LTCHs' cases), although it is not clear whether this difference stems from differences in efficiency, case complexity, or both. Nonprofit LTCHs had more short-stay outliers than for-profit LTCHs (29.8 percent vs. 26.0 percent, respectively). Nonprofit LTCHs also had a higher share of very short-stay outliers (13.1 percent compared with 12.0 percent in for-profit LTCHs), which typically pay less than short-stay outliers, and thus received reduced payments for a larger share of their Medicare patients.

Differences in case mix between nonprofit and for-profit LTCHs are difficult to evaluate. By some measures, nonprofit LTCHs appear to care for a somewhat sicker patient population. For example, a higher share of cases in nonprofit LTCHs qualified for high-cost outlier payments. Similarly, nonprofit LTCHs had a higher share of cases that were high-cost outliers during their immediately preceding ACH stay (17.2 percent compared with 14.5 percent of for-profit LTCHs' cases). Another indicator suggesting a sicker patient population is length of stay: The average Medicare-covered stay in nonprofit LTCHs was 2 days longer than in for-profit ones (28 days vs. 26 days, respectively). However, longer stays could also result from inefficient care. Other indicators of patient mix suggest fewer differences between the two types of facilities. The average case mix in nonprofit and for-profit LTCHs was similar. Nonprofit and for-profit LTCHs also had similar shares of cases that had ICU stays lasting longer than three days during an immediately preceding ACH stay.

### High-margin LTCHs had lower unit costs

In 2015, higher unit costs were the primary driver of differences in financial performance between LTCHs with the lowest and highest Medicare margins (those in the bottom and top 25th percentiles of Medicare margins) (Table 11-5, p. 306).[17] After accounting for differences in case mix and local market input price levels, low-margin LTCHs had standardized costs per discharge that were 35 percent higher than high-margin LTCHs ($37,789 vs. $28,088, respectively). Low-margin LTCHs likely benefited less from economies of scale. Compared with their high-margin counterparts, low-margin LTCHs had fewer cases overall (an average of 426 compared with 503 for high-margin LTCHs) and lower occupancy rates (57 percent vs. 75 percent, respectively). Notably, high-margin LTCHs had a higher average share of Medicare discharges than did low-margin LTCHs (67 percent vs. 57 percent, respectively), which suggests that Medicare patients are financially desirable.

Outlier payments made up a larger share of total payments to low-margin LTCHs compared with high-margin LTCHs

**TABLE 11–5** **LTCHs in the top quartile of Medicare margins in 2015 had lower costs**

| Characteristics | High-margin quartile | Low-margin quartile |
|---|---|---|
| Mean margin | 17.8% | –14.6% |
| Mean total discharges per facility (all payers) | 503 | 426 |
| Medicare patient share | 67% | 57% |
| Average length of stay (in days) | 26 | 28 |
| Occupancy rate | 75% | 57% |
| Mean CMI | 1.17 | 1.13 |
| Mean per discharge: | | |
| Standardized costs | $28,088 | $37,789 |
| Standard Medicare payment* | 38,254 | 35,896 |
| High-cost outlier payments | 2,060 | 6,700 |
| Share of: | | |
| SSO cases | 25% | 29% |
| Medicare cases from primary referring ACH | 37 | 41 |
| LTCHs that are for profit | 83 | 59 |

Note: LTCH (long-term care hospital), CMI (case-mix index), SSO (short-stay outlier), ACH (acute care hospital). Includes only established LTCHs—those that filed valid cost reports in both 2014 and 2015. High-margin quartile LTCHs were in the top 25 percent of the distribution of Medicare margins. Low-margin quartile LTCHs were in the bottom 25 percent of the distribution of Medicare margins. Standardized costs have been adjusted for differences in case mix and area wages. Case-mix indexes have been adjusted for differences in short-stay outliers across facilities. The "primary referring ACH" is the acute care hospital from which the LTCH receives a plurality of its Medicare patients. Government providers were excluded. *Excludes outlier payments.

Source: MedPAC analysis of LTCH cost reports and Medicare Provider Analysis and Review data from CMS.

(5 percent compared with almost 16 percent). High-cost outlier payments per discharge for low-margin LTCHs averaged more than three times the amount paid to high-margin LTCHs ($6,700 vs. $2,060, respectively). When these outlier payments were removed from total payments, we found that the standard payment per discharge for low-margin LTCHs was 6.2 percent lower than that for high-margin LTCHs ($35,896 vs. $38,254, respectively). This difference was in part because the low-margin LTCHs had a lower average case mix (1.13 vs. 1.17 for high-margin LTCHs) and in part because they cared for a disproportionate share of short-stay outlier cases, which often are paid at reduced rates. Such cases made up 29 percent of low-margin LTCHs' cases compared with 25 percent in high-margin LTCHs.

### Financial incentives to serve Medicare beneficiaries across LTCHs

Another consideration in evaluating the adequacy of payments is to assess whether providers have a financial incentive to expand the number of Medicare beneficiaries they serve. In considering whether to treat a patient, the provider compares the revenue it will receive for treating one additional patient (i.e., the Medicare payment) with its marginal costs—that is, costs that vary with volume, in this case, to treat one additional patient. If Medicare payments are larger than the marginal costs of treating an additional beneficiary, a provider has a financial incentive to increase its volume of Medicare patients. On the other hand, if payments do not cover the marginal costs, the provider has a disincentive to admit Medicare beneficiaries. To operationalize this concept, we compare payments for Medicare services with marginal costs, approximated as:

Marginal profit = (payments for Medicare services – (total Medicare costs – fixed building and equipment costs)) / Medicare payments

This comparison is a lower bound on the marginal profit because we ignore any labor costs that are fixed. In 2015, the average LTCH marginal profit was 19.6 percent across all Medicare cases. This share suggests that LTCHs with available beds have a financial incentive to increase their occupancy rates with Medicare beneficiaries and represents a positive indicator of access.

## How should Medicare payments change in 2018?

We project LTCH margins for 2017 based on margins in 2015 and policy changes that take place in 2016 and 2017, including those in the Patient Protection and Affordable Care Act of 2010 (PPACA). Those changes that affect our estimate of the 2017 margin include:

- a market basket increase of 2.4 percent for fiscal year 2016, offset by PPACA-required reductions totaling 0.7 percentage point for a net update of 1.7 percent;[18]

- a market basket increase of 2.8 percent for fiscal year 2017, offset by PPACA-required reductions totaling 1.05 percentage points for a net update of 1.75 percent;[19]
- an increase in expected short-stay outlier payments based on an increase in costs; and
- high-cost outlier payment adjustments.

As required by PPACA, beginning in 2016, LTCH discharges for beneficiaries who do not meet the specified patient criteria are paid differently from the standard federal payment rate. Payment for these beneficiaries equals the lesser of an amount based on Medicare's ACH IPPS or 100 percent of cost. The Commission expects that substantial changes in provider behavior will mitigate the impact that the new payment methodology has on LTCH providers (see text box discussing the implementation of LTCH legislation, p. 309). The LTCH industry has repeatedly demonstrated its responsiveness to payment policy changes, and the Commission has no reason to believe that the response to these most recent changes will be any different. This responsiveness, combined with the multiyear policy phase-in, complicates the projection of future margins. For example, the two largest for-profit LTCH chains have taken different approaches to the new policy, which seem to be, based on limited data, either changing admission patterns significantly or reducing cost. There is less certainty regarding how LTCHs not included in large chains (including nonprofit LTCHs) will respond to the new patient-specific criteria. In addition, there is an industry-wide focus on lower cost sites of post-acute care through several initiatives, including the expansion of accountable care organizations and the ACH Value-Based Purchasing Program; therefore, it is reasonable to expect that changes in practice and referral patterns across the industry from these programs will result in lower LTCH use.

Given the recent trends in higher cost growth and the potentially increasing costs associated with treating a higher share of beneficiaries who qualify for the full LTCH standard payment rate, we expect cost growth to equal projected LTCH market basket levels, which are slightly higher than projected payment growth during 2016 and 2017.

Because of the uncertainty regarding the degree to which LTCHs can respond to the new patient-level criteria, and because the payment for these cases relies on the update to the ACH IPPS rate or the individual LTCH's growth in cost, we have excluded cases not paid under the standard LTCH payment rate from our margin projections. Instead, we calculated a margin using only cases that would have qualified to receive the full LTCH standard payment rate. In 2013, 2014, and 2015, these cases were more profitable than other cases. Using the most recently available claims data combined with revenue center–specific cost-to-charge ratios for each LTCH, we calculated the 2015 margin for cases that would have qualified to receive the full LTCH standard payment rate to equal 6.8 percent, 2.2 percentage points higher than the total aggregate Medicare margin (4.6 percent), fairly consistent with our 2014 calculations.

Using the projected growth in the LTCH market basket, we project that LTCHs' aggregate Medicare margin for qualifying cases paid under the LTCH PPS will be 5.4 percent in 2017, reflecting current policy and cost structure for these cases. A conservative lower bound of this estimate is 3.2 percent if we assume that the margins of the qualifying cases will reflect the underlying cost and payment structure across all LTCH cases in 2015. This projection does not reflect all cases under the new payment rules; instead, LTCHs' 2017 total aggregate Medicare margin will differ from this projection to the extent that providers furnish care for beneficiaries who do not qualify for the full LTCH standard payment rate since we expect these cases to be less profitable under the new payment structure.

On the basis of these indicators, the Commission concludes that LTCHs can continue to provide Medicare beneficiaries with access to safe and effective care and accommodate changes in their costs with no update to LTCH payment rates in fiscal year 2018. Like we done have historically, we plan to assess both our cost growth assumptions and methodology for calculating the margin on cases that would qualify for the standard LTCH payment rate as the policy is phased in and data reflecting the new policy become available.

This update recommendation applies to the Medicare LTCH PPS base payment rate. That is, it applies to payments for discharges that meet the criteria specified in the Pathway for SGR Reform Act of 2013 and to the portion of the blended payment that reflects the LTCH payment rate for discharges that do not meet the specified criteria (applicable during the policy's phase-in period).

## RECOMMENDATION 11

**The Congress should eliminate the update to the payment rates under the long-term care hospital prospective payment system for fiscal year 2018.**

## RATIONALE 11

We estimate that the supply of LTCH facilities and beds decreased slightly during 2015. Although the number of LTCH stays decreased, both in total and per capita, LTCH occupancy rates are well under capacity, suggesting that access to care in LTCHs has been maintained. While the limited quality trends that we measure appear to be stable across all cases, we will continue to monitor these trends under the new dual payment system. We will also begin to evaluate the utility of the new CMS LTCH quality measures once they have sufficiently matured. The availability of capital to LTCHs does not reflect current payment rates but, rather, the implementation of a moratorium on new facilities and beds and the short-term uncertainties related to the implementation of the dual payment system. The aggregate Medicare margin for 2015 was positive, suggesting that LTCHs are able to operate under current payment rates. We continue to expect LTCHs to respond to the new payment incentives quickly and dramatically. Based on the historical trends and the increase in acuity of the beneficiaries who would now qualify for the full LTCH standard payment rate, we also expect to see increases in cost growth in 2016 and 2017 as the policy is implemented. Given the projected positive margin for qualifying cases, the 2018 LTCH base payment rate should be the same as the 2017 rate.

## IMPLICATIONS 11

### Spending

- This recommendation would decrease federal program spending relative to the statutory payment update by between $50 million and $250 million in 2018 and by less than $1 billion over five years.

### Beneficiary and provider

- This recommendation is not expected to affect Medicare beneficiaries' access to care or providers' willingness or ability to furnish care. ■

## Implementation of long-term care hospital legislation

The Pathway for SGR Reform Act of 2013 established "site-neutral" payments for specified cases in long-term care hospitals (LTCHs), beginning in fiscal year 2016. Since 2016, only qualifying cases are eligible to receive the full LTCH prospective payment system (PPS) standard payment rate. It will be some time before we see LTCHs' full response to the legislation because this policy is being implemented based on the start of each LTCH's fiscal year, which varies across LTCHs. Further, it is phased in at 50 percent of the LTCH PPS standard payment rate and 50 percent of the site-neutral payment rate.

In discussing LTCH strategies to maintain profitability following implementation, the Commission has heard a variety of responses from the industry. For example, LTCHs in one large for-profit chain are admitting only beneficiaries that qualify to receive the full LTCH PPS standard payment rate. Using data through September 30, 2016, this LTCH chain reported that close to 100 percent of Medicare discharges met the criteria to receive the full LTCH PPS standard rate. The average daily census across these LTCHs has dropped by about 2.5 patients per hospital per day; however, the admitted Medicare cases have higher case mix and thus result in higher revenue per day compared with before the implementation of the dual payment policy (Select Medical 2016).

Another large for-profit chain began receiving Medicare payment for discharges under the dual payment structure beginning September 1, 2016. In its third quarter 2016 earnings release, this chain reported a slight decrease in Medicare admissions, but an increase in total admissions compared with the third quarter of 2015. Medicare revenue per admission decreased by about 5 percent compared with the same quarter last year. This chain continues to take Medicare beneficiaries that qualify to receive the full LTCH standard payment amount and beneficiaries paid under the site-neutral rate. This chain reported about a one-day decrease in the average length of stay, predominantly from reductions in lengths of stay for cases paid the under the site-neutral rate (Kindred Healthcare 2016b).

LTCHs have discussed other strategies, including expanding their market presence, expanding the payer mix to include more managed care, and reducing costs for nonqualifying cases through changes in staff mix. The success of these strategies will likely vary by facility and market area, and it will be another several years before the data reflect facilities' responses to this new policy. ■

# Endnotes

1 The Medicare, Medicaid, and SCHIP Extension Act of 2007 also requires LTCHs to have a patient review process that screens patients to ensure appropriateness of admission and continued stay, physician on-site availability on a daily basis, and interdisciplinary treatment teams of health care professionals. The Pathway for SGR Reform Act of 2013 specifies that beginning in fiscal year 2020, LTCHs will also be required to maintain a certain share of beneficiaries who qualify to receive the full LTCH standard payment rate.

2 More information on the prospective payment system for LTCHs is available at http://www.medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_16_ltch_final.pdf?sfvrsn=0.

3 Medicare pays LTCHs outlier payments for patients who are extraordinarily costly. High-cost outlier cases are identified by comparing their costs with a threshold that is the MS–LTC–DRG payment for the case plus a fixed loss amount ($14,972 in 2015). Medicare pays 80 percent of the LTCH's costs above the threshold. In fiscal year 2015, high-cost outlier payments were made for about 16 percent of LTCH cases. The prevalence of high-cost outlier cases varied by LTCH ownership. About 14 percent of cases in for-profit LTCHs were high-cost outliers compared with 21 percent of cases in nonprofit LTCHs. Historically, some case types have been far more likely to be high-cost outliers than others. For example, almost a quarter of cases assigned to MS–LTC–DRG 4 (tracheostomy with prolonged mechanical ventilation) typically receive high-cost outlier payments each year.

4 Not all LTCHs' cost reporting start dates are the same, so the dual payment structure began for LTCHs throughout fiscal year 2016.

5 MMSEA and subsequent legislation allowed exceptions to the moratorium for (1) LTCHs that began their qualifying period (demonstrating an average Medicare length of stay greater than 25 days) on or before December 29, 2007; (2) entities that had a binding or written agreement with an unrelated party for the construction, renovation, lease, or demolition of an LTCH, with at least 10 percent of the estimated cost of the project already expended on or before December 29, 2007; (3) entities that had obtained a state certificate of need on or before December 29, 2007; (4) existing LTCHs that had obtained a certificate of need for an increase in beds, issued on or after April 1, 2005, and before December 29, 2007; and (5) LTCHs that are located in a state with only one other LTCH and that sought to increase beds after the closure or decrease in the number of beds of the state's other LTCH.

6 The Pathway for SGR Reform Act of 2013, as amended by the Protecting Access to Medicare Act of 2014, allows exceptions to the moratorium for (1) LTCHs that began their qualifying period (demonstrating an average Medicare length of stay greater than 25 days) on or before April 1, 2014; (2) entities that had a binding or written agreement with an unrelated party for the construction, renovation, lease, or demolition of an LTCH, with at least 10 percent of the estimated cost of the project already expended on or before April 1, 2014; and (3) entities that had obtained a state certificate of need on or before April 1, 2014.

7 The Pathway for SGR Reform Act of 2013 implemented a moratorium, with no exceptions, on the establishment of new LTCHs or additional beds at existing LTCHs from January 1, 2015, through September 30, 2017. Subsequently, the Protecting Access to Medicare Act of 2014 changed the moratorium extension start date to April 1, 2014, and allowed exceptions on the establishment and classification of new LTCHs. This law strictly prohibited increases in the number of Medicare-certified LTCH beds in existing facilities.

8 Thirty-five LTCHs included in the 2014 analysis were excluded from the 2015 analysis because of changes in cost reporting periods, closures, or status as an all-inclusive rate provider. Twenty-seven LTCHs that were not included in the 2014 analysis because of changes in cost reporting periods were included in the 2015 analysis. Combined, these facility changes resulted in eight fewer facilities in the 2015 analysis compared with 2014.

9 The Commission requires cost reports to span between 10 and 13 months for inclusion in the margin analysis.

10 Historically, the Commission has found that the Medicare Provider of Services (POS) file includes a larger number of facilities than are found in the cost report file. The cost report file provides a more conservative estimate of total capacity because some LTCHs may not yet have filed a cost report for the applicable year when we completed our analysis, while others may have been exempt from filing cost reports because of low Medicare volume or because they are paid under an all-inclusive rate. However, POS data may overstate the total number of LTCHs because facilities that close may not be immediately removed from the file.

11 Across the top 25 diagnoses for both qualifying cases and all cases, 21 MS–LTC–DRGs overlap. The diagnoses that do not overlap in the top 25 represent relatively low-volume MS–LTC–DRGs. Using a consistent definition of the top 25 MS–LTC–DRGs based on all cases also captures 78 percent of qualifying cases.

12 We observed a higher readmission rate (19.6 percent) for cases with respiratory diagnoses with mechanical ventilation lasting less than 96 hours (MS–LTC–DRG 208). However, a higher rate of readmission is expected for this group because it is defined in part by the length of time a service (mechanical ventilation) is received. Any patient with a principal respiratory diagnosis with use of mechanical ventilation who is readmitted to a short-term ACH within 4 days is assigned to MS–LTC–DRG 208, while a similar patient who stays in the LTCH for a longer period is likely assigned to "respiratory diagnosis with mechanical ventilation lasting more than 96 hours" (MS–LTC–DRG 207). When we combined cases assigned to MS–LTC–DRGs 207 and 208 and recalculated the rate of readmission, we found that 11.7 percent of these cases were readmitted in 2014.

13 In 2014, over 75 percent of LTCHs were for profit; these for-profit facilities accounted for approximately 85 percent of LTCH cases.

14 In its third quarter 2016 earnings release, Kindred announced its plan to exit the SNF business; Kindred currently owns about 90 SNFs (Kindred Healthcare 2016b).

15 Another factor was growth in the reported patient case-mix index (CMI), which measures the expected costliness of a facility's patients (Centers for Medicare & Medicaid Services 2010, Centers for Medicare & Medicaid Services 2009, Centers for Medicare & Medicaid Services 2008, Centers for Medicare & Medicaid Services 2007, Centers for Medicare & Medicaid Services 2006). Refinements to the LTCH case-mix classification system, implemented in October 2007, likely led to more complete documentation and coding of the diagnoses, procedures, services, comorbidities, and complications that are associated with payment, thus raising the average CMI, even though patients may have been no more resource intensive than they were previously (Centers for Medicare & Medicaid Services 2009, Medicare Payment Advisory Commission 2009, RAND Corporation 1990). Although some of the increase in LTCHs' CMI between 2008 and 2009 was due to growth in the intensity and complexity of the patients admitted, CMS estimated that the case-mix increase attributable to documentation and coding improvements was 2.5 percent (Centers for Medicare & Medicaid Services 2010, Centers for Medicare & Medicaid Services 2009). Those improvements contributed to growth in payments to providers without corresponding increases in providers' costs. CMS reduced the update to the LTCH base payment rate in fiscal years 2010 and 2011 to partly offset payment increases due to documentation and coding improvements between 2007 and 2009.

16 PPACA specified that the annual update to the LTCH standard payment rate in 2011 be reduced by half a percentage point. That requirement, combined with a CMS offset to the 2011 update to account for past improvements in documentation and coding, resulted in a negative update to the LTCH payment rate in 2011. PPACA also mandated reductions in the LTCH standard payment rate of 1.1 percent in 2012, 0.8 percent in 2013, 0.8 percent in 2014, 0.7 percent in 2015, and 0.7 percent in 2016.

17 Many new LTCHs operate at a loss for a period after opening. For this analysis of high-margin and low-margin LTCHs, we examined only LTCHs that submitted valid cost reports in both 2014 and 2015. We excluded government-owned LTCHs.

18 The 2016 LTCH PPS market basket increase equaled 2.4 percent; then, as required by law, CMS applied a 0.7 percentage point reduction to account for multifactor productivity (0.5 percentage point) and an additional factor (0.2 percentage point).

19 The 2017 payment update equaled the LTCH PPS market basket increase of 2.8 percent, less the required multifactor productivity adjustment of 0.3 percentage point and less the required 0.75 percentage point reduction.

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CHAPTER 12

# Hospice services

## RECOMMENDATION

**12** The Congress should eliminate the update to the hospice payment rates for fiscal year 2018.

**COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0**

CHAPTER 12

# Hospice services

## Chapter summary

The Medicare hospice benefit covers palliative and support services for beneficiaries who are terminally ill with a life expectancy of six months or less if the illness runs its normal course. Beneficiaries may choose to elect the Medicare hospice benefit; in so doing, they agree to forgo Medicare coverage for conventional treatment of their terminal illness and related conditions. In 2015, more than 1.38 million Medicare beneficiaries (including nearly 49 percent of decedents) received hospice services from about 4,200 providers, and Medicare hospice expenditures totaled about $15.9 billion.

### Assessment of payment adequacy

The indicators of payment adequacy for hospices, discussed below, are positive.

***Beneficiaries' access to care*—**Hospice use among Medicare beneficiaries has grown substantially in recent years, suggesting greater awareness of and access to hospice services. In 2015, hospice use increased across all demographic and beneficiary groups examined. However, rates of hospice use remained lower for racial and ethnic minorities than for White beneficiaries.

- ***Capacity and supply of providers*—**The number of hospice providers increased by about 2.6 percent in 2015, due almost entirely to growth in the number of for-profit hospices, continuing a more than decade-long trend of substantial market entry by for-profit providers.

## In this chapter

- Are Medicare payments adequate in 2017?
- How should Medicare payments change in 2018?

- ***Volume of services*—**In 2015, the proportion of beneficiaries using hospice services at the end of life continued to grow, while average length of stay among decedents declined slightly. Of the total Medicare beneficiary decedents in 2015, 48.6 percent used hospice, up from 47.9 percent in 2014. Between 2014 and 2015, average length of stay among decedents declined slightly, from 88.2 days to 86.7 days, as a result of a decrease in length of stay among hospice decedents with the longest stays. The median length of stay for hospice decedents was 17 days in 2015 and has remained stable at approximately 17 or 18 days for more than a decade.

***Quality of care*—**The first aggregate data on hospice quality have recently become available, and the quality scores are generally positive for most hospices and most measures. Since July 2014, hospices have been reporting data on seven measures that gauge the frequency with which hospices perform certain care processes on admission that are considered important aspects of hospice care. These measures focus on pain screening, pain assessment, dyspnea screening, dyspnea treatment, documentation of treatment preferences, addressing beliefs and values if desired by patient, and provision of a bowel regimen for patients treated with an opioid. Initial aggregate data analyzed by a CMS contractor found that most hospices scored high (greater than 90 percent) on six of the seven measures (RTI International 2016). Performance on the pain assessment measure was lower and more varied, with half of hospices scoring between 65 percent (25th percentile) and 92 percent (75th percentile).

***Providers' access to capital*—**Hospices are not as capital intensive as some other provider types because they do not require extensive physical infrastructure. Continued growth in the number of for-profit providers (a 5 percent increase in 2015) suggests capital is available to for-profit providers. Less is known about access to capital for nonprofit freestanding providers, for which capital may be more limited. Hospital-based and home health–based hospices have access to capital through their parent providers.

***Medicare payments and providers' costs*—**The aggregate 2014 Medicare margin, which is an indicator of the adequacy of Medicare payments relative to providers' costs, was 8.2 percent, down slightly from 8.5 percent in 2013. In addition, the rate of marginal profit—that is, the rate at which Medicare payments exceed providers' marginal cost—was roughly 11 percent in 2014. The projected aggregate Medicare margin for 2017 is 7.7 percent.

Because the payment adequacy indicators for which we have data are positive, the Commission recommends eliminating the update to hospice payment rates for fiscal year 2018. ■

## Background

Medicare began offering a hospice benefit in 1983, pursuant to the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA). The benefit covers palliative and support services for beneficiaries who are terminally ill, with a medical prognosis that the individual's life expectancy is six months or less if the illness runs its normal course. A broad set of services is included, such as nursing care; physician services; counseling and social worker services; hospice aide (also referred to as home health aide) and homemaker services; short-term hospice inpatient care (including respite care); drugs and biologics for symptom control; supplies; home medical equipment; physical, occupational, and speech therapy; bereavement services for the patient's family; and other services for palliation of the terminal illness and related conditions. Most commonly, hospice care is provided in patients' homes, but hospice services are also provided in nursing facilities, assisted living facilities, hospice facilities, and hospitals. In 2015, about 1.38 million Medicare beneficiaries received hospice services, and Medicare expenditures totaled about $15.9 billion.

Beneficiaries receive the Medicare hospice benefit only if they elect to do so; if they do, they agree to forgo Medicare coverage for conventional treatment of the terminal illness and related conditions. Medicare continues to cover items and services unrelated to the terminal illness and related conditions. For each person admitted to a hospice program, a written plan of care must be established and maintained by an interdisciplinary group (which must include a hospice physician, registered nurse, social worker, and pastoral or other counselor) in consultation with the patient's attending physician, if there is one. The plan of care must identify the services to be provided (including management of discomfort and symptom relief) and describe the scope and frequency of services needed to meet the patient's and family's needs.

Beneficiaries elect hospice for defined benefit periods. The first hospice benefit period is 90 days. For a beneficiary to elect hospice initially, two physicians—a hospice physician and the beneficiary's attending physician—are generally required to certify that the beneficiary has a life expectancy of six months or less if the illness runs its normal course.[1] If the patient's terminal illness continues to engender the likelihood of death within 6 months, the hospice physician can recertify the patient for another 90 days and for an unlimited number of 60-day periods after that, as long as he or she remains eligible.[2] Beneficiaries can disenroll from hospice at any time (referred to as "revoking hospice") and can reelect hospice for a subsequent period as long as the beneficiary meets the eligibility criteria.

Over the last 15 years, hospice spending has grown substantially, increasing at a rapid rate between 2000 and 2012, remaining flat between 2012 and 2014, and growing again in 2015. Between 2000 and 2012, Medicare spending for hospice care increased more than 400 percent, from $2.9 billion to $15.1 billion. That spending increase was driven by greater numbers of beneficiaries electing hospice and by growth in length of stay for patients with the longest stays. Occurring simultaneously since 2000 has been a substantial increase in the number of for-profit providers.[3] Between 2012 and 2014, Medicare spending for hospice services was flat at about $15.1 billion each year. Spending changed little during this period despite growth in the number of beneficiaries receiving hospice care and increases in the base payment rates each year. The flat spending partly reflected the effect of the across-the-board budget cut known as the sequester, which reduced Medicare payments to providers by 2 percent beginning in April 2013. Between 2014 and 2015, Medicare hospice spending increased 5.5 percent. This spending growth reflects an increase in the number of beneficiaries using hospice care as well as an increase in the Medicare base payment rate between 2014 and 2015. Medicare is the largest payer of hospice services, covering more than 90 percent of hospice patient days in 2014.

### Medicare payment for hospice services

The Medicare program pays a daily rate to hospice providers. The hospice provider assumes all financial risk for costs and services associated with care for the patient's terminal illness and related conditions. The hospice provider receives payment for every day a patient is enrolled, regardless of whether the hospice staff visited the patient or otherwise provided a service each day. This payment design is intended to encompass not only the cost of visits but also other costs a hospice incurs for palliation and management of the terminal condition and related conditions, such as on-call services, care planning, drugs, medical equipment, supplies, patient transportation between sites of care that are specified in the plan of care, and short-term hospice inpatient care.

**TABLE 12–1**

**Medicare hospice payment categories and rates**

| Category | Description | Base payment rate, FY 2017 | Percent of hospice days, 2015 |
|---|---|---|---|
| Routine home care* | Home care provided on a typical day: Days 1–60<br>Home care provided on a typical day: Days 61+ | $191 per day<br>$150 per day | 97.8% |
| Continuous home care | Home care provided during periods of patient crisis | $40 per hour | 0.3 |
| Inpatient respite care | Inpatient care for a short period to provide respite for primary caregiver | $171 per day | 0.3 |
| General inpatient care | Inpatient care to treat symptoms that cannot be managed in another setting | $735 per day | 1.6 |

Note: FY (fiscal year). Payment rates are rounded in the table to the nearest dollar. Payment for continuous home care (CHC) is an hourly rate ($40.19 per hour, with a maximum payment per day equal to about $965) for care delivered during periods of crisis if care is provided in the home for 8 or more hours within a 24-hour period beginning at midnight. In addition, a nurse must deliver more than half of the hours of this care to qualify for CHC-level payment. The above rates are 2 percentage points lower for hospices that do not submit the required quality data. The base payment rate is adjusted to account for differences in wage rates among markets.
*In addition to the daily rate, Medicare pays $40 per hour for registered nurse and social worker visits (up to four hours per day) that occur during the last seven days of life for beneficiaries receiving routine home care.

Source: Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2016. *Update to hospice payment rates, hospice cap, hospice wage index, and the hospice pricer for FY 2017*. Manual System Pub 100–04 Medicare Claims Processing, Transmittal 3559, July 8.

Payments are made according to a fee schedule that has four different levels of care: routine home care (RHC), continuous home care (CHC), inpatient respite care (IRC), and general inpatient care (GIP) (Table 12-1). The four levels of care are distinguished by the location and intensity of the services provided. RHC is the most common level of hospice care, accounting for nearly 98 percent of all hospice days. Other levels of care—GIP, CHC, and IRC—are available to manage needs in certain situations. GIP is provided in a facility on a short-term basis to manage symptoms that cannot be managed in another setting. CHC is intended to manage a short-term symptom crisis in the home and involves eight or more hours of care per day, mostly nursing. IRC is care in a facility for up to five days to provide an informal caregiver a break. Unless a hospice provides CHC, IRC, or GIP on any given day, it is paid at the RHC rate. The level of care can vary throughout a patient's hospice stay as the patient's needs change.

In January 2016, CMS implemented reforms to the hospice payment system that represented the first changes to the payment structure since the benefit's inception in 1983. Formerly, RHC was paid at a single, uniform daily rate. Now, Medicare pays two per diem rates for RHC—a higher rate for the first 60 days of a hospice episode ($191) and a lower rate for days 61 and beyond ($150) (Table 12-1). Medicare pays an additional $40 per hour for registered nurse and social worker visits that occur during the last seven days of life (up to four hours are payable per day) for patients receiving RHC. These payment rates are adjusted for geographic variation in wages across markets.

The new RHC payment structure is intended to better align payments with the costs of providing hospice care throughout an episode. Hospices tend to provide more services at the beginning and end of an episode and fewer in the middle. As a result, under a flat per diem, long stays are more profitable than short stays. The Commission expressed concern that this misalignment of the payment system led to a number of issues (e.g., making the payment system vulnerable to patient selection, spurring some providers to pursue revenue-generation strategies such as enrolling patients likely to have long stays who may not meet the eligibility criteria, and generating wide variation in profit margins across providers based on the length of stay) (Medicare Payment Advisory Commission 2015b, Medicare Payment Advisory Commission 2009). In March 2009, the Commission recommended that Medicare move away from the flat per diem to one that is higher at the beginning and end of an episode and lower in the intervening period. The new payment structure that CMS implemented in 2016 moves in this direction and may begin to address some of the negative consequences resulting from the misalignment of the payment system.

Hospice payment rates are updated annually by the inpatient hospital market basket index. Beginning fiscal year 2013, the market basket index has been reduced by a productivity adjustment, as required by the Patient Protection and Affordable Care Act of 2010 (PPACA). An additional 0.3 percentage point reduction to the market basket update was required in fiscal years 2013 to 2017 and will possibly be required in fiscal years 2018 and 2019 if certain targets for health insurance coverage among the working-age population are met. The Medicare Access and CHIP Reauthorization Act of 2015 modifies the hospice update amount for fiscal year 2018, setting it at 1 percent for that fiscal year. Beginning in fiscal year 2014, hospices that do not report quality data receive a 2 percentage point reduction in their annual payment update.

Daily payment rates for hospice are adjusted to account for geographic differences in wage rates. From 1983 to 1997, Medicare adjusted hospice payments with a 1983 wage index. In 1998, CMS began using the most current hospital wage index to adjust hospice payments and applied a budget-neutrality adjustment each year to make aggregate payments equivalent to what they would have been under the 1983 wage index. This budget-neutrality adjustment increased Medicare payments to hospices by about 4 percent. The budget-neutrality adjustment has been phased out over seven years, with a 0.4 percentage point reduction in 2010 and an additional reduction of 0.6 percentage point in each subsequent year through 2016. Beginning 2017, there are no further reductions to the payment rates associated with this phase-out since it is complete.

Beneficiary cost sharing for hospice services is minimal. Prescription drugs and inpatient respite care are the only services potentially subject to cost sharing. Hospices may charge coinsurance of 5 percent for each prescription provided outside the inpatient setting (not to exceed $5) and for inpatient respite care (not to exceed the inpatient hospital deductible). (For a more complete description of the hospice payment system, see http://www.medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_16_hospice_final.pdf?sfvrsn=0.)

## Medicare hospice payment limits ("caps")

The Medicare hospice benefit was designed to give beneficiaries a choice in their end-of-life care, allowing them to forgo conventional treatment (often in inpatient settings) and die at home, with family, according to their personal preferences.

The inclusion of the Medicare hospice benefit in TEFRA was based in large part on the premise that the new benefit would be a less costly alternative to conventional end-of-life care (Government Accountability Office 2004, Hoyer 2007). Studies show that beneficiaries who elect hospice incur less Medicare spending in the last one or two months of life than comparable beneficiaries who do not, but also that Medicare spending for beneficiaries is higher for hospice enrollees in the earlier months before death than it is for nonenrollees. In essence, hospice's net reduction in Medicare spending decreases the longer the patient is enrolled, and beneficiaries with long hospice stays tend to incur higher Medicare spending than those who do not elect hospice (Medicare Payment Advisory Commission 2008). Studies have been mixed on whether hospice has saved the Medicare program money in the aggregate compared with conventional care. Recent research by a Commission contractor examined the literature and conducted a new market-level analysis of hospice's effect on Medicare expenditures. That study found that while hospice may produce savings for some beneficiaries (such as those with cancer), overall, hospice does not appear to have produced aggregate savings for the Medicare program because of very long stays among some hospice enrollees (Direct Research 2015).

When the Congress established the hospice benefit, it included two limitations, or "caps," on payments to hospices in an effort to make cost savings more likely. The first cap limits the number of days of inpatient care a hospice may provide to 20 percent of its total Medicare patient care days. This cap is rarely exceeded; any inpatient days provided in excess of the cap are reimbursed at the routine home care payment rate.

The second, more visible cap limits the aggregate Medicare payments that an individual hospice can receive. This cap was implemented at the outset of the hospice benefit with the goal of ensuring that Medicare payments did not exceed the cost of conventional care for patients at the end of life. Under the cap, if a hospice's total Medicare payments exceed its total number of Medicare beneficiaries served multiplied by the cap amount (about $28,405 in 2017), it must repay the excess to the program.[4,5,6] This cap is not applied individually to the payments received for each beneficiary, but rather to the total payments across all Medicare patients served by the hospice in the cap year. The number of hospices exceeding the payment cap historically has been low, but we have found that increases in the number of hospices and increases in very long stays have resulted in more hospices

exceeding the cap (with the number peaking in 2009 at 12.5 percent and oscillating in recent years). The hospice cap is the only significant fiscal constraint on the growth of program expenditures for hospice care (Hoyer 2007).

## Are Medicare payments adequate in 2017?

To address whether payments in 2017 are adequate to cover the costs of the efficient delivery of care and how much providers' payments should change in the coming year (2018), we examine several indicators of payment adequacy. Specifically, we assess beneficiaries' access to care by examining the capacity and supply of hospice providers, changes over time in the volume of services provided, quality of care, providers' access to capital, and the relationship between Medicare's payments and providers' costs. Overall, the Medicare payment adequacy indicators for hospice providers are positive.

### Beneficiaries' access to care: Use of hospice continues to increase

In 2015, hospice use among Medicare beneficiaries increased, continuing the trend of a growing proportion of beneficiaries using hospice services at the end of life. Of the Medicare beneficiaries who died that year, 48.6 percent used hospice, up from 47.9 percent in 2014 and 22.9 percent in 2000 (Table 12-2). Hospice use varied in 2015 by beneficiary characteristics—enrollment in traditional fee-for-service (FFS) Medicare or Medicare Advantage (MA); Medicare-only beneficiaries and beneficiaries dually eligible for Medicare and Medicaid; urban or rural residence; and age, gender, and race—but increased in all of these groups.

Hospice use is somewhat higher among decedents in MA than in FFS. In 2015, in rounded figures, 48 percent of Medicare FFS decedents and 51 percent of MA decedents used hospice. MA plans do not provide hospice services. Once a beneficiary in an MA plan elects hospice care, the beneficiary receives hospice services through a provider paid by FFS Medicare. In March 2014, the Commission urged that this policy be changed, recommending that hospice be included in the MA benefits package (Medicare Payment Advisory Commission 2014).

Hospice use varies by other beneficiary characteristics. In 2015, a smaller proportion of Medicare decedents who were dually eligible for Medicare and Medicaid used hospice compared with the rest of Medicare decedents (about 43 percent and 50 percent, respectively). Hospice use was least prevalent among beneficiaries under age 65 and most prevalent among beneficiaries age 85 and older (about 30 percent vs. 57 percent of these decedents used hospice, respectively). Female beneficiaries were also more likely than male beneficiaries to use hospice, which partly reflects the longer average life span for women and greater hospice use among older beneficiaries.

Hospice use also varies by racial and ethnic group (Table 12-2). As of 2015, Medicare hospice use was highest among White decedents, followed by Hispanic, African American, Asian American, and North American Native decedents, in that order. Hospice use grew across all these groups between 2014 and 2015, with Asian Americans showing the largest increase (1.6 percentage points). Since 2000, hospice use has grown substantially for all racial and ethnic groups, but differences persist across these groups in the rates of use. The reasons for these differences are not fully understood. Researchers have cited a number of possible factors such as cultural or religious beliefs, preferences for end-of-life care, socioeconomic factors, disparities in access to care or information about hospice, and mistrust of the medical system (Barnato et al. 2009, Cohen 2008, Crawley et al. 2000).

Hospice use is higher for urban than rural beneficiaries, although use has grown across all area categories (Table 12-2).[7] In 2015, the share of decedents residing in urban counties who used hospice was about 50 percent; in micropolitan counties, 45 percent; in rural counties adjacent to urban counties, 44 percent; in rural nonadjacent counties, 39 percent; and in frontier counties, 34 percent. Utilization rates for beneficiaries residing in all these areas increased in 2015.

One driver of increased hospice use over the past decade has been growing use by patients with noncancer diagnoses, owing to increased recognition that hospice can care for such patients. In 2015, 72 percent of Medicare decedents who used hospice had a noncancer diagnosis, compared with 71 percent in 2014 and 48 percent in 2000. As of 2015, the most common noncancer primary diagnoses reported among hospice decedents were heart and circulatory disorders (28 percent) and neurological conditions (22 percent). Effective October 1, 2014, CMS no longer allows debility, adult failure to thrive, and certain neurological codes to be reported as the primary hospice diagnosis. If patients with these diagnoses have a life expectancy of six months or less, they still qualify

**TABLE 12–2**

**Use of hospice continues to increase**

| | Percent of Medicare decedents who used hospice | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2000 | 2012 | 2013 | 2014 | 2015 | Average annual percentage point change 2000–2014 | Percentage point change 2014–2015 |
| All beneficiaries | 22.9% | 46.7% | 47.3% | 47.9% | 48.6% | 1.8 | 0.7 |
| FFS beneficiaries | 21.5 | 45.7 | 46.2 | 46.8 | 47.6 | 1.8 | 0.8 |
| MA beneficiaries | 30.9 | 50.4 | 50.6 | 50.9 | 51.1 | 1.4 | 0.2 |
| Dual eligibles | 17.5 | 41.6 | 42.1 | 42.6 | 43.1 | 1.8 | 0.5 |
| Nondual eligibles | 24.5 | 48.4 | 48.9 | 49.6 | 50.3 | 1.8 | 0.7 |
| Age | | | | | | | |
| <65 | 17.0 | 29.2 | 29.2 | 29.5 | 29.9 | 0.9 | 0.4 |
| 65–74 | 25.4 | 40.6 | 40.7 | 40.8 | 41.2 | 1.1 | 0.4 |
| 75–84 | 24.2 | 47.8 | 48.2 | 49.0 | 49.5 | 1.8 | 0.5 |
| 85+ | 21.4 | 54.0 | 55.0 | 56.1 | 57.1 | 2.5 | 1.0 |
| Race/ethnicity | | | | | | | |
| White | 23.8 | 48.6 | 49.2 | 49.8 | 50.5 | 1.9 | 0.7 |
| African American | 17.0 | 36.8 | 37.3 | 37.6 | 38.3 | 1.5 | 0.7 |
| Hispanic | 21.1 | 39.4 | 40.2 | 41.4 | 41.9 | 1.5 | 0.5 |
| Asian American | 15.2 | 31.8 | 32.0 | 33.8 | 35.4 | 1.3 | 1.6 |
| North American Native | 13.0 | 34.0 | 34.1 | 34.8 | 35.0 | 1.6 | 0.2 |
| Sex | | | | | | | |
| Male | 22.4 | 42.8 | 43.3 | 43.9 | 44.5 | 1.5 | 0.6 |
| Female | 23.3 | 50.2 | 50.9 | 51.5 | 52.3 | 2.0 | 0.6 |
| Beneficiary location | | | | | | | |
| Urban | 24.2 | 48.0 | 48.5 | 49.1 | 49.7 | 1.8 | 0.6 |
| Micropolitan | 18.3 | 42.6 | 43.6 | 44.1 | 44.9 | 1.8 | 0.8 |
| Rural, adjacent to urban | 17.5 | 42.3 | 42.8 | 43.4 | 44.4 | 1.9 | 1.0 |
| Rural, nonadjacent to urban | 15.0 | 36.9 | 37.3 | 38.1 | 38.8 | 1.7 | 0.7 |
| Frontier | 13.1 | 31.7 | 32.3 | 32.5 | 33.8 | 1.4 | 1.3 |

Note: FFS (fee-for-service), MA (Medicare Advantage). Beneficiary location reflects the beneficiary's county of residence in one of four categories (urban, micropolitan, rural adjacent to urban, and rural nonadjacent to urban) based on an aggregation of the urban influence codes. This chart uses the 2013 urban influence code definition. In prior reports, this chart has used the 2003 urban influence codes definitions. The frontier category is defined as population density equal to or less than six people per square mile.

Source: MedPAC analysis of data from the denominator file and the Medicare Beneficiary Database from CMS.

for hospice, but the hospice must report a more specific primary diagnosis. As would be expected, the reported diagnosis mix of hospice patients changed in response to the new requirement. For example, between 2013 and 2015, the primary diagnosis of debility and adult failure to thrive dropped from 9 percent to 1 percent, while primary diagnoses for heart and circulatory conditions rose from 19 percent to 28 percent.

Although hospice use has grown over time across patients with a wide range of conditions, hospice use rates continue to vary by diagnosis or cause of death. Identifying use rates by cause of death is difficult because that information is not included in the Medicare claims data. However, a

**TABLE 12–3** **Increase in total number of hospices driven by growth in for-profit providers**

| Category | 2000 | 2007 | 2013 | 2014 | 2015 | Average annual percent change 2000–2007 | Average annual percent change 2007–2014 | Percent change 2014–2015 |
|---|---|---|---|---|---|---|---|---|
| All hospices | 2,255 | 3,250 | 3,925 | 4,092 | 4,199 | 5.4% | 3.3% | 2.6% |
| For profit | 672 | 1,676 | 2,418 | 2,588 | 2,715 | 13.9 | 6.4 | 4.9 |
| Nonprofit | 1,324 | 1,337 | 1,309 | 1,305 | 1,293 | 0.1 | –0.3 | –0.9 |
| Government | 257 | 237 | 198 | 199 | 185 | –1.2 | –2.5 | –7.0 |
| Freestanding | 1,069 | 2,103 | 2,844 | 3,024 | 3,138 | 10.1 | 5.3 | 3.8 |
| Hospital based | 785 | 683 | 553 | 535 | 523 | –2.0 | –3.4 | –2.2 |
| Home health based | 378 | 443 | 503 | 510 | 514 | 2.3 | 2.0 | 0.8 |
| SNF based | 22 | 21 | 25 | 23 | 24 | –0.7 | 1.3 | 4.3 |
| Urban | 1,455 | 2,237 | 2,932 | 3,102 | 3,235 | 6.3 | 4.8 | 4.3 |
| Rural | 757 | 965 | 945 | 944 | 920 | 3.5 | –0.3 | –2.5 |

Note: SNF (skilled nursing facility). Some categories do not sum to total because of missing data for some providers. The rural and urban definitions used in this chart are based on updated definitions of the core-based statistical areas (which rely on data from the 2010 census). In prior reports, this chart has used rural and urban definitions based on the 2000 census.

Source: MedPAC analysis of Medicare cost reports, Medicare Provider of Services file, and the hospice claims standard analytical file from CMS.

study by Teno et al. (2013) estimated hospice use rates by diagnosis based on diagnosis information that appears in Medicare claims for the last 180 days of life. That study found that, in 2009, about 42.2 percent of all Medicare decedents ages 65 and older died in hospice that year, with this rate varying by diagnosis. The hospice use rate was higher than the national average rate for beneficiaries with cancer (59.5 percent) and dementia (48.3 percent) and lower than the national average for beneficiaries with chronic obstructive pulmonary disease (39.0 percent) in 2009.

### Capacity and supply of providers: Supply of hospices continues to grow, driven by growth in for-profit providers

In 2015, 4,199 hospices provided care to Medicare beneficiaries, a 2.6 percent increase from the prior year, continuing more than 10 years of growth in the number of hospices providing care to Medicare beneficiaries (Table 12-3). For-profit hospices account almost entirely for the increase in the number of hospices. Between 2014 and 2015, the number of for-profit hospices increased by about 5 percent, while the number of nonprofit hospices declined about 1 percent, and the number of government hospices declined 7 percent. About one-third of the decline in government hospices reflects a change in the type of ownership reported by the hospice—from government ownership reported in prior years to nonprofit ownership reported in 2015. As of 2015, about 65 percent of hospices were for profit, 31 percent were nonprofit, and 4 percent were government.

Between 2014 and 2015, freestanding hospices accounted for most of the growth in the number of providers (Table 12-3). During this period, the number of freestanding providers increased by about 4 percent, the number of hospital-based hospices declined about 2 percent, and the number of home health–based hospices increased by about 1 percent.[8] The number of skilled nursing facility (SNF)–based hospices was small and increased from 23 to 24. As of 2015, about 75 percent of hospices were freestanding, 12 percent were hospital based, 12 percent were home health based, and less than 1 percent were SNF based.

Overall, the supply of hospices increased substantially between 2000 and 2015 in both urban and rural areas. The number of rural hospices has declined since its peak

**TABLE 12–4**

**Number of hospice users and hospice spending increased while average length of stay declined slightly in 2015**

| Category | 2000 | 2013 | 2014 | 2015 | Average annual change, 2000–2013 | Percent change, 2013–2014 | Percent change, 2014–2015 |
|---|---|---|---|---|---|---|---|
| Number of hospice users (in millions) | 0.534 | 1.315 | 1.324 | 1.381 | 7.2% | 0.7% | 4.3% |
| Total spending (in billions) | $2.9 | $15.1 | $15.1 | $15.9 | 13.5% | –0.3% | 5.5% |
| Average length of stay among decedents (in days) | 53.5 | 87.8 | 88.2 | 86.7 | 3.9% | 0.5% | –1.7% |
| Median length of stay among decedents (in days) | 17 | 17 | 17 | 17 | 0 days | 0 days | 0 days |

Note: Average length of stay is calculated for decedents who were using hospice at the time of death or before death and reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his or her lifetime. The number of hospice users, total spending, and average length of stay displayed in the table are rounded; the percent change for number of users and total spending is calculated using unrounded data.

Source: MedPAC analysis of the denominator file, the Medicare Beneficiary Database, and the 100 percent hospice claims standard analytic file from CMS.

in 2007, with a 2.5 percent decline in 2015 (Table 12-3). As of 2015, 78 percent of hospices were located in urban areas and 22 percent were located in rural areas. The number of hospices located in rural areas is not necessarily reflective of hospice access for rural beneficiaries, as demonstrated by the increase in the share of rural decedents using hospice over this period.[9]

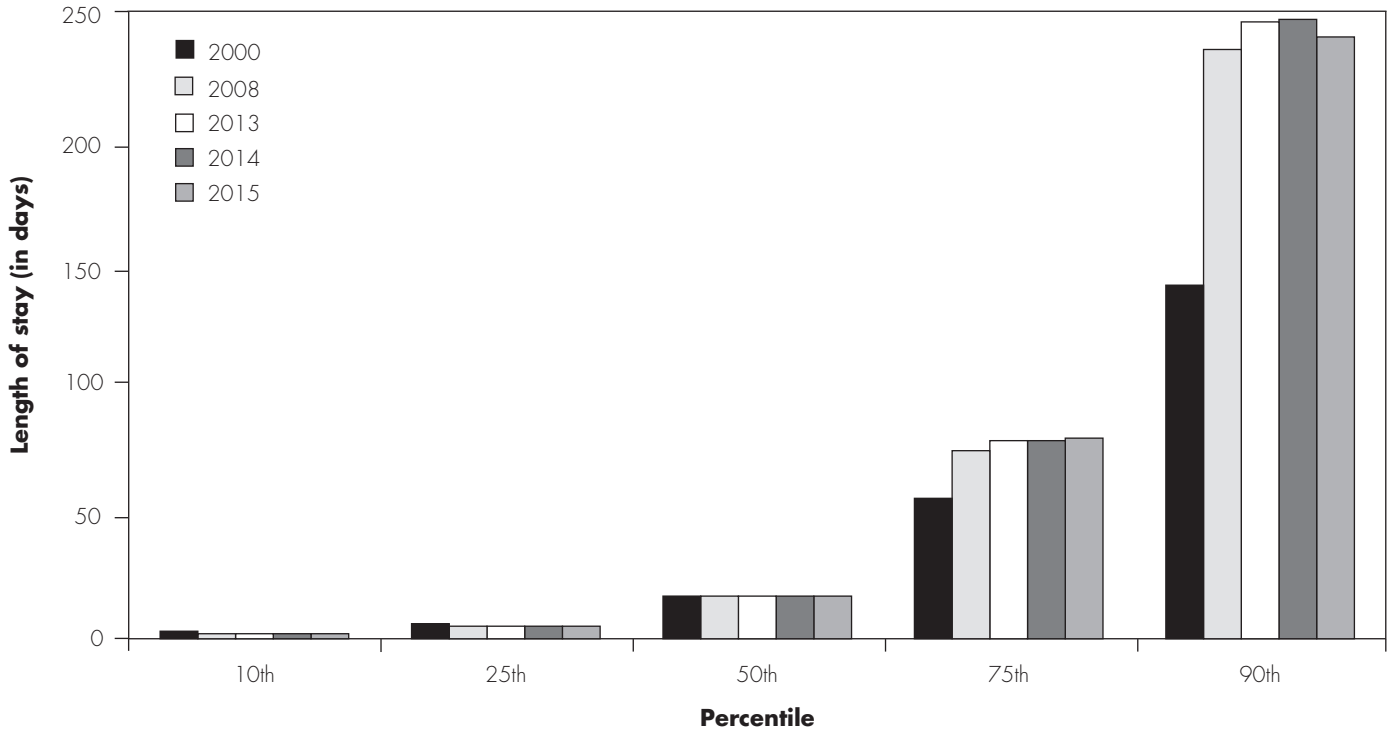
In 2015, substantial changes in the number of hospices were concentrated in a few states, while other states generally experienced modest changes. For example, in 2014, California and Texas saw the largest growth in the number of hospices in 2015. California, which gained 90 hospices in 2014 (a 22 percent increase), gained another 101 hospices in 2015 (an additional 20 percent increase). Texas, which gained 38 hospices in 2014 (a 9 percent increase), gained an additional 24 hospices in 2015 (an additional 5 percent increase). In 2015, Georgia and Michigan experienced the next largest growth in the raw number of providers (an increase of 6 or 7 providers per state), while Mississippi and New Mexico saw the largest decline (a decrease of 10 and 6 providers, respectively). All of these states with the largest change in the number of hospice providers (except Michigan) had an above-average number of hospices per 100,000 Medicare decedents.

