

M A R C H 2 0 0 7

REPORT TO THE CONGRESS

Medicare Payment Policy

MEDPAC Medicare
Payment Advisory
Commission

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Payment Advisory
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The Medicare Payment Advisory Commission (MedPAC) is an independent federal body 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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601 New Jersey Avenue, NW • Suite 9000 • Washington, DC 20001
(202) 220-3700 • Fax: (202) 220-3759 • www.medpac.gov



601 New Jersey Avenue, NW • Suite 9000
Washington, DC 20001
202-220-3700 • Fax: 202-220-3759
www.medpac.gov

Glenn M. Hackbarth, J.D., Chairman
Robert D. Reischauer, Ph.D., Vice Chairman
Mark E. Miller, Ph.D., Executive Director

March 1, 2007

The Honorable Richard B. Cheney
President of the Senate
U.S. Capitol
Washington, DC 20510

Dear Mr. Vice President:

I am pleased to submit a copy of the Medicare Payment Advisory Commission's March 2007 *Report to the Congress: Medicare Payment Policy*. This report fulfills the Commission's legislative mandate to evaluate Medicare payment issues and make specific recommendations to the Congress.

The report first provides context for the chapters that follow by documenting the rise in Medicare and total health care spending as a share of the economy. The report then assesses payment adequacy and provides the Commission's update and other recommendations on eight payment systems in traditional Medicare. The report concludes with a chapter on private plans, both Medicare Advantage plans and plans that provide prescription drug coverage only. We describe plan offerings to beneficiaries and describe several policy issues.

Sincerely,

A handwritten signature in black ink, appearing to read "Glenn M. Hackbarth".

Glenn M. Hackbarth, J.D.
Chairman

Enclosure



601 New Jersey Avenue, NW • Suite 9000
Washington, DC 20001
202-220-3700