The number of hospice providers is not necessarily an indicator of beneficiary access to hospice because a hospice's service area may extend beyond the boundaries of the county in which it is located. The supply of providers—as measured by the number of hospices per 10,000 Medicare decedents—varies substantially across states. In the past, we have concluded that there is no relationship between the supply of hospice providers and the rate of hospice use across states (Medicare Payment Advisory Commission 2010).

### Volume of services: The number of hospice users grew and average length of stay among decedents declined slightly in 2015

In 2015, the number of Medicare beneficiaries receiving hospice services continued to increase. More than 1.38 million beneficiaries used hospice services, up 4.3 percent from about 1.32 million in 2014 (Table 12-4). To look more closely at growth in the number of beneficiaries receiving hospice care, we divide the population into hospice users who were discharged deceased and those who were not discharged deceased (i.e., either discharged alive or were still patients as of the end of the year). Between 2014 and 2015, we observe similar growth rates among decedents and nondecedent hospice beneficiaries. The number of beneficiaries receiving hospice who were discharged deceased grew by 4.3 percent, while the number of beneficiaries who received hospice but were discharged alive or remained a patient (as of the end of the year) increased 4.5 percent (data not shown).[10] Among hospice beneficiaries not discharged deceased in 2015, the share discharged alive declined and the share still a patient as of the end of the year increased.

**FIGURE 12–1** **Length of stay among hospice patients with the longest stays declined slightly in 2015**




Note: Length of stay is calculated for decedents who were using hospice at the time of death or before death and reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his or her lifetime.

Source: MedPAC analysis of the Medicare Beneficiary Database from CMS.

In 2015, hospice average length of stay among decedents was 86.7 days, down slightly from 88.2 days in the prior year (Table 12-4, p. 325). The decline in average length of stay resulted from a decrease in length of stay among hospice patients with the longest stays. Between 2014 and 2015, length of stay at the 90th percentile decreased from 247 days to 240 days (Figure 12-1). In contrast, during that period, length of the stay in the lower half of the distribution was unchanged (at the 10th, 25th, and 50th percentiles) and increased by one day at the 75th percentile (Figure 12-1).

The decrease in length of stay among decedents with the longest stays follows a period of substantial growth in very long stays (Figure 12-1). Between 2000 and 2008, hospice length of stay at the 90th percentile grew rapidly, increasing from 141 days to 238 days. Growth in the 90th percentile slowed between 2008 and 2014, increasing from 238 days to 247 days over that period, and then decreasing to 240 days in 2015. In contrast, the length of shorter stays has changed little since 2000. Median length has held steady at 17 or 18 days since 2000 and was 17 days in 2015. In 2015, length of stay at the 25th percentile was 5 days, the same level it has been for the prior 10 years.

Hospice length of stay is generally similar for hospice decedents in FFS Medicare and MA. The most significant difference is that very long stays in hospice are slightly shorter in MA than FFS (236 days for MA and 242 days for FFS at the 90th percentile as of 2015). There are also slight differences at the median (18 days for MA and 17 days for FFS) and 75th percentile (78 days for MA and 80 days for FFS).

With growing use of hospice, rates of patients dying in the hospital have declined, but evidence is mixed on the extent to which the decline has been accompanied by a reduction in the overall intensity of care in the last months

**TABLE 12–5**

**Hospice length of stay among decedents by beneficiary and hospice characteristics, 2015**

| Characteristic | Average length of stay (in days) | Percentile of length of stay | | | | |
|---|---|---|---|---|---|---|
| | | 10th | 25th | 50th | 75th | 90th |
| **Beneficiary** | | | | | | |
| Diagnosis | | | | | | |
| Cancer | 53 | 3 | 6 | 18 | 53 | 131 |
| Neurological conditions | 147 | 3 | 8 | 33 | 164 | 437 |
| Heart/circulatory | 91 | 2 | 5 | 15 | 83 | 267 |
| COPD | 116 | 2 | 5 | 24 | 120 | 339 |
| Other | 51 | 2 | 3 | 8 | 32 | 134 |
| Main location of care | | | | | | |
| Home | 89 | 4 | 9 | 26 | 86 | 233 |
| Nursing facility | 105 | 3 | 6 | 20 | 96 | 308 |
| Assisted living facility | 152 | 5 | 12 | 51 | 182 | 432 |
| **Hospice** | | | | | | |
| Hospice ownership | | | | | | |
| For profit | 105 | 3 | 6 | 21 | 97 | 304 |
| Nonprofit | 65 | 2 | 5 | 13 | 55 | 176 |
| Type of hospice | | | | | | |
| Freestanding | 89 | 2 | 5 | 17 | 77 | 248 |
| Home health based | 69 | 2 | 5 | 15 | 61 | 187 |
| Hospital based | 55 | 2 | 4 | 12 | 48 | 145 |

Note: COPD (chronic obstructive pulmonary disease). Length of stay is calculated for Medicare beneficiaries who died in 2015 and used hospice that year and reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his or her lifetime. "Main location" is the location where the beneficiary spent the largest share of his or her days while enrolled in hospice. "Diagnosis" reflects primary diagnosis on the beneficiary's last hospice claim.

Source: MedPAC analysis of the 100 percent hospice claims standard analytical file, Medicare Beneficiary Database, Medicare hospice cost reports, and Provider of Services file data from CMS.

of life. One study found that between 2000 and 2009, the share of Medicare decedents ages 65 and older dying in the hospital declined (from 32.6 percent to 24.6 percent), and the average number of hospital days in the last 30 days of life also declined (from 4.9 days to 4.6 days) (Teno et al. 2013). At the same time, the study found that other indicators of intensity of care in the last months of life have increased. For example, the percent of beneficiaries receiving care in an intensive care unit during the last month of life increased between 2000 and 2009 (from 24.3 percent to 29.2 percent), and the percent of beneficiaries with 3 or more hospitalizations in the last 90 days of life increased slightly (from 10.3 percent to 11.5 percent) (Teno et al. 2013). This increase in the intensity of some aspects of end-of-life care may in part reflect referrals to hospice occurring only in the last few days of life for some beneficiaries.

The Commission has previously expressed concern about very short hospice stays. More than one-quarter of hospice decedents enroll in hospice only in the last week of life, a length of stay which is commonly thought to be of less benefit to patients than enrolling somewhat earlier. Very short hospice stays occur across a wide range of diagnoses (Table 12-5). These very short stays stem largely from factors unrelated to the Medicare hospice payment system: Some physicians are reluctant to have conversations about

**TABLE 12–6**

**More than half of Medicare hospice spending in 2015 was for patients with stays exceeding 180 days**

| | Medicare hospice spending, 2015 (in billions) |
|---|---|
| All hospice users in 2015 | $15.9 |
| Beneficiaries with LOS > 180 days | 9.2 |
| Days 1–180 | 3.0 |
| Days 181–365 | 2.9 |
| Days 366+ | 3.3 |
| Beneficiaries with LOS ≤ 180 days | 6.5 |

Note: LOS (length of stay). "LOS" indicates the beneficiary's lifetime LOS as of the end of 2015 (or at the time of discharge in 2015 if the beneficiary was not enrolled in hospice at the end of 2015). All spending presented in the chart occurred only in 2015. Break-out groups do not sum to total because they exclude about $0.1 billion in payments to hospices for physician visits and because of rounding.

Source: MedPAC analysis of the 100 percent hospice claims standard analytical file and the common Medicare enrollment file from CMS.

hospice or tend to delay such discussions until death is imminent; some patients and families have difficulty accepting a terminal prognosis; and financial incentives in the FFS system encourage increased volume of clinical services (compared with palliative care) (Medicare Payment Advisory Commission 2009). In addition, some point to the requirement that beneficiaries forgo conventional care to enroll in hospice as a factor that contributes to deferring hospice care, resulting in short hospice stays.

A number of initiatives seek to address concerns about potentially late hospice enrollments and the quality of end-of-life care more generally. CMS has launched a demonstration program (called the Medicare Care Choices Model) that permits certain FFS beneficiaries who are eligible for hospice (but not enrolled in the Medicare hospice benefit) to enroll in the demonstration and receive palliative and supportive care from a hospice provider while continuing to receive "curative" care from other providers.[11] Beginning in 2016, Medicare covers advanced care planning conversations for beneficiaries who choose to receive these services. Under the physician fee schedule, Medicare pays for advanced care planning conversations between a beneficiary and his or her physician, advanced-practice registered nurse, or physician assistant. In March 2014, the Commission recommended that hospice be included in the Medicare Advantage benefits package, which would give plans greater incentives to develop and test new models aimed at improving end-of-life care and care for beneficiaries with advanced illnesses (Medicare Payment Advisory Commission 2014). The Institute of Medicine also recently issued a report on end-of-life care in the United States, reviewing the challenges and making recommendations for changes (Institute of Medicine 2014).

The Commission has also expressed concern about very long hospice stays. In 2015, Medicare spent over $9 billion, more than half of all hospice spending that year, on patients with stays exceeding 180 days (Table 12-6). With the flat per diem payment system (which was in effect until 2016), long stays have been more profitable than short stays, which may have led some hospices to pursue revenue-generation strategies by focusing on patients with long stays, some of whom may not meet the eligibility criteria.

Hospice lengths of stay vary by observable patient characteristics, such as patient diagnosis and location, which has made it possible for providers to focus on more profitable patients (Table 12-5, p. 327). For example, Medicare decedents in 2015 with neurological conditions and chronic obstructive pulmonary disease had substantially higher average lengths of stay (147 days and 116 days, respectively) than those with cancer (53 days). In addition, length of stay varies by the setting where care is provided. In 2015, average length of stay was higher among Medicare decedents whose main care setting was an assisted living facility (ALF) (152 days) or a nursing facility (105 days) compared with home (89 days) (Table 12-5, p. 327). In particular, hospice patients in ALFs had markedly longer stays compared with other settings, even for the same diagnosis, which warrants further monitoring and investigation in CMS's medical review efforts.

Differences in length of stay by patient characteristics are also reflected in differences in length of stay by provider ownership type (Table 12-5, p. 327). In 2015, average length of stay was substantially higher among for-profit hospices than among nonprofit hospices (105 days compared with 65 days). The reason for higher length

**TABLE 12–7** **Hospices that exceeded Medicare's annual payment cap, selected years**

| | 2002 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|
| Percent of hospices exceeding the cap | 2.6% | 9.8% | 11.0% | 10.7% | 12.2% |
| Average payments over the cap per hospice exceeding it (in thousands) | $470 | $424 | $510 | $460 | $370 |
| Payments over the cap as percent of overall Medicare hospice spending | 0.6% | 1.1% | 1.4% | 1.3% | 1.2% |
| Total Medicare hospice spending (in billions) | $4.4 | $13.8 | $15.0 | $15.1 | $15.9 |

Note: The cap year is defined as the period beginning November 1 and ending October 31 of the following year.

Source: MedPAC analysis of 100 percent hospice standard analytical file (claims) data, Medicare hospice cost reports, and Medicare Provider of Services file data from CMS. Data on total spending for each fiscal year from the CMS Office of the Actuary.

of stay among for-profit hospices has two components: (1) for-profit hospices have more patients with diagnoses that tend to have longer stays, and (2) for-profit hospice beneficiaries have longer stays for all diagnoses than those of nonprofit hospices. For example, among decedents with a neurological diagnosis, the average length of stay was 174 days among for-profit hospices and 115 days among nonprofits (data not shown).

One pattern of unusual hospice utilization can be found among the 12.2 percent of hospices that exceeded the aggregate payment cap in 2014. As shown in prior reports, above-cap hospices have substantially higher lengths of stay and rates of discharging patients alive than other hospices.[12] This statistic may suggest that above-cap hospices are admitting patients who do not meet the hospice eligibility criteria, which merits further investigation by the Office of Inspector General and CMS.

Between 2013 and 2014, the estimated share of hospices exceeding the cap rose from 10.7 percent to 12.2 percent (Table 12-7).[13] While more hospices exceeded the cap, the average amount by which above-cap hospices exceeded the cap declined. On average, above-cap hospices exceeded the cap by about $370,000 in 2014, down from $460,000 in 2013. While above-cap hospices are required to return payments that exceed Medicare's cap, the government's ability to obtain repayment from hospices that close in subsequent years has been uncertain. Beginning with cap year 2014, CMS is implementing a policy it established that will help facilitate cap overpayment collections. Hospices are now required to perform their own cap overpayment calculation within three to five months of the cap year's close and pay Medicare back for the calculated overpayments at that time or their payments will be suspended (Centers for Medicare & Medicaid Services 2014). Before this rule, there was typically a 16- to 24-month lag between the cap year's close and when hospices had to return any overpayments.[14]

With the variation in practice patterns across hospices and concerns about potential for some hospices to focus on patients likely to have long stays and high profitability, the Commission has advocated over the years for a targeted approach to auditing hospice providers, focusing the most resources on providers for which such scrutiny is warranted. In March 2009, the Commission recommended that CMS conduct medical reviews of all hospice stays exceeding 180 days among those hospice providers for which these long stays exceeded a specified share of the provider's caseload. Similarly, in this report and prior reports, the Commission has expressed concern about very long hospice stays in ALFs, among some hospice providers, and long stays and high live-discharge rates among above-cap hospices. The Commission has suggested that more program integrity scrutiny is warranted in those areas.

Another targeted auditing approach that could be considered is to focus on providers that receive a high share of their payments for hospice patients before the last year of life. The hospice benefit is intended for beneficiaries with a life expectancy of six months or less if the disease runs its normal course. Because of the

**TABLE 12–8**

**Percent of hospice payments for care before the last year of life by level of care and provider percentile, 2014**

| | All levels of care | Routine home care | Continuous home care | Inpatient respite care | General inpatient care |
|---|---|---|---|---|---|
| Providers' share of payments for care before the last year of life, by percentile | | | | | |
| 10th percentile | 18% | 19% | 0% | 0% | 0% |
| 25th percentile | 25 | 26 | 0 | 2 | 0 |
| 50th percentile | 33 | 35 | 0 | 23 | 3 |
| 75th percentile | 43 | 44 | 3 | 41 | 11 |
| 90th percentile | 55 | 55 | 14 | 63 | 27 |

Source MedPAC analysis of hospice claims and denominator file data from CMS.

unpredictability of life expectancy, it is not surprising that hospices furnish care to some patients before the last six months of life. However, if some providers have an unusually high share of their payments derived from care furnished to patients earlier in the disease trajectory—for example, before the last year of life—that could signal questionable admitting practices and warrant further program integrity scrutiny of those providers. In 2014, about one-third of hospice payments (more than $5 billion) were for care provided to hospice beneficiaries before the last year of life (data not shown).[15] There is substantial variation across hospice providers in the share of payments they receive for care provided to beneficiaries before the last year of life (Table 12-8). For example, focusing on routine home care, the median hospice received 35 percent of its payments for care furnished before the last year of life. In comparison, 10 percent of hospices (90th percentile) received 55 percent or more of their routine home care payments for care before the last year of life. Although it is difficult to know without more information whether these providers with the highest share of routine home care payments before the last year of life are adhering to the hospice eligibility criteria, this payment pattern could be an indicator to help CMS target its program integrity scrutiny.

While a provider-level measure of routine home care payments before the last year of life may have the most utility because it encompasses the most dollars and the longest stays, similar measures could be constructed for general inpatient care, continuous home care, and respite care. These levels of care are provided less often before the last year of life; thus, for providers that are significant outliers in terms of providing these services before the last year of life, additional program scrutiny is warranted (Table 12-8).

## Quality of care: Limited quality data are now available

CMS has had a hospice quality reporting program underway for several years. Although public reporting of data for individual hospices has not yet occurred, the first aggregate data from the quality reporting program are now available through a CMS contractor report. That report finds that most hospices scored high on six of the seven measures, while performance is lower and more varied across hospices on a measure related to pain assessment.

### Hospice quality reporting program

In accord with PPACA, beginning in fiscal year 2014, hospices that do not report quality data received a 2 percentage point reduction in their annual payment update. For the first year of data reporting, CMS established two quality measures. The first measure tracked pain management, and the second was a process measure designed to help develop future quality measures.[16] These two measures (with small changes) were continued for the second year of the reporting program and affected the payment update for fiscal year 2015.

In July 2014, CMS replaced the two initial quality measures with seven new quality measures collected using a standardized instrument (referred to as the Hospice Item Set).[17] These seven are process measures that address important aspects of care for patients newly admitted to

**TABLE 12–9**

**Distribution of hospice-level scores on seven quality measures**

| | | Percentile | | |
|---|---|---|---|---|
| | **Average** | **25th** | **50th** | **75th** |
| Treatment preferences | 98.3% | 98.7% | 100.0% | 100.0% |
| Dyspnea screening | 97.6 | 94.5 | 99.2 | 100.0 |
| Dyspnea treatment | 94.4 | 93.4 | 97.6 | 99.8 |
| Pain screening | 93.9 | 92.5 | 97.1 | 99.2 |
| Bowel regimen | 93.6 | 91.4 | 96.8 | 100.0 |
| Beliefs and values | 93.0 | 92.7 | 97.9 | 99.9 |
| Pain assessment | 75.4 | 64.5 | 79.5 | 91.8 |

Note: The numbers in the chart refer to the percent of the time a hospice appropriately performed a process measure. Numbers have been rounded from the RTI International report.

Source: RTI International analysis of hospice item set data from April 2015 through March 2016.

hospice (i.e., pain screening, pain assessment, dyspnea screening, dyspnea treatment, documentation of treatment preferences, addressing beliefs and values if desired by patient, and provision of a bowel regimen for patients treated with an opioid). Hospices were required to report on these measures during the second half of calendar year 2014 to receive a full payment update in fiscal year 2016.[18] Hospices continue to be required to report on these measures in future years.

CMS has added two measures to the seven collected through the Hospice Item Set effective beginning in April 2017. The first new measure consists of a pair of indicators related to hospices' provision of visits when death is imminent: (1) percent of patients receiving a registered nurse, physician, nurse practitioner, or physician assistant visit in the last three days of life and (2) percent of patients receiving at least two visits from a social worker, chaplain or spiritual counselor, licensed practical nurse, or hospice aide in the last seven days of life. The second measure is a composite measure that gauges the share of patients who received all seven of the original process measures on admission to hospice.

In 2015, the hospice quality reporting program began requiring hospice providers (except very small providers) to participate in a Consumer Assessment of Healthcare Providers and Systems® (CAHPS®) hospice survey. Hospices are required to contract with a CMS-approved vendor to administer the survey. The survey gathers information from the patient's informal caregiver (typically a family member) after the patient's death. The survey addresses aspects of hospice care that are thought to be important to patients and for which informal caregivers are positioned to provide information. In particular, the survey collects information on how the hospice performed in the following areas: communicating, providing timely care, treating patients with respect, providing emotional support, providing help for symptom management, providing information on medication side effects, and training family or other informal caregivers in the home setting. Participation in the CAHPS hospice survey and the Hospice Item Set will affect payment updates for fiscal year 2017 and beyond.[19]

CMS has indicated that it will publicly report quality data for individual hospices in spring or summer 2017. In addition, CMS has stated that it intends to create star ratings for hospice providers in the longer run, similar to those established for other providers.

**Initial quality findings** A CMS contractor report provides a first look at hospices' performance on the seven quality measures collected through the Hospice Item Set between April 2015 and March 2016 (RTI International 2016). Overall, performance by most hospices on six of the seven measures was high (Table 12-9). For all measures except pain assessment, at least three-quarters of hospices performed the process appropriately more than 91 percent of the time. Performance was extremely high on a few measures (documenting treating preferences and dyspnea screening), with scores averaging 98 percent across

**TABLE 12–10** **Rates of hospice live discharge and reported reason for discharge, 2013–2015**

| Category | 2013 | 2014 | 2015 |
|---|---|---|---|
| Live discharges as a share of all discharges, by reason for live discharge | | | |
| All live discharges | 18.4% | 17.2% | 16.7% |
| No longer terminally ill | 7.8 | 7.3 | 6.9 |
| Beneficiary revocation | 7.3 | 6.6 | 6.3 |
| Transfer hospice providers | 2.0 | 2.0 | 2.1 |
| Move out of service area | 0.9 | 0.9 | 1.0 |
| Discharge for cause | 0.4 | 0.3 | 0.3 |
| Providers' overall rate of live discharge as a share of all discharges, by percentile | | | |
| 10th percentile | 9.3 | 8.5 | 8.4 |
| 25th percentile | 13.2 | 12.3 | 12.0 |
| 50th percentile | 19.4 | 18.7 | 18.4 |
| 75th percentile | 30.2 | 30.2 | 29.6 |
| 90th percentile | 47.2 | 50.0 | 50.0 |

Note: Percentages may not sum to total due to rounding.

Source: MedPAC analysis of the 100 percent hospice claims standard analytical file, Medicare hospice cost reports, and Medicare Provider of Services file data from CMS.

hospices. For several of the other process measures—addressing beliefs and values, dyspnea treatment, pain screening, and provision of a bowel regimen for patients receiving opioids—hospices' scores averaged 93 percent to 94 percent. Performance on a pain assessment process measure—which indicates the percent of patients who received a comprehensive pain assessment within one day of screening positive for pain—was lower and more varied. Scores on the pain assessment measure ranged from about 65 percent at the 25th percentile to almost 92 percent at the 75th percentile.

While the high scores for most hospices on most of the quality measures is encouraging, these are process measures, and it is uncertain how much they affect quality from the perspective of patients and families. In addition, the high scores raise questions about the extent to which these measures can differentiate quality across hospice providers. The composite quality measure that CMS recently adopted (which aggregates performance across the seven measures) is expected to show more variation across hospice providers. CMS has expanded the types of quality measures it is fielding by adding measures of hospice visits when death is imminent and by conducting the CAHPS survey.

In December 2016, CMS released the first hospice CAHPS data. These data indicate the national average performance scores in the hospice CAHPS domains (Centers for Medicare & Medicaid Services 2016). On average, hospices scored highest in the areas of treating family members with respect (90 percent) and providing emotional and religious support (89 percent). The national average scores were lowest in the areas of giving hospice care training to family members (72 percent) and getting help for symptoms (75 percent). Data on individual provider performance are not yet available.

For the future, CMS has also expressed interest in developing a patient-reported pain outcome measure, claims-based quality measures (such as burdensome transitions of care for patients in and out of hospice and rates of live discharge), measures of hospice responsiveness to patient and family needs, and measures of hospice team communication and care coordination.

With quality measurement in general, it has been the Commission's view that outcome measures would be preferable to process measures. Although outcome measures for hospice are particularly challenging, the Commission believes outcome measures such as patient-reported pain and other symptom management measures merit further exploration. Rate of live discharge is another measure that in some ways could be considered an outcome measure. The rate at which hospice providers discharge patients alive could signal quality issues. Hospice providers are expected to have some rate of live discharges because some patients change their mind about using the hospice benefit and revoke their hospice enrollment, or their condition improves and they no longer meet the hospice eligibility criteria. However, analyses showing providers with substantially higher rates of live discharge than their peers signal a potential problem with quality of care or program integrity. An unusually high rate of live discharges could indicate that a hospice provider is not meeting the needs of patients and families or is admitting patients who do not meet the eligibility criteria.

Live discharges occur for patients with short and long stays. In our June 2013 report, we conducted an analysis of patients discharged alive in 2010 and followed them through the next year. Among patients discharged alive, 18 percent were discharged after a stay of 14 days or less, 22 percent after a 15- to 60-day stay, 32 percent after a 61- to 180-day stay, and 29 percent after a stay greater than 180 days (Medicare Payment Advisory Commission 2013). Patients discharged alive after a long hospice stay were more likely to be alive 180 days after discharge and to have lower average Medicare spending per day posthospice discharge than those discharged after a short hospice stay.

In the last few years, the rate of live discharge has declined, although some hospices continue to have unusually high live-discharge rates. Since 2013, across all hospices, the average rate of live discharge (that is, live discharges as a percent of all discharges) has dropped from 18.4 percent in 2013 to 17.2 percent in 2014 to 16.7 percent in 2015 (Table 12-10). Hospice providers report the reason for live discharge on claims. Looking at rates of live discharge by reason, we observe that the decline in the overall live-discharge rate reflects a decline in the rate of beneficiaries discharged alive because they are no longer terminally ill and a decline in the rate of beneficiaries revoking the hospice benefit (Table 12-10).

Although the overall live-discharge rate has declined, some providers have unusually high live-discharge rates. In 2015, about 25 percent of providers had a live-discharge rate greater than 29 percent, and 10 percent of providers had live-discharge rates of 50 percent or more (Table 12-10). As discussed in our March 2016 report, hospices with very high live-discharge rates are disproportionately for profit, recent entrants to the Medicare program (entered in 2010 or after), and have an above-average prevalence of exceeding the hospice aggregate cap (Medicare Payment Advisory Commission 2016).

Our analysis focuses on the broadest measure of live discharges, including live discharges that are initiated by the hospice (because the beneficiary is no longer terminally ill or because the beneficiary is discharged for cause) and live discharges that are initiated by the beneficiary (because the beneficiary revokes his or her hospice enrollment, the beneficiary transfers hospice providers, or the beneficiary moves out of the area). Some stakeholders contend that live discharges initiated by the beneficiary—such as when the beneficiary revokes his or her hospice enrollment—should not be included in a live-discharge measure because, they assert, these live discharges reflect beneficiary preferences and are not in control of the hospice. However, we include revocations in our analysis because beneficiaries may revoke hospice for a variety of reasons, which in some cases may be related to the hospice provider's business practices or quality of care. A CMS contractor, Abt Associates, found that rates of live discharges, both beneficiary revocations and discharges because beneficiaries are no longer terminally ill, increase as hospice providers approach or surpass the aggregate cap (Plotzke et al. 2015). The Abt report suggests that investigation is needed to determine whether provider concern about aggregate cap liabilities has led to potentially inappropriate live discharges or hospice-encouraged revocations. The inclusion of revocations in our live discharge analysis should not be interpreted as suggesting that all live discharges of any type are inappropriate. Rather, our analysis suggests that hospice providers with unusually high rates of live discharge, regardless of the reported reason for discharge, merit further scrutiny.[20]

### Providers' access to capital: Access to capital appears to be adequate

Hospices in general are not as capital intensive as other provider types because they do not require extensive physical infrastructure (although some hospices have built their own inpatient units, which require significant

**TABLE 12–11**

**Hospice costs per day vary by type of provider, 2014**

| | Average | Percentile 25th | 50th | 75th |
|---|---|---|---|---|
| All hospices | $149 | $114 | $142 | $178 |
| Freestanding | 143 | 112 | 135 | 166 |
| Home health based | 158 | 122 | 153 | 195 |
| Hospital based | 197 | 139 | 180 | 238 |
| For profit | 134 | 108 | 130 | 161 |
| Nonprofit | 173 | 137 | 168 | 205 |
| Above cap | 130 | 103 | 128 | 158 |
| Below cap | 151 | 116 | 144 | 180 |
| Urban | 150 | 115 | 143 | 178 |
| Rural | 139 | 111 | 140 | 179 |

Note: Data reflect aggregate costs per day for all types of hospice care combined (routine home care, continuous home care, general inpatient care, and inpatient respite care). Data are not adjusted for differences in case mix or wages across hospices. The rural and urban definitions used in this chart are based on updated definitions of the core-based statistical areas (which rely on data from the 2010 census). In prior reports, this chart has used rural and urban definitions based on the 2000 census.

Source: MedPAC analysis of Medicare hospice cost reports and Medicare Provider of Services data from CMS.

capital). Overall, access to capital for hospices appears adequate, given the continued entry of for-profit providers into the Medicare program.

In 2015, the number of for-profit providers grew by about 5 percent, indicating that capital is accessible to these providers. In addition, most publicly traded hospice companies reported favorable performance in their mid-2016 filings, with strong admissions and revenue growth. According to private equity analysts, hospice mergers and acquisitions slowed in 2015 and 2016, but investors remain interested in the sector. In particular, some analysts report that post-acute care providers and hospitals are interested in acquiring or developing joint ventures with hospice providers. In addition, CMS's changes to the hospice payment system for 2016 have been viewed as modest by financial analysts, which some see as a sign of the sector's stable regulatory environment.

Among nonprofit freestanding providers, less is known about access to capital, which may be limited. Hospital-based and home health–based nonprofit hospices have access to capital through their parent providers, which currently appear to have adequate access to capital in both sectors.

## Medicare payments and providers' costs

As part of our assessment of payment adequacy, we examine the relationship between Medicare payments and providers' costs by considering whether current costs approximate what providers are expected to spend on the efficient delivery of high-quality care. Medicare margins illuminate the relationship between Medicare payments and providers' costs. Specifically, we examined margins through the 2014 cost reporting year, the latest period for which cost report and claims data are available. To understand the variation in margins across providers, we also examined the variation in costs per day across providers.

### Hospice costs

Hospice costs per day vary substantially by type of provider (Table 12-11), which is one reason for differences in hospice margins across provider types. In 2014, hospice costs per day across all hospice providers were about $149 on average, an increase of about 1.3 percent from the previous year.[21] Freestanding hospices had lower costs per day than provider-based hospices (i.e., home health–based hospices and hospital-based hospices). For-profit, above-cap, and rural hospices also had lower average costs per day than their respective counterparts.

The differences in costs per day among freestanding, home health–based, and hospital-based hospices largely reflect differences in average length of stay and indirect costs. Our analysis of Medicare cost report data indicates that, across all hospice types, those with longer average stays have lower costs per day. Freestanding hospices have longer stays than provider-based hospices, which accounts for some, but not all, of the difference in costs per day.

Another substantial factor is the higher level of indirect costs among provider-based hospices. Indirect costs include, among others, management and administrative costs, accounting and billing, and capital costs. In 2014, indirect costs made up 32 percent of total costs for freestanding hospices, compared with 40 percent for home health–based hospices and 42 percent for hospital-based hospices. In general, hospices with a larger volume of patients have lower indirect costs as a share of total costs. However, while patient volume explains some of the

difference in indirect costs across providers, freestanding hospices have lower indirect costs than provider-based hospices, even among providers with similar patient volumes.

Several factors likely drive the higher indirect costs among provider-based hospices. The structure of the cost report for provider-based hospices likely results in some overallocation of overhead costs that are not actually related to the hospices' operations or management. It is also possible that provider-based hospices have higher indirect costs for certain overhead activities. For example, provider-based hospices might have higher indirect costs than freestanding providers if administrative staff wages are higher for parent providers (e.g., hospitals or home health agencies) or if provider-based hospices expend more administrative resources coordinating with their parent provider.

Regardless of the source of the higher indirect costs among provider-based hospices, the Commission believes payment policy should focus on the efficient delivery of services to Medicare's beneficiaries. If freestanding hospices are able to provide high-quality care at a lower cost than provider-based hospices, payment rates should be set accordingly, and the higher indirect costs of provider-based hospices should not be a reason for increasing Medicare payment rates.

### Hospice margins

From 2008 to 2014, the aggregate hospice Medicare margin ranged from 5.3 percent at the lowest to 10.0 percent at the highest (Table 12-12, p. 336).[22] Between 2013 and 2014, the aggregate hospice Medicare margin declined slightly from 8.5 percent to 8.2 percent. In 2014, Medicare margins varied widely across individual hospice providers: –12.6 percent at the 25th percentile, 7.6 percent at the 50th percentile, and 21.8 percent at the 75th percentile of providers (data not shown in table). Our estimates of Medicare margins from 2008 to 2014 exclude overpayments to above-cap hospices and are calculated based on Medicare-allowable, reimbursable costs consistent with our approach in other Medicare sectors.[23,24]

We excluded nonreimbursable bereavement costs from our margin calculations. The statute requires that hospices offer bereavement services to family members of their deceased Medicare patients (Section 1861(dd)(2)(A)(i) of the Social Security Act). However, the statute prohibits Medicare payment for bereavement services (Section 1814(i)(1)(A) of the Social Security Act). Hospices report the costs associated with bereavement services on the Medicare cost report in a nonreimbursable cost center. If we included these bereavement costs from the cost report in our margin estimate, it would reduce the 2014 aggregate Medicare margin by at most 1.4 percentage points. This estimate is likely an overestimate of the bereavement costs associated with Medicare hospice patients because we are not able to separately identify the bereavement costs related to hospice patients from the costs of community bereavement services provided to the family and friends of decedents not enrolled in hospice. Also, hospices may fund bereavement services through donations. Hospice revenues from donations are not included in our margin calculations.

We also exclude nonreimbursable volunteer costs from our margin calculations. As discussed in our March 2012 report, the statute requires Medicare hospice providers to use some volunteers in the provision of hospice care. Costs associated with recruiting and training volunteers are generally included in our margin calculations because they are reported in reimbursable cost centers. The only volunteer costs that would be excluded from our margins are those associated with nonreimbursable cost centers. It is unknown what costs are included in the volunteer nonreimbursable cost center. If nonreimbursable volunteer costs were included in our margin calculation, it would reduce the aggregate Medicare margin by 0.3 percentage point.

In 2014, freestanding hospices had higher margins (11.5 percent) than home health–based and hospital-based hospices (3.8 percent and –20.3 percent, respectively) (Table 12-12, p. 336). Provider-based hospices have lower margins than freestanding providers partly because of their higher indirect costs. If home health–based and hospital-based hospices had indirect cost structures similar to those of freestanding hospices, we estimate that the aggregate Medicare margin would be about 9 percentage points higher for home health–based hospices and 14 percentage points higher for hospital-based hospices, and the industry-wide aggregate Medicare margin would be about 2 percentage points higher.[25,26] In addition to their higher indirect costs, hospital-based hospices also have higher patient care costs than freestanding hospices, which may be partly due to their shorter length of stay and their smaller number of patients served.

**TABLE 12–12**

**Hospice Medicare margins by selected characteristics, 2008–2014**

| Category | Percent of hospices 2014 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|
| All | 100% | 5.3% | 7.4% | 7.4% | 8.7% | 10.0% | 8.5% | 8.2% |
| Freestanding | 74 | 8.3 | 10.2 | 10.7 | 11.8 | 13.3 | 12.0 | 11.5 |
| Home health based | 12 | 3.2 | 6.2 | 3.4 | 6.1 | 5.5 | 2.5 | 3.8 |
| Hospital based | 13 | –12.4 | –12.7 | –17.1 | –17.0 | –17.1 | –17.4 | –20.3 |
| For profit (all) | 63 | 10.2 | 11.8 | 12.3 | 14.7 | 15.4 | 14.7 | 14.5 |
| Freestanding | 58 | 11.4 | 12.9 | 13.4 | 15.9 | 16.5 | 15.7 | 15.3 |
| Nonprofit (all) | 32 | 0.5 | 3.6 | 2.9 | 2.3 | 3.6 | 0.9 | –0.7 |
| Freestanding | 15 | 3.7 | 6.6 | 7.6 | 6.4 | 7.7 | 5.2 | 3.4 |
| Patient volume (quintile) | | | | | | | | |
| Lowest | 20 | –8.9 | –6.2 | –4.8 | –3.8 | –2.3 | –0.4 | –4.7 |
| Second | 20 | 0.0 | 2.0 | 4.1 | 2.7 | 5.8 | 5.9 | 2.3 |
| Third | 20 | 4.0 | 4.2 | 6.8 | 7.6 | 9.7 | 9.3 | 9.6 |
| Fourth | 20 | 6.2 | 6.6 | 7.0 | 9.3 | 11.1 | 10.6 | 10.0 |
| Highest | 20 | 6.2 | 9.1 | 8.2 | 9.6 | 10.5 | 8.2 | 8.4 |
| Urban | 77 | 5.7 | 7.9 | 7.7 | 9.0 | 10.3 | 8.8 | 8.7 |
| Rural | 23 | 1.9 | 3.2 | 4.6 | 5.2 | 7.3 | 5.9 | 3.6 |
| Below cap | 87.8 | 5.7 | 7.9 | 7.6 | 8.9 | 10.3 | 8.6 | 8.4 |
| Above cap (excluding cap overpayments) | 12.2 | 1.2 | 1.5 | 3.2 | 4.1 | 5.2 | 7.0 | 6.0 |
| Above cap (including cap overpayments) | 12.2 | 19.1 | 18.4 | 17.3 | 18.4 | 21.3 | 20.1 | 18.8 |

Note: Margins for all provider categories exclude overpayments to above-cap hospices, except where specifically indicated. Margins are calculated based on Medicare-allowable, reimbursable costs. The rural and urban definitions used in this chart are based on updated definitions of the core-based statistical areas (which rely on data from the 2010 census). In prior reports, this chart has used rural and urban definitions based on the 2000 census.

Source: MedPAC analysis of Medicare hospice cost reports, 100 percent hospice claims standard analytical file, and Medicare Provider of Services data from CMS.

Hospice margins also vary by other provider characteristics, such as type of ownership, patient volume, and urban or rural location (Table 12-12). The aggregate Medicare margin in 2014 was considerably higher for for-profit hospices (14.5 percent) than for nonprofit hospices (–0.7 percent). While the overall margin for nonprofits was negative in 2014, the margin for freestanding nonprofit hospices, which are not affected by overhead allocation issues, was positive (3.4 percent). Generally, hospices' margins vary by the provider's volume; hospices with more patients have higher margins on average. In 2014, hospices in urban areas have a higher overall aggregate Medicare margin (8.7 percent) than those in rural areas (3.6 percent). The difference between rural and urban margins may partly reflect differences in volume.

Hospice profitability is closely related to length of stay. Hospices with longer lengths of stay have higher margins. For example, in an analysis of hospice providers based on the share of their patients' stays exceeding 180 days, the average margin ranged from –8.9 percent for hospices in the lowest quintile to 18.1 percent for hospices in the second highest quintile (Table 12-13). Hospices in the quintile with the greatest share of their patients exceeding 180 days had a 14.2 percent average margin after the return of cap overpayments, but without the hospice aggregate cap, these providers' margins would have averaged 19.5 percent (latter figure not shown in table).

Hospices with a large share of patients in nursing facilities and assisted living facilities also have higher margins than other hospices (Table 12-13). For example,

in 2014, hospices in the top quartile of share of patients residing in nursing facilities had a margin of about 15 percent compared with a margin of roughly 7 percent to 9 percent in the middle quartiles and a margin near zero in the bottom quartile. Margins also vary by the share of a provider's patients in assisted living facilities, with a margin ranging from –1.8 percent in the lowest quartile to almost 14 percent in the highest quartile. Some of the difference in margins among hospices with different concentrations of nursing-facility and assisted living–facility patients is driven by differences in the diagnosis profile and length of stay of patients in these hospices.

However, hospices may find caring for patients in facilities more profitable than caring for patients at home for reasons in addition to length of stay. As discussed in our June 2013 report, there may be efficiencies in treating hospice patients in a centralized location in terms of mileage costs and staff travel time, as well as facilities serving as referral sources for new patients. Nursing facilities may also be a more efficient setting for hospices to provide care because of the overlap in responsibilities between the hospice and the nursing facility. Analyses in our June 2013 report suggest that a 3 percent to 5 percent reduction in the hospice routine home care payment rate for patients in nursing facilities may be warranted because of the overlap in responsibilities between the hospice and the nursing facility (Medicare Payment Advisory Commission 2013).

CMS's payment reforms in 2016 are expected to modestly reduce the variation in profitability across hospices. In its final rule on the new hospice payment structure, CMS simulated the revenue effect on different categories of hospice providers for fiscal year 2016 (Centers for Medicare & Medicaid Services 2015). The new payment system was in effect beginning January 2016—that is, for three out of four quarters of fiscal year 2016. The effect of the payment system on revenues over a full year of implementation is expected to be about 33 percent greater than CMS's estimates for fiscal year 2016. CMS projected that under the new payment structure, hospice revenues for fiscal year 2016 would increase 1.1 percent for nonprofit hospices, 1.5 percent for provider-based hospices, and 0.3 percent for rural hospices in aggregate. Fiscal year 2016 payments were projected to decline by –0.8 percent for for-profit hospices, –0.2 percent for freestanding hospices, and change little for urban hospices, due to the payment system changes.[27] CMS also projected the effect of the new payment system on hospices with different shares of their patients in nursing facilities, with the effect ranging from a revenue increase of 0.4 percent for the quartile of hospices with the lowest share of patients in nursing facilities to a decrease of 0.4 percent for the quartile of hospices with the highest share of patients in nursing facilities. The projected revenue changes for the various provider categories are largely the result of differences in length of stay across these groups. As the Commission noted in its comment letter on the 2016 hospice proposed rule, the initial changes to the hospice payment system are projected to be modest and leave room for additional changes in future years based on further data and

**TABLE 12–13**

**Hospice Medicare margins by length of stay and patient residence, 2014**

| Hospice characteristic | Medicare margin |
|---|---|
| Average length of stay | |
| Lowest quintile | –9.7% |
| Second quintile | 1.8 |
| Third quintile | 11.5 |
| Fourth quintile | 17.7 |
| Highest quintile | 14.6 |
| Percent of stays > 180 days | |
| Lowest quintile | –8.9 |
| Second quintile | 1.2 |
| Third quintile | 12.1 |
| Fourth quintile | 18.1 |
| Highest quintile | 14.2 |
| Percent of patients in nursing facilities | |
| Lowest quartile | 0.2 |
| Second quartile | 6.8 |
| Third quartile | 8.7 |
| Highest quartile | 15.1 |
| Percent of patients in assisted living facilities | |
| Lowest quartile | –1.8 |
| Second quartile | 4.4 |
| Third quartile | 9.0 |
| Highest quartile | 13.8 |

Note: Margins for all provider categories exclude overpayments to above-cap hospices. Margins are calculated based on Medicare-allowable, reimbursable costs.

Source: MedPAC analysis of Medicare hospice cost reports, Medicare Beneficiary Database, hospice claims standard analytical file, and Medicare Provider of Services data from CMS.

experience (Medicare Payment Advisory Commission 2015a). Beginning next year, as claims and cost report data on experience with the new payment system become available, the Commission intends to examine the effects of the new payment system and consider whether additional changes are needed.

Another consideration in evaluating the adequacy of payments is whether providers have a financial incentive to expand the number of Medicare beneficiaries they serve. In considering whether to treat a patient, the provider compares the marginal revenue it will receive (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If Medicare payments are larger than the marginal costs of treating an additional beneficiary, a provider has a financial incentive to increase its volume of Medicare patients. On the other hand, if marginal payments do not cover the marginal costs, the provider may have a disincentive to treat Medicare beneficiaries. To operationalize this concept, we compare payments for Medicare services with marginal costs, which is approximated as:

Marginal profit = (payments for Medicare services – (total Medicare costs – fixed building and equipment costs)) / Medicare payments

This formula gives a lower bound on the marginal profit because we ignore any potential labor costs that are fixed. For hospice providers, we find that Medicare payments exceed marginal costs by roughly 11 percent, suggesting that providers have an incentive to treat Medicare patients. This profit margin is a positive indicator of patient access.

### Projecting margins for 2017

To project the aggregate Medicare margin for 2017, we model the policy changes that went into effect between 2014 (the year of our most recent margin estimates) and 2017. The policies include:

- a market basket update of 2.9 percent for fiscal year 2015, 2.4 percent for fiscal year 2016, and 2.7 percent for fiscal year 2017;
- a reduction to the market basket update of 0.8 percentage point in 2015, 0.8 percentage point in 2016, and 0.6 percentage point in 2017 (reflecting a productivity adjustment and an additional adjustment of –0.3 percentage point each year);
- year 6 and year 7 of the seven-year phase-out of the wage index budget-neutrality adjustment factor, which reduced payments to hospices by 0.6 percentage point in fiscal years 2015 and 2016; and
- additional wage index changes, which reduced payments by 0.1 percentage point in 2015 and 2016.

We also assume a rate of cost growth in 2015 through 2017 that is higher than the historical rate in light of potentially higher administrative costs related to implementing several new administrative requirements (i.e., new quality reporting initiatives, a revised cost report, and additional diagnosis reporting requirements).

Taking these factors into account, we project an aggregate Medicare margin for hospices of 7.7 percent in 2017. This margin projection excludes nonreimbursable costs associated with bereavement services and volunteers (which, if included, would reduce margins by at most 1.4 percentage points and 0.3 percentage point, respectively). The margin projection also does not include any adjustment to remove the effect of the higher indirect costs observed among hospital-based and home health–based hospices (which, if such an adjustment were made, would increase the overall aggregate Medicare margin by up to 2 percentage points).

## How should Medicare payments change in 2018?

**RECOMMENDATION 12**

**The Congress should eliminate the update to the hospice payment rates for fiscal year 2018.**

**RATIONALE 12**

Our payment indicators for hospice are generally positive. The number of hospices increased about 2.6 percent in 2015 because of the entry of for-profit providers. The number of beneficiaries enrolled in hospice increased by more than 4 percent. Average length of stay declined slightly because of a decrease among patients with the longest stays. Access to capital appears adequate. Limited quality data are now available. The projected 2017 aggregate Medicare margin is 7.7 percent. Based on our

assessment of the payment adequacy indicators, hospices should be able to accommodate cost changes in 2018 without an update to the 2017 base payment rate.

## IMPLICATIONS 12

### Spending

- Under current law, hospices would receive an update in fiscal year 2018 equal to 1 percent because of a provision of the Medicare Access and CHIP Reauthorization Act of 2015. Our recommendation to eliminate the payment update in fiscal year 2018 would decrease federal program spending relative to the statutory update by between $50 million and $250 million over one year and less than $1 billion over five years.

### Beneficiary and provider

- We do not expect this recommendation to have adverse effects on beneficiaries' access to care. This recommendation is not expected to affect providers' willingness and ability to care for Medicare beneficiaries. ■

## Endnotes

1 If a beneficiary does not have an attending physician, the beneficiary can initially elect hospice based on the certification of the hospice physician alone.

2 When first established under TEFRA, the Medicare hospice benefit limited coverage to 210 days of hospice care. The Medicare Catastrophic Coverage Repeal Act of 1989 and the Balanced Budget Act of 1997 eased this limit.

3 In 2000, 30 percent of hospice providers were for profit, 59 percent were nonprofit, and 11 percent were government. As of 2015, about 65 percent of hospices were for profit, 31 percent were nonprofit, and 4 percent were government.

4 The 2017 cap year spans from October 1, 2016, to September 30, 2017. (Before cap year 2017, the cap year spanned from November to October). Payments for the cap year reflect the sum of payments to a provider for services furnished in the cap year. The calculation of the beneficiary count for the cap year is more complex, involving two alternative methodologies. For a detailed description of the two methodologies and when they are applicable, see our March 2012 report (Medicare Payment Advisory Commission 2012).

5 This 2017 cap threshold is equivalent to an average length of stay of 173 days of routine home care for a hospice with a wage index of 1.0.

6 The Improving Medicare Post-Acute Care Transformation Act of 2014 (IMPACT) changed the annual update factor applied to the hospice aggregate cap for cap years 2017 through 2025. Previously, the aggregate cap was updated annually based on the percentage increase in the medical care expenditure category of the consumer price index for all urban consumers. As a result of IMPACT, the aggregate cap will be updated annually by the same factor as the hospice payment rates (market basket net of productivity and other adjustments).

7 Our hospice analyses in this report that break out data for rural and urban beneficiaries or rural and urban providers may differ from data in prior reports because we are using updated rural and urban definitions based on more recent population data for all years of analysis presented in this chapter.

8 The type of hospice reflects the type of cost report filed (a hospice files a freestanding hospice cost report or is included in the cost report of a hospital, home health agency, or skilled nursing facility). The type of cost report does not necessarily reflect the location where patients receive care. For example, all hospice types may serve some nursing facility patients.

9 The number of rural hospices is not necessarily reflective of hospice access for rural beneficiaries for several reasons. A count of the number of rural hospices does not capture the size of those hospice providers, their capacity to serve patients, or the size of their service area. Furthermore, a count of hospices located in rural areas does not take into account hospices with offices in urban areas that also provide services in rural areas.

10 This pattern contrasts with the one we observed in the prior two-year period between 2013 and 2014, when the number of hospice beneficiaries who were discharged deceased grew 1.6 percent and the number of hospice patients discharged alive or still a patient (as of the end of the year) declined 1.7 percent.

11 The terms *curative care* and *conventional care* are often used interchangeably to describe treatments intended to be disease modifying.

12 Above-cap hospices are more likely to be for-profit, freestanding providers and to have smaller patient counts than below-cap hospices.

13 The estimates of hospices over the cap are based on the Commission's analysis. While the estimates are intended to approximate those of the CMS claims processing contractors, differences in available data and methodology have the potential to lead to different estimates. An additional difference between our estimates and those of the CMS contractors relates to the alternative cap methodology that CMS established in the hospice final rule for 2012 (Centers for Medicare & Medicaid Services 2011). Based on that regulation, for cap years before 2012, hospices that challenged the cap methodology in court or made an administrative appeal had their cap payments calculated from the challenged year going forward using a new, alternative methodology. For cap years from 2012 onward, all hospices will have their cap liability calculated using the alternative methodology unless they elect to remain with the original method. For estimation purposes, we assume that the CMS contractors used the alternative methodology for cap year 2012 onward. Estimates for cap years 2011 and earlier assumed that the original cap methodology was used.

14 This policy—which requires a hospice to estimate its cap liability within three to five months of the cap year's close and remit the calculated overpayments to CMS at that time or face suspension of their payments—should create greater awareness of cap overpayment liabilities among providers and make it more likely that Medicare will collect at least a portion of the overpayments from all above-cap hospices. Because of how the aggregate cap calculation is structured,

the amount a hospice owes when the calculation is performed three to five months after the cap year's close will be less than the full amount the hospice owes when the Medicare contractor reconciles the calculation at a later date with more complete claims data. Thus, this policy should ensure that hospices pay a portion of their cap overpayments up front and be liable for the remainder of the overpayments at a later date.

15 To do this analysis, we identified hospice spending that occurred during or before the last year of life using hospice claims data and information on dates of death from the Medicare denominator file. For example, we determined for each person and each day of hospice care in 2014 whether that day was within or before that person's last 365 days of life using date of death information in the 2014 and 2015 denominator files.

16 The initial two quality measures were (1) the share of patients who reported being uncomfortable because of pain at admission whose pain was brought to a comfortable level within 48 hours and (2) whether the hospice tracked at least 3 quality measures focused on patient care (and what those measures were).

17 CMS discontinued collection of the pain outcome measure it adopted in the first year of the reporting program because a high rate of patient exclusion made the measure unstable and because the measure was inconsistently administered across providers.

18 About 7 percent of hospices did not report the required quality data and faced a 2 percentage point reduction in their update for fiscal year 2016. Nonreporters were generally small providers, and it is possible that some of them are no longer operating.

19 About 11 percent of hospices did not report CAHPS and/or Hospice Item Set data in 2015 and faced a 2 percentage point reduction in their update for fiscal year 2017.

20 We have identified hospices with unusually high live-discharge rates for which most (and in some cases nearly all) of the live discharges are revocations. Hospices with this pattern of live discharges would be missed if revocations were excluded from the live-discharge analysis.

21 The cost per day calculation reflects aggregate costs for all types of hospice care (routine home, continuous home, general inpatient, and inpatient respite care). Days reflect the total number of days the hospice is responsible for care for its patients, regardless of whether the patient received a visit on a particular day. The cost per day estimates are not adjusted for differences in case mix or wages across hospices and are based on data for all patients, regardless of payer.

22 The aggregate Medicare margin is calculated as follows: ((sum of total payments to all providers) – (sum of total costs of all providers) / (sum of total payments to all providers)). Estimates of total Medicare costs come from providers' cost reports. Estimates of Medicare payments and cap overpayments are based on Medicare claims data. We present margins for 2014 for several reasons. Cost reporting year 2014 is the most recent period for which we have a complete set of claims data. For some hospices, cost reporting year 2014 includes part of calendar year 2015. Our margin estimates also exclude cap overpayments to providers. To calculate this exclusion accurately, we need the next year's claims data (i.e., the 2014 cap overpayment calculation requires 2015 claims data).

23 Hospices that exceed the Medicare aggregate cap are required to repay the excess to Medicare. We do not consider the overpayments to be part of hospice revenues in our margin calculation.

24 Our margin estimates also do not take into account revenues or costs from fund-raising and donations.

25 These estimates are adjusted to account for differences in patient volume across freestanding and provider-based hospices.

26 If we were to adjust our margin estimates to include nonreimbursable bereavement and volunteer costs and to exclude the higher indirect costs associated with provider-based hospices, the effect of these two actions would roughly offset each other and the aggregate margin would be similar to the margin we report without these adjustments.

27 These revenue changes are for provider groups in the aggregate; the effect on revenues for individual hospices would vary depending on the length-of-stay distribution for an individual provider's patients.

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CHAPTER 13

# Status report on the Medicare Advantage program

## RECOMMENDATION

**13** The Secretary should calculate Medicare Advantage benchmarks using fee-for-service spending data only for beneficiaries enrolled in both Part A and Part B.

**COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0**

CHAPTER 13

# Status report on the Medicare Advantage program

## Chapter summary

Each year, the Commission provides a status report on the Medicare Advantage (MA) program. In 2016, the MA program included about 3,500 plan options, enrolled more than 17.5 million beneficiaries (31 percent of all beneficiaries), and paid MA plans about $190 billion (not including Part D drug plan payments). To monitor program performance, we examine MA enrollment trends, plan availability for the coming year, and payments for MA plan enrollees relative to spending for fee-for-service (FFS) Medicare beneficiaries. We also provide updates on risk adjustment, risk coding practices, and current quality indicators in MA. As a result of the analyses, we include a recommendation to adjust benchmarks.

The MA program gives Medicare beneficiaries the option of receiving benefits from private plans rather than from the traditional FFS Medicare program. The Commission strongly supports the inclusion of private plans in the Medicare program; beneficiaries should be able to choose between the traditional FFS Medicare program and alternative delivery systems that private plans can provide. Because Medicare pays private plans a per person predetermined rate rather than a per service rate, plans have greater incentives than FFS providers to innovate and use care-management techniques.

The Commission has emphasized the importance of imposing fiscal pressure on all providers of care to improve efficiency and reduce Medicare

## In this chapter

- Trends in enrollment, plan availability, and payments
- Medicare Advantage risk adjustment
- Quality in the Medicare Advantage program

program costs and beneficiary premiums. For MA, the Commission previously recommended that payments be brought down from prior levels, which were generally higher than FFS, and be set so that the payment system is neutral and does not favor either MA or the traditional FFS program. Legislation has reduced the inequity in Medicare spending between MA and FFS. As a result, over the past few years, plan bids and payments have come down in relation to FFS spending while enrollment in MA continues to grow. The pressure of lower benchmarks has led to improved efficiencies and more competitive bids that enable MA plans to continue to increase enrollment by offering benefits that beneficiaries find attractive.

***Enrollment*—**Between 2015 and 2016, enrollment in MA plans grew by about 5 percent (800,000 enrollees) to 17.5 million enrollees. About 31 percent of all Medicare beneficiaries were enrolled in MA plans in 2016, up from 30 percent in 2015. Among plan types, HMOs continued to enroll the most beneficiaries (11.7 million), with 20 percent of all Medicare beneficiaries in HMOs in 2016. Between 2015 and 2016, enrollment in local preferred provider organizations (PPOs) increased by about 3 percent and enrollment in regional PPOs increased by about 7 percent. As expected because of legislation effective in 2010, enrollment in private fee-for-service (PFFS) plans continued to decrease between 2009 and 2016 from 2.4 million enrollees to about 200,000 enrollees.

***Plan availability*—**Access to MA plans remains high in 2017, with most Medicare beneficiaries having access to many plans. Almost all beneficiaries have had access to some type of MA plan since 2006, and HMOs and local PPOs have become more widely available in the past few years. Ninety-five percent of Medicare beneficiaries have an HMO or local PPO plan operating in their county of residence. Regional PPOs are available to 74 percent of beneficiaries, up from 73 percent in 2016. Forty-five percent of beneficiaries have access to PFFS plans. Overall, 99 percent of all Medicare beneficiaries have access to an MA plan.

An analysis of the market structure of the MA program shows that, compared with 2007, MA enrollment is more heavily concentrated in 2016. The top 10 MA organizations (ranked by enrollment) had 70 percent of total enrollment in 2016, compared with 61 percent in 2007. Enrollment is more concentrated in nonmetropolitan areas, where the top two companies have 52 percent of all enrollment, compared with 39 percent in metropolitan areas. Despite this concentration, on average, an increasing number of MA organizations are participating per county; between 2007 and 2015, the per county average number of MA organizations offering coordinated care plans (HMOs or PPOs) rose from 2.6 to 3.2. However, at the county level, enrollment is often concentrated in the top 10 organizations.

***Plan payments—***For 2017, the base county benchmarks (in nominal dollars and before any quality bonuses are applied) average approximately 3 percent higher than the benchmarks for 2016, as compared with expected per capita FFS spending growth of 4 percent. The lower growth in MA benchmarks is due to the final year of the transition to lower benchmarks established in the Patient Protection and Affordable Care Act of 2010 (PPACA).

Using the 2017 plan bid data, we estimate that 2017 MA benchmarks (including quality bonuses), bids, and payments will average 106 percent, 90 percent, and 100 percent of FFS spending, respectively. Lower benchmarks have led to more competitive bids from plans as bids have dropped from about 100 percent of FFS before PPACA to about 90 percent of FFS in 2017. For 2017, about two-thirds of plans, accounting for about 75 percent of projected MA enrollment, have bid below FFS.

On average, the quality bonuses in 2017 will add 4 percent to the average plan's base benchmark and will add 3 percent to plan payments. Removing quality bonuses from the benchmarks, we expect the base benchmarks to average 102 percent of FFS in 2017 and thus approach rough equity with FFS.

Nonetheless, there are equity issues surrounding the distribution of MA benchmarks and payments. When CMS calculates the county-level FFS spending measure on which the benchmarks are based, it includes all of a county's FFS beneficiaries in its calculations, regardless of whether these FFS beneficiaries are enrolled in both Part A and Part B. MA beneficiaries, however, are required to enroll in both Part A and Part B to join an MA plan. The Commission has found that FFS spending in Part A is higher for beneficiaries with both Part A and Part B. Therefore, the Commission recommends that the Secretary calculate benchmarks using only the FFS spending of beneficiaries enrolled in both Part A and Part B. Making this change would incur a cost to the Medicare program, which could be offset by implementing our March 2016 recommendation on coding intensity (Medicare Payment Advisory Commission 2016).

***Risk adjustment and coding intensity—***Medicare payments to MA plans are enrollee specific, based on a plan's payment rate and an enrollee's risk score. Risk scores account for differences in expected medical expenditures and are based in part on diagnoses that providers code. Claims in FFS Medicare are paid using procedure codes, which offer little incentive for providers to record more diagnosis codes than necessary to justify ordering a procedure. In contrast, MA plans have a financial incentive to ensure that their providers record all possible diagnoses because higher enrollee risk scores result in higher payments to the plan. Our

updated analysis shows that higher coding intensity has resulted in MA enrollees having risk scores that were about 10 percent higher than scores for similar FFS beneficiaries, an increase over last year. By law, CMS makes a minimum across-the-board adjustment to MA risk scores to make them more consistent with FFS coding. The adjustment for 2017 will be 5.66 percent. Last year, the Commission recommended that CMS change the way diagnoses are collected for use in risk adjustment and estimate a new coding adjustment that improves equity across plans and eliminates the impact of differences in MA and FFS coding intensity.

***Quality measures*—**MA plans are able to receive bonus payments if they achieve an overall rating of 4 stars or higher in CMS's 5-star rating system. Between 2015 and 2016, the proportion of beneficiaries in MA plans with bonus-level ratings increased, while between 2016 and 2017, the share decreased. Based on the 2017 star ratings released in October of 2016 and looking at contracts rated in both years, on net about 1.2 million fewer current enrollees are in plans that are in bonus status under the 2017 star ratings. A little over 2 million enrollees are in plans leaving bonus status, while a little over 1 million enrollees are in plans entering bonus status. These changes reflect higher thresholds for the attainment of 4-star ratings for some of the MA quality measures and reduced ratings for one organization based on an audit of contract performance.

This year we continue to see the practice of contract cross-walking (consolidations under one contract) undertaken for the purpose of obtaining bonus payments. Over 700,000 enrollees are being moved to a different contract for this purpose. The largest such movement involves one company that is combining three regional contracts into one contract. The company's two regional contracts in the South (rated below 4 stars), with over 300,000 enrollees, are being absorbed by the company's 4-star regional plan in the Northeast, which has 20,000 enrollees. We discuss ways of ensuring that bonus payments are available only for enrollees in high-performing plans when there has been cross-walking of contracts.

The cross-state consolidation of MA contracts that we have seen over the past several years has eroded our ability to evaluate quality in the program and lessened the utility of star ratings as a plan comparison tool for beneficiaries. In many cases, star ratings do not reflect the quality of care in the local market area. The Commission has a long-standing recommendation (see text box, pp. 374–375) that quality measures be reported by market areas (and compared with results for the FFS program in those areas) (Medicare Payment Advisory Commission 2010). Currently, about one-third of MA enrollees are in contracts for which a substantial share of the enrollment is in noncontiguous states across the country. ■

## Background

The Medicare Advantage (MA) program allows Medicare beneficiaries to receive benefits from private plans rather than from the traditional fee-for-service (FFS) program. In 2016, the MA program included about 3,500 plan options, enrolled more than 17.5 million beneficiaries (31 percent of all beneficiaries), and Medicare paid MA plans about $190 billion (not including Part D drug plan payments). The Commission supports including private plans in the Medicare program because they allow beneficiaries to choose between FFS Medicare and alternative delivery systems that private plans can provide. Plans often have flexibility in payment methods, including the ability to negotiate with individual providers; care-management techniques that fill potential gaps in care delivery (e.g., programs focused on preventing avoidable hospital readmissions); and robust information systems that provide timely feedback to providers. Plans also can reward beneficiaries for seeking care from more efficient providers and give beneficiaries more predictable cost sharing; one trade-off is that plans often restrict the choice of providers.

By contrast, traditional FFS Medicare has lower administrative costs and offers beneficiaries an unconstrained choice of health care providers, but it lacks incentives to coordinate care and is limited in its ability to modify care delivery. Because private plans and traditional FFS Medicare have structural aspects that appeal to different segments of the Medicare population, we favor providing a financially neutral choice between private MA plans and traditional FFS Medicare. Medicare's payment systems should not unduly favor one component of the program over the other.

Efficient MA plans may be able to capitalize on their administrative flexibility to provide better value to beneficiaries who enroll in their plans. However, some of the extra benefits that MA plans provide their enrollees result from payments that would have been lower under FFS Medicare for similar beneficiaries. Thus, some of those benefits are financed by higher government spending and higher beneficiary Part B premiums (including for those who are in traditional FFS Medicare) at a time when Medicare and its beneficiaries are under increasing financial stress. To encourage efficiency and innovation, MA plans need to face some degree of financial pressure, just as the Commission recommends for providers in the traditional FFS program. One method of achieving financial neutrality is to link private plans' payments more closely to FFS Medicare costs within the same market. Alternatively, neutrality can be achieved by establishing a government contribution that is equally available for enrollment in either FFS Medicare or an MA plan. The Commission will continue to monitor the effect of changes mandated by the Patient Protection and Affordable Care Act of 2010 (PPACA) on plan payments and performance and track progress toward financial neutrality.

Each year, the Commission provides a status report on the MA program. To monitor program performance, we examine MA enrollment trends, plan availability for the coming year, and payments for MA plan enrollees relative to spending for FFS Medicare beneficiaries. We also provide updates on risk adjustment, risk coding practices, and current quality indicators in MA.

## Trends in enrollment, plan availability, and payments

In contrast to traditional FFS Medicare, MA enrolls beneficiaries in private health plans. Medicare pays plans a fixed rate per enrollee rather than traditional FFS Medicare's fixed rate per service.

### Types of MA plans

Our analysis of the MA program uses the most recent data available and reports results by plan type. The plan types are:

- ***HMOs and local preferred provider organizations (PPOs)*****—**These plans have provider networks and can use tools such as selective contracting and utilization management to coordinate and manage care and control service use.[1] They can choose individual counties to serve and can vary their premiums and benefits across counties. These two plan types are classified as coordinated care plans (CCPs).
- ***Regional PPOs*****—**These plans are required to offer a uniform benefit package and premium across designated regions made up of one or more states. Regional PPOs have more flexible network requirements than local PPOs. Regional PPOs are also classified as CCPs.
- ***Private FFS (PFFS) plans*****—**PFFS plans are not classified as CCPs. Before 2011, PFFS plans typically

did not have provider networks, making them less able than other plan types to coordinate care. They usually paid providers Medicare's FFS payment rates (instead of negotiated rates) and had fewer quality reporting requirements. Because PFFS plans generally lacked care coordination, had lower quality measures than CCPs on the measures they reported, paid Medicare FFS rates, and had higher administrative costs than traditional FFS Medicare, they were viewed as providing little value. In response, the Medicare Improvements for Patients and Providers Act of 2008 (MIPPA) mandated that, in areas with two or more network MA plans, PFFS plans can be offered only if they have provider networks. PFFS plans are also now required to participate in quality reporting. Existing PFFS plans had to either (1) locate in areas with fewer than two network plans or develop provider networks themselves, which in effect would change them into PPOs or HMOs, or (2) they would operate as network-based PFFS plans.

Two additional plan classifications cut across plan types: special needs plans (SNPs) and employer group plans. SNPs offer benefit packages tailored to specific populations (those beneficiaries who are dually eligible for Medicare and Medicaid, are institutionalized, or have certain chronic conditions). SNPs must be CCPs. Employer group plans are available only to Medicare beneficiaries who are members of employer or union groups that contract with those plans. SNPs are included in our plan data, with the exception of plan availability figures, because these plans are not available to all beneficiaries. (See the Commission's March 2013 report to the Congress, available at http://www.medpac.gov, for more detailed information on SNPs.) As we recommended in an earlier report, employer plans no longer submit bids, so we have only enrollment data for them. (See our March 2014 report to the Congress, available at http://www.medpac.gov, for more detailed information on employer plans.)

## How Medicare pays MA plans

Plan payment rates are determined by the MA plan bid, which represents the dollar amount the plan estimates will cover the Part A and Part B benefit package for a beneficiary of average health status, and the payment area's benchmark, which is the maximum amount of Medicare payment set by law for an MA plan to provide Part A and Part B benefits. (Medicare also pays plans for providing the Part D drug benefit, but the Medicare payments for Part D are determined through the Part D bidding process, and not all plans include the Part D benefit.) Plans with higher quality ratings are rewarded with a higher benchmark. (The benchmark that is compared with an individual plan's bid is a plan-specific risk-adjusted average, weighted by the plan's enrollment from counties in its service area.) If a plan's bid is above the benchmark, its MA payment rate is equal to the benchmark and enrollees have to pay a premium (in addition to the usual Part B premium) equal to the difference. If a plan's bid is below the benchmark, its payment rate is its bid plus a share (between 50 percent and 70 percent, depending on a plan's quality ratings) of the difference between the plan's bid and the benchmark; the beneficiary pays no premium to the plan for Part A and Part B benefits (but continues to be responsible for payment of the Medicare Part B premium and may pay premiums to the plan for additional benefits). The payment amount above the bid is referred to as the rebate. Plans must use the rebate to provide additional benefits to enrollees in the form of lower cost sharing, lower premiums, or supplemental benefits. (The valuation of the rebate can be fully loaded, meaning that the plan can devote some of the rebate to administration costs and margins.) Plans may also choose to include additional supplemental benefits in their packages and charge premiums to cover those additional benefits. A more detailed description of the MA program payment system can be found in our *Payment Basics* series (http://medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_16_ma_final.pdf?sfvrsn=0.)

## MA plan enrollment continued to grow faster than total Medicare beneficiary growth in 2016

Between November 2015 and November 2016, enrollment in MA plans grew by about 5 percent—or 0.8 million enrollees—to 17.5 million enrollees (compared with growth of about 3 percent in the same period for the total Medicare population). About 31 percent of all Medicare beneficiaries were enrolled in MA plans in 2016, up from 30 percent in 2015 (Table 13-1; 2015 share of enrollment not shown).

The Commission's previous work suggests that many beneficiaries enroll in MA immediately upon becoming eligible, but most initially enroll in FFS Medicare and subsequently move to MA. For more on enrollment patterns, see our March 2015 report (Medicare Payment Advisory Commission 2015b).

**TABLE 13–1**

**Medicare Advantage plan enrollment continued to grow in 2016**

| | MA enrollment (in millions) | | Percent change in enrollment | 2016 MA enrollment as a share of total Medicare |
|---|---|---|---|---|
| | November 2015 | November 2016 | | |
| Total | 16.7 | 17.5 | 5% | 31% |
| Plan type | | | | |
| CCP | 16.4 | 17.3 | 5 | 30 |
| HMO | 11.0 | 11.7 | 6 | 20 |
| Local PPO | 4.2 | 4.3 | 3 | 8 |
| Regional PPO | 1.3 | 1.3 | 7 | 2 |
| PFFS | 0.3 | 0.2 | –11 | <1 |
| Restricted availability plans included in totals above | | | | |
| SNPs* | 2.1 | 2.3 | 7 | 4 |
| Employer group* | 3.2 | 3.2 | 1 | 6 |
| Urban/rural | | | | Share of Medicare population in MA |
| Urban | 14.5 | 15.2 | 5 | 33 |
| Rural | 2.2 | 2.3 | 5 | 21 |

Note: MA (Medicare Advantage), CCP (coordinated care plan), PPO (preferred provider organization), PFFS (private fee-for-service), SNP (special needs plan). CCPs include HMO, local PPO, and regional PPO plans. The sum of column components may not equal the stated total due to rounding. Rural areas include counties designated as micropolitan counties and counties that are neither metropolitan nor micropolitan as defined by the Office of Management and Budget. Urban areas include metropolitan counties.
*SNPs and employer group plans have restricted availability. Their enrollment is included in the statistics by plan type and location. We present them separately to provide a more complete picture of the MA program.

Source: MedPAC analysis of CMS enrollment files.

Among plan types, HMOs continued to enroll the most beneficiaries (11.7 million), with 20 percent of all Medicare beneficiaries in HMOs in 2016. Between 2015 and 2016, enrollment in local PPOs grew by about 3 percent. Regional PPO enrollment increased by about 7 percent. As expected because of MIPPA legislation effective since 2010, PFFS enrollment decreased between 2009 and 2016 from 2.4 million enrollees to about 200,000 enrollees. In 2016, SNP enrollment grew by 7 percent, and employer group enrollment grew by 1 percent (Table 13-1).

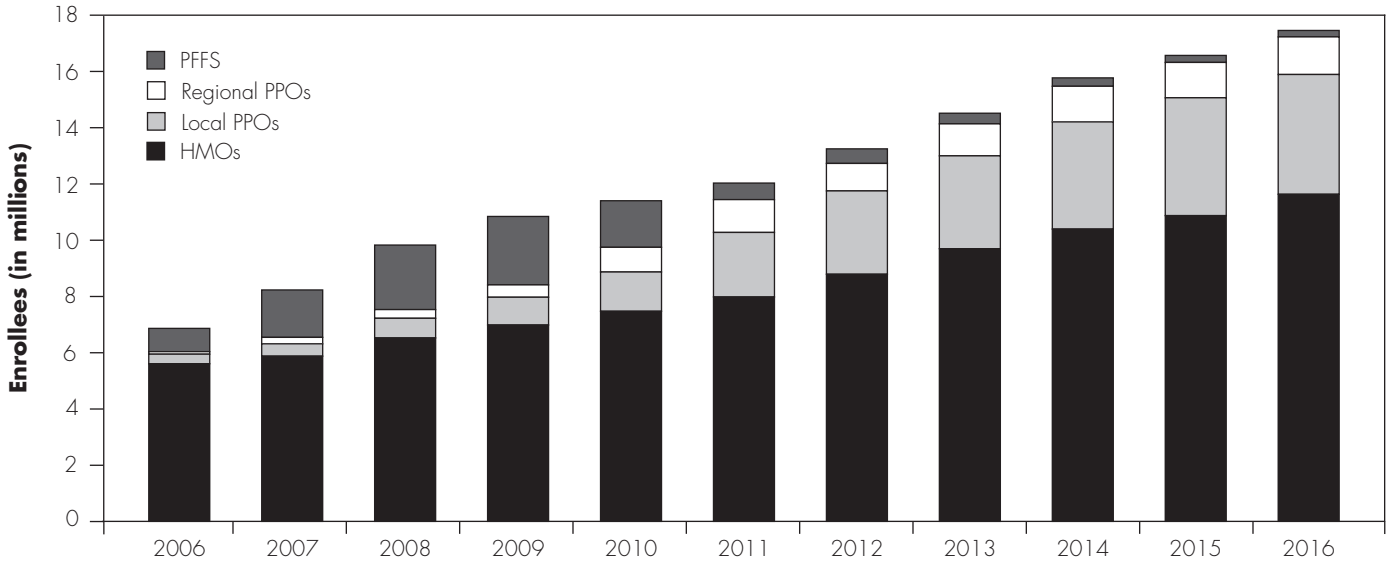
Enrollment patterns differ in urban and rural areas. A larger share of urban beneficiaries in 2016 were enrolled in MA (about 33 percent) compared with beneficiaries residing in rural counties (about 21 percent) (Table 13-1). About one-third of rural MA enrollees were in HMO plans in 2016 compared with over 70 percent of urban enrollees (not shown in Table 13-1). By contrast, 5 percent of rural enrollees were in PFFS plans compared with 1 percent of urban enrollees.

Enrollment patterns also differ between those beneficiaries eligible for Medicare because they have reached 65 years of age (aged) and those who are eligible for Medicare on the basis of disability (disabled). Using more detailed data than that used for Table 13-1, we find that 32 percent of aged beneficiaries and 26 percent of disabled beneficiaries were enrolled in MA at the end of 2015 (the most recent CMS data are available only at summary levels and are not split by age and disability status). This difference has been narrowing: In 2011, 27 percent of aged beneficiaries and 18 percent of disabled beneficiaries were enrolled in MA.

The share of Medicare beneficiaries enrolled in MA plans in 2015 varied widely by geography. In some

**FIGURE 13–1**

**Medicare Advantage enrollment, 2006–2016**




Note: PFFS (private fee-for-service), PPO (preferred provider organization).

Source: MedPAC analysis of CMS enrollment files.

metropolitan areas (e.g., Anchorage, AK—where there are only employer group plans available), less than 1 percent of Medicare beneficiaries were enrolled in MA plans, whereas in other areas (Miami, FL; Pittsburgh, PA; Rochester, NY; and several areas in Puerto Rico), enrollment was 60 percent or more.

Growth in MA enrollment in 2016 continued a trend begun in 2003. Since 2003, overall enrollment has more than tripled (Figure 13-1 shows 2006 through 2016). Trends vary by plan type. HMOs have grown steadily each year since 2003, but growth in other plan types has been more variable.

## Plan availability for 2017

Every year, we assess plan availability and projected enrollment for the coming year based on the bid data that plans submit to CMS. We find that access to MA plans remains high in 2017, with most Medicare beneficiaries having access to many plans. Some measures of availability have improved for 2017. While almost all beneficiaries have had access to some type of MA plan since 2006, local CCPs have become more widely available in the past few years (Table 13-2). In 2017, 95 percent of Medicare beneficiaries have a local CCP (an HMO or local PPO) plan operating in their county of residence, down from 96 percent in 2016 and up from 92 percent in 2011. Regional PPOs are available to 74 percent of beneficiaries, up from 73 percent in 2016. As intended by law, access to PFFS plans in 2017 is lower, at 45 percent of beneficiaries, down from 47 percent in 2016. Overall, 99 percent of Medicare beneficiaries have access to an MA plan, and 98 percent have access to a CCP (not shown in Table 13-2), a decrease from 99 percent in 2016.

The availability of SNPs has changed slightly and varies by the type of special needs population served. In 2017, 86 percent of beneficiaries reside in areas where SNPs serve beneficiaries who are dually eligible for Medicare and Medicaid (up from 83 percent in 2016), 44 percent live where SNPs serve beneficiaries with chronic conditions (down from 54 percent in 2016), and 52 percent live where SNPs serve institutionalized beneficiaries (up from 50 percent in 2016) (Table 13-2). Overall, 88 percent of beneficiaries reside in counties served by at least one type of SNP (not shown in table).

**TABLE 13–2**

**Access to Medicare Advantage plans remains high**

| Type of plan | Share of Medicare beneficiaries with access to MA plans by type | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| Any MA plan | 100% | 100% | 100% | 100% | 99% | 99% | 99% |
| Local CCP | 92 | 93 | 95 | 95 | 95 | 96 | 95 |
| Regional PPO | 86 | 76 | 71 | 71 | 70 | 73 | 74 |
| PFFS | 63 | 60 | 59 | 53 | 47 | 47 | 45 |
| Special needs plans | | | | | | | |
| Dual eligible | 76 | 78 | 82 | 82 | 82 | 83 | 86 |
| Chronic condition | 46 | 45 | 55 | 51 | 55 | 54 | 44 |
| Institutional | 47 | 41 | 46 | 47 | 47 | 50 | 52 |
| Zero-premium plan with drug coverage | 90 | 88 | 86 | 84 | 78 | 81 | 81 |
| Average number of choices | | | | | | | |
| County weighted | 12 | 12 | 12 | 10 | 9 | 9 | 10 |
| Beneficiary weighted | 26 | 19 | 19 | 18 | 17 | 18 | 18 |
| Average rebate for nonemployer, non-SNP plans | $83 | $85 | $81 | $75 | $76 | $81 | $89 |

Note: MA (Medicare Advantage), CCP (coordinated care plan), PPO (preferred provider organization), PFFS (private fee-for-service), SNP (special needs plan). CCPs include HMO, local PPO, and regional PPO plans. These figures exclude employer-only plans. Special needs plans are included in the three special needs plan rows but excluded from all other rows. A zero-premium plan with drug coverage includes Part D coverage and has no premium beyond the Part B premium. "County weighted" means that each county is weighted the same and the measure is the average number of choices per county. "Beneficiary weighted" means that each county is weighted by the number of beneficiaries in the county. The plan rebate is the per beneficiary per month amount that the plan is offering as premium-free extra benefits.

Source: MedPAC analysis of CMS bid data and population reports.

In 2017, 81 percent of Medicare beneficiaries have access to at least one MA plan that includes Part D drug coverage and charges no premium (beyond the Medicare Part B premium), unchanged from 2016 (Table 13-2). Thirty-one percent of beneficiaries have access to plans that offer some reduction in the Part B premium (not shown in Table 13-2). Table 13-2 lists the average monthly rebates for nonemployer, non-SNP plans. For 2017, rebates (which can include allocations to plan administration and profit margin) for nonemployer, non-SNP plans will average $89 per enrollee per month. The rebates are higher than at any point in the program's recent history.

In most counties, a large number of MA plans are available to beneficiaries. For example, in 2017, beneficiaries in Cleveland, OH; Detroit, MI; Houston, TX; and Los Angeles and Orange County, CA, can choose from at least 40 plans. At the other end of the spectrum, about 250 counties, representing 1 percent of beneficiaries, have no MA plans available; however, many of these beneficiaries have the option of joining cost plans (another managed care option under Medicare).[2] On average, 10 plans are offered in each county in 2017. The plans offered include an average of nine CCPs. Plan availability can also be calculated weighted by the number of beneficiaries living in the county, to give a sense of the number of plan choices available to the average beneficiary. According to that calculation, in 2017, the average beneficiary has 18 available plans, including 17 CCPs, the same as in 2016 (Table 13-2).

## Market structure of the Medicare Advantage program and ensuring stability

In our March 2016 report to the Congress, we provided information about the degree of concentration in the MA market (Medicare Payment Advisory Commission 2016). In 2007, the top 4 organizations had 45 percent

**TABLE 13–3** **Share of Medicare Advantage enrollment by parent organization, October 2016**

| Metropolitan counties | | Nonmetropolitan counties | |
|---|---|---|---|
| **Parent organization** | **Share of total MA enrollment in metropolitan counties** | **Parent organization** | **Share of total MA enrollment in nonmetropolitan counties** |
| UnitedHealth Group Inc. | 22% | Humana Inc. | 29% |
| Humana Inc. | 17 | UnitedHealth Group Inc. | 23 |
| Kaiser Foundation Health Plan | 9 | Aetna Inc. | 8 |
| Aetna Inc. | 8 | Blue Cross Blue Shield of MI | 4 |
| Anthem Inc. | 3 | Anthem Inc. | 3 |
| Cigna | 3 | Cigna | 2 |
| Blue Cross Blue Shield of MI | 2 | Highmark Health | 2 |
| WellCare Health Plans Inc. | 2 | BlueCross BlueShield of TN | 2 |
| Highmark Health | 2 | UPMC Health System | 2 |
| Centene Corporation | 2 | Blue Cross and Blue Shield of NC | 2 |
| **Total, top 10 organizations** | **70** | **Total, top 10 organizations** | **76** |

Note: Data include only Medicare Advantage plans. Excluded are cost-reimbursed plans and Medicare–Medicaid demonstration plans. Figures may not sum to stated totals due to rounding. Nonmetropolitan counties include counties designated as micropolitan counties and counties that are neither metropolitan nor micropolitan as defined by the Office of Management and Budget.

Source: MedPAC analysis of CMS monthly enrollment reports for October 2016 (which excludes enrollment for contracts in which an organization has fewer than 11 enrollees), and census data on county designations.

of MA enrollment, and the top 10 had 61 percent of total enrollment. In 2015, the top 4 organizations had 54 percent of the enrollment, and the top 10 organizations had 69 percent of the total enrollment. These shares were virtually unchanged in 2016, at 56 percent and 70 percent, respectively.

There are differences between metropolitan counties and nonmetropolitan counties (Table 13-3). In metropolitan counties, the top 2 organizations had 39 percent of the approximately 15.4 million MA enrollees in such counties. In nonmetropolitan counties, the top 2 organizations account for over half the enrollment (52 percent of the approximately 2 million MA enrollees residing in such counties).

In nonmetropolitan counties, it is more likely that a county's MA enrollment will be in the national top five parent organizations (Table 13-4). Twenty-two percent of all nonmetropolitan MA enrollment is in counties in which the top five organizations have 99 to 100 percent of the MA enrollment in that county. The comparable figure in metropolitan counties is 5 percent; that is, only 5 percent of the total MA enrollment in metropolitan counties is in a county where the top five organizations have 99 percent or more of the enrollment. However, in each of the two types of counties, metropolitan and not, about two-thirds of the MA enrollment (65 percent and 67 percent, respectively) is in counties in which the top five organizations account for half or more of all enrollment.

Another way of looking at the market structure and level of competition in the MA program is to determine the number of parent organizations offering MA options in markets across the country. As of 2016, 87 percent of Medicare beneficiaries resided in a county where at least three companies offered MA plans to individual Medicare beneficiaries (as opposed to those with employer group coverage) (Table 13-5). Thus, although the MA market is relatively concentrated by some measures, most beneficiaries reside in geographic areas where multiple companies are offering MA options.

These data and other findings in this chapter suggest that the MA program is relatively stable at this point. Researchers have found that the risk adjustment system and the move to a lock-in period (a calendar year for most enrollees) and an annual election period have helped address concerns about risk selection as well as the

**TABLE 13–4**

**Enrollment in the national top five Medicare Advantage organizations as a share of MA enrollment in each county, October 2016**

| Percent of enrollment in county that is in national top five organizations | Metropolitan counties: Number of counties | Metropolitan counties: Share of total MA enrollment in metropolitan counties | Nonmetropolitan counties: Number of counties | Nonmetropolitan counties: Share of total MA enrollment in nonmetropolitan counties |
|---|---|---|---|---|
| 99 to 100% | 223 | 5% | 762 | 22% |
| ≥95 to <99% | 113 | 4 | 112 | 9 |
| ≥90 to <95% | 82 | 5 | 97 | 7 |
| ≥80 to <90% | 141 | 12 | 144 | 11 |
| ≥70 to <80% | 132 | 13 | 88 | 6 |
| ≥60 to <70% | 102 | 20 | 86 | 6 |
| ≥50 to <60% | 70 | 5 | 76 | 7 |
| Subtotals | 863 | 65 | 1,365 | 67 |
| Total all areas | 1,231 | 100 | 1,757 | 100 |

Note: MA (Medicare Advantage). Totals do not sum due to rounding. Includes only Medicare Advantage plans. Excluded are cost-reimbursed plans and Medicare–Medicaid demonstration plans. Nonmetropolitan counties include counties designated as micropolitan counties and counties that are neither metropolitan nor micropolitan as defined by the Office of Management and Budget. "National top five Medicare Advantage organizations" refers to the top five organizations listed for each type of county in Table 13-3.

Source: MedPAC analysis of CMS monthly enrollment reports by county, October 2016 (which excludes enrollment for counties where an organization has fewer than 11 enrollees), and census data on county designations.

program's stability and financial viability (Newhouse and McGuire 2014).

### Lock-in and enrollment rules

While the lock-in period has contributed to program stability and the reduction of selection bias in the program, the lock-in does not apply to all beneficiaries.[3] Low-income beneficiaries and institutionalized beneficiaries continue to be able to enroll in, and disenroll from, MA plans on a monthly basis. In 2008, the Commission recommended revising this policy to limit enrollment to the annual election period—except in the case of Medicare–Medicaid dually eligible beneficiaries enrolling in special needs plans with state contracts—and to permit these two categories of

**TABLE 13–5**

**Distribution of population by number of MA organizations operating in the county, October 2016**

| Number of MA organizations in county | As share of total Medicare population | As share of MA enrollment |
|---|---|---|
| None | 1% | 0.2% |
| 1 | 4 | 1 |
| 2 | 9 | 5 |
| 3 | 11 | 7 |
| 4 | 12 | 11 |
| 5 or more | 64 | 75 |

Note: MA (Medicare Advantage). Excludes plans offered only to employer group–sponsored retirees. Numbers may not sum due to rounding. The 0.2 percent of MA enrollees residing in areas with no MA organizations are "out-of-area" enrollees whose recorded address is outside of the designated service area of their plan.

Source: MedPAC analysis of CMS enrollment reports.

**TABLE 13–6**

**Projected benchmarks, bids, and payments as a percentage of fee-for-service expenditures for 2017, by plan type**

| Plan type | Share of FFS spending in 2017* | | |
|---|---|---|---|
| | Benchmarks | Bids | Payments |
| **All MA plans** | **106%** | **90%** | **100%** |
| HMO | 106 | 88 | 99 |
| Local PPO | 111 | 101 | 107 |
| Regional PPO | 101 | 94 | 98 |
| PFFS | 110 | 108 | 109 |
| Restricted availability plans included in totals above | | | |
| SNP | 105 | 92 | 100 |

***All values would be increased by 4 percent if coding intensity (discussed elsewhere in this chapter) were to be reflected fully (i.e., payments for all MA plans would average 104 percent of FFS spending if the coding differences were fully reflected).***

Note: FFS (fee-for-service), MA (Medicare Advantage), PPO (preferred provider organization), PFFS (private fee-for-service), SNP (special needs plan). Benchmarks are the maximum Medicare program payments for MA plans and incorporate plan quality bonuses. We estimate FFS spending by county using the 2017 MA rate book. We removed spending related to the remaining double payment for indirect medical education payments made to teaching hospitals.
*All numbers in this table have been risk adjusted and reflect quality bonuses, but they have not been adjusted for coding intensity differences between MA and FFS that exceed the statutory minimum adjustment.

Source: MedPAC analysis of data from CMS on plan bids, enrollment, benchmarks, and fee-for-service expenditures.

beneficiaries (low income or institutionalized) to disenroll from an MA plan to go to FFS but not to join another MA plan. This approach addressed the concern about churning of enrollment from plan to plan and the possible incentive that plans might have to encourage the disenrollment of certain beneficiaries based on their health care needs.

A major motivation for the Commission's 2008 recommendation was concern over reported marketing abuses, with enrollees churned across different plans and "find[ing] themselves enrolled in plans that charge them more cost sharing than under FFS. Another consequence is that these beneficiaries can enroll and disenroll from plans frequently, harming the continuity of care if their providers do not participate in each plan" (Medicare Payment Advisory Commission 2008). Some of the issues that gave rise to the concerns have been addressed through CMS rules on broker compensation, including, for example, a requirement that plans fully recoup broker commissions in cases of "rapid disenrollment," which occurs when a beneficiary disenrolls from a plan within three months of enrollment (with certain exceptions).

It may be appropriate for the Commission to reconsider what the rules should be on lock-in and what approach best serves the interests of beneficiaries. The concern that continuity of care is disrupted when beneficiaries change plans frequently was expressed in site visits to plans participating in the Medicare–Medicaid financial alignment demonstration projects. The plans in those programs argue for a lock-in period as a means of improving the care a plan can provide to an enrollee with complex care needs and other vulnerabilities. At the same time, however, dually eligible beneficiaries may face more confusion about the consequences, or the benefits, of enrolling in an MA plan—such as whether MA benefits may duplicate Medicaid coverage. This confusion may arise particularly among dual-eligible beneficiaries enrolled in a Medicaid managed care plan who are enrolled in, or considering enrolling in, the MA plan of a different company.

## 2017 benchmarks, bids, and payments relative to FFS spending

Using plans' bid projections, we compare the Medicare program's projected MA spending with projected FFS spending on a like set of FFS beneficiaries. We calculate and present three sets of percentages: the benchmarks relative to projected FFS spending, the bids relative to projected FFS spending, and the resulting payments

**TABLE 13–7**

**Distribution of 2017 MA bids relative to FFS**

| Bid-to-FFS ratio | Share of bids | Share of projected MA enrollment |
|---|---|---|
| Less than 0.7 | 5% | 5% |
| 0.7 to 0.8 | 11 | 16 |
| 0.8 to 0.9 | 21 | 22 |
| 0.9 to 1.0 | 30 | 33 |
| 1.0 to 1.1 | 24 | 19 |
| More than 1.1 | 10 | 6 |

Note: MA (Medicare Advantage), FFS (fee-for-service). Employer group plans and special needs plans are not included. Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of data from CMS on plan bids, enrollment, benchmarks, and fee-for-service expenditures.

to MA plans relative to projected FFS spending. Benchmarks are set each April for the following year. Plans submit their bids in June and incorporate the recently released benchmarks. Benchmarks reflect FFS spending estimates for 2017 made by CMS actuaries at the time the benchmarks were published in April 2016. We estimate that 2017 MA benchmarks (including quality bonuses), bids, and payments will average 106 percent, 90 percent, and 100 percent of FFS spending, respectively (Table 13-6). Each of those measures is lower than last year's, but they do not take risk coding intensity into account.

## How Medicare calculates MA benchmarks

Under PPACA, each county's benchmark, excluding quality bonuses, is a certain share (ranging from 95 percent to 115 percent, subject to caps) of the average per capita FFS Medicare spending for the county's beneficiaries, which include those with both Part A and Part B coverage and those with only Part A *or* Part B. Each county's benchmark, excluding quality bonuses, is determined by organizing the counties into quartiles based on their FFS spending. Each quartile contains 786 or 787 counties. Low-FFS-spending counties have benchmarks higher than FFS to help attract plans, and high-FFS-spending counties have benchmarks lower than FFS to generate Medicare savings.

Counties (excluding the territories) are ranked by average FFS spending; the highest spending quartile of counties has benchmarks set at 95 percent of local FFS spending. The next highest spending quartile of county benchmarks is set at 100 percent of FFS spending, followed by the third highest quartile set at 107.5 percent of FFS spending. The lowest spending quartile has benchmarks set at 115 percent of local FFS spending (the U.S. territories are treated like counties in this low-spending quartile).

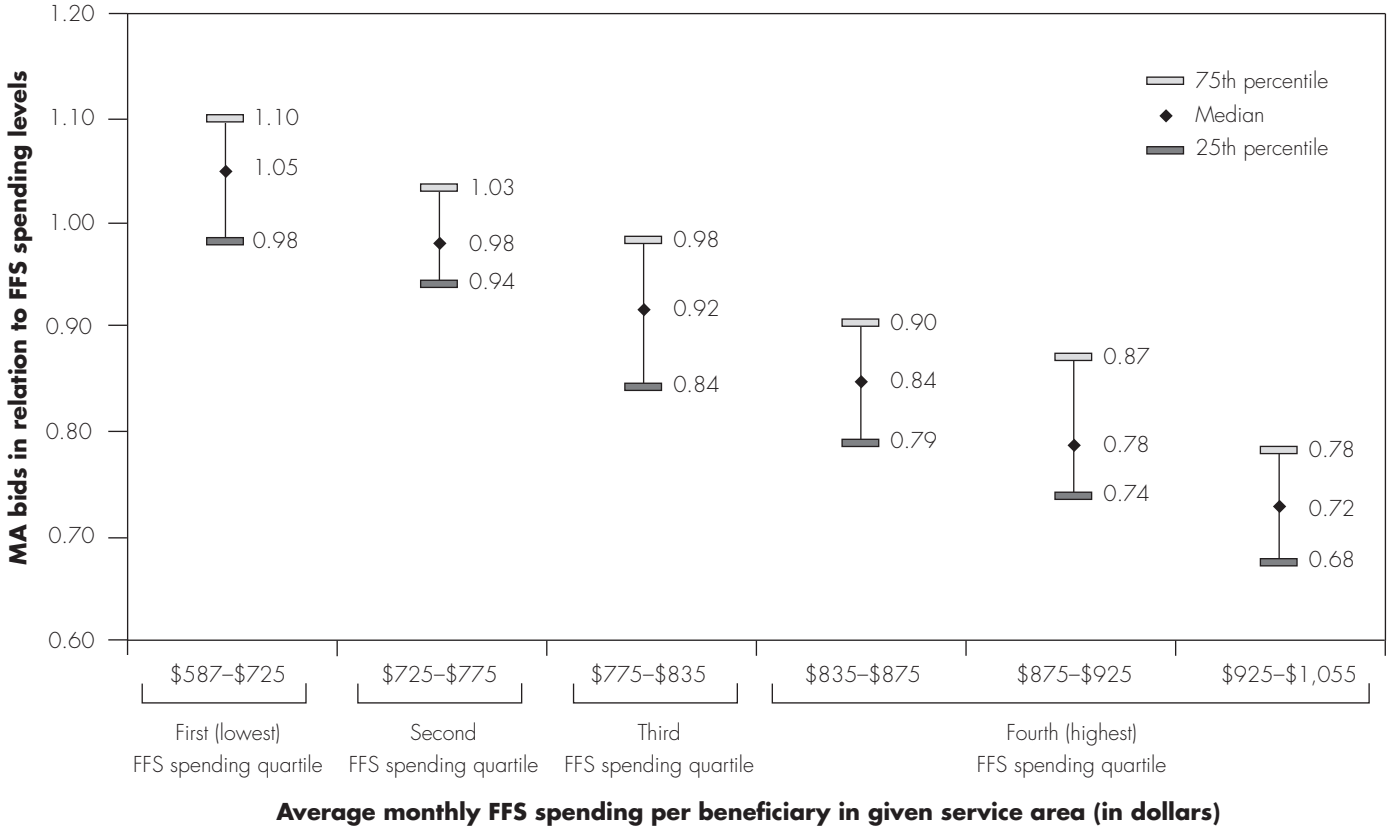
Plans awarded quality bonuses will have benchmarks 5 percent higher than the standard county benchmarks; in certain counties (where plans can receive a double bonus), the benchmarks for plans awarded quality bonuses will be 10 percent higher than the standard benchmarks. In our March 2016 report to the Congress, we provide more detail on double-bonus counties and benchmark growth caps. We recommended eliminating the double bonuses as well as the benchmark growth caps, which limited the benchmarks in many counties (Medicare Payment Advisory Commission 2016).

## MA bids and payments for different plan types

The modest growth in benchmarks over the past few years has exerted fiscal pressure on MA plans and encouraged them to better control costs and restrain growth in their bids. The average bid for 2017 is 90 percent of the projected FFS spending for beneficiaries with similar geographic and risk profiles, down from 92 percent for nonemployer plans in 2016. About 67 percent of nonemployer non-SNP plans bid to provide Part A and Part B benefits for less than what the FFS Medicare program would spend to provide these benefits in 2017 (Table 13-7). These plans are projected to enroll 75 percent of nonemployer non-SNP MA enrollees in 2017.

**FIGURE 13–2**

**Medicare Advantage bids in relation to FFS spending levels, 2017**




Note: FFS (fee-for-service), MA (Medicare Advantage). Excludes employer group plans, special needs plans, and plans in the territories.

Source: MedPAC analysis of MA bid and FFS expenditure data from CMS.

About 5 percent of MA beneficiaries, excluding those enrolled in employer group MA plans, are projected to enroll in plans that bid lower than 70 percent of FFS spending, while 6 percent are projected to enroll in plans that bid at least 110 percent of FFS spending.

Figure 13-2 shows how plans bid relative to FFS for service areas with different ranges of FFS spending. This figure is based on data from over 2,100 plan bids and excludes roughly 1,500 employer plans, SNPs, and plans in the territories. The first three FFS spending ranges roughly correspond to the FFS ranges in the first three quartiles in the payment rules for 2017 described previously. We broke the fourth quartile into three FFS spending ranges because a substantial share of Medicare beneficiaries—about 35 percent—live in counties in the highest spending quartile. Each of the 6 FFS ranges covers the bids of at least 90 plans and has at least 700,000 projected enrollees.

Plans bid high (relative to FFS) in areas with relatively low FFS spending and low where FFS spending is relatively high. For example, when plans bid for service areas that average less than $725 in monthly FFS spending, they are likely to bid more than FFS (Figure 13-2). However, when plan service areas average more than $725 per month in FFS spending, plans are likely to bid below (sometimes far below) the FFS level. This finding suggests that, geographically, plan costs do not vary as much as FFS spending. Ninety-eight percent of beneficiaries live in a county served by at least one plan that bid below the average FFS spending of its service area. However, that does not mean that plans can bid lower than FFS in every county because plans with large

service areas and a geographically dispersed membership are probably not considering exactly how their costs will vary in each county they serve.[4] The bidding and payment patterns are reported here as averages, but clearly there is much variation within these averages (Table 13-6, p. 356, and Figure 13-2, p. 358).

Although plan bids average less than FFS spending, payments for these plans' enrollees can often exceed FFS spending because the benchmarks (including the quality bonuses) can be high relative to their area's FFS spending. Overall, plan bids average 90 percent of expected FFS spending for beneficiaries with similar geographic and risk profiles in 2017, but because the benchmarks average 106 percent of FFS spending, Medicare pays an average of 100 percent of FFS for beneficiaries enrolled in MA (coding intensity differences are not considered in these numbers). Excluding quality bonuses and assuming no change in bidding, Medicare benchmarks average 102 percent of FFS, and Medicare payments would average 98 percent of FFS for MA enrollees.

The ratio of MA plan payments to FFS spending varies by plan type. For example, HMOs as a group bid an average of 88 percent of FFS spending, yet 2017 payments for HMO enrollees are estimated to average 99 percent of FFS spending because of benchmarks averaging 106 percent of FFS spending. Local PPOs and PFFS plans have average bids above FFS spending. As a result, payments for local PPO and PFFS enrollees are estimated to be 107 percent and 109 percent, respectively, of FFS spending. Payments for beneficiaries enrolled in regional PPOs averaged 98 percent of FFS because of the relatively low benchmarks for the regional PPOs.

We analyzed bids and payments to SNPs separately because these plans are available only to subpopulations of Medicare beneficiaries and bidding behavior may differ from that of other plan types. In the past, payments to SNPs and their bids tended to be slightly higher relative to FFS spending than payments to the other nonemployer MA plans. This year in aggregate, however, SNP bids are slightly higher, but their payments are similar to the average plan because their benchmarks are slightly lower.

In the past, we recommended that CMS pay employer plans differently because the employer bids were not usually submitted for a competitive purpose, while the bids for nonemployer plans are submitted to compete for enrollment. (For more details on employer plans and our recommendation, see our March 2014 report to the Congress (Medicare Payment Advisory Commission 2014).) CMS no longer pays the employer plans based on their bids but instead pays them based on the bidding behavior of the nonemployer plans. As a result, we expect that payments to employer plans will look like the payments to the nonemployer plans analyzed here.

The absence of employer plan bids limits our ability to determine the average margin level in the MA sector. We last reported margins for 2013 based on historical data included in plan bids (Medicare Payment Advisory Commission 2016). In that analysis, we found that average revenue-weighted margins in 2013 were at 4.2 percent, with employer group plans and Part D margins included. If employer plans are excluded from the data and the margins for Part D are excluded, the 2013 margins would average 3.1 percent. The comparable 2015 average margin—for nonemployer plans and excluding Part D drugs—is 1.4 percent. Including Part D drug margins we estimate would raise the margin by approximately 0.5 percent; if employer plan data were available, the margin would likely be higher. Two additional factors affecting this margin estimate are (1) MA plans are subject to payment of insurer fees (which we estimate as representing 1.5 percent of plan revenue, but which will be suspended in 2017) and (2) as of 2014, plans are subject to an 85 percent medical loss ratio requirement, which could also result in reduced margins. Other indicators in the marketplace suggest that companies operating in the MA market are doing well financially, as evidenced by Securities and Exchange Commission filings and by recent merger activity prompted by a desire to have a larger presence in the MA market (Evans 2015).

## Perspective on MA plans and payments

Enrollment in MA has reached 17.5 million enrollees (31 percent of all Medicare beneficiaries) and continues to grow faster than Medicare FFS enrollment. Plans are available to 99 percent of Medicare beneficiaries, and some measures of availability have improved over the last year. Rebates, which must be used to fund extra benefits, have risen over the past year and are now the highest in recent program history. In 2017, excluding quality bonuses and assuming no coding intensity differences, MA benchmarks average 102 percent of FFS and MA payments average 98 percent of FFS. However, including the quality bonuses and assuming the higher coding

**TABLE 13–8**

**The share of Medicare enrollment in managed care is increasing, and the share of Medicare FFS enrollment in both Part A and Part B is declining, 2009–2015**

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|
| Share of all Medicare beneficiaries enrolled in managed care* | 24.0% | 24.6% | 25.3% | 26.7% | 28.3% | 30.2% | 31.6% |
| Share of all FFS beneficiaries enrolled in: | | | | | | | |
| Part A *and* Part B | 88.8 | 88.6 | 88.3 | 87.7 | 87.3 | 87.0 | 86.8 |
| Part A but not Part B | 10.2 | 10.4 | 10.8 | 11.5 | 11.8 | 12.1 | 12.4 |
| Part B but not Part A | 1.0 | 1.0 | 0.9 | 0.9 | 0.8 | 0.8 | 0.8 |

Note: FFS (fee-for-service). These data provide a snapshot of enrollment from July of each year. They are unlikely to match other available data because of the timing and data organization for purposes of this analysis, but they best display the trends shown here.
*In addition to MA plans, managed care includes Medicare cost plans, which are paid based on cost reports.

Source: MedPAC analysis of CMS enrollment data and population reports.

intensity we discuss later in this chapter, MA payments average 104 percent of FFS spending.

Overall, the payment indicators are mostly positive. As a result, we conclude that the MA program is more efficient than in the past. However, some payment issues remain, related to intercounty payment equity, coding intensity, and quality measures.

Over the last few years, we have made recommendations and suggestions related to these issues:

- ***Risk adjustment*—**Include two years of data, the number of conditions, and full/partial Medicaid dual status in the CMS–hierarchical condition category (CMS–HCC) model (in our June 2012 report to the Congress and our 2016 comment letter on the Program of All-Inclusive Care for the Elderly).
- ***Quality measures*—**Adjust the quality-star bonus payments for socioeconomic differences (in our March 2016 report to the Congress).
- ***Employer group plan bids*—**Treat like bids from nonemployer plans (in our March 2014 report to the Congress).
- ***Intercounty equity*—**Eliminate both the benchmark caps and the double quality bonuses (in our March 2016 report to the Congress).
- ***Coding intensity*—**Improve MA coding practices (in our March 2016 report to the Congress).

## How Medicare calculates FFS spending for MA benchmarks

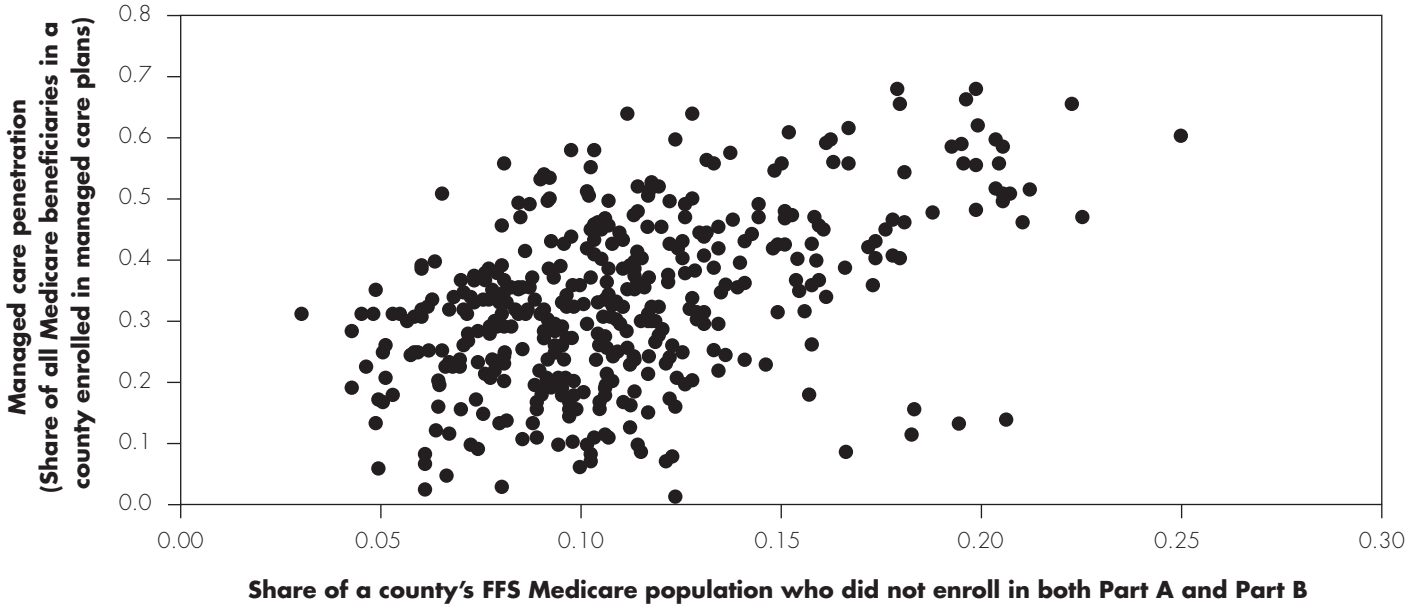
Currently, CMS measures average FFS spending based on all FFS beneficiaries in a county (who have either Part A or Part B of Medicare or both).[5] Average Part A spending is calculated using all beneficiaries enrolled in Part A (those beneficiaries enrolled in both Part A and Part B as well as those enrolled in Part A only). Similarly, average Part B spending is calculated using all beneficiaries enrolled in Part B (those beneficiaries enrolled in Part A and Part B as well as those enrolled in Part B only). Those two averages are added to get the total average FFS spending amount. However, to be eligible to join an MA plan, a beneficiary must be enrolled in both Part A *and* Part B.

Over the last few years, a smaller share of FFS Medicare beneficiaries have enrolled in both Part A and Part B. We find that the average risk-adjusted per beneficiary spending is higher for beneficiaries enrolled in Part A and Part B than the sum of the average spending for all beneficiaries enrolled in Part A and the average spending for all beneficiaries enrolled in Part B, as currently calculated.

Over time, a larger share of Medicare beneficiaries are joining managed care plans (MA plans and Medicare cost plans—a type of plan that is paid based on cost reports and that accounts for more than 1 percent of the Medicare population), and a larger share of those remaining in FFS Medicare do not enroll in Part B (Table 13-8). From July of 2009 to July 2015, the share of beneficiaries in

**FIGURE 13–3**

**The greater the MA penetration rate, the greater the share of FFS beneficiaries who opt not to enroll in both Part A and Part B, 2014**




Note: MA (Medicare Advantage), FFS (fee-for-service). Each dot represents 1 of the 396 counties with at least 25,000 Medicare beneficiaries in 2014.

Source: MedPAC analysis of CMS 2014 Medicare enrollment data.

Medicare managed care plans rose from 24 percent of all Medicare beneficiaries to almost 32 percent. Of those remaining in FFS, the share of beneficiaries who had both Part A *and* Part B declined between 2009 and 2015 from about 89 percent to about 87 percent. That change is due entirely to the increase (from about 10 percent to about 12 percent) in the share of FFS beneficiaries who did not enroll in Part B. During that period, the share of all Medicare beneficiaries who did not enroll in Part B increased only modestly (not shown in Table 13-8) from about 8 percent to about 8.5 percent. That increase is amplified, however, because all of it is contained in the FFS population since beneficiaries not enrolled in Part B cannot enroll in managed care plans. Thus, as more beneficiaries enroll in MA, those beneficiaries remaining in FFS are less likely to have enrolled in both Part A and Part B.

The pattern of increasing Medicare managed care penetration leading to a larger share of the remaining FFS population not enrolling in both Part A and Part B can also be seen across counties within a given year. Figure 13-3 shows the relationship between the share of a county's FFS Medicare population who did not enroll in both Part A and Part B for all of 2014 and the share of beneficiaries in Medicare managed care plans. The figure is a scatter plot in which each dot represents one of the 396 counties with at least 25,000 Medicare beneficiaries in 2014. There is a strong relationship between a county having a high rate of beneficiaries who opt not to enroll in both Part A and Part B and having a high Medicare managed care penetration rate.

Beneficiaries may choose not to enroll in Part B for different reasons. Some beneficiaries may be active workers and get health insurance through their employer. In this circumstance, the beneficiary still is enrolled in Part A, but Medicare may be the secondary payer after the employer. Other beneficiaries may feel they cannot afford the premium (roughly $100 per month). Some beneficiaries may feel they are healthy enough or use health care services rarely enough that it would not be a good deal for them. Beneficiaries whose income requires them to pay the income-related premium (IRP) may not see Part B as a good value, as the premium including the

IRP reached almost $400 per month in 2016. Since the IRP has been affecting more beneficiaries, we suspect that it may be a factor in the trend to opt out of Part B. Regardless of why a beneficiary chooses not to purchase Part B, it is likely that these beneficiaries use fewer services in Medicare and have lower risk than the average beneficiary who does purchase Part B.

We examined the Part A and Part B FFS spending for beneficiaries who were in Medicare FFS for all of 2014 and enrolled in either Part A (with or without Part B) or in Part A and Part B. We found that Part A spending for beneficiaries enrolled in Part A and Part B all year averaged 8 percent more than average Part A spending for beneficiaries enrolled in Part A (with or without Part B). Beneficiaries in Part A who choose not to buy Part B are, on average, healthier than those who buy Part B. We found that the average risk score of beneficiaries enrolled in both Part A and Part B is 6 percent higher than all beneficiaries enrolled in Part A (with or without Part B), without accounting for the effect of Medicare Secondary Payer status. Therefore, after risk adjustment, we found the difference in Part A spending between these two groups of beneficiaries is about 2 percent higher for those in both Part A and Part B.

We did the same analysis for Part B FFS spending as for Part A FFS spending. We found that more than 99 percent of beneficiaries enrolled in Part B all year also enrolled in Part A all year. We also found that the beneficiaries with Part B coverage (with or without Part A) were similar in spending and health risk to beneficiaries with both Part A and Part B. There was virtually no difference in risk-adjusted Part B spending between those beneficiaries with Part B (with or without Part A) for 2014 and those with both Part A and Part B. So, the difference in FFS spending comes from beneficiaries who do not buy Part B coverage. Overall, total average FFS risk-adjusted spending for beneficiaries enrolled in both Part A and Part B is about 1 percent higher than spending for all beneficiaries enrolled in FFS Medicare.

Given that a lower share of all beneficiaries are enrolling in Part B, and that increasing MA enrollment is leaving a lower share of people in FFS buying Part B coverage, certain counties are likely to have MA benchmarks based on FFS baseline spending inaccurately measured with a relatively low proportion of beneficiaries enrolled in both Part A *and* Part B. As this problem is expected to grow, it may be more equitable across counties for CMS to calculate the county-level FFS spending using only FFS beneficiaries who are enrolled in both Part A and Part B. Compared with the current CMS process of calculating the county-level FFS spending based on all beneficiaries enrolled in FFS Medicare, we believe that the average FFS spending used in the benchmark calculations would rise by about 1 percent nationally and thus result in an increase in payments to MA plans.[6]

While the overall increase in average FFS spending used in benchmark calculations is likely to be small if FFS spending is calculated using only beneficiaries enrolled in both Part A and Part B, the effect will vary by county. Counties with 15 percent to 25 percent of all their FFS beneficiaries not enrolled in both Part A *and* Part B would likely see their benchmarks rise by 2 percent or 3 percent. Alternatively, counties with significantly lower than average (13 percent) enrollment that is not in both Part A and Part B would be likely to see little or no increase in benchmarks if this change were made.

CMS has made a special adjustment to the FFS calculation for Puerto Rico because the majority of its FFS population does not buy Part B. Hawaiian plans have recently sought accommodation because about 20 percent of the Hawaiian FFS population does not enroll in Part B. But while Hawaii is near the top in the share of FFS beneficiaries without Part B, other areas such as Albuquerque, NM; Denver, CO; Pittsburgh, PA; Portland, OR; and several areas in California have similar shares of FFS beneficiaries without Part B. These areas all have MA penetration rates over 47 percent, and by determining benchmarks using only beneficiaries with both Part A and Part B, the estimated effects on FFS spending could be large and result in higher benchmarks for these areas. Of course, CMS could make case-by-case adjustments, as it did with Puerto Rico. However, as MA penetration continues to grow, it leaves fewer, and perhaps less representative, beneficiaries on which to calculate FFS spending. At the moment, we do not have evidence that the calculation method has caused harm to the MA program in the affected counties, in terms of plan access or quality, but for the sake of maintaining accuracy and intercounty equity, and avoiding future problems, the FFS calculation should be corrected to ensure that the population used to calculate FFS spending is representative of the expected spending for MA beneficiaries.

**RECOMMENDATION 13**

**The Secretary should calculate Medicare Advantage benchmarks using fee-for-service spending data only for beneficiaries enrolled in both Part A and Part B.**

## RATIONALE 13

MA enrollees are required to be enrolled in both Part A and Part B. However, MA benchmarks are currently based on the Medicare spending of all FFS beneficiaries. The average Medicare spending of FFS beneficiaries enrolled in both Part A and Part B is higher than the average Medicare spending for all FFS beneficiaries. A growing share of FFS beneficiaries do not have both Part A and Part B, and the share of FFS beneficiaries who do not have both Part A and Part B varies by county. To ensure equity between FFS and the MA program, and equity across MA plans, the Secretary should calculate MA benchmarks using average FFS spending only for beneficiaries enrolled in both Part A and Part B.

## IMPLICATIONS 13

### Spending

- We would expect Medicare program spending to increase. Under this option, spending would increase between $750 million and $2 billion over one year and between $5 billion and $10 billion over five years.

### Plans

- Most counties would have higher benchmarks, and thus most plans would be paid more. In response, plans could offer more supplemental benefits and/or make higher profits.

### Beneficiaries

- Plans would likely get higher Medicare payments and might be able to offer enhanced benefits, which could attract higher enrollment.

### Financing the cost of the recommendation

While this single new MA recommendation would raise Medicare program spending, the Commission has made other MA recommendations that would lower program spending. For example, in our March 2016 report to the Congress, we made a recommendation (which will be addressed further in the next section of this chapter) that addresses coding intensity differences between beneficiaries in FFS Medicare and beneficiaries enrolled in MA. The cost of implementing the current recommendation on MA benchmark calculations could be offset by savings derived from the earlier coding intensity recommendation, especially if the two recommendations were implemented concurrently.

There may be other financing and implementation timing considerations. The Commission has estimated that this recommendation could raise Medicare Advantage spending by about 1 percent; however, this is only an estimate, and CBO would make any official estimate of the cost of congressional action. While we have no evidence that the current FFS calculation has undercut the ability of plans to thrive and enroll beneficiaries, the calculation discrepancies are likely to grow with MA penetration, and thus the cost of the calculation change would be likely to grow. Finally, we believe the Secretary has the ability to make case-by-case adjustments which could postpone the need to make the broader change we recommend.

## Medicare Advantage risk adjustment

Medicare payments to MA plans are adjusted to account for differences in beneficiary medical costs through the CMS hierarchical condition category (CMS–HCC) model. The model uses demographic information (e.g., age, sex, Medicaid status, and whether the original reason for Medicare entitlement was disability) and certain diagnoses grouped into HCCs to calculate a risk score for each enrollee. Higher risk scores generate higher payments for beneficiaries with higher expected expenditures and vice versa. CMS designed this risk adjustment model to maximize its ability to predict annual medical expenditures for Medicare beneficiaries. Therefore, in developing the model, CMS used statistical analyses to select certain HCCs for inclusion in the model based on each HCC's ability to predict annual Medicare expenditures, ensuring that the diagnostic categories included in the model were clinically meaningful and specific enough to minimize inappropriate manipulation or discretionary coding (Pope et al. 2004). As a result, CMS determined that only diagnoses resulting from a hospital inpatient stay, hospital outpatient visit, or a face-to-face visit with a physician or other health care professional were acceptable for determining payment through the risk adjustment model, though there are a few exceptions. Other possible sources of diagnostic information—such as encounters for home health, skilled nursing, ambulatory surgery, durable medical equipment, and hospice services—are not used to determine payment through the risk adjustment model, either because adding diagnoses from these sources did not improve the model's ability to predict medical expenditures or because of concerns about the reliability and manipulability of the diagnoses.

Diagnostic data in the CMS–HCC model are used prospectively, meaning that diagnoses collected during one calendar year are used to predict Medicare costs for the following calendar year. A particular diagnosis code needs to be submitted only once during the data collection year for the related HCC to be counted in an enrollee's risk score in the following payment year. Multiple submissions of the same diagnosis code and submissions of different diagnosis codes that are grouped in the same HCC do not affect an enrollee's risk score.

Each demographic and HCC component in the risk adjustment model has a coefficient that represents the expected medical expenditures associated with that component. These coefficients are estimated based on Medicare FFS claims data such that all Medicare spending in a year is distributed among the model components. Medicare payment for a particular MA enrollee is equal to the sum of the dollar-value coefficients for all components identified for that enrollee.[7] For example, the annual Medicare payment to an MA organization in 2017 for an 84-year-old male ($5,555) with diabetes without complication ($1,030) would be $6,585, which is the sum of the two relevant model components. Identifying an additional HCC for an enrollee can significantly increase the Medicare payment. If the same 84-year-old male with diabetes is also found to have vascular disease ($2,951), the Medicare payment to the MA organization would increase from $6,585 to $9,536. The payment for most HCCs when newly identified for an MA enrollee is between $1,000 and $5,000, although some HCCs carry payment of $10,000 or more.

MA plans submit HCC information to CMS for each MA enrollee through a data submission process known as the Risk Adjustment Processing System (RAPS). Through RAPS, plans submit the minimum information necessary to identify which HCCs apply to each enrollee. Since 2012, MA plans have also been submitting detailed information about each health care encounter an enrollee has with a Medicare provider through the Encounter Data System (EDS). Before 2016, CMS used only RAPS data to identify HCCs for risk adjustment, but in 2016, CMS began a transition to EDS as the source of HCC information by generating two risk scores, one based on RAPS data and one based on EDS data. Payment in 2016 was based on a risk score that comprised a blended 90 percent RAPS risk score and 10 percent EDS risk score. CMS intends to gradually increase the portion of the payment that is based on EDS risk scores until payment is fully based on EDS risk scores. As this transition occurs, MA plans need to submit data supporting each HCC through both RAPS and EDS to maintain consistent payment rates.

### Differences in MA and FFS Medicare diagnostic coding

In the CMS–HCC risk adjustment model, CMS uses Medicare FFS claims data to estimate the model coefficients. As a result, the model calculates an expected spending amount based on Medicare FFS costs and Medicare FFS diagnostic coding patterns. To the extent that MA coding intensity differs from Medicare FFS coding, Medicare payments will be higher or lower than intended. In other words, accurate payments to MA plans in the current payment system depend on similar coding patterns in MA and FFS Medicare. However, MA plans have tended to code more diagnoses for their enrollees than would have been coded by providers in Medicare FFS.

In FFS Medicare, physician and outpatient services are paid generally based on procedure codes, and diagnosis codes serve only to justify the procedures provided. Although there is some incentive to report additional diagnoses on inpatient claims in FFS Medicare, diagnoses from inpatient claims represent a small proportion of diagnoses submitted for risk adjustment. Therefore, for the vast majority of FFS services used for risk adjustment, there is no financial incentive to report every possible diagnosis on the claims.

In contrast, given the financial incentive to code all possible diagnoses in MA, plans have used certain coding operations that are not common among FFS Medicare providers and therefore contribute to the difference in coding intensity:

- When MA plans contract with medical groups for physician services, payment to the medical group is often risk adjusted and therefore passes the incentive for diagnostic coding on to physicians who have direct access to patient diagnostic information.
- Medical chart reviews allow plans to document additional diagnoses that were identified during physician and outpatient visits or inpatient stays but not documented on the original encounter or claim. These additional diagnoses are then submitted to Medicare for payment.
- Health risk assessments are often offered through plan-initiated home visits and allow plans to document

chronic conditions and conduct diagnostic tests, particularly for enrollees who may not have seen their doctor in a given calendar year.

Although these actions may serve multiple purposes, such as care coordination and disease management, some plans target these actions toward beneficiaries who had an HCC documented in the prior year that is not yet documented in the current year, suggesting that identifying additional diagnoses for risk adjustment is a motivating factor. Electronic health records can make it possible for plans to monitor the consistent documentation of chronic conditions in each year after an initial diagnosis. In addition, some third-party firms focusing on revenue maximization advertise more sophisticated strategies to target "undercoded" beneficiaries.

Two hypothetical scenarios illustrate how differences in diagnostic coding can affect Medicare payment for MA beneficiaries. Consider two identical beneficiaries who each have $10,000 in Medicare spending that is explained equally by one demographic and one HCC indicator variable. The demographic variable is correctly identified by the Medicare program and the HCC indicator is identified by FFS claims for FFS beneficiaries or by data MA plans submit to CMS for MA enrollees.

- In the first scenario, FFS claims data correctly identify both beneficiaries as having the HCC indicator. In this case, the model would attribute half of each beneficiary's spending to the demographic indicator and half to the HCC indicator; in other words, the demographic indicator is estimated to have a coefficient of $5,000 and the HCC indicator is estimated to have a coefficient of $5,000.
- In the second scenario, FFS claims data fail to identify the HCC indicator for one of the beneficiaries. In this case, for the beneficiary with both indicators, the model would again attribute $5,000 to each indicator, but for the beneficiary with only the demographic indicator, the model would attribute all $10,000 to the demographic indicator. Thus, the estimated coefficients are $7,500 for the demographic indicator (the average of $10,000 and $5,000) and $5,000 for the HCC indicator (the amount attributed for the beneficiary with both indicators).

Now consider what happens if these beneficiaries enroll in MA, and the MA plans correctly identify the HCC indicators. In scenario 1, FFS and MA coding of the indicators is the same. The risk adjustment model in scenario 1 would estimate a payment amount of $10,000 to the MA plans for each beneficiary, which is the sum of $5,000 in expected spending associated with the demographic indicator and $5,000 in expected spending associated with the HCC indicator. In scenario 2, FFS and MA coding are different in that the HCC was correctly identified for both beneficiaries in MA, but for only one beneficiary in FFS. The risk adjustment model in scenario 2 would estimate a payment of $12,500 to the MA plans for each beneficiary, the sum of the coefficients $7,500 and $5,000. In this hypothetical example, we know that the FFS spending was $10,000 for each of these beneficiaries and the payment to the MA plan should have been $10,000 per beneficiary. However, more complete MA coding in scenario 2 resulted in a payment of $12,500 to the MA plan, which is too high. It is these excess payments to MA plans (the $2,500 in scenario 2) that the coding adjustment is designed to offset.

Some would argue that FFS coding is the problem and MA plans are being punished by the coding intensity adjustment. Although we have not set out to determine whether FFS or MA coding is more appropriate, we have considered policies to improve FFS coding as a way to reduce coding differences (see discussion of the Commission's March 2016 recommendation, p. 368). Furthermore, we note that, in aggregate, MA plans are not being punished by the coding adjustment. The risk adjustment system paid an additional $2,500 to the MA plan, and an adjustment that fully accounts for the impact of coding intensity would offset the excess payments.

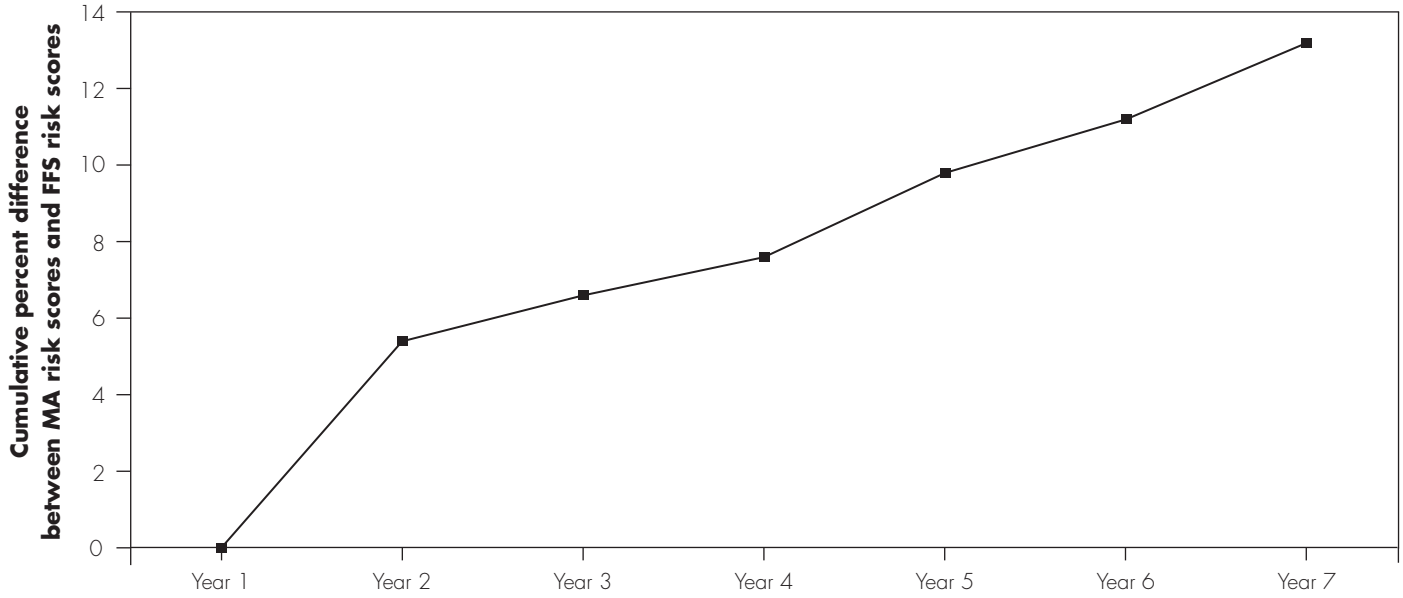
## Policies to address the impact of coding differences

A series of congressional mandates have required CMS to address the impact of coding differences by reducing MA risk scores. Starting in 2014, the mandates specified a minimum reduction of about 5 percent in 2014, increasing to about 6 percent in 2018, at which level it will remain until CMS estimates a risk adjustment model using MA expenditure data. Because of the mandates, CMS reduced MA risk scores by 3.41 percent in each year from 2010 through 2013, and by the minimum required by law for 2014 through 2017, although larger reductions would have been allowed. For 2017, the minimum reduction is 5.66 percent.

CMS has taken an additional step to help control the increased coding in MA. Beginning in 2014, CMS phased in a new CMS–HCC model. Relative to the old model,

**FIGURE 13–4**

**Average MA risk scores grew fastest relative to average FFS risk scores in the first cohort year, for enrollment cohorts ending in 2013**




Note: MA (Medicare Advantage), FFS (fee-for-service). Analysis includes six MA and FFS cohort pairs ending in 2013 and starting in 2007 through 2012.

Source: MedPAC analysis of CMS enrollment and risk score files.

the new model reduces risk scores for some diagnoses and increases scores for others. CMS acknowledges that scores are lower for diagnoses that were suspected of being more aggressively coded in MA plans. Our analysis, and that of other researchers, suggests that fully implementing the new CMS–HCC model would have reduced 2014 MA risk scores by about 2.5 percent compared with the old model. MA payment in 2014 was based on a blend of 75 percent new model and 25 percent old model. For 2015, we updated our analysis and found that fully implementing the new model would have reduced 2015 risk scores by about 2 percent. MA payment for 2015 used a blend of 33 percent new model and 67 percent old model. Starting in 2016, MA payment is based entirely on the new CMS–HCC model.

## Impact of coding differences on payment to MA plans

For the past few years, the Commission has conducted its own analysis of coding differences between beneficiaries in FFS Medicare and those enrolled in MA plans. In the first year of analysis, we tested whether beneficiary risk scores grew faster in MA than in FFS using data from 2007 through 2013. We built cohorts of beneficiaries who spent their first full calendar year of Medicare and all subsequent years through 2013 in the same program, either FFS or MA. For example, one cohort pair consisted of those beneficiaries who joined Medicare FFS during 2006, and then either (1) remained exclusively in FFS through 2013 or (2) switched into MA in January 2007 and remained in MA through 2013. We also examined five similar pairs of cohorts for beneficiaries whose first full years in Medicare were 2008 through 2012. Beneficiaries were assessed starting with their first full year of Medicare enrollment, so that the subsequent differences in the risk score growth between the cohort pairs could be attributed to differences in coding.

Figure 13-4 shows how average MA risk scores changed relative to the change in average FFS risk scores for all pairs of cohorts. From year 1 to year 2, average MA risk scores increased by about 6 percent more than average FFS risk scores across all cohorts. For all subsequent years, average MA risk scores continued to increase more than average FFS risk scores by about 1.5 percent across all cohorts.

**TABLE 13–9** **Diagnostic coding intensity has an increasing impact on MA payment, 2013 through 2015**

| Risk score model | Cumulative change in MA risk scores relative to FFS risk scores | | |
|---|---|---|---|
| | 2013 | 2014 | 2015 |
| Old model | 8% | 9% | 10% |
| New model | N/A | 7 | 8 |
| Payment blend | 8 | 7 | 10 |

Note: MA (Medicare Advantage), FFS (fee-for-service), N/A (not applicable). Payments to MA plans are based in part on enrollee risk scores, where higher risk scores generate larger payments. "Old model" refers to the version of the CMS–hierarchical condition category (CMS–HCC) model used for payment through 2013. "New model" refers to the version of the CMS–HCC model introduced in payment year 2014. The payment blend was 75 percent new model / 25 percent old model in 2014 and 33 percent new model / 67 percent old model in 2015.

Source: MedPAC analysis of CMS enrollment and risk score files.

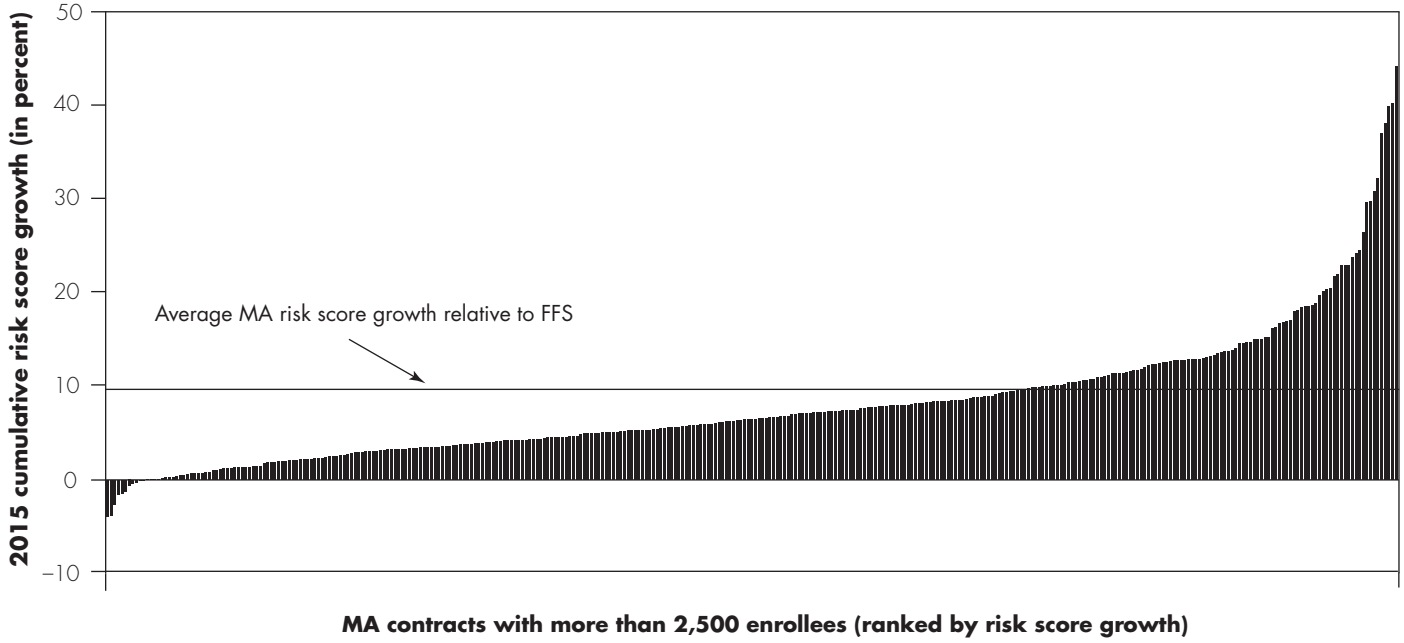
While this analysis showed compelling evidence that a coding difference exists between beneficiaries in FFS Medicare and MA and that the difference grows over time, it did not tell us the overall impact of the coding difference on payments to MA plans in a given year. To answer that question, we conducted a separate analysis using the cohort of beneficiaries who were enrolled in MA during a recent payment year and traced back each year of continuous MA enrollment through 2007. Controlling for differences in age and sex, we then compared these MA enrollee cohorts with similar cohorts of FFS Medicare beneficiaries who were continuously enrolled in FFS for the same years.

Table 13-9 shows the total differences in MA risk scores relative to FFS risk scores for payment years 2013, 2014, and 2015. Because the new CMS–HCC model to calculate risk scores was phased in during 2014 and 2015, payment was based on a blend of old and new model risk scores for those years. The table shows that, for both the old model and new model, MA risk scores diverged from FFS risk scores by about 1 percent more per year. Most importantly, we found that risk scores for the 2015 MA population had grown about 10 percent more than the FFS population when using the blended risk scores used for payment. Analyses of prior payment years found that old model risk scores grew about 9 percent more for the 2014 MA population compared with its counterpart FFS population, and about 8 percent more for the 2013 MA population compared with its counterpart FFS population.

In addition, our findings show that, relative to FFS Medicare, MA risk score growth through 2015 was about 4 percent higher than CMS's adjustment for coding intensity (which was 5.16 percent in 2015), even after accounting for the phasing in of the new risk model. In other words, after accounting for all coding adjustments, payments to MA plans were about 4 percent higher than Medicare payments would have been if MA enrollees had been treated in FFS Medicare. These findings are consistent with those of other researchers showing that the impact of coding differences on MA risk scores is larger than CMS's adjustment for coding (Geruso and Layton 2015, Government Accountability Office 2013, Kronick and Welch 2014). For 2016 and 2017, we expect that unadjusted differences in coding will continue to increase payments to MA plans by about 4 percent, which is net of the increasing difference in coding between MA and FFS, fully phasing in the new risk adjustment model, the transition to EDS-based risk scores, and small annual increases in the mandated coding intensity adjustment.

That Medicare payments are higher for a beneficiary enrolled in MA compared with what FFS Medicare spending would have been for the same beneficiary is inconsistent with the Commission's view that the payment system should be neutral with respect to beneficiaries' choice of MA or FFS Medicare. Additional payments to MA plans allow them to offer additional benefits to enrollees, thus benefiting the MA program and costing taxpayers more than if MA beneficiaries had remained in FFS. Further, the additional payment to MA plans increases the Part B premium for all Medicare beneficiaries. The size of the Part B premium is based on total Part B spending, which for MA is calculated as a proportion of all MA spending.

**FIGURE 13–5** **Cumulative MA risk score growth varies across contracts relative to local FFS, 2015**




Note: MA (Medicare Advantage), FFS (fee-for-service). MA contracts with enrollment below 2,500 (representing about 1 percent of total MA enrollment), contracts for the Program of All-Inclusive Care for the Elderly, and special needs plans are not included.

Source: MedPAC analysis of CMS enrollment and risk score files.

This year, the Commission analyzed coding intensity for each MA contract and found wide variation. This analysis is similar to our analysis of the overall impact of coding differences, but the change in risk score for each MA beneficiary was attributed to the contract (excluding contracts for the Program of All-Inclusive Care for the Elderly and special needs plans) in which the beneficiary was enrolled in 2015, thereby capturing the coding impact on 2015 payments to each contract. Figure 13-5 illustrates the variation across contracts with more than 2,500 enrollees in 2015 relative to FFS in their local service area. Our finding that coding intensity varies across MA contracts is consistent with other research (Geruso and Layton 2015, Kronick and Welch 2014). Given this variation, CMS's across-the-board adjustment for coding intensity, which reduces all MA risk scores by the same amount, generates inequity across contracts by disadvantaging plans with lower coding intensity and allowing other plans to retain a significant amount of revenue from higher coding intensity.

In our March 2016 report to the Congress, the Commission recommended a multipronged approach that would fully account for the impact of coding differences and would improve the equity of the adjustment across MA contracts. The recommendation had three parts:

- develop a risk adjustment model that uses two years of FFS and MA diagnostic data,
- exclude diagnoses that are only documented on health risk assessments from either FFS or MA, and then
- apply a coding adjustment that fully and equitably accounts for the remaining differences in coding between FFS Medicare and MA plans.

Using two years of diagnostic data to identify whether a beneficiary has a particular HCC would improve the accuracy of both FFS and MA diagnostic information used in risk adjustment. It would reduce year-to-year variation in documentation, focusing more on HCCs that are not coded consistently across years. The 21st Century Cures Act appears to address using two years of diagnostic data in MA risk adjustment by stating that "the Secretary may use at least two years of diagnostic data."

Removing diagnoses documented only through health risk assessments would indicate that treatment was provided for a condition and would exclude conditions that were documented on an assessment but not treated. Diagnoses that were both documented on an assessment and treated during a physician or outpatient visit or during an inpatient stay would continue to count toward risk adjustment. Of the diagnoses documented on health risk assessments in 2012 and 2013, about 30 percent of conditions were not otherwise treated during the year. These two policies would result in a more equitable adjustment across MA contracts than the current across-the-board adjustment because they would more effectively target coding differences. Our analysis suggests that the combined effect of using two years of diagnostic data and excluding diagnoses from health risk assessments would effectively reduce MA risk scores in 2017 by roughly 3 percent to 5 percent relative to Medicare FFS and thus would address up to half of the full impact of coding differences, reducing the need for the coding intensity adjustment described in the third part of the Commission's 2016 recommendation.

The Commission has also discussed ways to implement the third part of the recommendation and has focused on equity across MA contracts. One way to implement the adjustment would be to group contracts into categories of high, medium, and low coding intensity and then apply a coding intensity adjustment based on the average level of coding intensity for each group. CMS has used this grouping of contracts when selecting MA contracts for risk adjustment data validation audits.[8] While this policy would leave some inequity within each group of contracts, inequity overall would be reduced. CMS could consider using a greater number of groups to further refine the equity of the overall adjustment.

## Quality in the Medicare Advantage program

Since 2012, the MA program has included a pay-for-performance system that gives bonuses to higher performing plans—the quality bonus program, or star rating system. Plans are evaluated on a subset of the available quality measures and, to a lesser extent, on contract performance measures. The bonuses take the form of an increase in plan benchmarks and higher rebate levels for higher quality plans. Bonuses are based on a plan's overall star rating, with a maximum rating of 5 stars. Part D measures are included for plans that have Part D coverage (most MA plans). Each of up to 44 measures is assigned a weight: 1.0 for process measures, 1.5 for patient experience and access measures, and 3.0 for outcome measures. Two separate improvement measures that CMS calculates for MA and Part D each have a weight of 5.0. Overall star ratings are given at the contract level. However, because many contracts consist of multiple plan benefit packages across multiple geographic areas, reported results are not necessarily representative of the quality of care where a particular beneficiary resides. A contract is eligible for bonus payments if the weighted average of each of the individual measure stars is at or above 3.75 (rounded to an overall rating of 4.0 stars). Contracts with ratings of 5 stars can enroll beneficiaries outside of the annual election period, and contracts with consecutive years of low ratings are flagged as low performers, with beneficiaries cautioned about joining such plans; low-performing plans can be subject to termination (though implementation of the termination policy has been temporarily suspended under provisions of the 21st Century Cures Act).

### Determining whether quality has improved in MA

To evaluate quality in MA, we use data primarily from two sources: the Healthcare Effectiveness Data and Information Set® (HEDIS®) and additional clinical quality and access measures included as part of CMS's reporting for the MA quality bonus program. The latter is our source of data for experience of care measures (the Consumer Assessment of Healthcare Providers and Systems® for MA (CAHPS®–MA)) and for Part D measures applicable to MA plans.

To determine whether there has been meaningful improvement in quality measures in the MA sector on a year-over-year basis, we compare results for plans that reported on a measure in both reporting years (a "same-store" approach).[9] Over the last year, most measures reported in our two primary data sources were unchanged. A small number of measures showed poorer results, and fewer than one-third of measures improved between 2015 and 2016. However, many of the measures that improved are those more heavily weighted in the star rating system.

#### HEDIS measures

We examine 40 effectiveness of care and access to care measures from HEDIS, which are measures that health plans report to CMS and other payers. Of the 40 Medicare HEDIS measures, 11 are included in the CMS star

**TABLE 13–10**

**MA and FFS CAHPS® performance rates, 2015**

| | Share of beneficiaries | | |
|---|---|---|---|
| | MA | | |
| **CAHPS measure** | **HMO** | **PPO** | **FFS** |
| Getting needed care and seeing specialists | 83.0% | 84.9% | 84.7% |
| Getting appointments and care quickly | 75.7 | 76.8 | 74.8 |
| Care coordination | 84.9 | 85.7 | 85.0 |
| Rating of health plan | 85.0 | 84.3 | 82.3 |
| Rating of health care quality | 85.4 | 86.4 | 85.8 |
| Annual flu vaccine* | 71.7 | 74.1 | 71.9 |

Note: MA (Medicare Advantage), FFS (fee-for-service), CAHPS® (Consumer Assessment of Health Providers and Systems®), HMO (health maintenance organization), PPO (preferred provider organization).
Numbers are the share of beneficiaries giving the highest rating in each category (e.g., rating a plan a 9 or 10 on a 10-point scale or answering "always" when asked about the ability to get appointments when needed). Rates are case-mix adjusted for response bias.
*Annual flu vaccine data show the share of beneficiaries receiving the vaccine. These rates are not case-mix adjusted.

Source: MedPAC Databook 2016; FFS CAHPS benchmarks provided by CMS/Harvard Medical School.

rating system, along with the HEDIS-reported hospital readmission measure.[10]

For HMOs, 14 measures, or about one-third of the 40 HEDIS measures, had statistically significant changes between 2015 and 2016, with 12 measures improving and 2 measures declining. Of the 14 measures, 8 had a change that was greater than 3 percent. Of those eight measures, only two are included in the CMS star rating system: medical attention for nephropathy among diabetics (which improved) and fall risk management (which declined). As process measures, each of these two measures has the lowest weight in the star system (weighted at 1.0).

Among local PPOs, for the 40 HEDIS measures, 6 measures had statistically significant improvement from 2015 to 2016 and 2 measures declined, with changes in rates at or above 3 percent for the 8 measures. Of those eight measures, those measures used in the star ratings are the same two measures that changed among HMOs (the measure for nephropathy improved and the measure for fall risk management declined). We continue to see differences between HMOs and local PPOs in HEDIS results. Thirteen of the 40 HEDIS measures had meaningful differences, with HMOs better on 6 of the 13 and local PPOs better for 7 of the 13. (For regional PPOs and PFFS plans, there are too few plans to evaluate changes in performance from year to year.)

### Measures from the star system

Our evaluations rely on the data contained in plans' star ratings for 19 measures. Of these, four showed statistically significant improvement for HMOs only, and two improved for both HMOs and PPOs. The two that improved for both plan types are the measure of beneficiaries' reported improvement in mental health (improving by 7 percent for each plan type and weighted at 3.0 in the star rating system) and the Part D rate of medication therapy management completion (improving by 46 percent for HMOs and 56 percent for PPOs, and weighted at 1.0 in the star rating system). Of the remaining four measures that improved only among HMOs, two medication adherence measures (weighted at 3.0) improved by 2 percent. The measure of the use of high-risk medications (a weight of 3.0) improved by 25 percent for HMOs. The process measure of care management among special needs plans also improved among HMOs. For the six CAHPS patient experience measures reported through CMS's star rating system, there was not a meaningful change in plan performance.

### Patient experience measures in MA and FFS

CMS collects patient experience measures through a survey of beneficiaries in FFS, and MA plans collect such data through CAHPS surveys of their members. The

**TABLE 13–11**

**The threshold for 4-star performance increased between 2016 and 2017 for most of the the highest weighted star measures**

| Highest weighted star measures | Threshold for 4-star performance 2016 | 2017 | Percent change |
|---|---|---|---|
| **Higher threshold for 2017 than 2016** | | | |
| Improving or maintaining physical health | ≥69% | ≥72% | 4% |
| Improving or maintaining mental health* | ≥80 | ≥85 | 6 |
| Diabetes care—Blood sugar controlled | ≥71 | ≥76 | 7 |
| High-risk medication (lower rate is better)* | <6 | <3 | –50 |
| Medication adherence (diabetes) | ≥75 | ≥79 | 5 |
| Medication adherence (statins)* | ≥73 | ≥77 | 5 |
| Medication adherence (hypertension)* | ≥77 | ≥79 | 3 |
| **Lower threshold for 2017 than 2016** | | | |
| Controlling blood pressure | ≥75 | ≥64 | –15 |
| Plan all-cause readmissions (lower is better) | <6 | <8 | 33 |

Note: For all measures other than readmissions, the rate is the share of beneficiaries achieving the measure. The readmission measure is a contract-wide readmission rate. The 2016 stars are based on performance in 2014 (for most measures), and the 2017 stars are based on performance in 2015. Three measures in this table are from the Healthcare Effectiveness Data and Information Set® (HEDIS®)—the diabetes care measure and the two measures with lower thresholds. Note that the National Committee for Quality Assurance advises caution in the year-over-year comparison of the HEDIS diabetes measure and the readmission measure. Yearly figures presented in the table are rounded, but figures in the percent change column were calculated using unrounded data.
*Indicates that the measures improved in our analysis of "same-store" results.

Source: MedPAC analysis of CMS data on star measures.

most recent group of surveys (for 2015) shows that, at the national level, results for the two sectors are very similar, except that FFS enrollees' rating of Medicare as a plan are slightly lower than MA enrollees' rating of their plans, and enrollees of local PPOs are more likely to have received an influenza vaccination (Table 13-10).

## Star ratings and changes in the ratings

Although the Commission evaluates changes in plan star ratings, we continue to use the "same-store" analysis of individual measures as a basis for judging whether quality has improved in MA. There are several reasons for doing so. The star rating system uses a subset of measures, and plans may concentrate on improvement for those particular measures. In addition, under the current method used for assigning stars, the star rating system is a comparison of *relative* performance among MA contracts and is not a reference to a predetermined targeted level of improved performance. Theoretically, at least, with a system based on relative performance, all measures could decline among all plans from one year to the next, but the rating system would still identify certain plans as high-performing plans in relation to the performance levels of other plans.

One reason that star ratings may not be comparable across years, even for a specific plan, is that the measures used to determine overall star ratings can change from one year to the next. Between 2016 and 2017, the star measures remained substantially the same; however, a number of measures saw changes in the thresholds for bonus-level performance—that is, the cut-off points for receiving 4 stars on individual measures. In 2017 compared with 2016, about half of the measures used for the star ratings had a higher threshold for achieving a 4-star rating and about half had a lower threshold. The measures that had a higher threshold accounted for a greater share of the weight used to determine the overall star rating. At the individual measure level, among the measures with the highest weight (3.0), seven had higher thresholds for 4-star performance in 2017 and two had lower thresholds (Table 13-11). This variation suggests that plans are paying the greatest attention to measures that have the greatest weight in the star rating system (with their thresholds for bonus-level performance rising as a result).

The changes in thresholds partly explain the reduced share of beneficiaries in contracts with bonus-level ratings in 2017, with other factors affecting a large number of enrollees in one particular organization, as discussed on page 377.

### Moving enrollees to bonus plans

Star ratings are determined at the contract level and apply to all "plans" within the same contract. Each plan under a contract has a separate bid. Contracts can have different plans because the benefits can vary from one plan to another; for example, a contract may include one option with drug coverage (an MA–Prescription Drug (MA–PD) plan option) and an MA-only option; or a local contract can include multiple counties (which are often noncontiguous), with each county having a different benefit package and therefore a different plan and plan bid. If a contract includes special needs plans (SNPs) and non-SNPs, the SNPs are separate plans with separate bids within the contract.

CMS releases star ratings to coincide with the October to December annual election period so that beneficiaries can consider star ratings when choosing a plan. The 2017 star ratings, for enrollments effective in 2017, were released in October 2016. However, for bonus payment purposes, a contract's bonus status has to be known earlier so that when plan bids are submitted to CMS in June for the following year, the benchmarks include any bonus add-ons. Bids applicable to the 2017 contract year, submitted in June of 2016, are therefore based on the 2016 star ratings released in 2015.

Over the years, CMS has encouraged companies offering MA plans to consolidate contracts as a means of streamlining contract administration for the companies and for CMS. For example, a company that in 2001 had 4 separate contracts in California across 31 counties combined all contracts into 1 statewide contract for 2002 and thereafter. In relation to bonus payments that became available as of 2012, the contract consolidation process has created two problems. One is that program expenditures can increase because of the way in which quality bonus payments are determined. The contract consolidations, or cross-walking, can result in enrollees being moved from a contract for which the organization would not have received bonus payments for their enrollees to a contract that is in bonus status, as has happened over the past several years (Medicare Payment Advisory Commission 2016). Last year, for example, 900,000 enrollees were cross-walked from nonbonus contracts to bonus-level contracts, resulting in bonus payments payable to plans that would otherwise have been in nonbonus contracts. The other problem that the cross-walking process creates is that beneficiaries will receive inaccurate information about the quality of care in MA plans available in their area because of the manner in which quality data are reported. Reporting of quality results is done at the contract level, and with cross-walking, contracts can span large geographic areas. Thus, the average performance at the contract level, which is what is reported at the Health Plan Compare site of Medicare.gov, may not be representative of the level of performance in a specific market area (see text box, pp. 374–375).

This year, contract consolidation that achieves a bonus-level star rating affected over 700,000 enrollees. Over half of the movement has occurred among regional plans and involved one company. UnitedHealth Group has merged two regional plans operating in the southern United States—with an enrollment totaling 380,000, and rated below 4 stars—into the company's northeastern regional plan of about 20,000 enrollees, which has a 4-star rating. Figure 13-6a and Figure 13-6b illustrate the configuration of the contracts and plans before and after the cross-walking process. A regional PPO contractor must serve the entire CMS-designated region, but within a region, the contract can include multiple plans. In 2016, in Florida for example, as shown in Figure 13-6a, the contract R5287 has plans R5287–1 (an MA–PD plan), R5287–2 (an MA-only plan—that is, no drug coverage), and R5287–3 (a dual-eligible SNP (D–SNP)). Each plan has a separate benefit package and bid, but all plans under R5287 receive the star rating assigned, at the contract level, to contract R5287. The 2016 star rating determined in October 2015 for R5287 was 3.5 stars; for R9896, with 4 plans, 3.0 stars; and 4.0 stars for R7444 (which has only one plan, R7444–1, an MA–PD option for the northeastern region).

After the cross-walking, there is no change in the nature of the plans offered or in the geographic configuration at the plan level (though plan numbers change under the single contract) (Figure 13-6b). Under the combined contract, R7444, for example, the single northeastern plan (R7444–1) retains the same contract and plan number and covers the same geographic area previously covered. There are still three Florida plans, and they still vary based only on their coverage (MA–PD versus MA only) or the special population served (the Florida D–SNP continues in place). Before the cross-walking, there were eight separate bids submitted to CMS for eight plans, and after the cross-

**FIGURE 13–6**

**Example of contract consolidation to improve star ratings**

**Figure 13-6a: Configuration of contracts and plans before cross-walking**

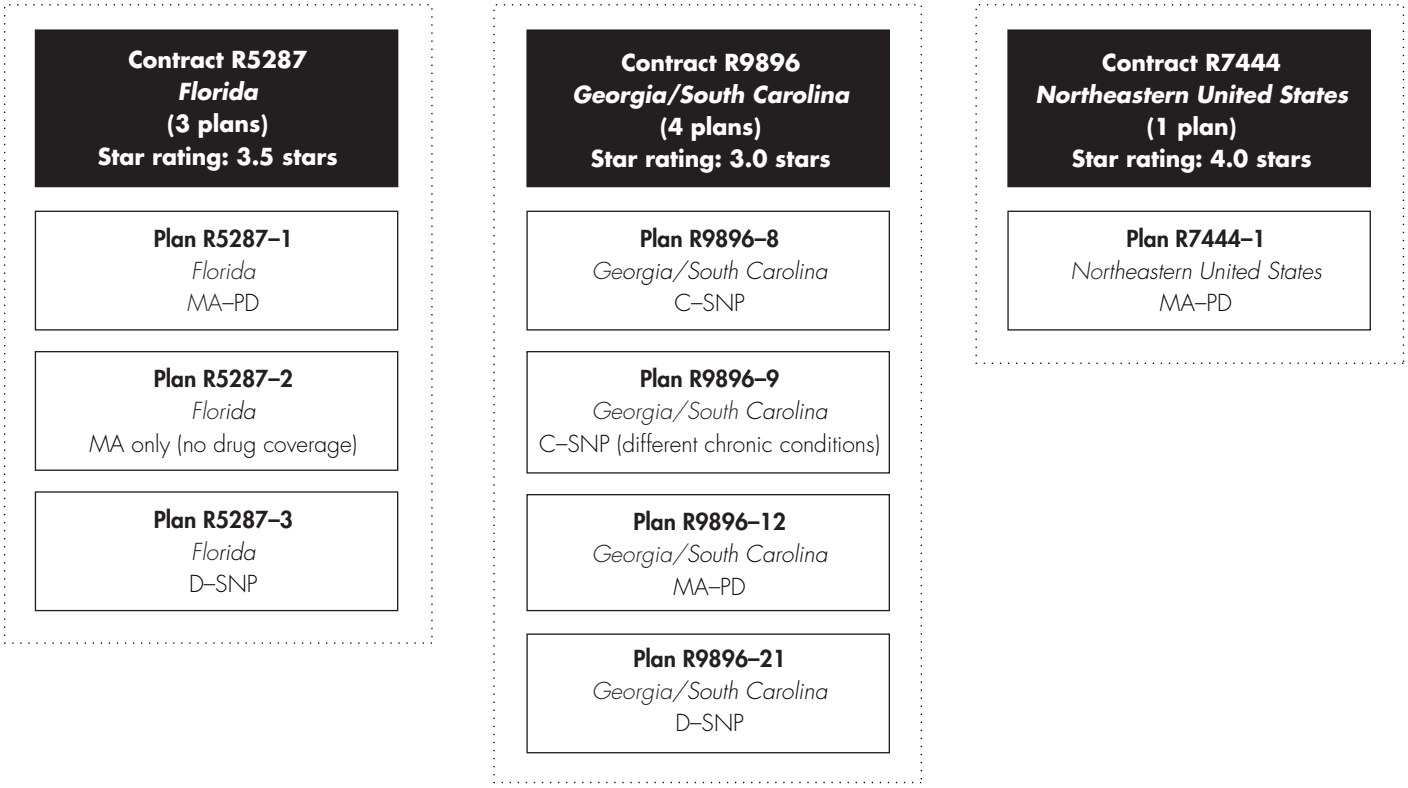
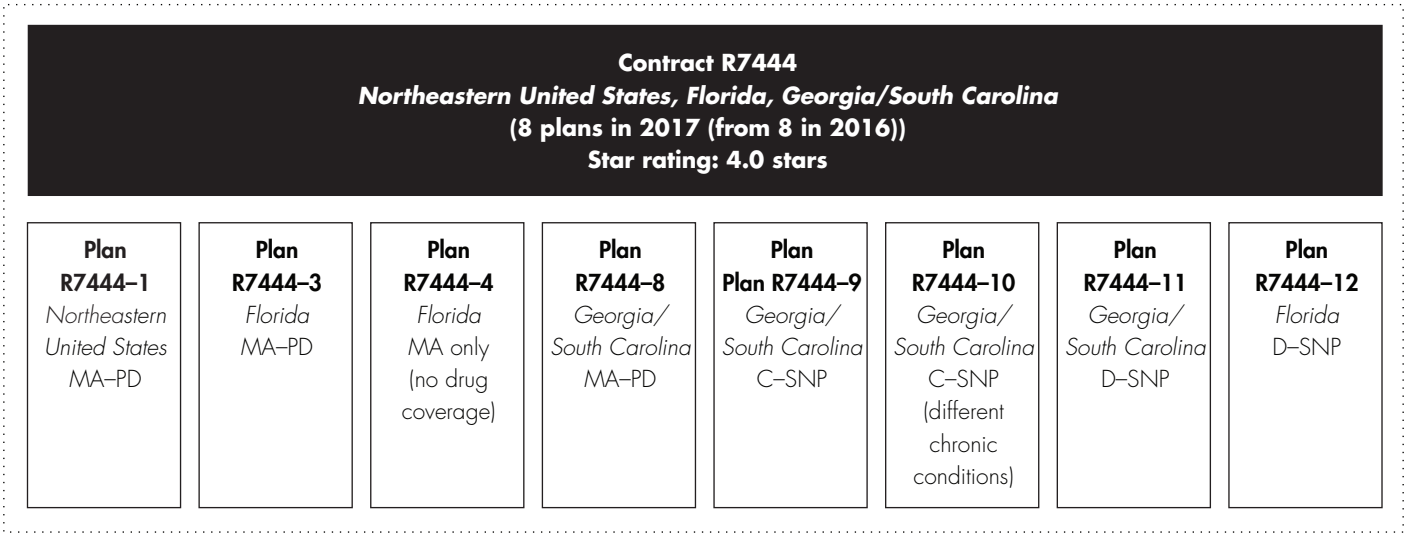



**Figure 13-6b: Configuration of contracts and plans after cross-walking: Plans now under contract R7444. All plans now qualify for bonus payment.**




Note: MA–PD (Medicare Advantage–Prescription Drug [plan]), MA (Medicare Advantage), D–SNP (dual-eligible special needs plan) C–SNP (chronic condition special needs plan). All plans under a contract that has 4 or more stars receive bonus payments.

Source CMS MA landscape file for 2016 and 2017.

## The Commission's March 2010 recommendation on Medicare Advantage: Quality results should be reported by market area

The March 2010 report to the Congress included a mandated study comparing quality among Medicare Advantage (MA) plans and between MA and fee-for-service (FFS) Medicare. We reprint one recommendation from that report:

### Recommendation 6-2

**The Secretary should collect, calculate, and report quality measurement results in Medicare Advantage at the level of the geographic units the Commission has recommended for Medicare Advantage payments and calculate fee-for-service quality results for purposes of comparing Medicare Advantage and fee-for-service using the same geographic units.**

### Rationale 6-2

The current collection and reporting of most quality measures in MA occur at the level of the MA contract. Some MA contracts cover very wide geographic areas. Plans in California that cover much of the state report one set of statewide Healthcare Effectiveness Data and Information Set® results, for example, even though parts of California have very different health care markets, with different provider and plan characteristics in each geographic area.

To inform beneficiaries about the relative quality of MA plans and of MA relative to FFS, comparisons should pertain to the geographic area where beneficiaries are making choices. Using a smaller geographic area that is more consistent with the patterns of health care delivery would also facilitate CMS's quality monitoring and evaluation role in both MA and FFS.

### Implications 6-2

#### Spending

- Substantial CMS administrative resources would be required.

#### Beneficiary and provider

- Beneficiaries' ability to compare plans and systems would be improved, but more beneficiaries would be included in surveys.
- Many plans would face additional costs because of an increase in the number of reporting units.

*(continued next page)*

walking there will continue to be eight separate bids, with one star rating for all plans under the contract.

In this particular situation—cross-walking contracts because the vast majority of enrollees were in plans with star ratings lower than 4—the overall average quality measured in future years in the surviving contract will likely not reach the 4-star level unless there is improvement in performance in the southern states. Thus, the strategy of increasing bonus payments through cross-walking is likely to have only a short-term effect, which would be true in many other instances of cross-walking. However, in this particular case, the strategy will result in two years of bonus status because when bids were submitted in June 2016, the star rating "of record" for R7444 was 4 stars, giving rise to bonus payments for 2017 (for all plans under all of the superseded contracts included under contract R7444 in Figure 13-6b, p. 373). When bids are submitted in June 2017 for payment year 2018, the star rating of record applicable to the surviving contract, R7444, will be the star rating determined in October 2016, which was based on quality measures reported in 2015, before the cross-walking of contracts. That is, the quality results for the enrollees of R7444 in 2015 will determine whether all enrollees of R7444 will receive bonus payments in 2018. It would only be in the star ratings announced in October 2017, applying to bonus payments in 2019, that the lower performance of the plans in the southern states would influence the quality results for the R7444 contract (if there is no improvement in quality in the southern states).

Note also that during the 2016 annual election period (for enrollments effective January 1, 2017), because the surviving single regional contract now covers the southern states, beneficiaries living in the southern states

## The Commission's March 2010 recommendation on Medicare Advantage: Quality results should be reported by market area (cont.)

At the time the Commission made the above recommendation, many contracts covered wide geographic areas because CMS encouraged a reduction in the number of contracts to simplify contract administration for the agency and for sponsoring organizations. For example, one legal entity in a state could have a single contract for the entire state, or it could include multiple states under one contract if the organization's licensure status across the states permitted such an arrangement. (Originally, companies were not allowed to vary benefit packages by county without having a separate contract; a separate contract was required if a company had different commercial rates in adjoining counties or areas. Likewise, the 50/50 rule was repealed, which had been applied at the contract level and which required an organization to have enrollment that was at least 50 percent non-Medicare, non-Medicaid.)

The practice of cross-walking contracts to obtain bonus payments has exacerbated a situation that was already of concern in 2010—the disconnect between the quality results reported at the contract level and what the quality results are for a given market area. The cross-walking of contracts to obtain bonus payments that would not otherwise be payable raises an additional concern. Having quality reported at the market-area level would address both issues—ensuring appropriate payments under the quality bonus program and providing useful, accurate information to beneficiaries about the quality of care in each MA option available in a given market (which the Commission has suggested should be compared with the quality in the same market in FFS and among accountable care organizations (Medicare Payment Advisory Commission 2015b)). ■

who used the Medicare.gov website were shown the star rating of the surviving contract (R7444) when looking at plans available in the southern states. That is, a resident of Miami, FL, was told that a 4-star regional plan was available in Miami because the surviving northeastern contract has a 2017 4-star rating. Had the contracts not been cross-walked, the Miami beneficiary would have seen that the regional plan had a rating below 4 stars (based on ratings CMS computed for all contracts operating as of October 2016, including those to be cross-walked). The reverse situation will be true in October of 2017 for residents of the northeastern states covered under this contract. Because the performance of the southern states will likely determine the overall contract performance, residents of the Northeast will likely see that the star rating for the contract declined to a level below four stars.

With regard to the issue of how bonus payments should be treated after a cross-walking, the Commission discussed using an averaging method to determine the bonus rating for a surviving contract. For example, in the case of the regional plan cross-walking just described, if the star rating for bonus purposes was an enrollment-weighted average of the three contracts' star ratings before cross-walking, there would be no bonus payments payable under this contract, given that only 5 percent of enrollees were in a 4-star contract (the 20,000 enrollees in the northeast joining the 380,000 other enrollees). The surviving contract would not be eligible for any bonus payments. In a different scenario, where a 3-star contract is merged with a 5-star contract and enrollment levels are the same in each contract, contract-level weighting would yield a 4-star rating for the combined surviving contract. In such a case, the surviving contract would receive bonus payments for all its enrollees. It could also be argued that the averaging should be done for each of the 44 measures included in the star rating system or, to go even further, that the averaging should be done by the denominators for each measure. For instance, to determine how a cross-walked surviving contract has performed on the various HEDIS measures of diabetic care, the results would be weighted by the number of diabetics in each of the contracts before cross-walking.

A simpler alternative is to award bonus payments as though the cross-walking had not occurred. That is, in the case described, the contract will receive bonus payments for only the 20,000 enrollees in the Northeast. Who those beneficiaries are and what the quality results were

**TABLE 13–12**

**Change in the distribution of contract star ratings, 2016 to 2017**

| 2016 | | 2017 | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Number of contracts receiving the star rating | | | | | | |
| **Star ratings** | **Number of contracts receiving the star rating** | **2.5** | **3.0** | **3.5** | **4.0** | **4.5** | **5.0** | **Not rated in 2017** |
| **2.5** | 8 | 5 | 3 | 0 | 0 | 0 | 0 | 0 |
| **3.0** | 66 | 5 | 34 | 23 | 2 | 0 | 0 | 2 |
| **3.5** | 111 | 1 | 19 | 59 | 25 | 4 | 0 | 3 |
| **4.0** | 97 | 0 | 0 | 28 | 44 | 21 | 2 | 2 |
| **4.5** | 65 | 0 | 0 | 5 | 19 | 36 | 4 | 1 |
| **5.0** | 10 | 0 | 0 | 0 | 1 | 3 | 6 | 0 |
| Total number of contracts receiving a given star rating in 2017 that received a star rating in 2016 | | 11 | 56 | 115 | 91 | 64 | 12 | |
| Number of contracts that were not rated in 2016 but have a 2017 rating | | 6 | 14 | 6 | 7 | 4 | 0 | |
| Total 2017 star distribution | | 17 | 70 | 121 | 98 | 68 | 12 | |

Note: Shaded figures are the number of contracts with a star rating for 2017 that is the same as their 2016 star rating. Table includes only contracts participating in the quality bonus program. Figures include absorbed contracts that had a star rating determined for 2017 but which are absorbed into other contracts.

Source: MedPAC analysis of CMS star ratings data.

for those enrollees is known and can be isolated from the quality results for the cross-walked enrollees. There would be minimal administrative complexity involved in assigning star ratings so that no bonus payments are available for enrollees in cross-walked contracts with ratings below 4 stars. In subsequent years, star ratings would be determined by the totality of enrollees who are in the surviving contract.

## Contract and enrollment distribution of the star ratings in 2017

As a result of the changes in star thresholds and changes in plan performance, there have been shifts in the star ratings of contracts operating in both 2016 and 2017.

Table 13-12 shows that, for the higher star rating contracts, changes were likely to result in fewer contracts retaining their star rating as compared with contracts with lower star ratings. For example, among 4-star plans, 44 remained at 4 stars while 23 increased their star rating and 28 declined. For 3-star plans, of the original 66 contracts, 34 remained at 3 stars, 25 increased their star rating, and 5 declined in their star rating. Some of the increases in star ratings were due to the adjustment for contracts with high shares of low-income enrollees or disabled enrollees, but relatively few such contracts, aside from a high proportion of contracts in Puerto Rico, changed from nonbonus to bonus status in their star ratings because the adjustments affected a small number of measures. In the case of plans operating in Puerto Rico, additional adjustments were made that benefited those plans.

One statistic that we have reported in the past and CMS reports when star ratings are announced is the proportion of current enrollees who are, or are not, in bonus-level plans based on the new star ratings compared with the current enrollees in bonus status based on the preceding year's star ratings (Centers for Medicare & Medicaid Services 2016, Medicare Payment Advisory Commission 2016). CMS has reported that 68 percent of enrollees are in plans with a 4-star rating for 2017, which would

be 72 percent if the 2016 ratings were used (for all plans with star ratings). Using data only for plans eligible for bonuses (that is, excluding cost plans), the figures would be 67 percent and 72 percent of enrollees in bonus status plans for each year, respectively. Such a statistic is somewhat misleading because of the effect of contract consolidations. With a consolidation, only the surviving contract's enrollment can be used in determining this statistic. In the case of the regional plan that moved 380,000 enrollees from 2 contracts (rated 3.0 and 3.5 stars in the 2016 ratings) to a surviving contract with only 20,000 current enrollees, if the 3 contracts were the only ones operating in MA, the 2016 to 2017 comparison would say that 100 percent of enrollees are in 4-star plans as of 2017 because the 20,000 enrollees are in a contract that has a 4-star rating for 2017, and the two contracts with the 380,000 enrollees are no longer represented in the posted ratings for 2017.

A different way of evaluating changes in the star ratings, and the number of enrollees affected, is to compare contracts that had ratings for both 2016 and 2017. As of October 2016, 1.1 million enrollees were in 41 contracts moving from a rating below 4 stars in 2016 to bonus status (4 stars or higher) in 2017. In contrast, 2.3 million enrollees were in 39 contracts rated 4 stars or higher in 2016 but rated lower (or not rated) in the 2017 ratings. On net, therefore, about 1.2 million enrollees are no longer in bonus-rated plans.

Of the 2.3 million enrollees in lower rated contracts, 62 percent are in contracts operated by 1 parent organization that received low scores in a performance audit. For this organization, 40 percent of the weight of the company's declining measures is in administrative measures (processing of appeals and call center issues), and 26 percent is due to a decline in the two improvement measures that CMS calculates. For clinical measures, the major change was that this organization did not do well on the Part D measure on the avoidance of high-risk medications, which improved in our same-store analysis and which had a large increase in the threshold for 4-star performance (Table 13-11, p. 371).

## Conclusions about the current state of the star rating system

We have previously raised the point that plan consolidations and the existence of contracts that span wide geographic areas erode the validity of the star rating system as a measure of plan performance in a given area (Medicare Payment Advisory Commission 2016). The continuing consolidation activity has led to a situation in which, as of 2016, about one-third of MA enrollees were in contracts with substantial enrollment in noncontiguous states across the country, and in many states, statewide contracts serve market areas within a state that have very different characteristics and can have differing levels of quality.

The Commission has advocated moving toward an emphasis on outcome measures, a fixed threshold of performance, and measures that are meaningful to beneficiaries (Medicare Payment Advisory Commission 2015a). The Commission has recommended that quality reporting for MA plans be done at the market-area level and that there should be a comparison with the quality of care in FFS in the same area (Medicare Payment Advisory Commission 2010, Medicare Payment Advisory Commission 2005). We have illustrated the ways in which the current star rating system is inconsistent with these views and may not reflect a plan's performance in the geographic area where a particular beneficiary resides. Furthermore, if the star system is intended as a means of improving the quality of care in the MA sector as a whole, using relative rankings as the basis for assigning stars may not be the best way of achieving that goal. ■

# Endnotes

1 While all HMOs and PPOs have provider networks, PPOs cover out-of-network care while HMOs typically do not. There are also HMOs that offer a point-of-service option that covers some out-of-network care.

2 Cost plans are technically not MA plans. They do not submit bids, but are paid their reasonable costs under provisions of Section 1876 of the Social Security Act.

3 The 21st Century Cures Act recently changed the lock-in rules so that, beginning in 2019, beneficiaries enrolled in an MA plan in the first three months of the year, or their first three months of entitlement, are allowed to join a different MA plan or elect fee-for-service (FFS) in the three-month period. This provision replaces a provision that allowed a beneficiary to leave an MA plan only during the first 45 days of the year, and to choose only FFS, not another MA plan.

4 If plans were required to bid their costs for each county separately, then in many instances, bids for distinct counties would be different from those we observe in the data.

5 Based on CMS's interpretation of SSA Section 1853(c)(1)(D), Calculation of 100 Percent of Fee-For-Service Costs.

6 This analysis is based on Medicare beneficiaries who were enrolled in FFS Medicare for all 12 months in 2014, which means that no decedents are included. We excluded beneficiaries from the territories, such as Puerto Rico, whose FFS spending is adjusted separately by CMS. Also, cost-plan enrollees are not considered FFS beneficiaries.

7 In practice, dollar-value coefficients are standardized relative to average FFS spending before being applied to each plan's base rate. In addition, coefficients may vary depending on whether the beneficiary is partially, fully, or not eligible for Medicaid.

8 For risk adjustment data validation audits in 2011, CMS grouped all contracts into high, medium, and low levels of coding intensity and then selected 20 high-, 5 medium-, and 5 low-level contracts at random.

9 For the purpose of this section on evaluating quality measures, we consider a difference between two values to be "meaningful" if the change is statistically significant ($p$ value $\leq 0.05$) and it is a difference of at least 3 percent.

10 The National Committee for Quality Assurance (NCQA) advises caution in evaluating the trend in measures for the treatment of diabetics because of the manner in which diagnoses are made in the change to ICD–10. NCQA also advises caution in trending the hospital readmission measure. We have used this measure in the past to report on differences in observed-to-expected rates of readmission by plan type, but we have detected issues with the risk adjustment system used to determine the expected rates of readmission and are awaiting NCQA's evaluation of the findings we have shared with them (and with CMS).

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CHAPTER 14

# Status report on the Medicare prescription drug program (Part D)

CHAPTER 14

# Status report on the Medicare prescription drug program (Part D)

## Chapter summary

In 2015, Medicare spent $80.1 billion for the Part D benefit, accounting for 12 percent of total Medicare outlays. Enrollees' out-of-pocket (OOP) spending for premiums and cost sharing totaled $11.5 billion and $15.1 billion, respectively. In 2016, 41 million individuals (72 percent of all Medicare beneficiaries) were enrolled in Part D: Of those enrolled, 60 percent were in stand-alone prescription drug plans (PDPs) and 40 percent were in Medicare Advantage–Prescription Drug plans (MA–PDs). In general, Part D has improved Medicare beneficiaries' access to prescription drugs, with plans available to all individuals.

Each year, the Commission provides a status report on the Medicare prescription drug benefit established under Part D that describes beneficiaries' access to prescription drugs: enrollment levels, plan benefit designs, and the quality of Part D services. The report also analyzes changes in plan bids, premiums, and program costs.

Last year, we noted concern that a growing share of Part D program spending has been for high-cost enrollees—beneficiaries who reach the catastrophic phase of Part D's benefit. This year's status report provides evidence that this trend has continued, and we point to factors that contribute toward greater catastrophic-phase spending. The Commission's June 2016 recommendations addressed concerns about Part D's financial sustainability

## In this chapter

- Enrollment, plan choices in 2016, and benefit offerings for 2017
- Market structure of plan sponsors
- Strategies for controlling growth in plan premiums
- Drug pricing
- Program costs
- Beneficiaries' access to prescription drugs
- Quality in Part D

and affordability for its enrollees while maintaining the program's market-based approach.

***Medicare beneficiaries' drug coverage in 2016 and benefit offerings for 2017***—Among the 41 million Part D enrollees in 2016, 12 million received the low-income subsidy (LIS). Nearly 2 million additional individuals (3 percent of all beneficiaries) received drug coverage through employer-sponsored plans that receive Medicare's retiree drug subsidy. In 2013, the latest year of available survey data, 12 percent of beneficiaries had no drug coverage or coverage less generous than Part D. Our previous analysis showed that beneficiaries with no creditable coverage tended to be healthier, on average.

In 2017, plan sponsors are offering 746 PDPs, a 16 percent decrease from 2016, and 1,734 MA–PDs, a 3 percent increase from 2016. PDP reductions reflect mergers and acquisitions among plan sponsors as well as consolidation of plan offerings into fewer, more widely differentiated products. Even with these consolidations, beneficiaries have between 18 and 24 PDPs to choose from, depending on where they live, as well as typically 10 or more Medicare Advantage options. MA–PDs continue to be more likely than PDPs to offer enhanced benefits. For 2017, 231 premium-free PDPs are available to enrollees who receive the LIS, a 2 percent increase from 2016. All regions of the country continue to have at least 3 and as many as 10 PDPs available at no premium to LIS enrollees.

In 2016, all of the 10 PDPs with the highest enrollment used a 5-tier formulary with differential cost sharing between preferred and other generics, preferred brand-name drugs, nonpreferred drugs, and a specialty tier for high-cost drugs. Also in 2016, nearly 85 percent of PDPs used tiered pharmacy networks that included preferred pharmacies offering lower cost sharing. These strategies provide financial incentives for enrollees to use lower cost drugs or pharmacies, potentially reducing program costs. However, if LIS enrollees do not use preferred generics or pharmacies with preferred cost sharing, these approaches will not result in lower Medicare spending for LIS enrollees (since the LIS covers most or all of these enrollees' cost sharing).

***Part D program costs***—Between 2007 and 2015, Part D spending on an incurred basis increased from $46 billion to $80 billion (an average annual growth rate of more than 7 percent). Reinsurance became the largest component of program spending in 2014 and has remained the fastest growing component, at an average annual growth rate of 20 percent between 2007 and 2015. Enrollees who incur spending high enough to reach the catastrophic phase of the benefit (high-cost enrollees) have started to drive Part D program costs, accounting for 53 percent of gross spending in 2015, up from about 40 percent before 2011. Spending on

a per enrollee basis for these high-cost individuals grew by more than 9 percent, driven primarily by increases in the average price per prescription filled (reflecting both price inflation and changes in the mix of drugs used). In particular, the Part D program experienced higher than anticipated spending on new hepatitis C therapies during 2014 and 2015. Going forward,the pharmaceutical pipeline is shifting toward greater numbers of biologic products and specialty drugs, many of which have few therapeutic substitutes and high prices. The use of high-priced drugs by Part D enrollees will likely grow and put significant upward pressure on Medicare spending for individual reinsurance and the LIS.

***Access to prescription drugs***—Giving plans greater flexibility to use management tools could help ensure that prescribed medicines are safe and appropriate for the patient and could potentially reduce overuse or misuse. However, for some beneficiaries, those same tools could also limit access to needed medications. Plan sponsors must strike a balance between providing access to medications while encouraging enrollees to use lower cost therapies through their formulary designs. Medicare requires plan sponsors to establish coverage determination and appeals processes with the goal of ensuring access to needed medications. Beneficiary advocates, prescribers, plan sponsors, and CMS have all noted frustrations with Part D coverage determinations, exceptions, and appeals processes. A more efficient approach would be to resolve such issues at the point of prescribing through e-prescribing and electronic prior authorization rather than at the pharmacy counter.

***Quality in Part D***—In 2017, the average star rating among Part D plans increased somewhat for PDPs while remaining about the same for MA–PDs. The utility of star ratings to measure quality of prescription drug services may be limited because data for quality measures do not account for all clinically relevant factors. Part D plans are required to implement medication therapy management (MTM) programs to improve quality. Although the Commission supports the goal of improving medication management, we have been concerned with the effectiveness of plans' MTM programs. In 2017, Medicare begins testing enhanced MTM programs by providing incentives for stand-alone PDPs to conduct medication reviews and tailor drug benefit designs that encourage adherence to appropriate drug therapies. Six Part D sponsors operating PDPs in 5 regions of the country, with an estimated 1.6 million enrollees, are participating in CMS's enhanced MTM model. ■

**TABLE 14–1**

**Parameters of the defined standard benefit increase over time**

| | 2006 | 2016 | 2017 | Average annual growth rate 2006–2017 |
|---|---|---|---|---|
| Deductible | $250.00 | $360.00 | $400.00 | 4.4% |
| Initial coverage limit | 2,250.00 | 3,310.00 | 3,700.00 | 4.6 |
| Annual out-of-pocket spending threshold | 3,600.00 | 4,850.00 | 4,950.00 | 2.9 |
| Estimated total covered drug spending at annual out-of-pocket threshold | 5,100.00 | 7,515.22* | 8,071.16* | 4.3 |
| Minimum cost sharing above annual out-of-pocket threshold: | | | | |
| Copayment for generic/preferred multisource drugs | 2.00 | 2.95 | 3.30 | 4.7 |
| Copayment for other prescription drugs | 5.00 | 7.40 | 8.25 | 4.7 |

Note: *An individual's total covered drug spending at the annual out-of-pocket threshold depends on each enrollee's mix of brand-name and generic drugs filled in the coverage gap. The amounts for 2016 and 2017 are estimated by CMS for an individual with an average mix of drugs who does not receive Part D's low-income subsidy and has no supplemental coverage.

Source: Centers for Medicare & Medicaid Services 2016d.

## Background

In 2016, 41 million Medicare beneficiaries were enrolled in Part D plans. Between 2006 (the year Part D began) and 2016, the share of beneficiaries with drug coverage increased from 75 percent to nearly 90 percent.[1] Part D generally has improved beneficiaries' access to prescription drugs, with plans available to all. Surveys indicate that Medicare beneficiaries enrolled in Part D continue to be satisfied with the Part D program and their plans (KRC Research 2013, *Medicare Today* 2015a, *Medicare Today* 2015b).

Medicare subsidizes nearly three-quarters of the cost of basic benefits for Part D enrollees. In 2015, the Medicare program spent over $80 billion on Part D on an incurred basis, accounting for slightly over 12 percent of Medicare outlays (Boards of Trustees 2016).[2] In addition, Part D enrollees paid $11.5 billion in plan premiums and $15 billion in cost sharing. Each year, the Commission provides a status report on Part D and makes recommendations as necessary. We examine several performance indicators: enrollment patterns, plan benefit offerings, market structure, drug pricing, program costs, beneficiaries' access to medications, and quality.

### Part D's approach

Medicare's payment system for Part D is different from payment systems under Part A and Part B. For Part D, Medicare pays competing private plans to deliver drug benefits to enrollees. Instead of setting prices administratively, Medicare's payments are based on bids submitted by plan sponsors. Part D pays for drug benefits whether beneficiaries enroll in a stand-alone prescription drug plan (PDP) or in a Medicare Advantage–Prescription Drug plan (MA–PD).

The design of the program is intended to give plan sponsors incentives to offer beneficiaries attractive prescription drug coverage while controlling growth in drug spending. Policymakers envisioned that plans would compete for enrollees based on premiums, benefit structure (e.g., deductible amount), formularies, quality of services, and networks of pharmacies.

### The drug benefit

Medicare defines a standard Part D benefit with parameters that change at the same rate as the annual change in beneficiaries' average drug expenses (Table 14-1). For 2017, the defined standard benefit includes a $400 deductible and 25 percent coinsurance until the enrollee reaches $3,700 in total covered drug spending. Enrollees whose spending exceeds that amount face a coverage gap up to a threshold of $4,950 in out-of-pocket (OOP) spending, excluding cost sharing paid by most sources of supplemental coverage such as employer-sponsored policies. Above the OOP threshold, enrollees pay the greater of 5 percent coinsurance or $3.30 to $8.25 per prescription.

Part D includes a low-income subsidy (LIS) that provides assistance with premiums and cost sharing for individuals with low incomes and assets. Individuals who qualify for this subsidy pay zero or nominal cost sharing set by statute. In 2017, most individuals receiving the LIS pay between $0 and $3.30 for generic drugs and between $0 and $8.25 for brand-name drugs.

Before 2011, enrollees exceeding the initial coverage limit were responsible for paying the full price of covered drugs (usually not reflecting manufacturers' rebates) up to the annual OOP threshold. Part D's OOP threshold is also known as a "true OOP" cap because it excludes cost sharing paid on behalf of a beneficiary by most sources of supplemental coverage such as employer-sponsored policies and enhanced benefits provided by Part D plans. Because of changes made by the Patient Protection and Affordable Care Act of 2010 (PPACA), since 2011, non-LIS beneficiaries face reduced cost sharing for both brand-name and generic drugs filled during the coverage gap (Medicare Payment Advisory Commission 2016b). In particular, under PPACA, manufacturers must provide a 50 percent discount as a condition for Part D to cover their drugs, and the discount is added to the enrollee's own spending for purposes of determining whether the enrollee has reached the OOP threshold. In 2017, cost sharing for prescriptions filled during the gap phase is 40 percent for brand-name drugs and 51 percent for generic drugs.[3] An individual with no other source of drug coverage is estimated to reach the $4,950 limit at about $8,100 in total drug expenses. (An individual's level of drug spending at the OOP threshold depends on the mix of brand-name and generic prescriptions they fill. CMS estimates that for a non-LIS enrollee with an average mix of drugs and no supplemental coverage, the amount would be $8,071.16.)

Plan sponsors can and do offer alternative benefit designs. For example, a plan can offer a deductible lower than $400, or use tiered copayments rather than coinsurance—provided the alternative benefit meets requirements for actuarial equivalence. Once a plan sponsor offers a plan with basic benefits in a region, it can also offer plans with additional drug coverage that supplements the standard benefit, called enhanced plans.

## Two avenues of competition in Part D

Plan sponsors concentrate much of their attention on premium competition to attract enrollees because premiums are the most salient feature on which consumers can compare plan options. Part D plan sponsors submit bids to CMS that represent their revenue requirements (including administrative costs and profit) for delivering the standard benefit to an enrollee of average health. Part D is different from Part C (i.e., Medicare Advantage) in that Medicare's payments for outpatient drug benefits do not involve any comparison with an administratively set benchmark amount. Instead, CMS calculates a nationwide enrollment-weighted average among all the bid submissions.

Enrollees pay a monthly base beneficiary premium ($35.63 in 2017) plus (or minus) any difference between their plan's bid and the nationwide average bid (Medicare Payment Advisory Commission 2016b). If enrollees choose a plan that is costlier than average, they pay a premium higher by the difference between the plan's bid and the nationwide average. If they select a plan that has a lower than average bid, their premium is lower by that difference. If enrollees pick a plan that includes supplemental coverage, they must pay the full price for the additional coverage (i.e., Medicare does not subsidize it). This approach is designed to give sponsors the incentive to control enrollees' spending so that they can bid low and keep premiums attractive. At the same time, sponsors must balance this incentive with beneficiaries' desire to have access to medications. A plan with a very limited number of covered drugs might not attract enrollees.

A second avenue of competition involves keeping plan premiums at or below regional LIS benchmarks.[4] Part D's bidding process determines the maximum premium amount Medicare will pay on behalf of LIS enrollees. This amount varies across the country's 34 Part D regions. It is based on an average of premiums for plans with basic benefits, weighted by each plan's LIS enrollment in the previous year. The formula also ensures that at least one stand-alone PDP is available to LIS enrollees at no premium.

This approach to subsidizing LIS enrollees also provides incentives for plan sponsors to control drug spending and bid low. If sponsors do so, they can win or maintain market share without having to incur marketing expenses for LIS enrollees. Each year there is turnover in benchmark plans—those that qualify as premium free for LIS enrollees. If LIS enrollees are in a plan with a premium above the benchmark and do not choose a plan themselves, CMS reassigns these enrollees randomly to a new benchmark plan. Instead of accepting the new assignment, LIS enrollees may choose a plan themselves.

## The Commission's 2016 recommendations to improve Part D

In its June 2016 report to the Congress, the Commission recommended changes to Part D in light of certain trends in the pharmaceutical industry (Medicare Payment Advisory Commission 2016c). Going forward, many new biopharmaceutical products in the development pipeline will have substantially higher prices than previous treatments, even when alternative therapeutic products are available. This trend will exert strong upward pressure on premiums, beneficiary cost sharing, and program costs.

One set of changes would give plan sponsors greater financial incentives and stronger tools to manage the benefits of high-cost enrollees. Medicare's subsidy of basic Part D benefits would remain unchanged at 74.5 percent, but plan sponsors would receive more of that subsidy through capitated payments instead of open-ended reinsurance. Over a transition period, Medicare would significantly lower the amount of reinsurance it pays plans, from 80 percent of spending above Part D's out-of-pocket (OOP) threshold to 20 percent, and the insurance risk that plan sponsors shoulder for catastrophic spending would rise commensurately from 15 percent to 80 percent. At the same time, plan sponsors would be given greater flexibility to use formulary tools to manage benefits.[5]

Other parts of the Commission's recommendations would exclude manufacturer discounts on brand-name drugs from counting as enrollees' true OOP spending, but would also provide greater insurance protection to all enrollees not receiving the low-income subsidy (LIS) through a real OOP cap (although some enrollees would incur higher OOP costs than they do today). The recommended improvements would also moderately increase financial incentives for enrollees who receive the LIS to use lower cost drugs and biologics.

Under the combined recommendations, Part D's risk adjusters would become more important as a tool for counterbalancing plan incentives for selection, and CMS would need to take steps to recalibrate the risk adjustment system. Similarly, because plans would have greater flexibility to use management tools, CMS would need to continue monitoring plan operations, such as reviewing formularies and pharmacy networks, to ensure beneficiary access. The agency would also need to ensure that the appeals and grievance procedures under Part D function effectively.

On net, the Commission's recommendations restrain overall drug costs and make the benefit more affordable for beneficiaries and taxpayers in the long run. The recommendations enhance the Part D benefit so that the program would provide real insurance protection against catastrophic OOP spending. However, the recommendations would also expose some beneficiaries to higher cost sharing in the coverage gap. To the extent that the adoption of this combined set of recommendations results in net program savings, the Congress could consider enhancing protections for non-LIS beneficiaries facing high cost-sharing burdens. ■

However, if their selected plan has a premium higher than the benchmark, they must pay the difference between the plan's premium and the benchmark amount. Once LIS enrollees select a plan themselves, CMS no longer reassigns them to a new plan. Instead, the agency sends some of these beneficiaries letters about premium-free plan options in the enrollee's region.

Much of Part D's original structure from 2006 reflects a system of federal subsidies and regulations designed to encourage broad participation of enrollees and private plan sponsors. Today, participation in the market for prescription drug plans is healthy, but the financial sustainability of Part D is a growing concern because of sizable increases in program expenditures for high-cost enrollees (those who reach Part D's OOP threshold). In June 2016, the Commission recommended a combination of changes designed to address concerns and improve Part D for the future while maintaining the program's market-based approach (see text box on the Commission's 2016 recommendations).

**TABLE 14–2**

**Three-quarters of Medicare enrollees received drug coverage through Part D, 2016**

| | Beneficiaries | |
|---|---|---|
| | In millions | Share of Medicare enrollment |
| Medicare enrollment | 57.1 | 100% |
| Part D enrollment | | |
| In Part D plans | 41.0 | 71.7 |
| In plans receiving RDS* | 1.9 | 3.3 |
| Total Part D | 42.9 | 75.1** |

Note: RDS (retiree drug subsidy). Part D plan enrollment figures are based on enrollment as of April 1, 2016. Components may not sum to stated totals due to rounding.
*Excludes federal government and military retirees covered by either the Federal Employees Health Benefits Program or the TRICARE for Life program.
**The remaining 24.9 percent of beneficiaries not enrolled in Part D received drug coverage through other sources (such as the Federal Employees Health Benefits Program, TRICARE for Life, and the Department of Veterans Affairs), had no drug coverage, or had coverage less generous than Part D.

Source: MedPAC based on Table IV.B7 and Table V.B4 of the Medicare Boards of Trustees' report for 2016 and monthly Part D enrollment data as of April 1, 2016.

## Enrollment, plan choices in 2016, and benefit offerings for 2017

In 2016, 75 percent of Medicare beneficiaries were enrolled in Part D or employer drug plans for retirees that met requirements for actuarial equivalence. Enrollment has shifted from retiree drug plans to Part D plans. Less than 1 percent of stand-alone PDP and MA–PD enrollees (excluding special needs plans and Medicare–Medicaid plan enrollees) were in defined standard benefit plans; the rest were in plans that had the same or higher average benefit values but different cost-sharing structures. In 2017, plan sponsors are offering 16 percent fewer PDPs, but beneficiaries continue to have broad choice among plans. The number of MA–PDs has grown by 3 percent.

### In 2016, three-quarters of Medicare beneficiaries were in Part D plans or employer plans that got Medicare's retiree drug subsidy

In 2016, 41 million individuals—nearly 72 percent of 57.1 million total Medicare beneficiaries—were enrolled in Part D plans (Table 14-2). In addition, about 3 percent of beneficiaries got drug coverage through employer-sponsored plans that received Medicare's retiree drug subsidy (RDS) for being the primary provider.[6] The remaining 25 percent of Medicare beneficiaries received drug coverage from other sources, had no coverage, or had coverage less generous than Part D.[7]

An estimate from the 2013 Medicare Current Beneficiary Survey (MCBS) (the latest year for which data are available) suggests that about 12 percent of beneficiaries (a subset of the 25 percent described above) had no "creditable" drug coverage (either no coverage at all or less generous coverage than Part D)—a bit higher than the 10 percent reported by CMS during the first few years of Part D. About half of the 12 percent reported having some drug coverage through public or private insurance. Our analysis of the 2013 MCBS data suggests that beneficiaries who do not enroll in Part D tend to be healthier.

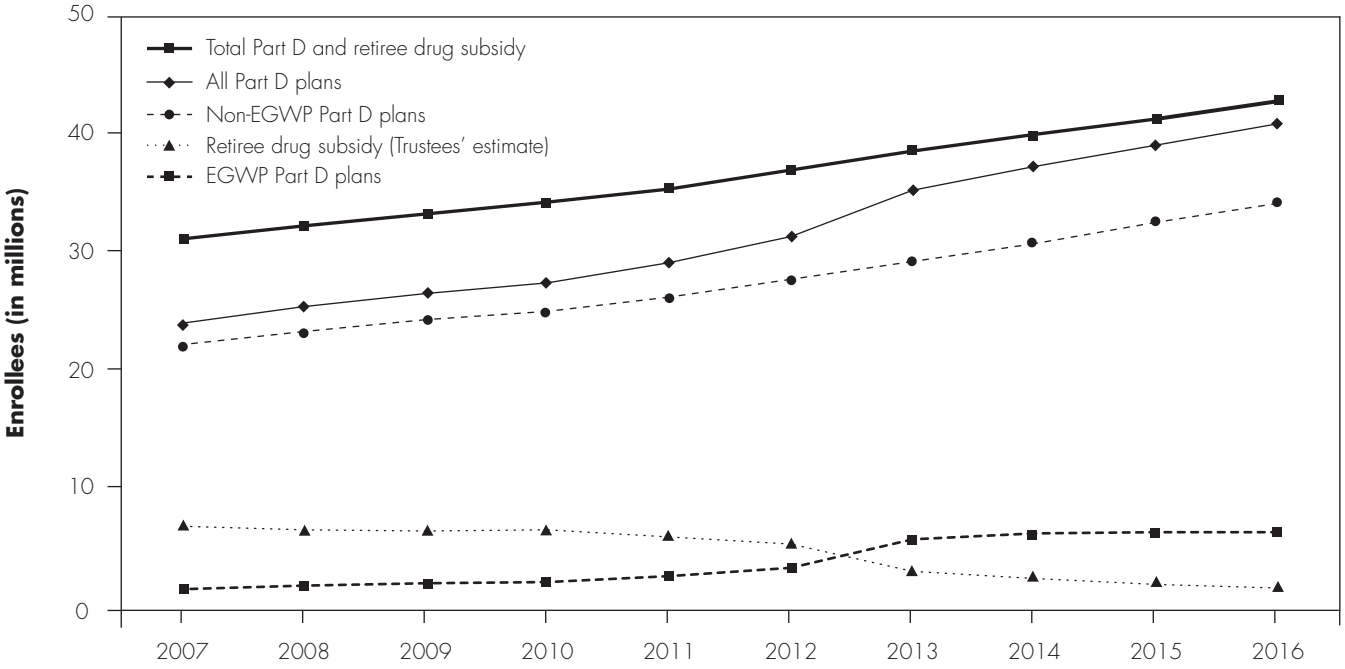
In recent years, enrollment has shifted into Part D plans from employer plans that had previously received the RDS (Figure 14-1). This shift reflects changes made by PPACA that increased the relative generosity of the Part D benefit by eliminating the coverage gap and by altering the tax treatment of drug expenses covered by the RDS. Between 2010 (the year PPACA was enacted) and 2016, the number of beneficiaries whose employers received the RDS fell from 6.8 million to 1.9 million. Over the same period, enrollment in Part D plans operated for employers and their retirees (employer group waiver plans, or EGWPs) grew from 2.4 million to 6.6 million.[8]

The share of Medicare beneficiaries covered under Part D has grown over time, as has the share of enrollees in plans that combine prescription coverage with medical benefits (MA–PDs). Between 2007 and 2016, the share of Medicare beneficiaries enrolled in Part D plans grew from about 54 percent to 72 percent, or an average of 6 percent annually (Table 14-3). Enrollment in MA–PDs grew more rapidly (9 percent annually) than in PDPs (4 percent annually). In 2016, 40 percent of Part D enrollees were in MA–PDs compared with 30 percent in 2007.

In 2016, 12 million beneficiaries with incomes at or below 150 percent of the federal poverty level (29 percent of Part D enrollees) received the LIS (Table 14-3). Of these individuals, 7.5 million were dually eligible for Medicare and Medicaid. The remaining LIS enrollees qualified either because they received benefits through the Medicare

**FIGURE 14–1**

**Enrollment in Part D plans has increased over time, with fewer employers receiving Medicare's retiree drug subsidy**




Note: EGWP (employer group waiver plan).

Source: MedPAC based on monthly Part D enrollment data and Table IV.B7 of the 2016 annual report of the Boards of Trustees of the Medicare trust funds.

**TABLE 14–3**

**Part D plan enrollment trends, 2007–2016**

| | 2007 | 2010 | 2012 | 2014 | 2016 | Average annual growth rate 2007–2016 |
|---|---|---|---|---|---|---|
| Total Part D enrollment (in millions) | 24.2 | 27.6 | 31.5 | 37.4 | 41.0 | 6% |
| Share of Medicare beneficiaries | 54% | 58% | 62% | 69% | 72% | |
| Enrollment by type (in millions) | | | | | | |
| PDP | 16.9 | 17.6 | 19.8 | 23.4 | 24.7 | 4 |
| MA–PD | 7.2 | 10.0 | 11.7 | 14.1 | 16.3 | 9 |
| Share in MA–PD | 30% | 36% | 37% | 38% | 40% | |
| Enrollment by LIS status (in millions) | | | | | | |
| LIS | 9.4 | 9.9 | 10.8 | 11.4 | 12.0 | 3 |
| Non-LIS | 14.8 | 17.7 | 20.7 | 26.0 | 28.9 | 8 |
| Share receiving the LIS | 39% | 36% | 34% | 30% | 29% | |

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income subsidy). Figures are based on enrollment as of April 1 of each year with the exception of 2007 (enrollment as of July 1, 2007) and 2008 (enrollment as of May 1, 2008).

Source: MedPAC based on monthly Part D enrollment data and Table IV.B7 and Table V.B4 of the Medicare Boards of Trustees' report for 2016.

**TABLE 14–4**

**MA–PD enrollees more likely to be in enhanced plans, 2016**

| | PDP | | MA–PD | |
|---|---|---|---|---|
| | Number (in millions) | Percent | Number (in millions) | Percent |
| Total | 19.9 | 100% | 11.2 | 100% |
| Type of benefit | | | | |
| Defined standard | 0.0 | 0 | 0.1 | 1 |
| Actuarially equivalent* | 11.6 | 58 | 1.4 | 13 |
| Enhanced | 8.4 | 42 | 9.7 | 86 |
| Type of deductible | | | | |
| Zero | 9.8 | 49 | 5.5 | 49 |
| Reduced | 0.6 | 3 | 4.2 | 37 |
| Defined standard** | 9.6 | 48 | 1.6 | 14 |

Note: MA–PD (Medicare Advantage–Prescription Drug [plan]), PDP (prescription drug plan). The MA–PD enrollment described here excludes employer-only plans, plans offered in U.S. territories, 1876 cost plans, special needs plans, demonstrations, and Part B–only plans. Components may not sum to stated totals due to rounding.
*Includes actuarially equivalent standard and basic alternative benefits.
**Deductible of $360 in 2016.

Source: MedPAC analysis of CMS landscape, plan report, and enrollment data.

Savings Programs or the Supplemental Security Income program or because they were eligible after they applied directly to the Social Security Administration. Compared with non-LIS enrollees, LIS enrollees are more likely to be female; more than twice as likely to be African American, Hispanic, or Asian; and nearly five times more likely to be under age 65 (Medicare Payment Advisory Commission 2016a).

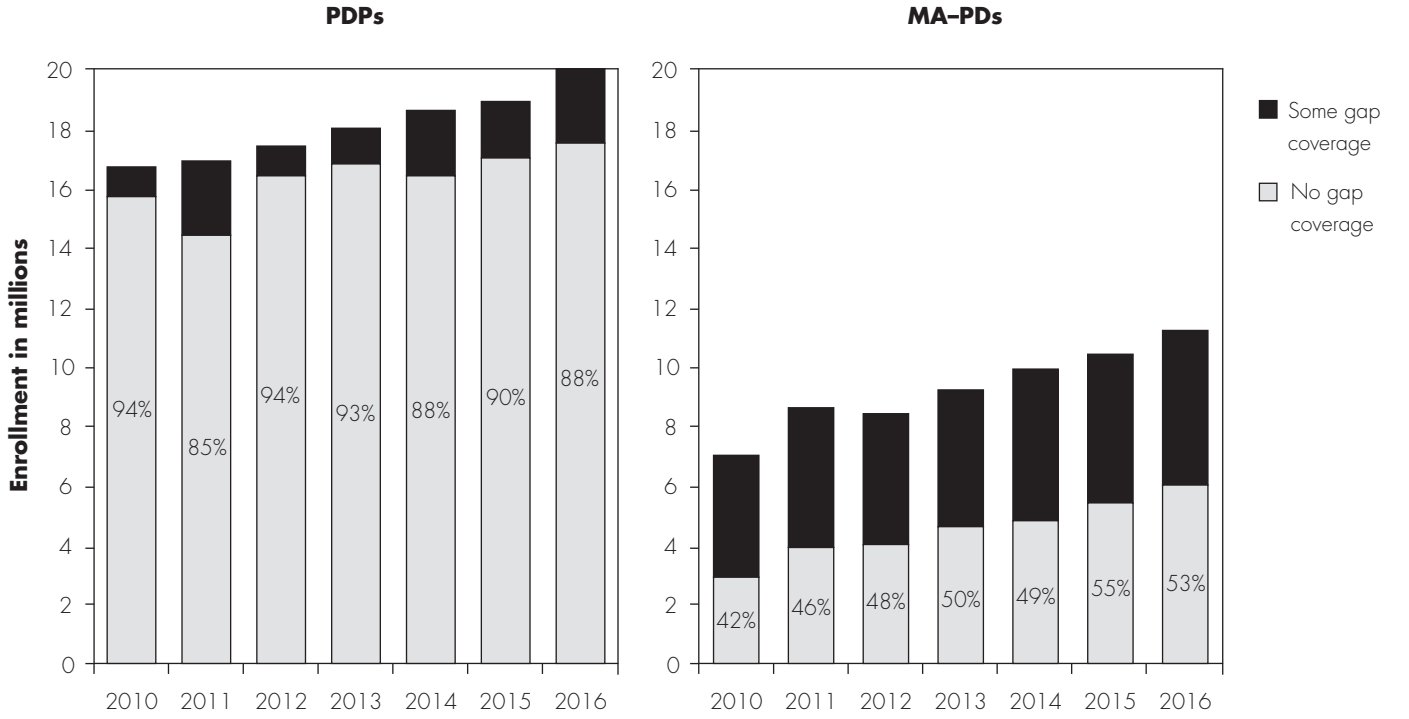
Between 2007 and 2016, enrollment growth for Part D enrollees who received the LIS was slower (3 percent per year) than for non-LIS enrollees (8 percent per year). Non-LIS enrollees' faster enrollment growth is partly attributable to the recent growth in EGWPs that shifted beneficiaries to Part D plans from employer plans that had previously received the RDS. Consequently, the share that received the LIS fell from 39 percent to 29 percent. About 66 percent (8 million) of LIS enrollees were in PDPs; the rest were in MA–PDs (data not shown). Most individuals receiving the LIS are enrolled in traditional Medicare rather than Medicare Advantage. If these individuals have not chosen a Part D plan themselves, CMS autoassigns them randomly to benchmark plans, all of which are PDPs. However, LIS enrollment in MA–PDs (including special needs plans (SNPs)) has grown because some individuals have selected these plans or joined them through the Medicare–Medicaid financial alignment initiative.

## Beneficiaries' enrollment decisions in 2016

Most Part D enrollees are in plans that differ from Part D's defined standard benefit; these plans are actuarially equivalent to the standard benefit or are enhanced in some way. Actuarially equivalent plans have the same average benefit value as defined standard plans but a different benefit structure. For example, a plan may use tiered copayments (e.g., charging $5 per generic drug and $50 for a brand-name drug) that can be higher or lower for a given drug compared with the 25 percent coinsurance under the defined standard benefit. Alternatively, a plan may exempt certain types of prescriptions such as preferred generics from the deductible, or use a cost-sharing rate higher than 25 percent rather than having a deductible at all. Once a PDP sponsor offers at least one plan with basic benefits in a region, it can also offer a plan with enhanced benefits by including, for example, lower cost sharing, coverage for drugs filled during the gap (beyond what is required by PPACA), or an expanded drug formulary that includes non–Part D drugs.

**FIGURE 14–2**

**PDP enrollees are less likely to be in plans that offer additional benefits in the coverage gap**




Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). Figures exclude employer-only plans, plans offered in U.S. territories, 1876 cost plans, special needs plans, demonstrations, and Part B–only plans. Additional benefits in the coverage gap (beyond what is required by the Patient Protection and Affordable Care Act of 2010) is typically restricted to a subset of formulary drugs. In 2016, nearly one-third of PDP enrollees received the low-income subsidy, which effectively eliminates any coverage gap.

Source: MedPAC analysis of CMS landscape, plan report, and enrollment data.

### Enrollment by benefit design

In 2016, 58 percent of PDP enrollees had basic coverage that was actuarially equivalent to the defined standard benefit, most with tiered copayments (Table 14-4). Another 42 percent of PDP enrollees had enhanced benefits—the typical enhancement being a lower deductible rather than additional benefits in the coverage gap. No PDP enrollees were in defined standard benefit plans. MA–PD enrollees were predominantly in enhanced plans with no deductible or a deductible smaller than Part D's defined standard benefit. In both PDPs and MA–PDs (separately), 49 percent of enrollees had no deductible in their plans' benefit design.

Under the Medicare Advantage payment system, MA–PDs may use a portion of their Part C payments to supplement their Part D drug benefits or to lower Part D premiums.[9] Many MA–PDs also use some of their Part C rebate dollars to provide additional Part D benefits in the coverage gap (Figure 14-2). In 2016, 47 percent of MA–PD enrollees (5.2 million beneficiaries) were in plans offering some gap coverage.[10] By comparison, only 12 percent of PDP enrollees (2.5 million beneficiaries) were in plans that offered benefits in the coverage gap beyond what is required by PPACA. However, 32 percent of PDP enrollees (8.0 million of 24.7 million) received the LIS, which effectively eliminates any coverage gap (data not shown).

### Average enrollee premiums

On an enrollment-weighted average, Part D premiums have remained low over the past several years, despite significant growth in spending for Part D's catastrophic benefits. In 2016, monthly beneficiary premiums averaged about $31

**TABLE 14–5**

**Changes in average Part D premiums, 2007–2016**

| | Average monthly premium weighted by enrollment (in dollars) | | | | | | Average annual growth rate 2012–2016 |
|---|---|---|---|---|---|---|---|
| | 2007 | 2012 | 2013 | 2014 | 2015 | 2016 | |
| All plans (any coverage) | $23 | $30 | $30 | $29 | $30 | $31 | 1.0% |
| PDPs | | | | | | | |
| Basic coverage | 24 | 33 | 32 | 30 | 28 | 29 | –3.0 |
| Enhanced coverage | 40 | 58 | 49 | 49 | 48 | 53 | –2.4 |
| All types of coverage | 27 | 38 | 39 | 38 | 37 | 39 | 0.9 |
| MA–PDs, including SNPs* | | | | | | | |
| Basic coverage | 17 | 27 | 29 | 25 | 21 | 22 | –5.2 |
| Enhanced coverage | 9 | 12 | 13 | 13 | 16 | 17 | 8.8 |
| All types of coverage | 10 | 14 | 15 | 16 | 18 | 18 | 6.2 |

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), SNP (special needs plan). The premium amounts do not include monthly adjustment amounts paid by beneficiaries who are subject to income-related premiums or the late enrollment penalty. Figures exclude employer-only plans, plans offered in U.S. territories, 1876 cost plans, demonstrations, and Part B–only plans. The average premium for any PDP coverage increased, on average, between 2012 and 2016 despite decreases in separate component averages for basic and enhanced PDPs because, over time, more beneficiaries enrolled in PDPs with enhanced coverage.
*Reflects the portion of Medicare Advantage plans' total monthly premium attributable to Part D benefits for plans that offer Part D coverage. MA–PD premiums reflect Part C rebate dollars that were used to offset Part D premium costs.

Source: MedPAC analysis of CMS landscape, plan report, and enrollment data.

across all plans, and average premiums have remained on the order of $30 per month over many years (Table 14-5). However, underlying that average is wide variation, ranging from $0 for a number of MA–PDs to $175 for a PDP offering enhanced coverage (data not shown).[11] On average, premiums were lower for beneficiaries enrolled in MA–PDs compared with those enrolled in PDPs, in part reflecting plan sponsors' use of Part C rebate dollars. Among PDP enrollees, individuals in plans with enhanced coverage paid, on average, $24 more per month than those in plans with only basic coverage ($53 vs. $29, respectively). In contrast, beneficiaries enrolled in MA–PDs, on average, paid lower premiums for enhanced coverage than for basic coverage alone ($17 vs. $22, respectively). Between 2012 and 2016, MA–PD premiums grew at a faster average annual rate than PDP premiums—6.2 percent, compared with 0.9 percent (Table 14-5).

Two other factors affect the premium amount paid by a given enrollee. First, higher income beneficiaries pay a larger share of their Part D benefits; that is, they have a lower federal subsidy. In 2016, nearly 2.6 million Part D enrollees (6 percent) were subject to the income-related premium (Liu 2016). As with the income-related premium for Part B, the higher Part D premiums apply to individuals with an annual adjusted gross income greater than $85,000 and to couples with an adjusted gross income greater than $170,000. A beneficiary whose income exceeds these levels pays an income-related monthly adjustment amount in addition to the Part D premium paid to a plan. In 2017, the adjustment amount ranges from $13.30 to $76.20 per month, depending on income.

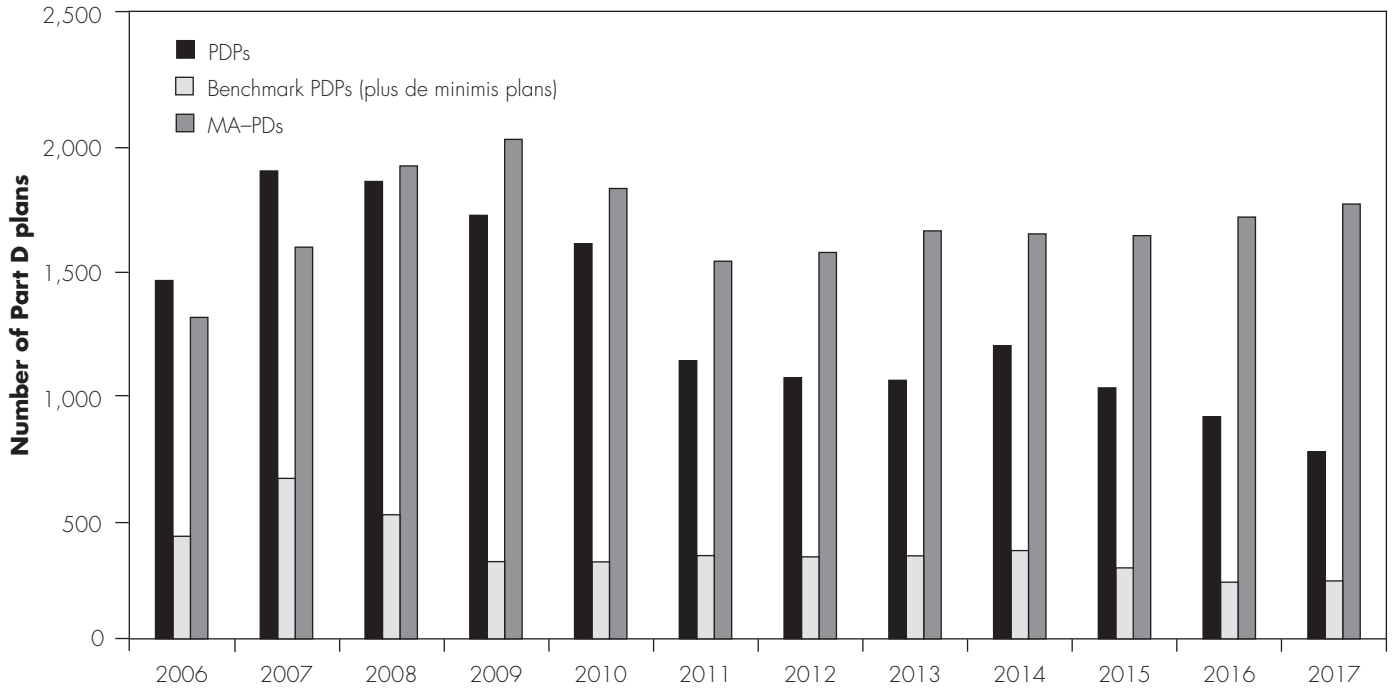
Second, individuals enrolling in Part D outside of their initial enrollment period must have proof that they had drug coverage as generous as the standard benefit under Part D (i.e., creditable coverage) to avoid the late enrollment penalty (LEP). The LEP amount depends on the length of time an individual goes without creditable coverage and is calculated by multiplying 1 percent of the base beneficiary premium times the number of full, uncovered months an individual was eligible but was not enrolled in a Part D plan and went without other creditable coverage.

## Benefit offerings for 2017

Beneficiaries are encouraged to reexamine their plan options each year during an open enrollment period that

**FIGURE 14–3**

**Fewer PDPs in 2017, but still a wide variety of plans available**




Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). "Benchmark PDPs" are plans for which low-income subsidy (LIS) enrollees pay no premium because the plans' premiums are at or below a regional premium threshold. "De minimis plans" are plans that CMS permitted to retain their LIS enrollees because the plan premium was within a certain variance of the regional LIS premium threshold. The figures exclude employer-only plans, plans offered in U.S. territories, 1876 cost plans, special needs plans, demonstrations, and Part B–only plans.

Source: CMS landscape and plan report files, 2006–2017.

runs from October 15 until December 7. In addition to changes in plan availability and premiums, most plans make some changes to their benefit offerings—such as deductible amounts and plan formularies—that can directly affect access to and affordability of medications. We outline notable trends for the 2017 benefit year, including changes in numbers of plans, coverage, premiums, and cost sharing.

### Number of PDPs has declined, but broad choice still available

For 2017, plan sponsors are offering 16 percent fewer PDPs than in 2016, while the number of MA–PDs increased by 3 percent (Figure 14-3). The decline in PDPs is due to consolidations associated with mergers and acquisitions, plan responses to CMS's "meaningful difference" policy intended to differentiate benefit offerings more clearly, and a policy discouraging plans with low enrollment.[12]

Even with fewer PDPs, beneficiaries continue to have broad choice among plans; options range from 18 PDPs in Alaska to 24 PDPs in the Pennsylvania–West Virginia, Alabama–Tennessee, Wisconsin, Idaho–Utah, and California regions, along with MA–PDs in most areas. The number of MA plans available to a beneficiary varies by the county of residence, with an average county having 10 MA plans to choose from (18 plans when weighted by Medicare population). A small number of counties have no MA plans available.

In 2017, PDPs available to LIS enrollees with no premium ("benchmark PDPs") have increased 6 percent from 2016 levels to 231 plans (Figure 14-3).[13] All regions of the country continue to have a number of premium-free PDPs available in 2017, ranging from 3 PDPs in Florida to 10 in Arizona and in the Washington, DC–Delaware–Maryland region.

**TABLE 14–6**

**Change in 2017 premiums for PDPs with high 2016 enrollment**

| Plan name | Enrollment, 2016 (in millions) | Weighted average monthly premium* | | Dollar change | Percentage change |
|---|---|---|---|---|---|
| | | 2016 | 2017 | | |
| SilverScript Choice | 4.2 | $22.78 | $29.12 | $6.34 | 28% |
| AARP MedicareRx Preferred | 3.1 | 60.79 | 71.66 | 10.87 | 18 |
| Humana Walmart | 2.0 | 18.40 | 16.81 | –1.59 | –9 |
| Humana Preferred | 1.8 | 28.36 | 27.32 | –1.04 | –4 |
| AARP MedicareRx Saver Plus | 1.2 | 33.93 | 37.34 | 3.41 | 10 |
| Aetna Medicare Rx Saver | 1.1 | 25.89 | 31.35 | 5.46 | 21 |
| Humana Enhanced | 1.0 | 66.28 | 64.23 | –2.05 | –3 |
| WellCare Classic | 0.9 | 31.71 | 28.96 | –2.75 | –9 |
| First Health Part D Value Plus | 0.8 | 33.85 | 39.27 | 5.42 | 16 |
| Cigna-HealthSpring Rx Secure | 0.7 | 35.95 | 27.86 | –8.09 | –22 |

Note: PDP (prescription drug plan).
*These figures reflect the average of all PDPs offered under the same plan name in each region of the country, weighted by 2016 enrollment.

Source: Hoadley et al. 2016.

About 1.4 million of 12 million LIS enrollees were enrolled in plans during 2016 that have 2017 premiums that are higher than regional benchmarks for 2017 (Hoadley et al. 2016). However, 72 percent of those beneficiaries paid a premium in 2016, meaning they selected a plan rather than accepting Medicare's random assignment to a benchmark plan.[14] Once an LIS enrollee selects a plan, the enrollee is no longer eligible for reassignment. The remaining 28 percent (nearly 0.4 million LIS enrollees) were potentially subject to reassignment. CMS estimates that the agency will randomly reassign fewer than 0.3 million individuals to new plans (Liu 2016).

### Most MA–PDs offer more generous drug coverage than PDPs

The number of MA–PDs grew by 3 percent between 2016 and 2017, and most MA–PD enrollees continue to have more generous coverage than what is typically offered in PDPs—for example, enhanced coverage beyond basic benefits. For 2017, the share of MA–PDs offering enhanced benefits increased to 90 percent compared with 87 percent the year before. Also, between 2016 and 2017, the share of MA–PDs that offer additional benefits in the coverage gap increased from 44 percent to 53 percent. At the same time, however, the share of MA–PDs that charged no deductible decreased from 55 percent to 49 percent. Our analysis of Part C plan bids suggests that, on average, MA–PDs allocated about the same share of Part C rebate dollars for Part D benefits in 2017 as in 2016 (34 percent, or about $30 per enrollee per month, split nearly equally between basic and enhanced benefits).

### Continued differentiation among PDP offerings

With the reduction in numbers of PDPs, plan sponsors continue to consolidate offerings into fewer, but more widely differentiated, products. For 2017, sponsors continue to use alternatives to Part D's defined standard benefit; the market includes no PDPs with the standard benefit design, which was also true in 2016. Between 2016 and 2017, the share of PDPs that charged the defined standard benefit's deductible amount ($400 in 2017) fell from 53 percent to 48 percent, while the share of plans that charged no deductible increased from 33 percent to 38 percent. For 2017, 15 percent of plans use a deductible less than $400. A larger share of PDPs offers additional coverage in the gap: 28 percent in 2017 compared with 22 percent in 2016 (see endnote 9).

### Trends among PDPs with the most enrollment in 2016

Among the most popular stand-alone Part D plans in 2016, half have higher monthly premiums in 2017 and half have lower premiums (Table 14-6). Average premiums for the

10 plans with the highest enrollment ranged from about $17 per month for the Humana Walmart plan to nearly $72 per month for AARP MedicareRx Preferred. Among the five popular PDPs with premium decreases for 2017, the Humana Preferred plan lowered its premium by about $1 per month, while the Cigna-HealthSpring Rx Secure plan's premium was $8 per month lower. The remaining five plans had premium increases that range from over $3 more per month (AARP MedicareRx Saver Plus) to nearly $11 more per month (AARP MedicareRx Preferred).

Although cost-sharing requirements in Part D plans have generally risen over the years, PDPs with the highest enrollment made relatively few changes to cost sharing for 2017. All of the top 10 PDPs (ranked by 2016 enrollment) continue to use a 5-tiered formulary with differential cost sharing between preferred and nonpreferred drugs, as well as a specialty tier for high-cost drugs. The most popular plan, SilverScript Choice, increased its cost sharing while the second most popular PDP, AARP MedicareRx Preferred, kept 2017 cost-sharing requirements the same as in 2016. Other top PDPs had a mixture of cost-sharing increases and decreases.

Over time, many plan sponsors have moved from charging fixed-dollar copayments to coinsurance for certain tiers. All of the top 10 PDPs use coinsurance rather than fixed-dollar copayments for medications on nonpreferred drug tiers, charging 30 percent to 50 percent of each prescription's full price in 2017. By charging enrollees a share of the price of their prescriptions rather than a flat copayment, plan sponsors put more of the risk of price increases for those drugs on beneficiaries.

## Market structure of plan sponsors

Nearly 300 organizations participate in Part D as plan sponsors—private entities that act as both insurers and administrators of Medicare prescription drug benefits. The market structure of plan sponsors has changed significantly since Part D began and will likely continue to evolve as organizations position themselves to better manage the use of and spending for high-priced specialty drugs and biologics.

### The role of private plan sponsors

All sponsors must hold valid insurance licenses in the states in which they operate, and they must carry out functions such as marketing, enrollment, customer support, claims processing, coverage determinations, and the appeals and grievances processes. Sponsors must also carry out other specialized functions of pharmacy benefit managers (PBMs), using either in-house organizations or a commercial PBM under contract. These functions include:

- developing and maintaining formularies—lists of drugs the plan covers and the terms and cost-sharing amounts under which it covers them;
- negotiating rebates—payments from drug manufacturers; and
- setting up pharmacy networks and negotiating contracts on prices the sponsor will pay pharmacies for prescriptions filled, dispensing fees, discount agreements, and any performance-based fees.

Rebates from pharmaceutical manufacturers and price discounts and fees from pharmacies are key factors affecting plan sponsors' net costs for enrollees' Part D benefits. Sponsors and PBMs generally use rebates and pharmacy fees to offset plans' benefit spending (reducing plan premiums and lowering copayments or increasing profits) rather than lower enrollees' prescription prices at the pharmacy (gross or list prices). By law, the Medicare program is prohibited from becoming involved in negotiations among plan sponsors, drug manufacturers, and pharmacies.

### Concentrated enrollment

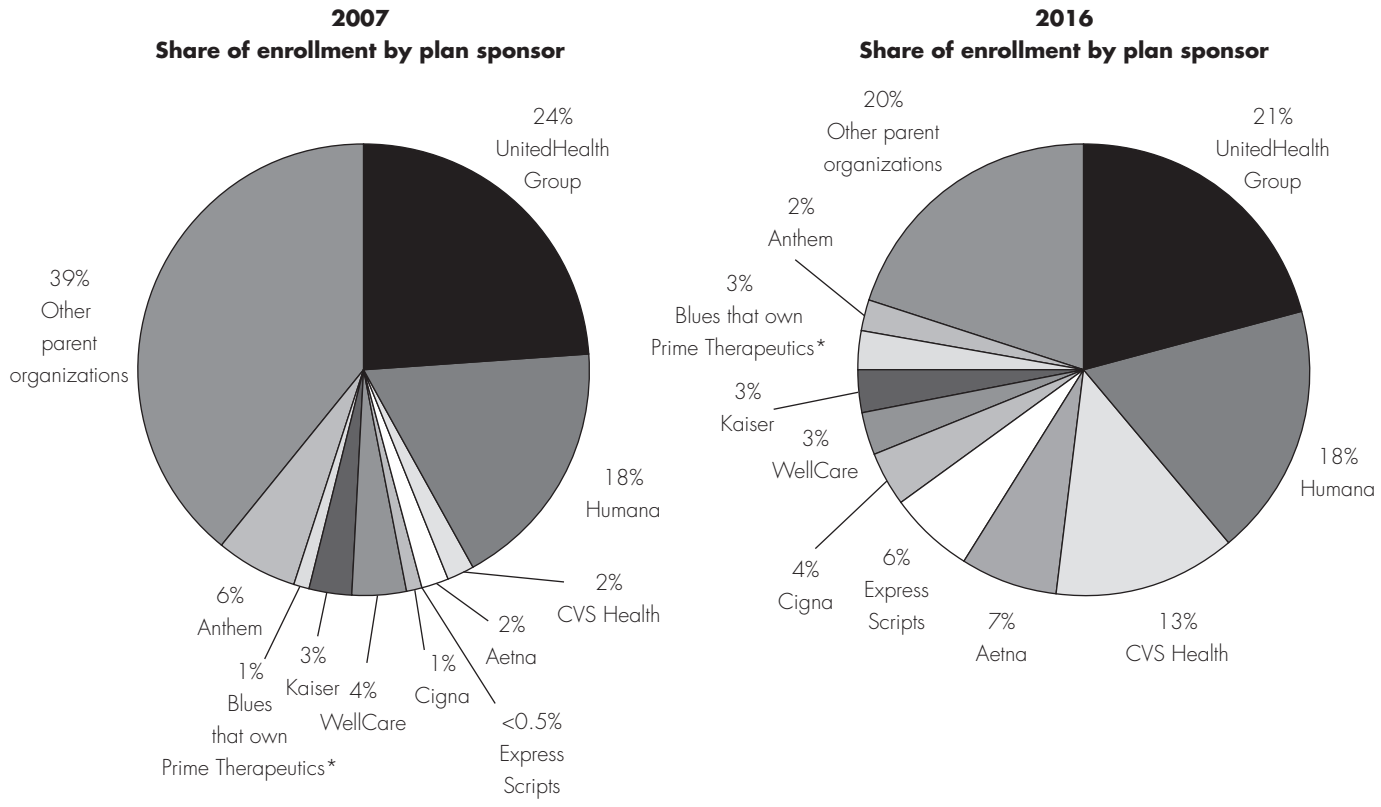
Having large numbers of enrollees is the central means by which plan sponsors and their PBMs can exert greater bargaining leverage with drug manufacturers and pharmacies. Covering a large number of beneficiaries can also lead to economies of scale that help lower costs of delivering and dispensing prescription benefits.

A small number of large organizations offer stand-alone PDPs in each of the 34 Part D regions across the country, with millions of enrollees. More sponsors offer MA–PDs than PDPs, and MA–PD sponsors vary in size, with the smallest plans operating only in one or a few counties with fewer than 100 enrollees.

Since the start of Part D, enrollment has become more concentrated. In 2016, the top 9 insurers (those with 900,000 or more Part D enrollees) plus a group of 14 Blue Cross and Blue Shield companies that collectively own their own PBM (Prime Therapeutics) together sponsored

**FIGURE 14–4**

**A number of plan sponsors have gained Part D market share over time**




Note: Market shares are based on Part D enrollment, including both stand-alone prescription drug plans and Medicare Advantage prescription drug plans. Employer group waiver plans are included. Note that, in 2015, Aetna proposed acquiring Humana, and Anthem proposed acquiring Cigna. At the time this report was prepared, the Department of Justice was attempting to block both of these mergers on antitrust grounds, and neither deal had been finalized.
*Prime Therapeutics is a pharmacy benefits manager that in 2016 was owned by and operated on behalf of the following plans: Blue Cross and Blue Shield (BC/BS) of Alabama, BC/BS of Kansas, BC/BS of Minnesota, BC/BS of Nebraska, BC/BS of North Carolina, BC/BS of North Dakota, BC/BS of Rhode Island, BC/BS of Wyoming, Florida Blue, and Health Care Services Corporation. BC/BS of Alabama, BC/BS of North Carolina, and BC/BS of Rhode Island were not owners in 2007, and their enrollment numbers are included in "Other parent organizations" rather than "Blues that own Prime Therapeutics" for that year.

Source: MedPAC based on enrollment data from CMS.

plans that accounted for 80 percent of Part D enrollment (Figure 14-4). By comparison, in 2007, those same insurers had a combined 61 percent of enrollment.

The two largest plan sponsors have accounted for nearly 40 percent of the Part D market each year. In 2016, UnitedHealth Group, offering plans under the AARP brand as well as other plan names, had 8.7 million enrollees (21 percent of Part D enrollment). Humana, which offers a PDP with retailer Walmart as well as many other plans, had combined enrollment of 7.6 million beneficiaries, or 18 percent.

Other plan sponsors have expanded their shares of the Part D market through mergers and acquisitions (Hoadley et al. 2014). One example is CVS Health, which between 2007 and 2016 saw its market share grow from 2 percent to 13 percent following a series of acquisitions.[15] Likewise, during that period, Aetna expanded from a 2 percent to 7 percent share of the Part D market after acquiring Coventry Health Care. In 2007, Express Scripts' market share was less than half of one percent of total Part D enrollment, but the company merged with the PBM Medco in 2012 and reached a 6 percent share by 2016. Two proposed mergers between four of the nation's largest insurers may concentrate Part D enrollment further. In 2015, Aetna struck a deal to acquire Humana, and separately Anthem proposed to buy Cigna (Bray and Abelson 2015, Herman 2015, Teichert 2016). At the time

**TABLE 14–7**

**Distribution of Part D enrollment for the largest plan sponsors, 2016**

| Parent organization | Enrollment (in millions) | | Share of enrollment with LIS | Share of enrollment in: | | |
|---|---|---|---|---|---|---|
| | Total | With LIS | | PDPs | MA–PDs | Employer group plans |
| UnitedHealth Group | 8.7 | 2.2 | 26% | 60% | 40% | 10% |
| Humana | 7.6 | 2.0 | 26 | 72 | 38 | 3 |
| CVS Health | 5.3 | 2.3 | 44 | 100 | 0 | 22 |
| Aetna | 2.9 | 1.0 | 35 | 67 | 33 | 9 |
| Express Scripts | 2.7 | 0.4 | 14 | 100 | 0 | 80 |
| Cigna | 1.6 | 0.9 | 52 | 67 | 33 | 4 |
| WellCare | 1.4 | 0.9 | 64 | 76 | 24 | 0 |
| Kaiser Permanente | 1.3 | 0.2 | 12 | 0 | 100 | 34 |
| Blues that own Prime Therapeutics* | 1.3 | 0.2 | 24 | 35 | 65 | 5 |
| Anthem | 0.9 | 0.1 | 10 | 65 | 35 | 7 |
| Subtotal | 33.8 | 10.2 | 30 | 69 | 31 | 16 |
| Total for all Part D | 41.0 | 12.0 | 29 | 60 | 40 | 16 |

Note: LIS (low-income subsidy), PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). Components may not sum to stated totals due to rounding.
*Prime Therapeutics is a pharmacy benefits manager that in 2016 was owned by and operated on behalf of the following plans: Blue Cross and Blue Shield (BC/BS) of Alabama, BC/BS of Kansas, BC/BS of Minnesota, BC/BS of Nebraska, BC/BS of North Carolina, BC/BS of North Dakota, BC/BS of Rhode Island, BC/BS of Wyoming, Florida Blue, and Health Care Services Corporation.

Source: MedPAC based on enrollment data from CMS.

this report was prepared, the Department of Justice was attempting to block both of these mergers on antitrust grounds (Picker 2016).

Enrollment among beneficiaries who receive Part D's LIS is also concentrated. In 2016, CVS Health had more LIS enrollees than any other sponsor: a total of 2.3 million, or 20 percent of Part D LIS enrollees. About 44 percent of enrollees in CVS Health plans received the LIS (Table 14-7). Among the largest Part D plan sponsors, there are two companies (WellCare and Cigna) with more than half of their enrollees receiving the LIS.[16]

Once a sponsor has a sizable number of LIS enrollees, its bid can influence regional benchmarks because the benchmarks are calculated as a regional average premium weighted by LIS enrollment. At the same time, should the sponsor miss a regional benchmark by bidding too high, it would stand to lose potentially sizable numbers of LIS enrollees and market share.

## Differing corporate approaches among plan sponsors

Plan sponsors have a variety of organizational structures that differ in the degree to which each company integrates clinical and health plan services, PBM services, and dispensing. Most of the largest sponsors such as UnitedHealth Group, Humana, Aetna, Cigna, WellCare, and Anthem are insurers whose core business function is to offer commercial and Medicare Advantage health plans with combined medical and pharmacy benefits. However, in the overall market for Part D services, over two-thirds of beneficiaries remain in fee-for-service Medicare. Because stand-alone PDPs remain such an important market opportunity, in addition to MA–PDs, these insurers offer PDPs in many or all regions, and most of their enrollment is in PDPs (Table 14-7). A notable exception is integrated delivery system Kaiser Permanente, which generally does not participate in fee-for-service Medicare and offers only MA–PDs. Most of these top insurers also offer separate

Part D employer group plans, which can take the form of MA–PDs or PDPs.

Some insurers such as UnitedHealth Group and Humana manage all or most of their pharmacy benefits in-house (through PBM subsidiaries OptumRx and Humana Pharmacy Solutions).[17] Similarly, 14 Blue Cross and Blue Shield plans own their own PBM, Prime Therapeutics. A potential advantage of this approach is that analyzing combined data on medical and drug use and spending could help plans evaluate the effectiveness of treatments and integrate patients' care. Others insurers like Aetna, Cigna, and Anthem have, over time, outsourced some PBM functions to companies such as Express Scripts and CVS Health's Caremark to obtain larger rebates from drug manufacturers through the greater negotiating leverage that comes from combined scale. Such arrangements can be complex.[18,19] If pending mergers between Anthem-Cigna and Aetna-Humana proceed, the combined companies will need to decide between expanding their capabilities to manage pharmacy benefits in-house versus the potential benefits of an external PBM's scale.

Other plan sponsors, such as Express Scripts and CVS Health, have core business models that focus primarily on pharmacy benefit management and dispensing. In their capacity as plan sponsors (rather than as PBMs under contract to other Part D sponsors), CVS Health and Express Scripts offer only PDPs (Table 14-7, p. 399). Although similar in this regard, the two plan sponsors have major differences in their organizational structures and approaches.

Express Scripts is considered a "pure" PBM in the sense that it does not own "bricks and mortar" retail drugstores; it focuses on providing PBM services to employers, health plans, and federal and state government programs (Fein 2016f). As a result, Express Scripts' combined book of business makes it the nation's largest PBM and mail pharmacy, with sizable specialty pharmacy and specialty distribution subsidiaries. Home delivery of prescriptions through highly automated "central-fill" pharmacies can be the lowest cost method of dispensing.[20] For this reason, many employers who offer health benefits try to encourage (or require) home delivery of prescriptions. About 80 percent of Express Scripts' Part D enrollees are in employer group PDPs—a much higher share than for other large plan sponsors (Table 14-7, p. 399). Express Scripts is vertically integrated in that it jointly owns Econdisc, a group purchasing organization, with Kroger and Supervalu, to combine their generic purchasing volume (Fein 2014a).

CVS Health operates a similarly large PBM (Caremark) that offers central-fill home delivery, and it runs the nation's largest specialty pharmacy (Fein 2016d). Its approach differs from Express Scripts in that CVS Health also owns a range of dispensing channels: It runs a chain of more than 9,600 retail drugstores and long-term care pharmacy services (Fein 2016f).[21] CVS Health also operates more than 1,100 MinuteClinics and provides home infusion services. Even though home delivery of prescriptions is convenient, many consumers continue to prefer shopping at retail pharmacies. To compete with home delivery, CVS Health has moved toward offering 90-day prescription fills at its chain drugstores for the same copayment as by mail. The company also participates in Red Oak Sourcing, a joint venture with drug wholesaler Cardinal Health that jointly negotiates purchases of generic drugs for both.

## Strategies for controlling growth in plan premiums

Over the past decade, the use of generics has expanded dramatically. However, generic substitution may be reaching a saturation point. More recently, spending for specialty drugs has begun to drive overall growth in drug spending. To keep Part D premiums competitive, plan sponsors try to better manage the use of specialty therapies and direct enrollees toward lower cost sites of dispensing.

Part D law and regulations were designed to ensure that Medicare beneficiaries, with their higher disease burden, have access to medications. At the same time, law and regulations also limit how sponsors may manage their Part D populations compared with how the same companies manage their commercial populations. In its June 2016 report, the Commission recommended ways in which plan sponsors might be given increased flexibility to manage benefits in return for bearing more insurance risk (see text box on the Commission's June 2016 recommendations on p. 389). Sponsors employ several key tools to manage pharmacy benefits, including formulary design, manufacturer rebates, design of pharmacy networks, and use of specialty pharmacies.

### Formulary design

Formularies remain the most important tool for managing drug benefits. Plan sponsors decide which drugs to list on their formulary, which cost-sharing tier is appropriate

for each drug, and whether a drug will be subject to prior authorization or other forms of utilization management. Those decisions, in turn, require that plan sponsors strike a balance between providing access to medications while encouraging enrollees to use preferred therapies and dispensing sites. Decisions about formulary design also affect plan sponsors' bargaining leverage with manufacturers over rebates.

Part D regulations limit how plan sponsors may operate their formularies relative to how the same companies operate their formularies for commercial populations. CMS must approve each plan's formulary to ensure that it would not substantially discourage enrollment by any group of eligible individuals, such as those with certain conditions. For most drug classes, plans must include two distinct drugs that are not therapeutically equivalent or bioequivalent, and plans must include "all or substantially all drugs" in six protected classes.[22] As with commercial plans, Part D plans must allow formulary exceptions—coverage of a nonformulary drug under certain circumstances. However, unlike commercial plans, Part D plans must also allow tiering exceptions—requests for the enrollee to pay lower preferred cost sharing for nonpreferred drugs.

To encourage use of less costly medicines, plans charge lower copayments for preferred generics and brands relative to nonpreferred drugs. Over time, plans have moved toward using more cost-sharing tiers. In 2007, most enrollees were in plans that used three tiers: for generics, preferred brands, and nonpreferred brand-name drugs. By 2016, 97 percent of PDP enrollees and 76 percent of MA–PD enrollees were in plans with five tiers, including two generic tiers, a preferred brand-name tier, a nonpreferred tier, and a specialty tier (Medicare Payment Advisory Commission 2016a). Specialty tiers carry 25 percent to 33 percent cost sharing, and under Part D rules, enrollees may not request a tiering exception for specialty-tier drugs.[23]

Within the constraints of Part D regulations, plan sponsors have tightened formularies modestly in recent years. Although imperfect measures, the number of drugs listed on a plan's formulary and the use of utilization management could provide measures of the breadth of plans' coverage.[24] Between 2016 and 2017, the number of drugs in CMS's formulary reference file, which is used as a denominator to calculate the share of all distinct chemical entities listed on plan formularies, has increased by about 5 percent.[25] At the same time, most of the largest PDPs reduced the share of formulary reference file drugs listed on their formularies by 2 percentage points to 5 percentage points.

Similarly, the use of utilization management tools in Part D—including quantity limits, step therapy, and prior authorization—has grown over the years. Sponsors use such tools for drugs that are expensive; potentially risky; or subject to abuse, misuse, and experimental use. These tools are also used to encourage the use of lower cost therapies. For 2017, many of the most popular PDPs increased the share of drugs subject to utilization management by 1 percentage point to 5 percentage points.

Part D plans with a high share of LIS enrollees face a different challenge with respect to designing their formularies. The maximum amounts of cost sharing that LIS enrollees pay out of pocket are set in law, and Part D plan sponsors cannot vary those amounts. In 2017, most LIS enrollees pay nominal cost-sharing amounts, face no coverage gap, and have no cost sharing above the OOP threshold.

Because sponsors cannot change LIS copayments, sponsors of plans with higher shares of LIS enrollees could be expected to manage drug spending through tighter formularies. While that strategy is used to an extent, a recent CMS analysis does not find large differences between formularies of benchmark PDPs—those with premiums at or below regional LIS benchmark amounts—and formularies of other PDPs (Centers for Medicare & Medicaid Services 2016g). On average, benchmark PDPs listed a 2 percentage point smaller share of unique drugs than other PDPs (Table 14-8, p. 402). Between 2013 and 2016, the average share of drugs listed on each plan's formulary declined by about 4 percentage points for both benchmark and other PDPs. The average share of formulary drugs that were brand-name drugs was slightly smaller for benchmark PDPs, but this difference decreased over time. The average share of formulary drugs subject to prior authorization, step therapy, or quantity limits has been consistently similar between benchmark and other PDPs.

### Manufacturer rebates

In classes that have competing drug therapies, sponsors and their PBMs negotiate with manufacturers for rebates that are paid after a prescription has been filled. Individual negotiations can vary, but producers of brand-name drugs with no therapeutic substitutes and manufacturers of generic drugs typically do not provide rebates. In 2014,

**TABLE 14–8**

**Formularies of benchmark PDPs, which qualify as premium free to LIS enrollees, are similar to those of other PDPs, 2013—2016**

| | Average share | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 2013 PDPs | | 2014 PDPs | | 2015 PDPs | | 2016 PDPs | |
| | Benchmark | Other | Benchmark | Other | Benchmark | Other | Benchmark | Other |
| Drugs on formulary | 80% | 82% | 80% | 83% | 78% | 80% | 76% | 78% |
| Formulary drugs that are: | | | | | | | | |
| Brand name | 39 | 42 | 38 | 41 | 36 | 39 | 37 | 38 |
| Subject to prior authorization | 16 | 15 | 16 | 16 | 19 | 19 | 21 | 21 |
| Subject to step therapy | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 |
| Subject to quantity limits | 21 | 21 | 20 | 21 | 22 | 23 | 22 | 22 |

Note: PDP (prescription drug plan), LIS (low-income subsidy). Percentages shown are based on counts of unique drugs on Part D's formulary reference file and are not weighted by plan enrollment. Benchmark plans are those that qualify as premium free to LIS enrollees because the plan's premium is at or below a regional threshold amount.

Source: Centers for Medicare & Medicaid Services 2016g.

gross sales of brand-name drugs in Part D totaled $93.0 billion, and manufacturers rebated $16.3 billion (17.5 percent) to PBMs and plan sponsors (Centers for Medicare & Medicaid Services 2016a).

Generally, manufacturers pay larger rebates when plan sponsors position a drug on their formulary in ways that increase the likelihood that the manufacturer will win market share over competing therapies. For example, a manufacturer might pay a rebate for placing the product on a plan's formulary (versus excluding the drug), but somewhat larger rebates for putting the drug on a preferred cost-sharing tier or for not applying utilization management requirements such as prior authorization. Data on manufacturers' individual rebate amounts are highly proprietary.

The share of gross price rebated to PBMs and payers can be quite high when there are close substitutes within a drug class. For example, across all payers for Sanofi's insulin product Lantus, the implied rebate—the share of gross drug sales offset by rebates and other discounts—grew from around 10 percent in 2009 to nearly 60 percent by the second quarter of 2016 (*Indianapolis Business Journal* 2016). Also in Part D, average rebates and discounts negotiated by plan sponsors for brand-name drugs tended to be higher for antiulcer medications (e.g., proton pump inhibitors) and cholesterol-lowering medications (e.g., statins) and lower in classes where generic versions are available but branded medicines remain widely used, such as beta blockers and thyroid medication (QuintilesIMS Institute 2016). The extent to which rebates and discounts offset price increases varies across manufacturers, driven primarily by the mix of products in their portfolios and the competitive pressures they face (Credit Suisse 2015).

In recent years, plan sponsors have negotiated additional "price-protection rebates." Under these agreements, if a drug's list price increases above a specified threshold, the manufacturer rebates any incremental increase above the threshold to the plan sponsor (Kaczmarek 2015, Pharmacy Benefit Management Institute 2016). Plan sponsors negotiated these types of rebates because manufacturers' midyear increases in list prices made it difficult for sponsors to manage benefit costs. However, because sponsors with this type of rebate are now protected from price inflation, they are also more sanguine about manufacturers' increases in list prices. Enrollees who pay coinsurance are not protected from price increases because their coinsurance rate applies to the drug's list price. Similarly, to the extent that Medicare pays coinsurance on behalf of LIS enrollees, Part D's low-income cost-sharing subsidy does not benefit from price-protection rebates.

CMS refers to manufacturer rebates, pharmacy fees, and other such payments that offset benefit costs collectively as direct and indirect remuneration (DIR). Plan sponsors must submit DIR data to CMS for purposes of reconciling Medicare's prospective reinsurance payments to plans and for calculating risk-corridor payments between Medicare and plans (see the Commission's June 2016 report for a discussion of risk-corridor payments (Medicare Payment Advisory Commission 2016c)).

The aggregate amount of rebate payments in Part D has been growing. Using plan sponsors' assumptions about rebates from their 2016 bids, the Medicare Trustees estimated that Part D DIR—made up predominantly of manufacturers' rebates—amounted to 20.6 percent of total drug costs (averaged across all drugs, including those for which plans do not receive any rebates) (Boards of Trustees 2016). This amount is a significant increase from DIR of about 9.6 percent in 2007, and even from 2015, when "the intensified competition in the hepatitis C drug market" resulted in higher DIR (17.2 percent) than expected (Boards of Trustees 2016, Boards of Trustees 2015).

In theory, plan sponsors could apply manufacturer rebates in one of two ways. They could:

- reduce the price of the prescription that generated the rebate at the point of sale or
- offset aggregate benefit costs with the aggregate amount of rebate payments.

Under the first approach, enrollees who use drugs for which a rebate is negotiated would benefit from the price discount. Under the second approach, the aggregate amount of rebate payments would be used to lower the plan's premium for all enrollees. The first approach is not always practical if, for example, the amount of rebate payments is determined retroactively based on performance goals for the pharmacy or the magnitude of price increases. In addition, plans and their PBMs overwhelmingly use the second approach because beneficiaries evaluate premiums closely when comparing Part D plans, and premiums are the basis on which plans qualify as premium free to LIS enrollees. This approach is a key reason average premiums in Part D have grown very slowly, even as spending for catastrophic benefits has grown rapidly.

Recently, the issue of rebates in drug pricing has garnered attention primarily because of its implications for beneficiary cost sharing.[26] When Part D enrollees pay a percentage coinsurance rather than fixed-dollar copayments, their cost-sharing amount is based on their drug's undiscounted list price (i.e., it does not reflect rebates). For this reason, enrollees accumulate enough spending to reach Part D's coverage gap and OOP threshold more quickly than they would otherwise. Coinsurance can be especially burdensome for beneficiaries who require high-priced specialty drugs or medications such as insulin, to which adherence is especially critical for managing their condition.

The way in which plan sponsors apply rebates to aggregate benefits affects Medicare program spending in different ways. Using rebates to reduce plan premiums lowers Medicare program spending because (1) Medicare retains a portion of aggregate rebates to offset a share of program payments for individual reinsurance and (2) Medicare subsidizes a portion of plan premiums for all enrollees, and rebates lower those subsidies. However, an offsetting effect is that a higher proportion of enrollees reach Part D's OOP threshold—the point at which Medicare pays for 80 percent of benefits. Recently, one actuarial firm pointed out that Part D's unique benefit design, Medicare's reinsurance payments, and plan sponsors' focus on premium competition may affect plan incentives regarding their formulary decisions (see text box on incentives to list high-price, high-rebate drugs on formulary, pp. 404–405).

### Pharmacy networks

In addition to formulary structure and rebates, health plans and PBMs manage drug spending by encouraging enrollees to use pharmacies that dispense prescriptions at lower cost. For their non-Medicare business, health plans use a variety of approaches, depending on how tightly a payer wants to control spending. For example, some employers require enrollees to fill prescriptions within an exclusive network of retail pharmacies; some require enrollees who take certain maintenance medicines for chronic conditions to refill prescriptions by mail rather than through retail pharmacies; and some encourage enrollees to fill their prescriptions with a larger days' supply by paying lower cost sharing for a 90-day supply compared with three 30-day fills.

Part D law and CMS guidance limit plan sponsors from using some dispensing approaches. For example, Part D plan sponsors can offer but not require enrollees to use home delivery. CMS guidance states that if a sponsor includes a mail-order pharmacy within its network, the

## Incentives to list high-price, high-rebate drugs on formulary

A recent analysis suggests that sponsors may in some cases prefer drugs with high prices at the point of sale (list prices) and large postsale rebates to medications with lower point-of-sale prices (Barnhart and Gomberg 2016). That is, sponsors' decisions to place certain higher priced drugs on their formularies may be a rational response to the financial incentives they face. The incentives arise because in Part D, sizable portions of the benefit are not paid by the plan. For example, in the coverage gap, enrollees and manufacturers pay for most of the prescription costs, even after 2020 when the coverage gap is scheduled to close.[27] Above the out-of-pocket (OOP) threshold, Medicare reinsurance pays for 80 percent of covered benefits. A further reason is that for purposes of reconciling Medicare's payments to plans, CMS requires plans to allocate a portion of rebate dollars to Medicare reinsurance based on how much of each plan's gross spending was above Part D's OOP threshold (Centers for Medicare & Medicaid Services 2011b). Plans must use this approach even if rebates are generated from drugs that are more likely to cause the beneficiary to reach the OOP threshold. If most of the plan's overall spending falls below the threshold but rebates were largely attributable to drugs that put beneficiaries above the threshold, CMS guidance leads sponsors to offset benefit costs (and reduce plan premiums) using a disproportionate share of rebates and pharmacy fees.

To illustrate, consider a beneficiary who takes just one prescription drug. In this hypothetical situation, we consider only the plan sponsor's financial incentives and assume that the drugs being compared are close therapeutic substitutes. In its negotiations with drug manufacturers, the plan has a choice of putting on its formulary either a brand-name drug that has a list price of $1,000 per month ($12,000 annually) with a 25 percent rebate or a generic drug at $250 per month ($3,000 annually) but with no rebate (Table 14-9, Example 1). The beneficiary's cost sharing would be lower with the generic drug. It would appear initially that between the two alternatives, the plan sponsor would also find it more desirable to put the generic drug on its formulary. However, after offsetting plan costs with manufacturer rebates and pharmacy discounts and fees, and after deducting Medicare's individual reinsurance payments to the plan, the sponsor's net liability would be lower with the high-price, high-rebate brand-name drug ($1,313) than with the generic ($1,950).[28]

The Commission's June 2016 recommendation to change how Medicare's overall subsidy of Part D is composed would remedy these financial incentives (see text box on the Commission's June 2016 recommendations, p. 389). Table 14-9 shows the net effects if Medicare paid for 20 percent of catastrophic costs through reinsurance rather than the current 80 percent. (Under the Commission's recommendations, Medicare would simultaneously increase plans' monthly capitated payments to keep Medicare's overall subsidy at 74.5 percent. CMS would also need to recalibrate its Part D risk adjustment system for the higher capitated payments.) From a sponsor's perspective, including the generic drug on its formulary would lower plan costs relative to the higher priced brand-name drug. That selection would also reduce beneficiary cost sharing ($1,050, rather than $3,089 for the brand-name drug).

Table 14-9 shows a similar comparison for a plan sponsor negotiating with drug manufacturers between including a brand-name drug with a list price of $60,000 with a 25 percent rebate on its formulary compared with a $30,000 drug that is also offered with a 25 percent rebate. In this scenario, the rebate and reinsurance amounts are so large that the sponsor could actually reduce its plan liability (and help lower its premiums or increase profits) by placing the more expensive drug on its formulary: a net liability of –$287 (i.e., savings), compared with a net cost of $713 for the medicine with the lower price. The table's "net effect" shows that if Medicare's reinsurance were reduced to 20 percent from the current 80 percent, the sponsor would face much higher costs if it placed the more expensive brand on its formulary (net plan liability of $28,010 compared with $12,510). By selecting the lower priced medicine, beneficiaries who use that drug would also experience lower cost sharing ($3,989 rather than $5,489). ■

## Incentives to list high-price, high-rebate drugs on formulary (cont.)

**TABLE 14–9**

**Examples of how plan sponsors may have incentives to include certain drugs with high list prices and high rebates on their formularies**

| Spending for a beneficiary who takes one prescription drug | Example 1: Brand versus generic | | Example 2: Brand versus brand | |
|---|---|---|---|---|
| | Brand with list price of $12,000, 25% rebate | Generic with list price of $3,000, no rebate | Brand with list price of $60,000, 25% rebate | Brand with list price of $30,000, 25% rebate |
| **Gross drug spending** | | | | |
| Beneficiary cost sharing | $3,089 | $1,050 | $5,489 | $3,989 |
| Coverage gap discount | 2,069 | 0 | 2,069 | 2,069 |
| Covered benefits | 6,842 | 1,950 | 52,442 | 23,942 |
| Subtotal | 12,000 | 3,000 | 60,000 | 30,000 |
| **Allocation of rebates and fees assuming 80% reinsurance*** | | | | |
| Medicare reinsurance (at 80%) | 800 | 0 | 4,000 | 2,000 |
| Plan liability | 2,200 | 0 | 11,000 | 5,500 |
| Subtotal | 3,000 | 0 | 15,000 | 7,500 |
| **Net effect** | | | | |
| Beneficiary cost sharing | 3,089 | 1,050 | 5,489 | 3,989 |
| Medicare reinsurance after rebates | 2,529 | 0 | 37,729 | 15,729 |
| Plan liability after rebates and reinsurance | 1,313 | 1,950 | –287 | 713 |
| **Allocation of rebates and fees assuming 20% reinsurance*** | | | | |
| Medicare reinsurance (at 20%) | 200 | 0 | 1,000 | 500 |
| Plan liability | 2,800 | 0 | 14,000 | 7,000 |
| Subtotal | 3,000 | 0 | 15,000 | 7,500 |
| **Net effect** | | | | |
| Beneficiary cost sharing | 3,089 | 1,050 | 5,489 | 3,989 |
| Medicare reinsurance after rebates | 632 | 0 | 9,432 | 3,932 |
| Plan liability after rebates and reinsurance | 3,210 | 1,950 | 28,010 | 12,510 |

Note: Both examples estimate financial effects using Part D's defined standard benefit for 2017.
*Medicare reduces its reinsurance payments to plans by a portion of the rebates and fees plan sponsors receive from manufacturers and pharmacies. CMS first calculates the share of each plan's gross covered spending that occurred above Part D's out-of-pocket (OOP) threshold. In these examples, we assume one-third of the plan's gross covered spending was above the cap. Medicare's share of the rebates and fees is calculated as the reinsurance rate (80 percent in the top panels, 20 percent in the lower panels) multiplied by the rebate amount multiplied by the percentage of gross spending above the OOP threshold. An individual's gross covered spending at the OOP threshold depends on the mix of brand-name and generic prescriptions they fill in the coverage gap. In Example 1, if the beneficiary takes the generic rather than the brand-name drug, he or she would not receive any coverage-gap discount and would not reach the OOP threshold. These examples do not display effects on enrollees' and Medicare's payments for premiums. However, in the Commission's June 2016 recommendations for Part D, Medicare would increase capitated monthly payments to plans at the same time that it reduced reinsurance to maintain an overall subsidy of 74.5 percent.

Source: MedPAC analysis.

plan must also permit enrollees to receive similar benefits (such as an extended 90-day supply) through a network retail pharmacy.[29] Economies of scale at mail pharmacies are large, so encouraging beneficiaries to receive their prescriptions through home delivery could help to lower dispensing costs. However, few Part D enrollees take advantage of home delivery options: In 2014, about 5 percent of Part D prescriptions were filled by mail pharmacies.

Most notably, Part D law requires that plan sponsors permit within their networks any pharmacy that is willing to accept the sponsors' terms and conditions.[30] In other words, plan sponsors cannot use exclusive pharmacy contracts. However, sponsors can designate a subset of network pharmacies that offer preferred (lower) cost sharing. The strategy of designating certain "preferred cost-sharing pharmacies" (subsequently referred to as preferred pharmacies) has the potential to lower costs for Medicare and enrollees if it encourages enrollees to fill prescriptions at more efficient pharmacies. Differences between cost sharing at preferred pharmacies and other network pharmacies can vary substantially among plans, with some plans providing much stronger incentives to use preferred pharmacies than others (Medicare Payment Advisory Commission 2016d).

Humana was the first Part D plan sponsor to use a tiered pharmacy network when it introduced a PDP cobranded with Walmart for 2011. Subsequently, most other large plan sponsors adopted the same strategy. Between 2011 and 2017, use of tiered pharmacy networks in Part D grew from about 7 percent of PDPs to 85 percent (Fein 2016c). Among the top 10 PDPs with the highest enrollment in 2016, all but 2 (SilverScript Choice and WellCare Classic) use tiered pharmacy networks in 2017.

For 2017, some pharmacies seem less willing to participate as preferred pharmacies than in 2016. Despite intense competition for pharmacy business, retail pharmacy chains CVS and Rite Aid signed up as preferred pharmacies for relatively few PDPs (Fein 2016e). Smaller independent pharmacies participate in pharmacy services administration organizations (PSAOs) to combine their leverage when negotiating with plan sponsors for network contracts. The four largest PSAOs account for about three-quarters of all independent retail pharmacy locations (Fein 2016e). Although independent pharmacies represented by these PSAOs are participating in some Part D plans as preferred pharmacies in 2017, they were preferred in only 1 of the 10 most popular plans in 2016. In contrast, Walgreens and Walmart are major chains that participate as preferred pharmacies with a variety of plan sponsors in 2017.

A key reason for lower participation by some pharmacies may be postsale fees they pay to plan sponsors to obtain preferred status in tiered networks (Fein 2016e). When setting up networks, plan sponsors negotiate additional price concessions and incentive payments, called "pharmacy DIR fees" since they must be reported to CMS as "other direct and indirect remuneration." According to independent pharmacies, pharmacy DIR fees have grown steadily in recent years (National Community Pharmacists Association 2016a). CMS reports that in 2014, Part D DIR totaled $17.4 billion and, of that amount, manufacturer rebates made up $16.3 billion (Centers for Medicare & Medicaid Services 2017a, Centers for Medicare & Medicaid Services 2016a). The difference in amounts suggests that pharmacy DIR fees could have been on the order of $1 billion in 2014. By not participating as a preferred pharmacy in a Part D plan's tiered network, pharmacies can avoid the fees, but they may also lose prescription volume associated with customers who shop for lower prescription cost sharing (Fein 2016a).

As with rebates from drug manufacturers, DIR fees are collected after the point of sale. DIR fees can include amounts that are a condition for participating as a preferred cost-sharing pharmacy; "true-up" payments related to drug reimbursement rates; and performance fees that are assessed on quality measures, such as rates of dispensing generics and preferred drugs, or adherence measures (Fein 2016a, National Community Pharmacists Association 2016a). Critics contend that the way in which plan sponsors and their PBMs calculate pharmacy DIR fees is not transparent (National Community Pharmacists Association 2016c). Moreover, they believe that plan sponsors tend to ignore or understate DIR fees when preparing Part D bids, leading to enrollee premiums that are too high (National Community Pharmacists Association 2016b). PBMs and sponsors that support the use of pharmacy DIR fees counter that they are a means by which to encourage greater use of generics and reduce enrollees' premiums and OOP spending (Holtz-Eakin 2014). To the extent that beneficiaries select plans with tiered networks and use preferred pharmacies that are more efficient, the approach may also lower Medicare spending (Kaczmarek et al. 2013).

Tiered networks have been controversial because of past concerns that some enrollees do not have adequate access to preferred pharmacies with lower cost sharing. Because

Part D pays for most or all of LIS enrollees' cost sharing, if LIS enrollees have less opportunity to use preferred pharmacy networks, the strategy could also lead to higher Medicare spending. Out of these concerns, CMS guidance directs that plans are permitted to offer lower cost sharing at preferred pharmacies only if the approach does not raise Medicare payments (Centers for Medicare & Medicaid Services 2015b, Centers for Medicare & Medicaid Services 2014d).

To participate in Part D, plan sponsors must set up pharmacy networks that meet convenient access standards.[31] Access standards apply to a plan's entire network rather than to its preferred network. Among plans offered in 2015, CMS found that on average, enrollees living in urban (rather than rural) areas were less likely to have convenient access to preferred pharmacies that offered lower cost sharing (Centers for Medicare & Medicaid Services 2015a, Centers for Medicare & Medicaid Services 2014a). That result may reflect fewer "big-box" retailers with pharmacies in urban centers. For plans with particularly low access, CMS began requiring that marketing materials disclose that information, among other measures. For the 2016 benefit year, CMS found that access to preferred pharmacies had increased dramatically (Centers for Medicare & Medicaid Services 2016e).[32] CMS has not yet released an analysis of sponsors' pharmacy networks for their 2017 plans.

## Specialty pharmacies

Manufacturers of many specialty drugs manage the pharmacy channels permitted to dispense their medications by establishing a limited distribution network of specialty pharmacies (Fein 2016b). Specialty pharmacies largely provide complex therapies to patients with conditions such as cancer, hepatitis C, multiple sclerosis, and HIV/AIDS (National Association of Specialty Pharmacy 2016). Although some offer retail locations, most specialty pharmacies deliver prescriptions to the patient by mail and offer additional support services such as connecting them with patient assistance programs that may reduce their OOP cost sharing.[33] Advocates contend that specialty pharmacies can lead to better patient education and improved adherence and can maintain product integrity and security. Manufacturers also collect data from specialty pharmacies in their limited distribution networks as part of their Risk Evaluation and Mitigation Strategy (REMS) or as a way to help monitor adherence and effectiveness under newer value-based payment contracts.[34]

There are many varieties of specialty pharmacies. Some are owned by PBMs, pharmacy chains, or health plans that, by virtue of representing so many covered lives, may be able to negotiate for sizable rebates from drug manufacturers in drug classes that have competing therapies. The largest specialty pharmacies are owned by CVS Health, Express Scripts, Walgreens Boots Alliance, OptumRx, Diplomat Pharmacy (a publicly traded independent specialty pharmacy), Prime Therapeutics, and Humana (Fein 2016d). Other specialty pharmacies tend to be smaller and specialize in dispensing medicines for a subset of diseases. Some operate regionally. Smaller chain and independent retail pharmacies also dispense specialty drugs that can be purchased through the wholesale channel.

For their commercial business, payers and PBMs typically try to manage specialty costs and patient adherence by setting up a narrower network of specialty pharmacies.[35] Specialty pharmacies can help ensure that patients meet specific clinical criteria through their plans' prior authorization process before dispensing the prescription. They can also reduce waste by, for example, initially dispensing a 7- or 14-day supply and observing the patient for side effects, treatment effectiveness, and adherence before providing a 30-day supply.

In Part D, plan sponsors may not set up a narrower network of specialty pharmacies. With a few exceptions, Part D's convenient access standards apply to the dispensing of all types of drugs, including specialty drugs. Unless dispensing of a drug requires "extraordinary specialty handling, provider coordination, or patient education that cannot be met by a network pharmacy," the sponsor may not restrict access to a subset of network pharmacies (Centers for Medicare & Medicaid Services 2011a). An exception is made if a manufacturer uses a limited distribution network: In this situation, the Part D enrollee would be able to fill that prescription at only one of the designated specialty pharmacies.

If Part D plan sponsors were permitted to use narrower networks of specialty pharmacies, the implications for cost and beneficiary access would depend, in large part, on the nature of pharmacies that participated in the networks. Some businesses labeled as specialty pharmacies have attracted attention to the industry. One example was Philidor Rx Services, affiliated with Valeant Pharmaceuticals, which gained notoriety because it was manufacturer controlled and was used to dispense primarily its owner's products at high prices (Nisen 2015). Recently, PBMs have actively "pruned" specialty

pharmacies from their commercial networks that they believe have especially close ties to drug manufacturers. Smaller independent specialty pharmacies counter that PBMs are trying to divert those prescriptions to their own larger specialty pharmacies (Staton 2015, Thomas 2017).

More representative of the industry are specialty pharmacies that dispense drugs from a variety of manufacturers. However, financial incentives can differ across companies. Some pharmacies may earn relatively more revenue from drug manufacturers (e.g., for monitoring patient adherence or collecting REMS data) and may have weaker incentives to negotiate for lower drug prices. Other firms have incentives more closely tied to payers and PBMs.

As with general retail pharmacies, Part D plan sponsors negotiate agreements with specialty pharmacies that include DIR fees that are typically collected after the prescription has been filled. The growing dollar amounts of those fees, their retrospective nature, and the criteria plan sponsors use for setting performance-based fees have led to strong criticism from independent specialty pharmacies (Blank 2016, Seeking Alpha 2016).[36]

## Drug pricing

The end of the patent cliff (the period around 2012 when sales of brand-name medicines fell dramatically as the drugs lost patent protection) and the diminishing opportunity for new generic savings has coincided with a pipeline shift toward higher cost medications, resulting in aggressive growth in prices. In recent years, a number of biopharmaceutical manufacturers have transformed their research and development strategies toward markets for orphan drugs (special status given to drugs under development to treat rare diseases or conditions) and targeted therapies (EvaluatePharma 2016). The Food and Drug Administration's (FDA's) approvals of innovative medicines in the last few years have included an increasing number of biologics and specialty drugs, with new medicines focused on treatments for a range of cancers, hepatitis C, autoimmune diseases, and heart disease, among others.[37] Many of these new entrants command higher prices than existing therapies and generally have few or no lower cost alternatives. This trend is likely behind the recent growth in spending accounted for by biologics and specialty-tier drugs. Between 2011 and 2014, Part D spending on biologics grew by 31 percent per year, on average. During the same period, specialty-tier drugs, some of which are biologics, grew by 37 percent per year, on average.[38]

Another factor that is likely contributing to the growth in prices is the increasing use of price-protection rebates that may exacerbate the inflationary trend (see section on manufacturer rebates, pp. 401–403). While the arrangement allows more predictability in benefit costs for plan sponsors, that protection could allow manufacturers to increase their prices with less resistance from plan sponsors.

Changes in the market dynamics of the supply and distribution channels are putting upward pressure on prices and rebates, driving the growing divergence between gross (or list) prices and net prices (prices net of rebates and discounts obtained from manufacturers and pharmacies). This phenomenon is not limited to the Part D program. According to the estimates from IMS Health's Institute for Healthcare Informatics, between 2014 and 2015, total spending based on invoice (list) prices grew by 12.2 percent compared with 8.5 percent growth in net prices (IMS Institute for Healthcare Informatics 2016).[39]

The cost of providing the Part D benefit is affected both by prices net of rebates and discounts and by gross (or list) prices paid at the pharmacies. While the former affects plan premiums, the latter affects patient cost sharing and the rate at which patients reach the catastrophic phase of the benefit, where Medicare pays 80 percent of the costs in individual reinsurance. Thus, gross prices paid at the pharmacies are also an important indicator of Part D's costs from beneficiaries' and Medicare's perspectives.

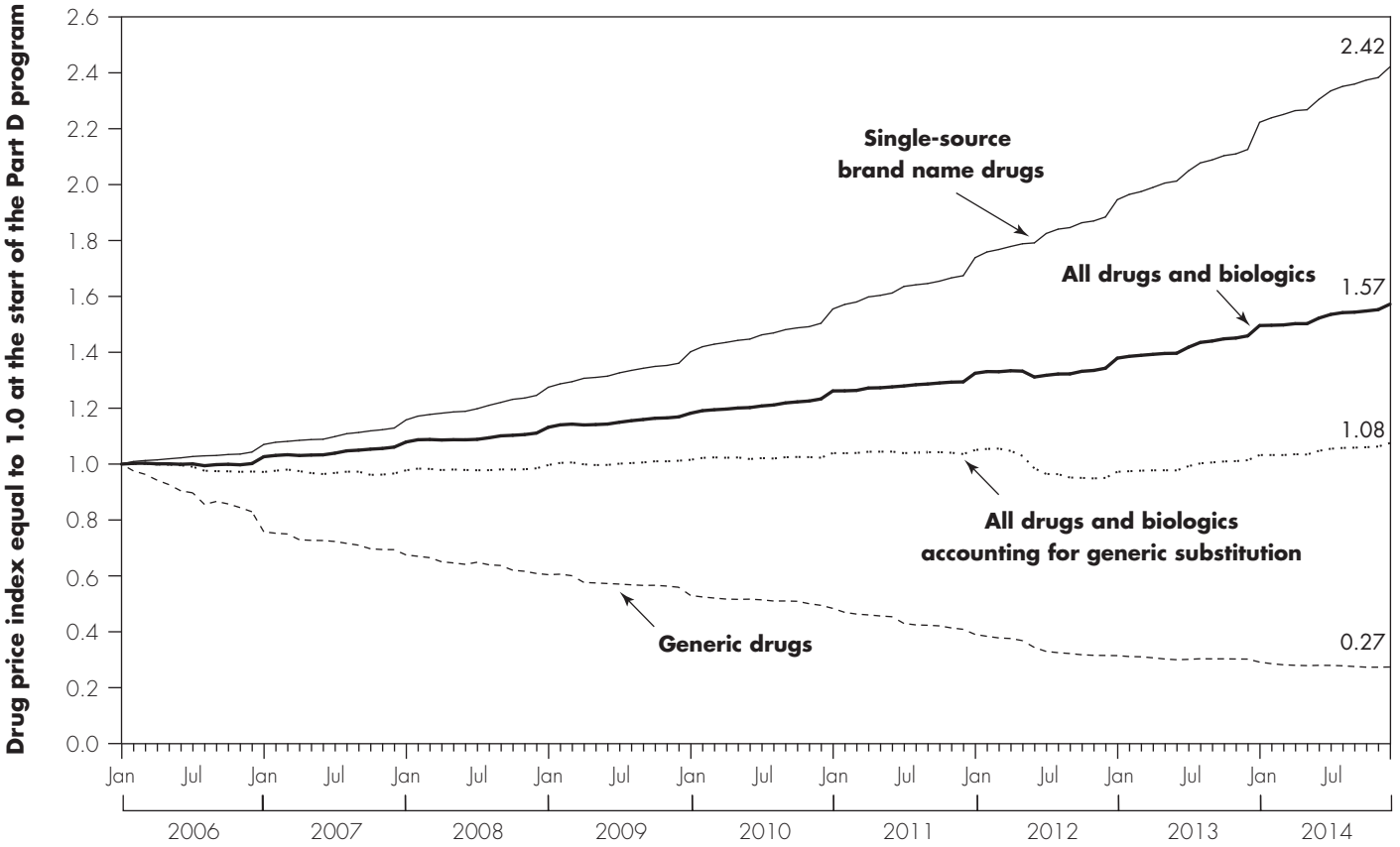
To track gross drug prices paid to pharmacies, the Commission has contracted with Acumen LLC for many years to construct a series of volume-weighted price indexes. The indexes do not reflect retrospective rebates or discounts from manufacturers and pharmacies; they reflect total amounts paid to the pharmacies, including ingredient costs and dispensing fees.

### In 2014, price increases for brand-name drugs overwhelmed the effects of using lower priced generics

Measured by individual national drug codes (NDCs) and excluding manufacturers' rebates, between 2006 and 2014, Part D drug prices rose by an average of 57 percent cumulatively (an index value of 1.57) (Figure 14-5).[40] As measured by a price index that takes the substitution of

**FIGURE 14–5**

**Price increases for brand-name drugs are overwhelming the effects of using lower priced generics**




Note: Chain-weighted Fisher price indexes.

Source: Acumen LLC analysis for MedPAC.

generics for brand-name drugs into account, Part D prices increased by 8 percent cumulatively.[41] The uptick in this price index during 2013 and 2014 is a dramatic shift from prior years when increased generic use had offset the increases in prices of brand-name drugs to keep overall prices stable.

On average, generic drugs have prices that are 75 percent to 90 percent lower than the prices of brand-name drugs, and those prices tend to decline over time (Government Accountability Office 2016). However, in recent years, several analysts have noted that certain generic medications now have high prices or have experienced sharp price increases (Alpern et al. 2014, Fein 2014b, Kesselheim 2014). A number of factors explain price increases for generics, such as drug shortages, disruptions in the supply of drugs, and consolidations among manufacturers of generic drugs (Alpern et al. 2014). Factors associated with decreased market competition can lead to high and rising prices. Overall, the Commission's generic price index decreased at a slower rate between December 2012 and December 2014 (on average, about –7 percent annually) compared with double-digit declines in nearly every year between 2006 and 2012. Still, between 2006 and 2014, prices of generic drugs decreased to 27 percent of the average prices observed at the beginning of 2006 (Figure 14-5).

In comparison, prices of drugs with no generic substitutes (single-source, brand-name drugs) grew by a cumulative 142 percent during the same period. The price increases for brand-name drugs are overwhelming the effects of using lower priced generic drugs, even as the share of

## Generic use has risen but varies across plan types and enrollees

Increased use of generics has played a major role in moderating Part D spending growth. Between 2007 and 2014, the average generic dispensing rate (GDR)—defined as the share of Part D prescriptions dispensed that are generic drugs—increased from 61 percent to 85 percent (Table 14-10). During this period, some of the most popular brand-name drugs lost patent protection, affording more opportunities for generic substitution.

GDRs vary across categories of beneficiaries. For example, Medicare Advantage–Prescription Drug plan (MA–PD) enrollees are more likely to use generics than prescription drug plan (PDP) enrollees. Between 2007 and 2014, the average GDR for MA–PD enrollees consistently exceeded those of PDP enrollees by 4 percentage points to 6 percentage points. The average GDR of low-income subsidy (LIS) enrollees has been consistently lower than that for non-LIS enrollees, and the difference has remained stable at about 4 percentage points to 5 percentage points since 2008.[42]

In both PDPs and MA–PDs, LIS enrollees are less likely than non-LIS enrollees to use generic drugs. For example, among PDP enrollees in 2014, the GDR for LIS enrollees was nearly 3 percentage points below that of non-LIS enrollees. Among MA–PD enrollees in the same year, the GDR for LIS enrollees was more than 5 percentage points lower (data not shown).

Multiple factors likely contribute to the higher or lower GDRs among groups of beneficiaries. For example, differences in health status may limit the opportunity for clinically appropriate therapeutic substitutions for some beneficiaries. There can also be differences in prescribing behavior between physicians who are part of a managed care organization and those who are not. Another factor may be the difference in financial incentives faced by LIS and non-LIS enrollees. Because cost sharing for LIS enrollees is set statutorily, that factor may limit how well plan sponsors can manage drug spending for their LIS enrollees.

One of the Commission's June 2016 recommendations was intended to encourage LIS enrollees to use generics when they are available. Greater use of generics would likely reduce Medicare spending for the LIS. It could also reduce the amount Medicare pays in individual reinsurance since about three-fourths of enrollees who reach the catastrophic phase of the benefit receive the LIS. ■

**TABLE 14–10**

**Generic dispensing rate by plan type and LIS status, 2007–2014**

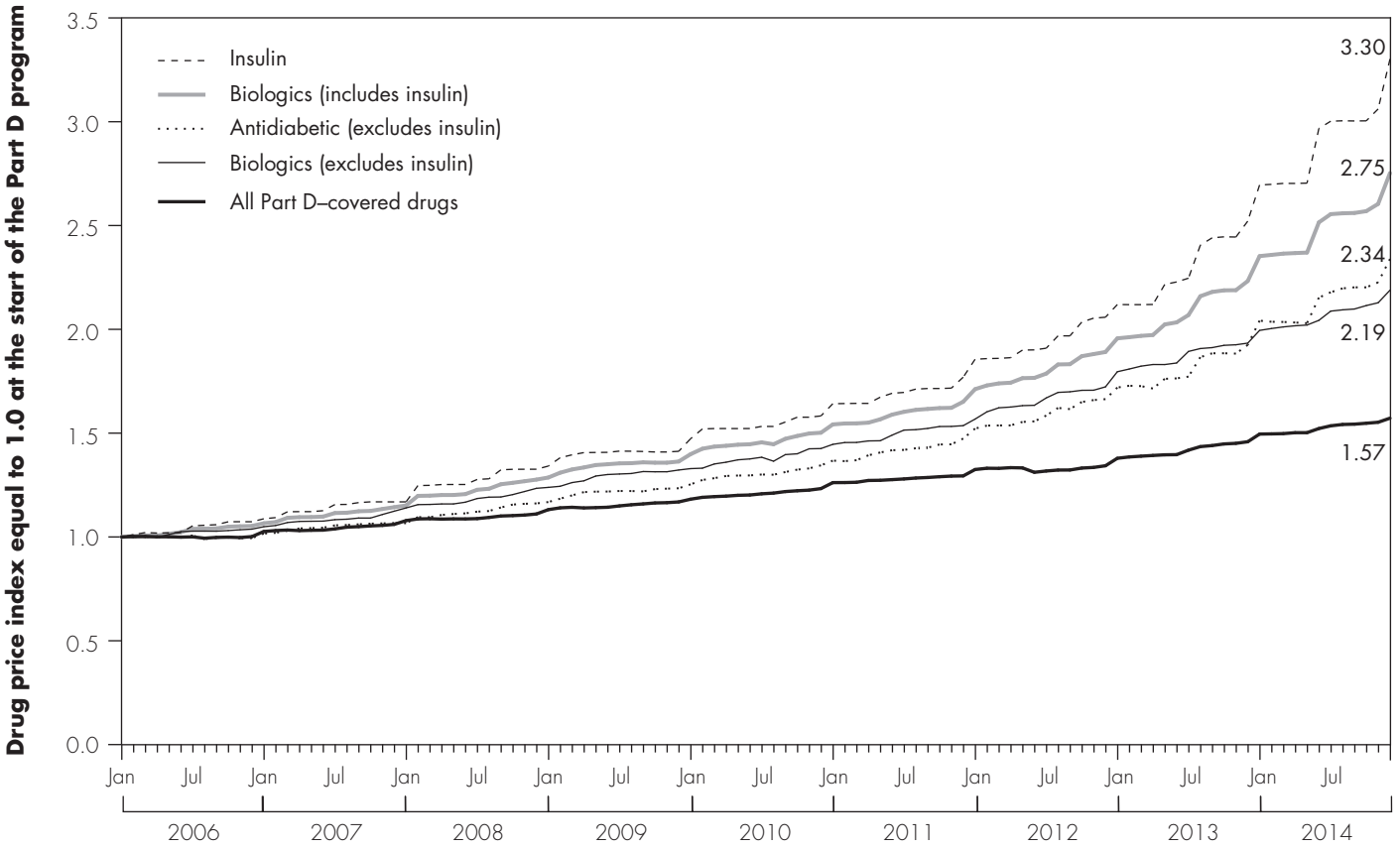
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|
| All Part D | 61% | 67% | 70% | 74% | 77% | 81% | 84% | 85% |
| By plan type | | | | | | | | |
| PDP | 60 | 66 | 69 | 72 | 75 | 80 | 82 | 84 |
| MA–PD | 66 | 71 | 74 | 77 | 80 | 84 | 86 | 88 |
| By LIS status | | | | | | | | |
| LIS | 60 | 65 | 68 | 71 | 74 | 78 | 81 | 83 |
| Non-LIS | 62 | 69 | 72 | 76 | 79 | 83 | 85 | 87 |

Note: LIS (low-income subsidy), PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). Shares are calculated as a percentage of all prescriptions standardized to a 30-day supply. "Generic dispensing rate" is the proportion of Part D prescriptions dispensed that are generic prescriptions.

Source: MedPAC analysis of Medicare Part D prescription drug event data and Part D denominator file from CMS.

**FIGURE 14–6**

**Prices of biologics, including insulin products, have grown aggressively**




Note: Chain-weighted Fisher price indexes.

Source: Acumen LLC analysis for MedPAC.

generic prescriptions continues to rise (see text box on generic use). In 2012, the Part D price index experienced its largest ever decline (8.2 percent) as a result of the so-called "patent cliff." Subsequent changes between 2012 and 2014 suggest a strong uptick in prices of medicines taken by enrollees that more than offset the moderating effects of switching to generic medications.

## Prices of biologics and drugs in certain therapeutic classes have grown more aggressively

Patterns of price growth across classes of drugs suggest that prices for drugs with few or no lower cost generic or biosimilar alternative have grown rapidly. In the last few years, spending for biologics has increased more rapidly than overall (gross) drug spending in Part D. This spending growth has been driven by increases in the average price per biologic dispensed, which reflects both price inflation and the use of a more expensive mix of therapies. Among biologic products covered through Part D, few have follow-on products on the market that compete with them through price. Our price index for biologic products grew between 2006 and 2014 by a cumulative 175 percent (index value of 2.75)—much higher than the 57 percent growth across all drugs and biologics covered under Part D during the same period (Figure 14-6).

Biologics covered under Part D fall into two broad categories. The first group includes older molecules, such as insulin, human growth hormone, and other hormones. These products tend to have larger markets and lower prices than many of the newer biologics. The second

**TABLE 14–11**

**Availability of generics, rather than protected status, is key to slower price growth under Part D**

| Protected classes | Chain-weighted Fisher price index | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | January 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
| All six protected classes | 1.00 | 1.05 | 1.12 | 1.14 | 1.21 | 1.27 | 1.30 | 1.40 | 1.44 |
| Antidepressants | 1.00 | 0.87 | 0.87 | 0.91 | 0.94 | 0.90 | 0.97 | 1.03 | 0.73 |
| Antipsychotics | 1.00 | 1.14 | 1.25 | 1.32 | 1.43 | 1.60 | 1.50 | 1.52 | 1.63 |
| Anticonvulsants | 1.00 | 1.00 | 1.06 | 0.87 | 0.83 | 0.80 | 0.81 | 0.94 | 1.03 |
| Antineoplastics | 1.00 | 1.14 | 1.24 | 1.37 | 1.53 | 1.67 | 1.81 | 2.00 | 2.21 |

Note: Two other drug classes are not shown but also have protected status: antiretrovirals and immunosuppressants for the treatment of transplant rejection. In 2014, 80 percent or more of prescriptions dispensed for antidepressants, antipsychotics, and anticonvulsants were generic.

Source: Acumen LLC analysis for MedPAC.

group includes newer, more complex biologics, such as monoclonal antibodies and other therapeutic proteins that tend to have more limited markets and high launch prices.

Insulin (used for the treatment of diabetes) is the largest therapeutic class of biologics in Part D. During the 2011 to 2014 period, prescriptions for insulin accounted for nearly 90 percent of all prescriptions for biologics, and the share of biologics spending accounted for by insulin grew from 55 percent to 59 percent (data not shown). Our price index for insulin (measured at individual NDCs) for that period more than tripled. This level of growth far exceeds the price index growth observed for other biologics (in December 2014, price index of 2.19 compared with 3.30 for insulin) and for other (noninsulin) antidiabetics (in December 2014, price index of 2.34) (Figure 14-6, p. 411).

In general, plan sponsors have had success at moving enrollees toward generics, which helps to slow the growth in prices, even when a drug has protected status. As measured by individual NDCs, prices for drugs in the six protected classes showed a moderate trend between 2006 and 2014, rising by a cumulative 44 percent (Table 14-11). When protected-class drugs were grouped to take generic substitution into account, their prices fell by a cumulative 13 percent over the nine-year period (data not shown).

These trends are influenced heavily by three classes of drugs: antidepressants, antipsychotics, and anticonvulsant medications, which accounted for over 90 percent of the volume of prescriptions in the six protected classes. In 2014, 80 percent or more of prescriptions dispensed for these three classes of drugs were generic. In the case of anticancer drugs, however, growth in prices for very expensive brand-name medications has driven overall growth in the category. Our price index for antineoplastics (measured at individual NDCs) between 2006 and 2014 grew by more than 120 percent.

While the drugs' protected status does not appear to affect plan sponsors' ability to encourage the use of generics, it may limit the amount of rebates plan sponsors are able to obtain from manufacturers for drugs in these classes. We lack rebate information to test this hypothesis.

## Program costs

Costs of providing Part D benefits are shared by Medicare and the enrollees. Medicare pays plan sponsors three major subsidies on behalf of each of their enrollees:

- ***Direct subsidy***—Medicare pays plans a monthly prospective amount set as a share of the national average bid for Part D basic benefits, adjusted for the risk of the individual enrollee.
- ***Reinsurance***—Medicare reimburses plans for 80 percent of drug spending above an enrollee's annual OOP threshold. Plans receive prospective payments for reinsurance that are reconciled after the end of

**TABLE 14–12**

**Medicare's reimbursement amounts for Part D**

| | 2007 | 2009 | 2011 | 2012 | 2013 | 2014 | 2015 | Average annual growth rate 2007–2015 |
|---|---|---|---|---|---|---|---|---|
| Reimbursement amount (in billions): | | | | | | | | |
| Direct subsidy* | $17.6 | $18.2 | $19.2 | $19.7 | $19.6 | $18.5 | $18.6 | 0.7% |
| Reinsurance | 8.0 | 10.1 | 13.7 | 15.5 | 19.2 | 27.2 | 34.3 | 20.0 |
| Low-income subsidy | 16.7 | 19.6 | 22.2 | 22.5 | 23.2 | 24.3 | 25.8 | 5.6 |
| Retiree drug subsidy | 3.9 | 3.9 | 3.6 | 3.0 | 1.7 | 1.5 | 1.4 | –12.0 |
| Total | 46.2 | 51.8 | 58.7 | 60.7 | 63.7 | 71.5 | 80.1 | 7.1 |
| Enrollee premiums | 4.1 | 6.1 | 7.3 | 7.8 | 9.3 | 10.5 | 11.5 | 13.8 |

Note: Numbers above reflect reconciliation. Components may not sum to stated totals due to rounding.
*Net of risk-sharing payments using Part D's risk corridors.

Source: MedPAC based on Table IV.B10 of the 2016 annual report of the Boards of Trustees of the Medicare trust funds.

the benefit year to reflect actual spending for each enrollee that reached the OOP threshold.

- ***LIS***—Medicare pays plans to cover cost sharing and premiums for enrollees eligible for the low-income subsidy.

Combined, the direct subsidy and expected reinsurance payments are designed to cover 74.5 percent of the expected cost of basic benefits.

Beneficiary premiums cover the remaining 25.5 percent of the expected cost of basic benefits. Part D enrollees also pay any cost sharing required by plan sponsors.

## Higher effective subsidy rates increasing overall program costs

Evidence on program spending gives a mixed picture of the success of Part D plans at containing costs. In the Commission's June 2015 report to the Congress, we noted regular patterns in Medicare's reconciliation payments with plans (Medicare Payment Advisory Commission 2015a). First, many plan sponsors bid too low on the amount of benefit spending they expected above Part D's catastrophic threshold relative to their enrollees' actual catastrophic spending. Second, plan sponsors bid too high on the rest of benefit spending other than catastrophic benefits. Spending for the competitively derived direct-subsidy payments on which sponsors bear the most insurance risk has grown slowly, while benefit spending on which sponsors bear no insurance risk (low-income cost sharing) or limited risk (the catastrophic portion of the benefit, for which Medicare provides 80 percent reinsurance) has grown much faster (Medicare Payment Advisory Commission 2015a).

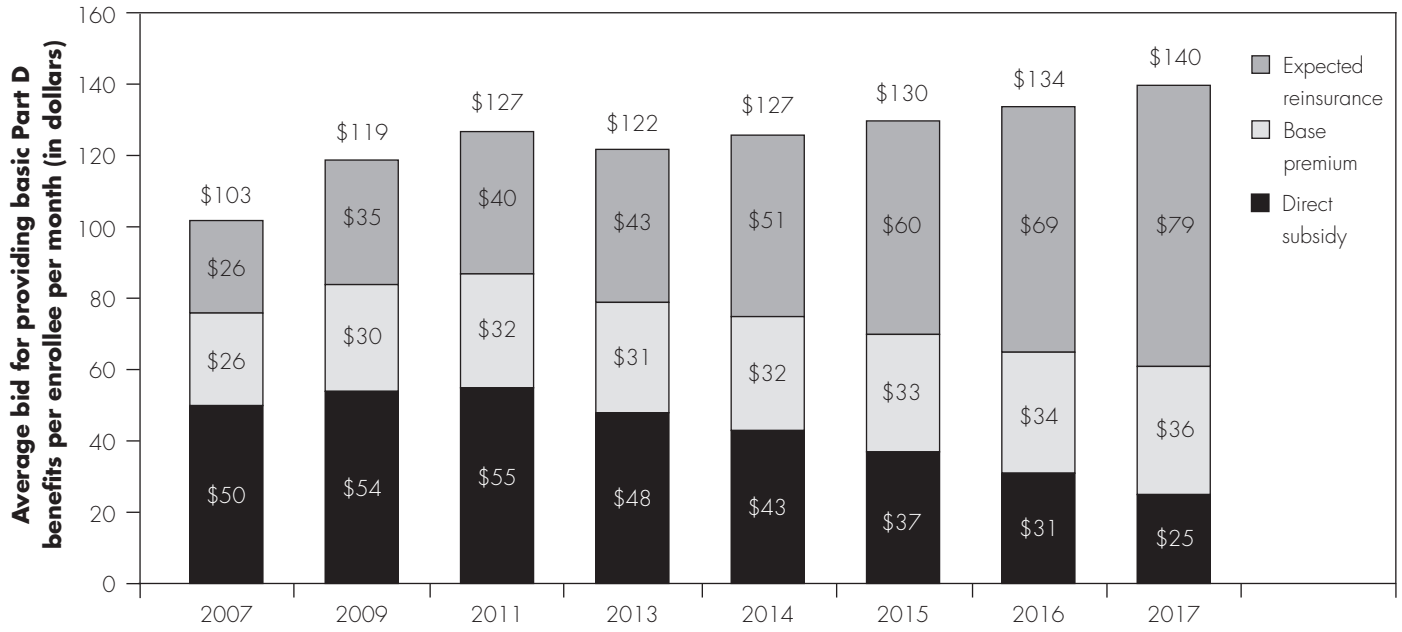
Between 2009 and 2015, the majority of parent organizations returned a portion of their prospective payments to Medicare through risk corridors.[43] Actuaries interviewed by Commission staff suggested that there is significant uncertainty behind the assumptions they make when projecting drug spending for their bids. At the same time, we suggested Part D's risk-sharing mechanisms may provide incentives to bid too low on catastrophic spending and too high on spending for the remainder of the Part D benefit. This dynamic and the open-ended nature of retrospective payments for reinsurance have resulted in effective Medicare subsidy rates for Part D that have been higher than 74.5 percent in most years.

## Trends in program subsidies and costs

Between 2007 and 2015, program spending (including the retiree drug subsidy (RDS)) rose from $46.2 billion to $80.1 billion (Table 14-12). In 2015, Medicare paid $18.6 billion for direct subsidies, $34.3 billion for individual reinsurance, $25.8 billion for the LIS, and $1.4 billion for the RDS (Boards of Trustees 2016). Medicare's overall program spending grew by an average of 7.1 percent per year.

**FIGURE 14–7**

**National average plan bid for basic Part D benefits**




Note: The averages shown are weighted by the previous year's plan enrollment. Amounts do not net out subsequent reconciliation amounts with CMS. Components may not sum to stated totals due to rounding.

Source: MedPAC based on data from CMS.

In 2015, premiums paid by Part D enrollees (not including the premiums paid by Medicare on behalf of LIS enrollees) totaled $11.5 billion (Boards of Trustees 2016). This amount grew by an average 13.8 percent per year since 2007, reflecting both increases in benefit costs and growth in enrollment, particularly among beneficiaries who do not receive the LIS.

In addition to monthly premiums, most enrollees are responsible for paying cost sharing as set by plan sponsors or, in the case of LIS enrollees, an amount set in law. (On behalf of LIS enrollees, Part D's low-income cost-sharing subsidy pays for the difference between cost sharing set by plan sponsors and the nominal amounts they pay out of pocket.) In 2015, OOP spending by enrollees for cost sharing totaled $15.1 billion (Centers for Medicare & Medicaid Services 2016b).[44]

## Continued rapid growth in spending for reinsurance

Medicare payments for individual reinsurance have grown faster than other components of Part D spending. Between 2007 and 2015, payments for individual reinsurance increased at an annual average of 20 percent and have been the largest component of Part D spending since 2014 (Table 14-12, p. 413). This growth appears to have accelerated in recent years, growing at an annual average of 25 percent between 2010 and 2015 compared with 12 percent for 2007 through 2010 (data not shown). This faster growth is due, in part, to the gradual phase-out of the coverage gap that began in 2011. Since 2010, there has been a double-digit increase in the number of non-LIS enrollees who reach the catastrophic phase of the benefit, which, in turn, triggers Medicare's individual reinsurance (see text box on beneficiaries who reach the coverage gap or out-of-pocket threshold (opposite page) and Table 14-13, p. 416).

Changes in the national average bid also reveal higher growth in individual reinsurance. Between 2007 and 2016, expected total benefit spending per member per month has grown at a modest rate of about 3 percent annually, from $103 to $140 (Figure 14-7). During that period, the monthly amount that plans expect to receive through the direct subsidy has fallen 6.6 percent annually, from about

## Beneficiaries who reach the coverage gap or out-of-pocket threshold

In 2014, 10.6 million, or 28 percent, of Part D enrollees incurred spending high enough to reach the coverage gap, up from about a quarter in 2013 (Figure 14-8). Of those, 3.4 million, or almost 9 percent, of Part D enrollees had spending high enough to reach the catastrophic phase of the benefit, up from 2.9 million in 2013. We refer to individuals who reach the catastrophic phase as high-cost enrollees.

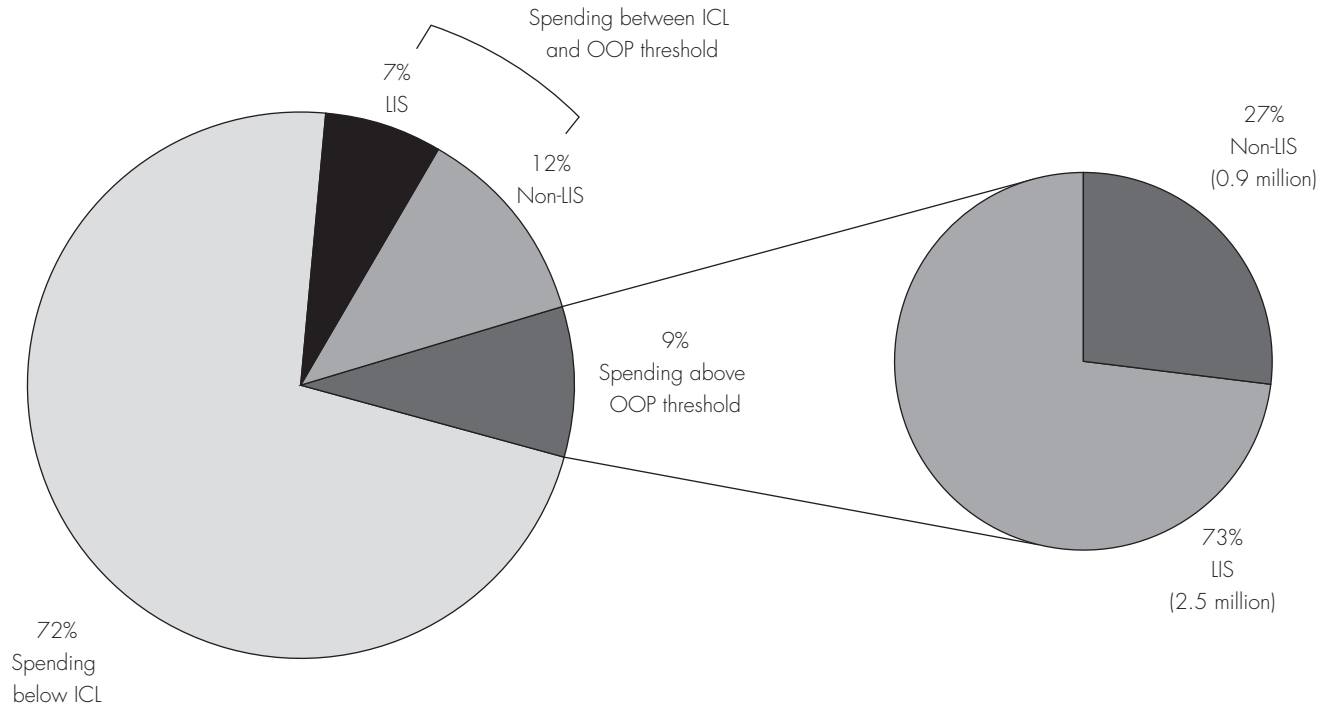
### Most high-cost enrollees received the LIS, but number of non-LIS enrollees growing faster

In 2014, slightly over 2.5 million, or 73 percent, of high-cost enrollees received Part D's low-income subsidy (LIS). That is, nearly 20 percent of LIS enrollees are high cost compared with less than 4 percent among non-LIS enrollees. Because LIS enrollees are more likely to be enrolled in prescription drug plans (PDPs), a large share of high-cost enrollees (75 percent) were in PDPs (data not shown). High-cost enrollees were also more likely to reside in an institution and be non-White disabled beneficiaries under age 65 compared with other enrollees (data not shown).

The number of high-cost enrollees has been rising since 2010, growing at an average annual rate of 10 percent between 2010 and 2014, compared with an annual average rate of 1 percent before 2010 (Table 14-13, p. 416). Gross spending above the catastrophic

*(continued next page)*

**FIGURE 14–8** **Part D enrollees with spending in the coverage gap and catastrophic phase, 2014**




Note: ICL (initial coverage limit), OOP (out-of-pocket), LIS (low-income subsidy). Enrollees with spending between the ICL and the OOP threshold fall within Part D's coverage gap. LIS enrollees do not face a coverage gap because Medicare's low-income cost-sharing subsidy pays for what otherwise would be enrollee cost sharing. In 2014, Part D enrollees reached the ICL at $2,850 in gross drug spending. With no supplemental coverage, an enrollee reached the threshold at $4,550 of OOP spending or qualifying drug spending made on behalf of the beneficiary, including the 50 percent discount paid for by pharmaceutical manufacturers for brand-name drugs. Some non-LIS enrollees who reached the catastrophic phase of the benefit may have had some gap coverage. Components may not sum to stated totals due to rounding.

Source: MedPAC analysis of Part D prescription drug event data and Part D denominator file from CMS.

## Beneficiaries who reach the coverage gap or out-of-pocket threshold (cont.)

(i.e., out-of-pocket (OOP)) threshold also grew more rapidly during that period, rising at an annual 26 percent, compared with an annual 12 percent before 2010 (data not shown). Growth in the number of high-cost enrollees between 2010 and 2014 has been more rapid among non-LIS enrollees compared with LIS enrollees—24 percent annually compared with 6 percent annually.

Gross (or retail) prices affect enrollee cost sharing and the rate at which they reach the catastrophic phase of the benefit. As such, the trend in the number of high-cost enrollees appears to generally follow the (gross) price trend. For example, in 2012, when the Part D price index experienced its largest ever decline (–8.2 percent), the number of high-cost enrollees also declined (–1.4 percent). The uptick in prices observed after 2012 was accompanied by an increase in the number of high-cost enrollees, particularly among the non-LIS enrollees.

The growth of employer group waiver plans (EGWPs) and the Patient Protection and Affordable Care Act of 2010 (PPACA) OOP threshold changes have contributed to rapid growth in the number of non-LIS enrollees with high costs. From 2010 to 2014, the number of Part D enrollees increased as baby boomers began to retire and employers that had previously provided primary drug coverage to their former workers shifted their retirees to Part D by setting up EGWPs. Between 2010 and 2014, about 40 percent of the growth in the number of high-cost, non-LIS enrollees was due to growth in Part D EGWPs.[45] In addition, PPACA changes allowed manufacturers' discounts on brand-name drugs to count toward an enrollee's OOP spending in meeting the OOP threshold. ■

**TABLE 14–13**

**Part D enrollees reaching the benefit's catastrophic phase, 2007–2014**

| | 2007 | 2010 | 2011 | 2012 | 2013 | 2014 | Average annual growth rate 2007–2010 | Average annual growth rate 2010–2014 |
|---|---|---|---|---|---|---|---|---|
| **In millions** | | | | | | | | |
| LIS | 1.9 | 2.0 | 2.1 | 2.1 | 2.1 | 2.5 | 1% | 6% |
| Non-LIS | 0.4 | 0.4 | 0.5 | 0.5 | 0.7 | 0.9 | –2 | 24 |
| All | 2.3 | 2.4 | 2.6 | 2.6 | 2.9 | 3.4 | 1 | 10 |

Note: LIS (low-income subsidy). Growth rates were calculated using figures before rounding was applied. Components may not sum to stated totals due to rounding.

Source: Enrollee counts from 2007 are based on published figures from CMS. Enrollee counts from 2010 to 2014 are based on MedPAC analysis of Part D prescription drug event data.

$50 to $25. Over the same period, the amount per member per month that sponsors expect to receive in reinsurance has grown 11.6 percent annually, from $26 to about $79. The expected reinsurance amount has increased more rapidly in recent years, growing by about 17 percent annually between 2013 and 2017.

### High-cost enrollees driving overall Part D spending growth

The growth in Part D spending for reinsurance reflects the underlying trend that high-cost enrollees—those who reach the catastrophic phase of the benefit—have started to drive overall program spending. The share of

**TABLE 14–14** **Spending for high-cost enrollees driving overall Part D spending, 2010–2014**

| | 2010 | 2014 | Average annual growth rate, 2010–2014 |
|---|---|---|---|
| **High-cost enrollees** | | | |
| Average price per 30-day prescription | $118 | $166 | 8.8% |
| Prescriptions per enrollee per month | 9.4 | 9.5 | 0.4 |
| Gross drug spending per enrollee per month | $1,103 | $1,570 | 9.2 |
| **Lower cost enrollees** | | | |
| Average price per 30-day prescription | $41 | $35 | –3.9% |
| Prescriptions per enrollee per month | 3.7 | 4.0 | 1.6 |
| Gross drug spending per enrollee per month | $151 | $138 | –2.3 |
| **All Part D enrollees** | | | |
| Average price per 30-day prescription | $55 | $60 | 2.1% |
| Prescriptions per enrollee per month | 4.2 | 4.5 | 1.6 |
| Gross drug spending per enrollee per month | $231 | $268 | 3.7 |

Note: Spending includes all payments to pharmacies, including payments by drug plans, Medicare's low-income subsidy, and beneficiary out of pocket. Changes in the average price per prescription reflect both price inflation and changes in the mix of drugs used.

Source: MedPAC analysis of Part D prescription drug event data and denominator file from CMS.

spending (including spending both above and below the OOP threshold) accounted for by high-cost enrollees has grown in recent years, from about 40 percent of the gross spending before 2011, to 44 percent in 2011, and to about 53 percent in 2014. As a result, average per capita spending across all Part D enrollees is increasingly affected by spending for high-cost enrollees. Between 2010 and 2014, per capita spending for all Part D enrollees grew an annual 3.7 percent (Table 14-14). That growth reflects an annual 9.2 percent increase for high-cost enrollees and an annual 2.3 percent decrease for enrollees who did not reach the OOP threshold.

### Most of the growth in spending for high-cost enrollees is due to higher prices

Increases in the average price of prescriptions filled by high-cost enrollees have contributed to growth in their gross spending. That growth likely reflects increases in the prices of their medications, greater availability of higher priced drugs, and other changes in the mix of medications they were prescribed.

Between 2010 and 2014, the average price per standardized, 30-day prescription for high-cost enrollees grew at an average annual rate of 8.8 percent, while the number of prescriptions filled per enrollee per month grew an annual 0.4 percent (Table 14-14). That is, the growth in prices explains nearly all of the spending growth (9.2 percent) for high-cost enrollees during this period. This pattern is in stark contrast to enrollees who did not reach the OOP threshold. The average price per prescription for enrollees who did not reach the OOP threshold fell by an annual 3.9 percent, while the number of prescriptions used grew by a modest 1.6 percent per year. In other words, the change (decrease) in average per capita spending for these enrollees was driven by a decrease in the average price per prescription.

The higher growth in prices of drugs taken by high-cost enrollees can be partially explained by their tendency to use more brand-name drugs. For example, in 2014, the average generic dispensing rate (GDR) among high-cost enrollees was slightly less than 73 percent, or nearly 13 percentage points below the overall Part D average.

## Drug classes used by high-cost enrollees

In 2014, 3.4 million high-cost enrollees (about 9 percent of all Part D enrollees) accounted for $64.6 billion, or 53 percent, of total gross spending under the Part D program. Ten therapeutic classes accounted for 60 percent of that total (Table 14-15). Some of the top 10 therapeutic classes coincide with those that are widely used by enrollees with lower drug spending, such as therapy agents to treat asthma or chronic obstructive pulmonary disease and antihyperlipidemics to treat high cholesterol.

Other therapeutic classes, such as antivirals and antineoplastics, are rarely used by enrollees with lower spending. Between 2013 and 2014, spending on antivirals for high-cost enrollees more than doubled, from $4 billion to $8.9 billion (data not shown). Most of that increase was attributable to the use of new hepatitis C drugs, which totaled about $4.6 billion in 2014.

Use of cancer treatments (antineoplastics) was more prevalent among high-cost, non-LIS enrollees, accounting for more than 20 percent of their spending, compared with less than 5 percent among high-cost enrollees with LIS (not all therapeutic classes used for cancer treatments are shown in the table). Other notable differences between the therapeutic classes that are heavily used by high-cost enrollees with and without the LIS include heavy use of antipsychotics and peptic ulcer therapies (data not shown). Enrollees with the LIS accounted for over 90 percent of high-cost enrollee spending for these two classes. For certain drug classes, underlying differences in health status, such as a higher prevalence of behavioral health conditions, may explain much of this use by LIS enrollees. ■

**TABLE 14–15**

**Top 10 drug classes used by high-cost enrollees, by spending, 2014**

| | | Share of spending by high-cost enrollees | | |
|---|---|---|---|---|
| | **Drug class** | **All** | **LIS** | **Non-LIS** |
| 1 | Antivirals | 14% | 15% | 11% |
| 2 | Diabetic therapy | 11 | 11 | 10 |
| 3 | Antipsychotics (neuroleptics) | 8 | 11 | <2 |
| 4 | Antineoplastic–systemic enzyme inhibitors | 5 | 3 | 11 |
| 5 | Asthma/COPD therapy agents | 5 | 6 | 4 |
| 6 | Analgesic, anti-inflammatory or antipyretic—Non-narcotic | 5 | 4 | 6 |
| 7 | Analgesics—Narcotic | 3 | 4 | 2 |
| 8 | Antihypertensive therapy agents | 3 | 3 | 4 |
| 9 | Anticonvulsants | 3 | 4 | <2 |
| 10 | Antihyperlipidemics | 3 | 3 | 3 |
| Total top 10 classes for all high-cost enrollees | | 60 | 60 | 55 |
| Total gross spending, billions | | $64.6 | $43.1 | $21.5 |

Note: LIS (low-income subsidy), COPD (chronic obstructive pulmonary disease). Spending includes all payments to pharmacies, including payments by drug plans, Medicare's low-income subsidy, and beneficiary out of pocket. Therapeutic classification is based on the First DataBank Enhanced Therapeutic Classification System 1.0.

Source: MedPAC analysis of Part D prescription drug event data and denominator file from CMS.

**TABLE 14–16**

**High-cost enrollees and their prescription use and spending, 2014**

| | High-cost enrollees | | |
|---|---|---|---|
| | | LIS status | |
| | All | LIS | Non-LIS |
| Beneficiaries, in millions | 3.4 | 2.5 | 0.9 |
| Share of total for high-cost enrollees | | 73% | 27% |
| Total gross spending, in billions of dollars | $64.6 | $43.1 | $21.5 |
| Share of total for high-cost enrollees | | 67% | 33% |
| Total numbers of 30-day prescriptions, in millions | 390.4 | 296.7 | 93.7 |
| Share of total for high-cost enrollees | | 76% | 24% |
| Gross annual spending per enrollee, in dollars | $18,845 | $17,222 | $23,247 |
| Average number of prescriptions per enrollee | 114 | 118 | 101 |
| Average price per prescription, in dollars | $166 | $145 | $229 |
| Average annual OOP spending per enrollee | $837 | $116 | $2,794 |

Note: LIS (low-income subsidy), OOP (out-of-pocket). Components may not sum to totals due to rounding. A beneficiary is classified as "LIS" if that individual received Part D's LIS at some point during the year. Numbers of prescriptions are standardized to a 30-day supply.

Source: MedPAC analysis of Part D prescription drug event data and denominator file from CMS.

Some of the difference reflects situations in which brand-name medications are the dominant standard of care for a therapeutic drug class. Prices of many brand-name drugs that do not have generic substitutes are typically much higher and grow more rapidly compared with other drug products.

While generic substitution is not available for certain classes of drugs, many of the drugs used by high-cost enrollees are the same as those used heavily by all Part D enrollees (see text box on drug classes used by high-cost enrollees). For example, antihypertensive therapy agents for high blood pressure and antihyperlipidemics to treat high cholesterol are both classes of drugs commonly used by all Part D enrollees, including those who reach the OOP threshold. We have consistently found that high-cost enrollees tend to use more brand-name drugs than other enrollees, even in classes with generic substitutes. This lower GDR is due, in part, to the fact that most high-cost enrollees are individuals who receive the LIS. The cost-sharing subsidy, while helping these beneficiaries to afford medications, also minimizes or eliminates the financial incentives plans employ to encourage the use of lower cost drugs. One of the Commission's June 2016 recommendations was intended to encourage LIS enrollees to use lower cost alternatives (including generic drugs and biosimilars) when they are available through moderate changes to financial incentives (see text box on the Commission's June 2016 recommendations, p. 389).

### Patterns of spending differ between high-cost enrollees with and without the LIS

Patterns of drug spending among high-cost enrollees vary depending on LIS status. For example, in 2013, of the 20 therapeutic classes that accounted for about 80 percent of spending by high-cost LIS enrollees, only 4 classes (e.g., antineoplastics and multiple sclerosis agents) were typically associated with specialty-tier drugs or biologic products. Spending for drugs in those four classes accounted for less than 8 percent of high-cost LIS enrollees' total spending compared with nearly 30 percent of spending by high-cost enrollees without the LIS. This pattern is reflected in the higher average spending in 2014 by high-cost enrollees without the LIS: $229 per prescription and $23,247 per year compared with $145 per prescription and $17,222 per year for high-cost enrollees with the LIS (Table 14-16).

High-cost LIS enrollees pay lower cost sharing out of pocket than high-cost non-LIS enrollees. Average annual OOP cost-sharing amounts for high-cost LIS enrollees were $116 compared with $2,794 among non-LIS enrollees. One might expect average annual OOP spending for high-cost non-LIS enrollees to be higher than $4,550, which was Part D's OOP threshold in 2014. The average amount is lower primarily because those enrollees received credit that counted as OOP spending for the 50 percent discount provided by brand-name manufacturers in the coverage gap.

### Use of higher cost drugs poses challenges for Part D

Drugs with very high prices pose a particular challenge for Part D. As more expensive therapies become available, larger numbers of beneficiaries will reach the catastrophic phase of the benefit, when Medicare pays for 80 percent of the costs through individual reinsurance. The use of higher cost drugs and biologics has already been growing rapidly in the last few years. Between 2010 and 2014, the use of drugs placed on specialty tiers has grown by an annual average of more than 20 percent, compared with about 2 percent before 2010. In general, spending for high-cost drugs has grown rapidly in the last few years. Between 2010 and 2015, drugs with average monthly prices of $1,000 or more accounted for two-thirds of spending in the catastrophic phase of the benefit in 2015 compared with just one-third in 2010 (Office of Inspector General 2017).

For the future, the high and increasing cost of specialty drugs poses a big challenge in Part D because these drugs are concentrated in drug classes that treat conditions that are prevalent in the Medicare population such as rheumatoid arthritis and other inflammatory diseases, cancer, and HIV (Express Scripts 2014). Many payers project that growth in price and use of specialty drugs will continue to drive trends in spending.[46] In the drug pipeline, fewer blockbuster drugs face expiring patents, and more than half of the FDA's approvals of new drugs in 2013 were for specialty drugs (CatamaranRx 2014). Because many of these therapies have few substitutes, prices for specialty drugs tend to be high, affording PBMs and insurers less ability to exert downward pressure on price.

As the use of specialty drugs increases, Part D enrollees and the Medicare program will face increasingly higher costs. Coinsurance on high-priced medicines could become so burdensome that some non-LIS enrollees could be discouraged from initiating or completing treatment.[47] If larger numbers of beneficiaries begin to use specialty drugs at the same time that Part D's coverage gap is eliminated, the number who reach the OOP threshold will continue to rise. In turn, Medicare spending for individual reinsurance and low-income cost sharing will also rise.

## Beneficiaries' access to prescription drugs

A key goal for the Part D program is to provide Medicare beneficiaries with good access to clinically appropriate medications while remaining financially sustainable to taxpayers. That goal involves finding a balance between managing medication therapies to encourage adherence to drugs with good therapeutic value while being judicious about whether the overall number and mix of medicines prescribed is beneficial to a particular patient (Medicare Payment Advisory Commission 2016c). Formulary management is one of the most important tools used by plan sponsors to strike this balance.

Greater flexibility to use management tools could help ensure that prescribed medicines are safe and appropriate for the patient, potentially reducing overuse and misuse. However, for some beneficiaries, those same tools could also limit access to needed medications. To ensure beneficiary access, CMS reviews and approves each plan's formulary to ensure that Part D plans are providing good access to a wide range of therapeutic classes used by the Medicare population. Part D law also requires sponsors to have a transition process to ensure that new enrollees, as well as current members whose drugs are no longer covered or are subject to new restrictions, have access to the medicines they have already been taking.[48] Medicare requires plan sponsors to establish coverage determination and appeals processes with the explicit goal of ensuring that plan formularies do not impede access to needed medications.

### Part D's exceptions and appeals process

Part D's exceptions and appeals process is complex, involving multiple levels (Medicare Payment Advisory Commission 2014b). It begins when an enrollee's prescription is denied at the pharmacy because of a plan's utilization management or cost-sharing requirements, or because the drug is not listed on the plan's formulary. The pharmacy is required to provide the enrollee with written information on how to obtain a detailed written notice from the enrollee's plan about why the benefit was

denied and the right to appeal. To initiate a request for an appeal, the enrollee must contact the plan for the basis of the denial of benefits and initiate a request for a coverage determination with supporting justification from the prescriber.

Part D requires quicker adjudication time frames than Medicare Advantage medical benefits because "the majority of Part D coverage requests involve prescription drugs an enrollee has not yet received, which increases the risk of adverse clinical outcomes if access to the drug is delayed" (Centers for Medicare & Medicaid Services 2016d, Centers for Medicare & Medicaid Services 2016e). Plan sponsors must make a decision about exceptions and coverage determination within 72 hours of a request or within 24 hours for expedited requests. If the plan contacts the prescriber but is not able to obtain the supporting information needed to make a coverage determination within the allotted time, the plan must issue a denial and then process any subsequent information it receives as a redetermination.

After examining Part D's exceptions and appeals process, we found insufficient data to evaluate how well the process is working for beneficiaries to gain access to needed medications (Medicare Payment Advisory Commission 2015b, Medicare Payment Advisory Commission 2014b). We also found that the process can be time consuming and frustrating and is burdensome for some individuals (Hargrave et al. 2015, Hargrave et al. 2012). CMS continues to find that a significant share of audited plans have difficulties in the areas of Part D transition fills, coverage determinations, appeals, and grievances. For example, a common shortfall is that many plans provide enrollees with too little information about the rationale for a coverage denial or do not demonstrate that they have reached out to prescribers for additional information to make a coverage decision (Centers for Medicare & Medicaid Services 2016f). At the start of benefit year 2016, CMS applied intermediate sanctions against several Part D plan sponsors for failure to comply with regulations in multiple areas, including Part D formulary and benefit administration and Part D coverage determinations, appeals, and grievances (Centers for Medicare & Medicaid Services 2017b). The sanctions imposed immediate suspension of marketing to and enrollment of Medicare beneficiaries, and they remain in effect until corrective actions are taken.

At the same time, exceptions and appeals that routinely overturn plans' coverage decisions could undermine plans' efforts to manage drug spending. A plan sponsor's representative described for us the sponsor's experience in which the plan's decisions denying coverage of drugs because they were not on the plan's formulary were routinely overturned by an independent review entity (IRE). The plan sponsor was generally not successful in appealing IRE decisions; appeals were typically denied on the grounds that supporting statements provided by prescribers proved the medical necessity for the drug—even when those statements were extremely general such as, "this is the right drug for the patient." Because a Part D plan's star rating includes how often its coverage decisions are overturned by the IRE, such cases can have a chilling effect on a plan's willingness to use formulary tools—including on-formulary or off-formulary status—to manage the use of expensive medications. That reluctance to use formulary tools, in turn, can affect the rebate negotiations with pharmaceutical manufacturers.

In our discussions, stakeholders—beneficiary advocates, prescribers, plan sponsors, and CMS—have all noted frustrations with Part D coverage determinations, exceptions, and appeals. A more efficient approach would be to resolve such issues at the point of prescribing through e-prescribing and electronic prior authorization rather than at the pharmacy counter. Such tools could reduce the need for coverage determinations and appeals and increase the likelihood that beneficiaries receive an appropriate medicine at the pharmacy. Automated processes could also lower the administrative burden and lead to a more uniform approach for beneficiaries, prescribers, and plans (American Medical Association 2015). Part D plan sponsors are required to support electronic prescribing, but e-prescribing is optional for physicians and pharmacies.[49] While beneficiary advocates are generally supportive of such steps, some contend that they would not be sufficient to address persistent challenges (Medicare Rights Center 2016).

## Quality in Part D

CMS collects quality and performance data to monitor sponsors' operations. A subset of data is used to rate plans in a 5-star system, from which CMS determines Medicare Advantage (MA) quality bonus payments (quality bonus payments do not apply to stand-alone PDPs). Quality data are also made available to the public to help beneficiaries evaluate their plan options during Part D's annual open enrollment. CMS also requires plan sponsors to carry out

medication therapy management (MTM) programs to improve the quality of the pharmaceutical care for high-risk beneficiaries. Although the Commission supports CMS's goal of improving medication management, we have ongoing concerns about the effectiveness of plans' MTM programs. In 2017, CMS began a new enhanced MTM model. We plan to examine the effectiveness of the new MTM program once additional information becomes available.

## Measuring plan performance

CMS collects Part D plan quality and performance data from several sources—the Consumer Assessment of Healthcare Providers and Systems® (CAHPS®) survey, agency monitoring of plans, data furnished by plan sponsors, and claims information (Centers for Medicare & Medicaid Services 2014c). Selected performance measures are available on the Plan Finder at www.medicare.gov to help beneficiaries evaluate their plan options during Part D's annual open enrollment. The lowest rated plans are flagged to caution beneficiaries about choosing those plans. The highest rated plans can enroll beneficiaries outside the annual open enrollment period. In addition, for MA–PDs, Part D performance data affect the MA program's overall plan ratings to determine the amount of bonus payment.

For 2017, Part D plan ratings are based on up to 15 metrics that measure plan performance on intermediate outcomes, patient experience and access, and process (Centers for Medicare & Medicaid Services 2016c). Intermediate outcome measures (four metrics, e.g., adherence to selected class of medications) each receive a weight of 3, while the eight measures related to patient experience and access (e.g., CAHPS survey results on ease with which plan members get needed medicines) each receive a weight of 1.5. Two process measures (e.g., accuracy of drug prices posted on the Plan Finder) receive a weight of 1. Finally, drug plan quality improvement, a measure reflecting changes in drug plans' performance from one year to the next, is assigned the highest weight (5). Most MA–PDs are rated on up to 32 measures that assess the quality of medical services provided under Part C (i.e., the MA program), in addition to the 15 measures used to assess the quality of prescription drug (Part D) services provided. CMS aggregates individual scores for each measure (15 for PDPs and 44 for MA–PDs) on the Plan Finder in a 5-star system; 5 stars reflects excellent performance, and 1 star reflects poor performance.

Among PDPs, the average star rating for 2017 (weighted by 2016 enrollment) increased to 3.55 from 3.40 a year earlier (Centers for Medicare & Medicaid Services 2016c). About 40 percent of PDP enrollees (based on the 2016 enrollment) are in contracts with 4 or more stars. Among MA–PDs offered for 2017, the average star rating remained stable at 4.00. (See the Medicare Advantage chapter for a discussion of star ratings for MA plans and MA–PDs.) About 68 percent of MA–PD enrollees are in contracts with 4 or more stars.

Star ratings could provide useful information when enrollees are choosing among plan options or when plan sponsors are evaluating certain areas for improvement. However, none of the beneficiaries who participated in the Commission's focus groups mentioned using the Medicare star ratings as a source of information to choose a health plan (Wesolowski 2016). Further, the utility of star ratings to measure quality of prescription drug services tends to be limited. For example, one measure of intermediate outcomes in star ratings is use of high-risk medications (HRMs). The measure is defined as the share of beneficiaries 65 years and older who received two or more prescription fills for the same drug with a high risk of serious side effects in the elderly (Centers for Medicare & Medicaid Services 2016h). CMS notes that while its HRM measure is endorsed by both the Pharmacy Quality Alliance and National Quality Forum, "the addition of a drug to the HRM list is not a contraindication to use, rather an encouragement to avoid use in the senior population without consideration of risks and benefits based on individual patient characteristics" (Centers for Medicare & Medicaid Services 2016e). Because quality measures calculated only from prescription claims (i.e., without the corresponding medical claim(s)) cannot account for all clinically relevant factors, such a metric "may create unintended consequences including the inappropriate encouragement of certain non-HRM medications, which may not be the best choice for an individual beneficiary's clinical circumstances" (Centers for Medicare & Medicaid Services 2016e). Further, changes in the composition of the measures CMS uses to rate plans over the years makes it difficult to use the star ratings to measure changes in quality of services provided by plans over time.

## Medication therapy management programs

Part D plans are required to implement MTM programs to improve the quality of the pharmaceutical care for beneficiaries who may be at risk for adverse drug events, including adverse drug interactions. These programs are

intended to optimize therapeutic outcomes and reduce adverse drug events through improved medication use among beneficiaries who have multiple chronic conditions, take multiple medications, and are likely to have annual drug spending that exceeds the annual cost threshold ($3,919 for 2017). Our earlier review of MTM programs revealed wide variations in eligibility criteria and the kinds of interventions provided to enrollees (Medicare Payment Advisory Commission 2009).

Plan sponsors are required to offer all eligible enrollees a comprehensive medication review (CMR) at least annually and a targeted medication review (TMR) at least quarterly for ongoing monitoring and follow-up of any medication-related issues.[50] CMS has changed criteria for plans' MTM programs over time to broaden eligibility. Currently, plan sponsors can no longer set narrower eligibility criteria than requiring beneficiaries to have more than three chronic conditions or use more than eight medications. Eligible enrollees must opt out of participation.

Although the Commission supports CMS's goal of improving medication management, we have long-standing concerns about the overall outreach and effectiveness of Part D's MTM program. As CMS has noted in the past, plans are often unable to reach eligible beneficiaries, and many refuse the service. In 2014, 11.9 percent of Part D enrollees were eligible for MTM services using Part D's standard criteria, and another 0.7 percent were eligible through expanded plan-specific criteria (Centers for Medicare & Medicaid Services 2016k). Among those eligible for the services that year, 19 percent received a CMR, or just 2 percent of all Part D enrollees. A recent analysis of MTM programs found wide variation in participation across sponsors and plans. The authors contend that most sponsors have chosen to offer services to a narrow segment of enrollees, missing opportunities to improve medication management (Stuart et al. 2016). A concern is that sponsors of stand-alone PDPs do not have financial incentives to engage in MTM or other activities that, for example, increase adherence to appropriate medications. In addition, physicians may be reluctant to accept recommendations from drug plans with which they have no direct relationship. Evidence suggests that the effectiveness of the MTM services currently offered by Part D plans "fall[s] short of their potential to improve quality and reduce unnecessary medical expenditures" (Centers for Medicare & Medicaid Services 2015c, Marrufo et al. 2013).

In 2017, CMS began an enhanced MTM model in five regions of the country to test whether payment incentives and greater regulatory flexibility in designing MTM programs will "achieve better alignment of PDP sponsor and government financial interests, while also creating incentives for robust investment and innovation in better MTM targeting and interventions" (Center for Medicare & Medicaid Innovation 2015). Regulatory flexibility combined with financial incentives provided under the model have the potential to address some of the Commission's concerns regarding coordination with a beneficiary's care team and plans' incentive to offer MTM programs (Medicare Payment Advisory Commission 2014a) (see text box, p. 424). We plan to continue to monitor how well the current MTM program is working and report on the new enhanced MTM model as more information becomes available. ■

## 2017 launch of enhanced medication therapy management

Six Part D sponsors operating prescription drug plans (PDPs) in five regions of the country are participating in CMS's enhanced medication therapy management (MTM) model over a five-year period.[51] (Not every sponsor is participating in each region.) An estimated 1.6 million enrollees will be eligible to participate in the first year (Centers for Medicare & Medicaid Services 2016l). Part D's program requirements related to uniformity of benefits and cost sharing will be waived for participating PDPs, which would provide plan sponsors with the ability to offer MTM interventions tailored to an individual's needs, including cost-sharing assistance to financially needy beneficiaries (Centers for Medicare & Medicaid Services 2015c).

CMS's stated goal is for the participating PDPs to explore different communication strategies to improve beneficiary, pharmacist, and medical provider coordination and engagement. To aid that effort, CMS can provide participating PDPs with their enrollees' Part A and Part B claims data and information on beneficiaries' participation in integrated care models such as accountable care organizations (Center for Medicare & Medicaid Innovation 2017).

Because stand-alone PDPs may not necessarily benefit financially from providing MTM services that could improve enrollees' health outcomes and lower costs for the Medicare program, the model test also includes financial incentives for participating PDPs:

- a plan-specific prospective payment for MTM services that is outside the annual Part D bid and does not therefore impact plan premiums and
- a performance-based payment in the form of an increased beneficiary premium subsidy (in a future year) for plans that successfully achieve a 2 percent reduction in expected beneficiary fee-for-service expenditures (net of model prospective payments).

Sponsors participating in the enhanced MTM model will be required to collect and submit MTM-related encounter data for both monitoring and evaluation purposes, including "whether the plan interventions are correlated with outcomes such as mortality, emergency department utilization, hospital readmissions, or beneficiary satisfaction measures" (Centers for Medicare & Medicaid Services 2016l). ■

# Endnotes

1 The prescription drug coverage that beneficiaries had before 2006 may or may not have been as generous as the Part D benefit. Since implementation of Part D, nearly 90 percent of beneficiaries have drug coverage that is as generous as Part D's basic benefit.

2 Table II.B.1 of the Medicare Trustees' 2016 report lists Part D expenditures for 2015 as $89.8 billion (Boards of Trustees 2016). That larger amount includes reconciliation payments made during 2015 between Medicare and plan sponsors for benefits delivered in previous years.

3 In 2017, the Part D benefit provides gap coverage of 10 percent for brand-name drugs, in addition to a 50 percent discount provided by drug manufacturers, reducing cost sharing in the gap to about 40 percent (Centers for Medicare & Medicaid Services 2016e). Cost sharing for brand-name drugs filled depends on the dispensing fee charged since the 10 percent covered by Part D applies to both the ingredient cost and the dispensing fee, while the 50 percent manufacturer discount applies only to ingredient costs.

4 CMS's de minimus policy (codified under Section 3303(a) of PPACA) allows plan sponsors to voluntarily waive the portion of the monthly adjusted basic beneficiary premium that is above the low-income subsidy (LIS) benchmark for a subsidy-eligible individual, up to a de minimis amount (Centers for Medicare & Medicaid Services 2016i). The de minimis amount for 2017 is $2.

5 The Commission recommended removing protected status from two out of the six drug classes in which plan sponsors must now cover all drugs on their formularies (antidepressants and immunosuppressants for transplant rejection), streamlining the process for formulary changes, requiring prescribers to provide supporting justifications with more clinical rigor when applying for exceptions, and permitting plan sponsors to use selected tools to manage specialty drug benefits while maintaining appropriate access to needed medications (Medicare Payment Advisory Commission 2016c).

6 If an employer agrees to provide primary drug coverage to retirees with an average benefit value equal to or greater than Part D (called "creditable coverage"), Medicare provides a tax-free subsidy to the employer for 28 percent of each eligible retiree's drug costs that fall within a specified range of spending. Under PPACA, employers still receive the RDS tax free, but as of 2013, they can no longer deduct drug expenses for which they receive the subsidy as a cost of doing business. However, they can still deduct prescription drug expenses not covered by the subsidy.

7 Other sources of coverage include the Federal Employees Health Benefits Program, TRICARE for Life, and the Department of Veterans Affairs.

8 Employer group waiver plans, or EGWPs, are Part D plans sponsored by employers that contract directly with CMS or with an insurer or a pharmacy benefit manager to administer a drug benefit on the employer's behalf. EGWPs differ from employer plans that receive the RDS in that they are considered Part D plans; that is, Medicare Part D is the primary payer rather than the employer. However, unlike other Part D plans, EGWPs are offered only to Medicare-eligible retirees of a particular employer (i.e., the requirement that anyone be allowed to enroll in such a plan is waived).

9 Under the Part C payment system, a portion of the difference between the plan's benchmark payment and its bid for providing Part A and Part B services is referred to as Part C rebate dollars. The rebate dollars can be used to supplement benefits or lower premiums for services provided under Part C or Part D.

10 Extra coverage in the gap (beyond what is required by the PPACA) is typically restricted to a subset of formulary drugs.

11 MA–PD premiums reflect Medicare Advantage plans' total monthly premium attributable to Part D benefits for plans that offer Part D coverage. The premiums are net of Part C rebate dollars that were used to offset Part D premium costs.

12 CMS allows sponsors to offer several plans in a given service area if the plans are "meaningfully different." To be considered meaningfully different for 2017, a beneficiary's expected OOP costs between basic and enhanced PDPs must differ by at least $23 per month. If a sponsor is offering two enhanced PDPs in the same service area, the second plan must have a higher value than the first, with an OOP difference of at least $34 per month.

13 Twenty-five of the benchmark plans are offered by Cigna-HealthSpring Rx, which CMS currently has placed under sanction, meaning that those plans cannot accept new enrollees.

14 More than half of LIS enrollees who paid a premium in 2016 were in enhanced plans (Hoadley et al. 2016).

15 The company itself is a product of the acquisition of the PBM Caremark by CVS in 2007. Since the beginning of Part D, CVS Health acquired Longs Drug Stores' RxAmerica plans,

Universal American's Community CCRx and Pennsylvania Life product lines, and Health Net Orange PDPs.

16 Another plan sponsor with large numbers of LIS enrollees is Rite Aid. That company became a plan sponsor in 2015 when it acquired EnvisionRx, a PBM that was already participating in Part D. In 2016, 76 percent of Rite Aid's enrollees (0.3 million) received the LIS, and plans offered by Rite Aid accounted for 2 percent of all LIS enrollment. Rite Aid currently operates a chain of about 4,600 drugstores and is due to be acquired by Walgreens Boots Alliance, which operates 8,200 U.S. drugstores (Mattioli et al. 2015). The merger has been under regulatory review and is scheduled to close in 2017.

17 Some in-house PBMs also provide PBM services under contract to other payers. For example, OptumRx has won recent contracts with General Electric and the California Public Employees' Retirement System.

18 PBMs can earn revenues in a number of ways, including administrative fees from payers and manufacturers, retaining a portion of manufacturers' rebates, and through the "spread" between what the PBM receives from a payer for a prescription and what the PBM pays the pharmacy. Under newer arrangements for conditions such as hepatitis C, PBMs may refund drug costs to payers if a patient is not adherent to treatment (Rubenfire 2016). Some investment analysts contend that over time, a greater share of PBM revenue has come from administrative fees than from rebates and spread. Critics of the industry argue that the opacity of drug pricing and rebates makes it difficult to monitor whether the PBM is obtaining the lowest prices possible and sharing revenues appropriately with clients (Applied Policy 2015). PBMs counter that their contracts provide transparency and pass along rebates to the extent demanded in the competitive market and in response to negotiations with individual clients.

19 A recent dispute between one major insurer and its PBM over repricing provisions in their 10-year contract has been acrimonious. In 2009, Express Scripts purchased Anthem's (then WellPoint's) in-house PBM, NextRx (Anthem 2009). As part of the agreement, Anthem signed a 10-year contract to use Express Scripts as its PBM. In March 2016, Anthem filed suit against Express Scripts for pricing and operational contract breaches, requesting damages of $13 billion and permission to end the contract (Silverman 2016). Express Scripts filed a countersuit, alleging that Anthem did not negotiate repricing in good faith (Walker 2016). In July 2016, a lawsuit against both Anthem and Express Scripts seeking class-action status was launched on behalf of insured employees whose employers used the services of Anthem. The suit alleges that insured employees paid too much because of "above competitive pricing levels" (Appleby 2016). Express Scripts and Anthem both deny the allegations.

20 When using a mail pharmacy, enrollees generally receive a 90-day rather than a 30-day prescription.

21 CVS Health purchased the nation's largest long-term care pharmacy company, Omnicare, in 2015.

22 The six protected classes include anticonvulsants, antidepressants, antineoplastics, antipsychotics, antiretrovirals, and immunosuppressants for the treatment of transplant rejection.

23 For 2017, CMS permits plans to place a drug on a specialty tier if its average cost is at least $670 per month. If a plan uses the same deductible as in Part D's defined standard benefit, it must charge 25 percent coinsurance for drugs on its specialty tier. Plans with no deductible may charge up to 33 percent coinsurance on their specialty tier.

24 These measures need to be used with caution because they can be misleading in some circumstances. For example, some plan sponsors list relatively few drugs on their formulary but have an exceptions process that permits good access to other medications. Alternatively, other sponsors list most drugs on their formulary but require prior authorization for a relatively larger number of drugs.

25 For this calculation, we define drugs at the level of chemical entities—a broad grouping that encompasses all of a chemical's forms, strengths, and package sizes—that combine brand and generic versions of the same specific chemical entity (Medicare Payment Advisory Commission 2008).

26 Recent controversy over price growth for certain brand-name drugs has led to concern about the use of rebates. According to one analysis, list prices for the epinephrine autoinjection device EpiPen grew by 150 percent between 2013 and 2016 (CVS Health 2016). The EpiPen drew attention because commercially insured individuals in high-deductible plans often pay for full increases in list prices. However, the chief executive officer of Mylan (EpiPen's manufacturer) defended the company's pricing on the grounds that net prices (that is, list prices after rebates to PBMs and payments to wholesalers and distributors) were substantially smaller (Bresch 2016). PBMs counter that the price concessions they negotiate lower overall costs to the health care system (*American Pharmacy News* 2016).

27 After 2020, in the range of spending that was formerly the coverage gap, manufacturers of brand-name drugs will continue to provide a 50 percent discount and plan sponsors will be liable only for 25 percent of spending, compared with plan liability of 75 percent between the deductible and initial coverage limit.

28 Note that, if many enrollees used certain drugs with higher list prices, it could affect the share of rebates and pharmacy fees that Medicare would keep, and correspondingly could affect plan costs.

29 However, if the cost of dispensing an extended supply is higher at the retail pharmacy, the plan sponsor can charge the enrollee cost sharing that is higher by as much as that cost differential.

30 Some pharmacies may choose not to contract with certain plans because they do not like the terms and conditions the plans offer. Plan sponsors are not obligated to cover prescriptions at an out-of-network pharmacy, except under certain circumstances.

31 The minimum standard for pharmacy network access, based on the TRICARE standard, is as follows—urban areas: at least 90 percent of Medicare beneficiaries in the sponsor's service area reside within 2 miles of a network retail pharmacy; suburban areas: at least 90 percent of Medicare beneficiaries in the sponsor's service area reside within 5 miles of a network retail pharmacy; rural areas: at least 70 percent of Medicare beneficiaries in the sponsor's service area reside within 15 miles of a network retail pharmacy.

32 The Commission has expressed support for plan innovations that increase efficiency, and we agree with CMS that the competition created by preferred pharmacy networks should result in lower costs for the program and for Part D enrollees. However, we noted in a 2014 comment letter to CMS that a separate pharmacy access standard may be required to ensure that plan enrollees have reasonable access to preferred cost sharing (Medicare Payment Advisory Commission 2014a).

33 Part D enrollees may apply to bona fide independent charity patient assistance programs (PAPs) for help with cost sharing. Pharmaceutical manufacturers can provide cash donations to independent charity PAPs without invoking anti-kickback concerns if the charity is structured properly. Guidance from the Department of Health and Human Services Office of Inspector General states that independent charity PAPs must provide assistance to broad rather than narrow disease groups, manufacturers must not exert direct or indirect control over the charity, and the PAP must not limit assistance to a subset of available products (Office of Inspector General 2014).

34 A Risk Evaluation and Mitigation Strategy describes measures beyond labeling that are sometimes required as a condition of FDA approval to ensure that a new drug is dispensed to patients for whom benefits outweigh risks.

35 As of 2013, 66 percent of commercial health plans mandate that self-administered specialty drugs be dispensed by a specialty pharmacy, and about three-quarters of health plans require beneficiaries to use designated specialty pharmacy providers (Fein 2015).

36 A specific concern raised by independent specialty pharmacies is that plans and PBMs are using performance-based criteria that do not apply to the types of drugs they dispense, such as adherence to drugs for treatment of cholesterol or diabetes.

37 The industry does not have one consistent definition of specialty drugs, but these drugs tend to be characterized as high cost and are used to treat a rare condition, require special handling, use a limited distribution network, or require ongoing clinical assessment. Most biologics are a subset of specialty drugs (see *American Journal of Managed Care* 2013).

38 These figures are based on the Acumen LLC analysis of the Part D prescription drug event data for the Commission. Most plans use specialty tiers for drugs and biologic products that meet the dollar per month cost threshold ($670 in 2017) set by CMS. A specialty-tier drug is different from a specialty drug in that it is identified based on its placement on a plan's specialty tier and varies across plans. Typically, plans charge enrollees coinsurance of 25 percent to 33 percent for drugs placed on specialty tiers.

39 IMS Health defines invoice prices as the amounts paid to distributors by their pharmacy or hospital customers, which is different from gross spending reflected in Part D's prescription drug event data (total payments to pharmacies before accounting for any rebates or discounts pharmacies retain). Net prices measure the amount received by pharmaceutical manufacturers and therefore reflect rebates, off-invoice discounts, and other price concessions made by manufacturers to distributors, health plans, and intermediaries.

40 An individual NDC uniquely identifies the drug's labeler, drug, dosage form, strength, and package size. Typically, the same drug has many different NDCs.

41 For this index, Acumen grouped NDCs that are pharmaceutically identical, aggregating prices across drug trade names, manufacturers, and package sizes. As a result, brand-name drugs are grouped with their generics if they exist, and the median price more closely reflects the degree to which market share has moved between the two.

42 Differences in GDRs vary by therapeutic classes. In 2012, for some of the most commonly used classes of drugs, the average GDR for LIS enrollees was from 5 percentage points to 13 percentage points lower than for non-LIS enrollees. We observed this finding in both PDPs and MA–PDs.

43 For benefits delivered in 2014 and 2015, the majority of the plan sponsors received additional individual reinsurance payments from Medicare at reconciliation, much of which was because of higher than anticipated spending on new hepatitis C therapies and the continuing growth in cost for specialty drugs (Boards of Trustees 2016). Even with that unexpectedly higher spending, most plan sponsors made risk-corridor payments to Medicare.

44 Our analysis is based on CMS's dashboard. CMS's data excludes claims for all over-the-counter drugs.

45 The Patient Protection and Affordable Care Act of 2010 changed the tax treatment of Medicare's retiree drug subsidy and made the Part D benefit more generous through the phased closure of the coverage gap and the provision of brand discounts. These changes in the law likely motivated employers that had previously provided primary drug coverage to their former workers to move their retirees into Part D by setting up employer group waiver plans for them.

46 Among PBMs, growth in price and use of specialty drugs has been driving the overall trend in spending. Across their entire non-Medicare and Medicare books of business, PBMs' spending on specialty drugs reached about 30 percent in 2012 and may reach 50 percent of spending by 2018 (Seeking Alpha 2013).

47 Recall that enrollees typically face coinsurance of 25 percent to 33 percent until they reach the catastrophic phase of the benefit.

48 The transition fill is a temporary one-time supply of up to 30 days of medication provided during the first 90 days in a plan for new enrollees and during the first 90 days of the new contract year for existing enrollees. For individuals living in long-term care facilities, the temporary supply may be for up to 31 days and may be renewed as necessary during the entire length of the 90-day transition period. Each year since 2012, CMS has conducted a transition monitoring program analysis to evaluate whether plan sponsors are following Part D transition requirements. In 2016, 6 percent of Part D contracts exceeded CMS's thresholds of noncompliance (Centers for Medicare & Medicaid Services 2016j).

49 The exception is New York, which mandates electronic prescribing.

50 CMRs must include an interactive, person-to-person, or telehealth consultation performed by a pharmacist or other qualified provider and a written summary of the review that includes a medication list and action plan, if any, provided to beneficiaries in CMS's standardized format. In 2014, 85 percent of CMRs were conducted by pharmacists over the telephone (Centers for Medicare & Medicaid Services 2016k). A TMR is distinct from a CMR because it is focused on specific medication-related problems, actual or potential. A TMR can be person to person or system generated, and interventions can be delivered by mail or faxed to the beneficiary or the prescriber, as appropriate (Centers for Medicare & Medicaid Services 2014b).

51 Participating plans are basic PDPs in the following five regions: Region 7 (Virginia), Region 11 (Florida), Region 21 (Louisiana), Region 25 (Iowa, Minnesota, Montana, Nebraska, North Dakota, South Dakota, Wyoming), and Region 28 (Arizona) (Centers for Medicare & Medicaid Services 2016l).

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APPENDIX

# A

## Commissioners' voting on recommendations

APPENDIX A

# Commissioners' voting on recommendations

In the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000, the Congress required MedPAC to call for individual Commissioner votes on each recommendation and to document the voting record in its report. The information below satisfies that mandate.

## Chapter 1: Context for Medicare payment policy

No recommendations

## Chapter 2: Assessing payment adequacy and updating payments in fee-for-service Medicare

No recommendations

## Chapter 3: Hospital inpatient and outpatient services

**3-1** The Secretary should require hospitals to add a modifier on claims for all services provided at off-campus stand-alone emergency department facilities.

*Yes:* *Bricker, Buto, Christianson, Coombs, Crosson, DeBusk, Ginsberg, Gradison, Hall, Hoadley, Nerenz, Pyenson, Redberg, Samitt, Thomas, Thompson, Wang*

**3-2** The Congress should update the inpatient and outpatient payments by the amounts specified in current law.

*Yes:* *Bricker, Buto, Christianson, Coombs, Crosson, DeBusk, Ginsberg, Gradison, Hall, Hoadley, Nerenz, Pyenson, Redberg, Samitt, Thomas, Thompson, Wang*

Additionally, the Commission reiterates its March 2012 and March 2014 recommendations on hospital outpatient department site-neutral payments. See text box, p. 71.

## Chapter 4: Physician and other health professional services

The Congress should increase payment rates for physician and other health professional services by the amount specified in current law for calendar year 2018.

*Yes:* *Bricker, Buto, Christianson, Coombs, Crosson, DeBusk, Ginsberg, Gradison, Hall, Hoadley, Nerenz, Pyenson, Redberg, Samitt, Thomas, Thompson, Wang*

## Chapter 5: Ambulatory surgical center services

The Congress should eliminate the update to the payment rates for ambulatory surgical centers for calendar year 2018. The Congress should also require ambulatory surgical centers to submit cost data.

*Yes:* *Bricker, Buto, Christianson, Coombs, Crosson, DeBusk, Ginsberg, Gradison, Hall, Hoadley, Nerenz, Pyenson, Redberg, Samitt, Thomas, Thompson, Wang*

## Chapter 6: Outpatient dialysis services

The Congress should increase the outpatient dialysis base payment rate by the update specified in current law for calendar year 2018.

*Yes:* *Bricker, Buto, Christianson, Coombs, Crosson, DeBusk, Ginsberg, Gradison, Hall, Hoadley, Nerenz, Pyenson, Redberg, Samitt, Thomas, Thompson, Wang*

## Chapter 7: Post-acute care: The Congress and CMS must act to implement recommended changes to PAC payments

No recommendations

## Chapter 8: Skilled nursing facility services

The Congress should eliminate the market basket updates for 2018 and 2019 and direct the Secretary to revise the prospective payment system (PPS) for skilled nursing facilities. In 2020, the Secretary should report to the Congress on the impacts of the reformed PPS and make any additional adjustments to payments needed to more closely align payments with costs.

*Yes:* *Bricker, Buto, Christianson, Coombs, Crosson, DeBusk, Ginsberg, Gradison, Hall, Hoadley, Nerenz, Pyenson, Redberg, Samitt, Thomas, Thompson, Wang*

## Chapter 9: Home health care services

The Congress should reduce home health payment rates by 5 percent in 2018 and implement a two-year rebasing of the payment system beginning in 2019. The Congress should direct the Secretary to revise the prospective payment system to eliminate the use of the number of therapy visits as a factor in payment determinations, concurrent with rebasing.

*Yes:* *Bricker, Buto, Christianson, Coombs, Crosson, DeBusk, Ginsberg, Gradison, Hall, Hoadley, Nerenz, Pyenson, Redberg, Samitt, Thomas, Thompson, Wang*

## Chapter 10: Inpatient rehabilitation facility services

The Congress should reduce the Medicare payment rate for inpatient rehabilitation facilities by 5 percent for fiscal year 2018.

*Yes:* *Bricker, Buto, Christianson, Coombs, Crosson, DeBusk, Ginsberg, Gradison, Hall, Hoadley, Nerenz, Pyenson, Redberg, Samitt, Thomas, Thompson, Wang*

Additionally, the Commission reiterates its March 2016 recommendations on the inpatient rehabilitation facility prospective payment system. See text box, p. 269.

## Chapter 11: Long-term care hospital services

The Congress should eliminate the update to the payment rates under the long-term care hospital prospective payment system for fiscal year 2018.

*Yes:* *Bricker, Buto, Christianson, Coombs, Crosson, DeBusk, Ginsberg, Gradison, Hall, Hoadley, Nerenz, Pyenson, Redberg, Samitt, Thomas, Thompson, Wang*

## Chapter 12: Hospice services

The Congress should eliminate the update to the hospice payment rates for fiscal year 2018.

*Yes:* *Bricker, Buto, Christianson, Coombs, Crosson, DeBusk, Ginsberg, Gradison, Hall, Hoadley, Nerenz, Pyenson, Redberg, Samitt, Thomas, Thompson, Wang*

## Chapter 13: Status report on the Medicare Advantage program

The Secretary should calculate Medicare Advantage benchmarks using fee-for-service spending data only for beneficiaries enrolled in both Part A and Part B.

*Yes:* *Bricker, Buto, Christianson, Coombs, Crosson, DeBusk, Ginsberg, Gradison, Hall, Hoadley, Nerenz, Pyenson, Redberg, Samitt, Thomas, Thompson, Wang*

## Chapter 14: Status report on the Medicare prescription drug program (Part D)

No recommendations

# Acronyms

# Acronyms

| | |
|---|---|
| **A–APM** | advanced alternative payment model |
| **ABIM** | American Board of Internal Medicine |
| **ACH** | acute care hospital |
| **ACO** | accountable care organization |
| **ADL** | activity of daily living |
| **AHA** | American Hospital Association |
| **AHCA** | American Health Care Association |
| **AHRQ** | Agency for Healthcare Research and Quality |
| **ALF** | assisted living facility |
| **ALOS** | average length of stay |
| **AMI** | acute myocardial infarction |
| **APC** | ambulatory payment classification |
| **APM** | alternative payment model |
| **ASC** | ambulatory surgical center |
| **ASCQR** | ASC Quality Reporting [Program] |
| **ASP** | average sales price |
| **B** | billion |
| **BC/BS** | Blue Cross and Blue Shield |
| **BLS** | Bureau of Labor Statistics |
| **BMI** | body mass index |
| **CABG** | coronary artery bypass graft |
| **CAH** | critical access hospital |
| **CAHPS®** | Consumer Assessment of Healthcare Providers and Systems® |
| **CAHPS®–MA** | Consumer Assessment of Healthcare Providers and Systems® for Medicare Advantage |
| **C–APC** | comprehensive ambulatory payment classification |
| **CARE** | Continuity Assessment Record and Evaluation [tool] |
| **CAUTI** | catherter-associated urinary tract infection |
| **CBO** | Congressional Budget Office |
| **CBSA** | core-based statistical area |
| **CC** | complication or comorbidity |
| **CCI** | chronically critically ill |
| **CCM** | chronic care management |
| **CCP** | coordinated care plan |
| **CCR** | continuing care retirement |
| **CCR** | cost-to-charge ratio |
| **CCU** | coronary care unit |
| **CDC** | Centers for Disease Control and Prevention |
| **CEC** | Comprehensive ESRD Care |
| **CEO** | chief executive officer |
| **CHC** | continuous home care |
| **CHF** | congestive heart failure |
| **CHIP** | Children's Health Insurance Program |
| **CKD** | chronic kidney disease |
| **CKD–EPI** | chronic kidney disease epidemiology calculation |
| **CLABSI** | central line–associated bloodstream infection |
| **CMG** | case-mix group |
| **CMI** | case-mix index |
| **CMMI** | Center for Medicare and Medicaid Innovation |
| **CMR** | comprehensive medication review |
| **CMS** | Centers for Medicare & Medicaid Services |
| **CMS–HCC** | CMS–hierarchical condition category |
| **CON** | certificate of need |
| **COPD** | chronic obstructive pulmonary disease |
| **CPI–M** | consumer price index for all medical services |
| **CPI–U** | consumer price index for all urban consumers |
| **CPT** | Current Procedural Terminology |
| **C–SNP** | chronic condition special needs plan |
| **CT** | computed tomography |
| **CY** | calendar year |
| **DCI** | documentation and coding improvements |
| **DIR** | direct and indirect remuneration |
| **DoD** | Department of Defense |
| **DRG** | diagnosis related group |
| **DSH** | disproportionate share |
| **D–SNP** | dual-eligible special needs plan |
| **E&M** | evaluation and management |
| **EBITDA** | earnings before interest, taxes, depreciation, and amortization |
| **ED** | emergency department |
| **EDS** | Encounter Data System |
| **eGFR** | estimated glomerular filtration |
| **EGWP** | employer group waiver plan |
| **EHR** | electronic health record |
| **ESA** | erythropoiesis-stimulating agent |
| **ESCO** | ESRD Seamless Care Organizations |
| **ESRD** | end-stage renal disease |
| **FDA** | Food and Drug Administration |
| **FFS** | fee-for-service |
| **FIM™** | Functional Independence Measure™ |
| **FPL** | federal poverty level |
| **GAO** | Government Accountability Office |

| | |
|---|---|
| **GDP** | gross domestic product |
| **GDR** | generic dispensing rate |
| **GIP** | general inpatient care |
| **GME** | graduate medical education |
| **GPCI** | geographic practice cost index |
| **HAC** | hospital-acquired condition |
| **H–CAHPS®** | Hospital Consumer Assessment of Healthcare Providers and Systems® |
| **HCBS** | home- and community-based services |
| **HCC** | hierarchical condition category |
| **HCCI** | Health Care Cost Institute |
| **HCPCS** | Healthcare Common Procedure Coding System |
| **HEDIS®** | Healthcare Effectiveness Data and Information Set® |
| **HHA** | home health agency |
| **HHS** | Department of Health and Human Services |
| **HI** | Hospital Insurance (Medicare Part A) |
| **HMO** | health maintenance organization |
| **HOPD** | hospital outpatient department |
| **HRM** | high-risk medications |
| **HRRP** | Hospital Readmission Reduction Program |
| **HSA** | health service area |
| **HUD** | Department of Housing and Urban Development |
| **HWH** | hospital within hospital |
| **ICD** | International Classification of Diseases |
| **ICD–9** | International Classification of Diseases, Ninth Revision |
| **ICL** | initial coverage limit |
| **ICU** | intensive care unit |
| **IFEC** | independent freestanding emergency center |
| **IGC** | impairment group code |
| **IME** | indirect medical education |
| **IMPACT** | Improving Medicare Post-Acute Care Transformation Act of 2014 |
| **IOL** | intraocular lens |
| **IOM** | Institute of Medicine |
| **IPAB** | Independent Payment Advisory Board |
| **IPPS** | inpatient prospective payment system |
| **IPS** | interim payment system |
| **IRC** | inpatient respite care |
| **IRE** | independent review entity |
| **IRF** | inpatient rehabilitation facility |
| **IRF–PAI** | Inpatient Rehabilitation Facility–Patient Assessment Instrument |
| **IRP** | income-related premium |
| **KDE** | kidney disease education |
| **KFF** | Kaiser Family Foundation |
| **LDO** | large dialysis organization |
| **LEP** | late enrollment penalty |
| **LIS** | low-income [drug] subsidy |
| **LLC** | limited liability corporation |
| **LOS** | length of stay |
| **LTC** | long-term care |
| **LTC–DRG** | long-term care diagnosis related group |
| **LTCH** | long-term care hospital |
| **MA** | Medicare Advantage |
| **MACPAC** | Medicaid and CHIP Payment and Access Commission |
| **MACRA** | The Medicare Access and CHIP Reauthorization Act of 2015 |
| **MA–PD** | Medicare Advantage–Prescription Drug [plan] |
| **MCBS** | Medicare Current Beneficiary Survey |
| **MCC** | major complication or comorbidity |
| **MCO** | managed care organization |
| **MedPAC** | Medicare Payment Advisory Commission |
| **MEI** | Medicare Economic Index |
| **MEPS** | Medical Expenditure Panel Survey |
| **MGMA** | Medical Group Management Association |
| **MIPPA** | Medicare Improvements for Patients and Providers Act of 2008 |
| **MIPS** | Merit-based Incentive Payment System |
| **MMSEA** | Medicare, Medicaid, and SCHIP Extension Act of 2007 |
| **MRI** | magnetic resonance imaging |
| **MS–DRG** | Medicare severity–diagnosis related group |
| **MS–LTC–DRG** | Medicare severity long-term care diagnosis related group |
| **MSS** | medical social services |
| **MTM** | medication therapy management |
| **MTMP** | medication therapy management program |
| **N/A** | not applicable |
| **N/A** | not available |
| **NCHS** | National Center for Health Statistics |
| **NCQA** | National Committee for Quality Assurance |
| **NDC** | national drug code |
| **NHSN** | National Healthcare Safety Network |
| **NP** | nurse practitioner |
| **NSAS** | National Survey of Ambulatory Surgery |
| **NTA** | nontherapy ancillary |
| **NTIOL** | new technology intraocular lens |
| **OACT** | Office of the Actuary |
| **OCED** | off-campus emergency department |

| | |
|---|---|
| **OECD** | Organisation for Economic Co-operation and Development |
| **OES** | Occupational Employment Statistics |
| **OIG** | Office of Inspector General |
| **OMB** | Office of Management and Budget |
| **OOP** | out-of-pocket |
| **OPD** | outpatient department |
| **OPPS** | outpatient prospective payment system |
| **OR** | operating room |
| **PA** | physician assistant |
| **PAC** | post-acute care |
| **PACE** | Program of All-Inclusive Care for the Elderly |
| **PAMA** | Protecting Access to Medicare Act of 2014 |
| **PAP** | patient assistance program |
| **PBM** | pharmacy benefit manager |
| **PCIP** | Primary Care Incentive Program |
| **PCI** | percutaneous coronary intervention |
| **PD** | peritoneal dialysis |
| **PDP** | prescription drug plan |
| **PET** | positron emission tomography |
| **PFFS** | private fee-for-service |
| **PFS** | physician fee schedule |
| **PLI** | professional liability insurance |
| **POS** | Provider of Service |
| **PPA** | potential preventable admissions |
| **PPACA** | Patient Protection and Affordable Care Act of 2010 |
| **PPO** | preferred provider organization |
| **PPS** | prospective payment system |
| **PPV** | potentially preventable emergency department visits |
| **PQI** | prevention quality indicator |
| **PQRI** | Physician Quality Reporting Initiative |
| **PQRS** | Physician Quality Reporting System |
| **PSA** | prostate-specific antigen |
| **PSAO** | pharmacy services administration organizations |
| **PSI** | patient safety indicator |
| **QIP** | quality incentive program |
| **RAPS** | Risk Adjustment Processing System |
| **RDS** | retiree drug subsidy |
| **R/E** | races/ethnicities |
| **REIT** | real estate investment trust |
| **REMS** | Risk Evaluation and Mitigation Strategy |
| **RHC** | routine home care |
| **RUG** | resource utilization group |
| **RVU** | relative value unit |
| **SGR** | sustainable growth rate |
| **SMI** | Supplementary Medical Insurance (Medicare Part B) |
| **SNF** | skilled nursing facility |
| **SNP** | special needs plan |
| **SSI** | Supplemental Security Income |
| **SSI** | surgical site infection |
| **SSO** | short-stay outlier |
| **T** | trillion |
| **TCM** | transitional care management |
| **TEFRA** | Tax Equity and Fiscal Responsibility Act of 1982 |
| **TMR** | targeted medication review |
| **UC** | urban cluster |
| **UA** | urbanized area |
| **UIC** | urban influence code |
| **UNOS** | United Network for Organ Sharing |
| **USRDS** | United States Renal Data System |
| **VA** | Department of Veterans Affairs |
| **VBP** | value-based purchasing |
| **VSSO** | very short-stay outlier |

# More about MedPAC

## Commission members

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## Commissioners' biographies

**Amy Bricker, R.Ph.,** is vice president of supply chain strategy with Express Scripts Inc. in St. Louis, MO. She works closely with pharmaceutical manufacturers and retail pharmacies in creating programs that support clients of Express Scripts' pharmacy benefit management and consultation services and drug utilization review. She has also held positions in the company's divisions of retail contracting and fraud, waste, and abuse. Prior positions include regional vice president with Walgreens Health Services and director of community retail pharmacy for BJC HealthCare. Ms. Bricker received a bachelor of science in pharmacy at St. Louis College of Pharmacy.

**Kathy Buto, M.P.A.,** is an expert in U.S. and global health policy. She is an independent consultant and currently serves on the Healthcare Leadership Council of the Healthcare Financial Management Association and as a Venture Advisor to InCube Labs LLC. Additionally, she is engaged in a range of volunteer professional engagements with, among others, the Arlington Free Clinic, the Robert Wood Johnson Foundation's Healthcare Legacy Forum, and the National Science Foundation's Study of Women in Policy Making. Her previous positions include vice president of Global Health Policy at Johnson & Johnson, senior health adviser at the Congressional Budget Office, deputy director of the Center for Health Plans and Providers at the Health Care Financing Administration (now Centers for Medicare & Medicaid Services), and deputy executive secretary for health at the Department of Health and Human Services. Ms. Buto received her master's in public administration from Harvard University.

**Jon B. Christianson, Ph.D.,** is the James A. Hamilton Chair in Health Policy and Management in the Division of Health Policy and Management at the School of Public Health at the University of Minnesota. His research has addressed the areas of health finance, payment structures, community health care coalitions, managed care payment, and the quality and design of care systems. Dr. Christianson recently served on the Institute of Medicine's Board on Health Care Services and is a member of the editorial board of the *American Journal of Managed Care*. He has chaired AcademyHealth's annual research meeting. Dr. Christianson received his Ph.D. in economics from the University of Wisconsin.

**Alice Coombs, M.D.,** is a critical care specialist and anesthesiologist at Milton Hospital and South Shore Hospital in Weymouth, MA. She is board certified in internal medicine, anesthesiology, and critical care medicine. Dr. Coombs is past president of the Massachusetts Medical Society (MMS) and a member of MMS's Committee on Ethnic Diversity. She chaired the Committee on Workforce Diversity that is part of the American Medical Association's (AMA's) Commission to Eliminate Health Care Disparities and has served on the Governing Council for the AMA Minority Affairs Consortium and the AMA Initiative to Transform Medical Education. She currently serves on the AMA Women Physicians Section Executive Committee. She helped to establish the New England Medical Association, a state society of the National Medical Association that represents minority physicians and health professionals. Dr. Coombs has served as a member and vice chair of the Massachusetts Board of Registration in Medicine Patient Care Assessment Committee. In addition, she was a member of the Massachusetts Special Commission on the Health Care Payment System, the Massachusetts Health Policy Advisory Committee, and the Massachusetts Health Disparities Council. She is currently serving under the U.S. Department of Education as the vice chair of the National Committee on Foreign Medical Education Accreditation.

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**Brian DeBusk, Ph.D.,** is chief executive officer of DeRoyal Industries in Powell, TN, which operates in the surgical, orthopedic, wound care, and health care information technology markets. He also serves as vice chairman of Lincoln Memorial University in rural Tennessee, which includes graduate medical education programs for physicians, physician assistants, nurse practitioners, and nurses. Dr. DeBusk's prior employment includes General Electric, Inobis, and Pace Energy Systems. He has served on the faculty of both the University of Tennessee and Lincoln Memorial University, teaching classes in information technology and business strategy. Dr. DeBusk holds a Ph.D. in electrical engineering from Vanderbilt University and a master of business administration from Emory University.

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**Bill Gradison, Jr., M.B.A., D.C.S.,** was a scholar in residence in the Health Sector Management Program at Duke's Fuqua School of Business. He was a member of the U.S. Congress (1975–1993) where he served as ranking member of the House Budget Committee and the Health Subcommittee of the Committee on Ways and Means. Mr. Gradison was a founding board member of the Public Company Accounting Oversight Board and was vice chairman of the U.S. Bipartisan Commission on Comprehensive Health Care ("Pepper Commission"). Prior positions also include assistant to the Secretary of Health, Education, and Welfare; president of the Health Insurance Association of America; and vice chair of the Commonwealth Fund Task Force on Academic Health Centers. Mr. Gradison received his B.A. from Yale University and an M.B.A. and doctorate from Harvard Business School.

**William J. Hall, M.D., M.A.C.P.,** is a geriatrician and professor of medicine at the University of Rochester School of Medicine where he directs the Highland Hospital Center for Healthy Aging. He previously served as a member of the board of directors of AARP. His career has focused on systems of health care for older adults. He was instrumental in establishing the Program of All-Inclusive Care for the Elderly and developing many senior prevention and wellness programs. Dr. Hall's prior service and positions include president of the American College of Physicians and leadership positions in the American Geriatrics Society. He received his bachelor's degree from the College of the Holy Cross and his medical degree from the University of Michigan Medical School and pursued postdoctoral training at Yale University School of Medicine.

**Jack Hoadley, Ph.D.,** is research professor at the Health Policy Institute in the McCourt School of Public Policy at Georgetown University in Washington, DC. Dr. Hoadley previously served as director of the Division of Health Financing Policy for the Department of Health and Human Services Office of the Assistant Secretary for Planning and Evaluation; as principal policy analyst at MedPAC and its predecessor organization, the Physician Payment Review Commission; and as senior research associate with the National Health Policy Forum. His research expertise includes health financing for Medicare, Medicaid, and the Children's Health Insurance Program (CHIP); pharmaco-economics and prescription drug benefit programs; and private sector insurance coverage. Dr. Hoadley has published widely on health care financing and pharmaco-economics and has provided testimony to government panels.

**David Nerenz, Ph.D.,** is director of the Center for Health Policy and Health Services Research at the Henry Ford Health System in Detroit, MI, as well as director of outcomes research at the Henry Ford Neuroscience Institute and vice chair for research in the Department of Neurosurgery at Henry Ford Hospital. He has served on the National Committee for Quality Assurance's Culturally and Linguistically Appropriate Services Workgroup, the Accountable Care Organization Technical Advisory Committee of the American Medical Group Association, and most recently as co-chair of the National Quality Forum's Expert Panel on Risk Adjustment for Sociodemographic Factors. Dr. Nerenz has served in various roles with the Institute of Medicine, including as chair of the Committee on Leading Health Indicators for Healthy People 2020. He serves on the editorial boards of *Population Health Management* and *Medical Care Research and Review*.

**Bruce Pyenson, F.S.A., M.A.A.A.,** is principal and consulting actuary at Milliman Inc. in New York, NY. His work has focused on diverse aspects of health care and insurance, including recent work related to alternative payment models for accountable care organizations, such as shared savings, and financial modeling of therapeutic interventions. He has co-authored publications on such topics as the cost-effectiveness of lung cancer screening, pandemic influenza, and site-of-service cost differences for chemotherapy. Mr. Pyenson is a fellow of the Society of Actuaries and a member of the American Academy of Actuaries.

**Rita Redberg, M.D., M.Sc.,** is professor of clinical medicine at the University of California at San Francisco (UCSF) Medical Center. A cardiologist, Dr. Redberg is also core faculty at the UCSF Philip R. Lee Institute of Health Policy Studies and adjunct associate at Stanford University's Center for Health Policy/Center for Primary Care and Outcomes Research. She is editor of *JAMA Internal Medicine* and chairperson of CMS's Medicare Evidence Development and Coverage Advisory Committee. Dr. Redberg has published over 300 articles in peer-reviewed medical journals. She serves in numerous positions on committees of the American Heart Association and the American College of Cardiology and was a Robert Wood Johnson Health Policy Fellow. Dr. Redberg was recently honored to receive the Robert Wood Johnson Health Policy Fellows Lifetime Achievement Award. She did her undergraduate work at Cornell University and has graduate degrees from the University of Pennsylvania Medical School and the London School of Economics.

**Craig Samitt, M.D., M.B.A.,** is executive vice president and chief clinical officer at Anthem Inc. He has led major health systems for 20 years, most recently serving as president and CEO of HealthCare Partners, a division of DaVita, and, from 2006 through 2013, as president and CEO of Dean Health System in Madison, WI. Before joining Anthem, Dr. Samitt served as partner and global provider practice leader in Oliver Wyman's Health & Life Sciences Practice and previously held senior executive roles at Fallon Clinic, Harvard Pilgrim Health Care, and Harvard Vanguard Medical Associates. Dr. Samitt serves on the board of the National Committee for Quality Assurance and the Indiana Health Information Exchange, and previously served on the boards of Advocate Physician Partners, Tandigm Health, and the Patient-Centered Primary Care Collaborative. Dr. Samitt received his B.S. in biology from Tufts University, his M.D. from Columbia University College of Physicians and Surgeons, and his M.B.A. from the Wharton School.

**Warner Thomas, M.B.A.,** is president and CEO of the Ochsner Health System in New Orleans, LA. He oversees a network of 28 owned, managed, and affiliated hospitals; more than 60 health centers and clinics; and 2,400 affiliated physicians. The Ochsner system includes the Ochsner Medical Center in New Orleans, the Ochsner Clinic group practice, rurally based and subacute care hospitals, skilled nursing and rehabilitation facilities, and hospice. The Ochsner Medical Center operates one of the largest accredited non-university-based graduate medical education programs in the United States. It is also one of the largest Medicare risk contractors in the region and offers an accountable care organization for Medicare. Mr. Thomas's prior positions include chief operating officer of Ochsner Health System, vice president of managed care and network development at the Southern New Hampshire Medical Center, and senior auditor and consultant at Ernst & Young. He received his master of business administration from Boston University Graduate School of Management.

**Susan Thompson, M.S., R.N.,** is senior vice president of integration and optimization with UnityPoint Health, an integrated delivery system serving Iowa, central and western Illinois, and central Wisconsin. Previously, she was chief executive officer of the UnityPoint Health–Fort Dodge health system in Iowa, which serves a predominantly rural and aging population and includes a medical center, a sole community hospital, a clinic, a primary care and multispecialty physician group, management contracts with critical access hospitals throughout the region, and a Pioneer Accountable Care Organization. She previously served in successive clinical and management positions at Trinity Regional Medical Center, including as intensive care staff nurse, director of quality systems, assistant director of patient-focused care, chief information officer, chief operating officer, and chief executive officer. Ms. Thompson obtained her bachelor of science in nursing and her master of science in health services management from Clarkson College in Omaha, NE.

**Pat Wang, J.D.,** is chief executive officer of Healthfirst in New York, NY. Healthfirst is a not-for-profit provider-sponsored health plan that serves Medicare enrollees, including those who are eligible for low-income subsidies

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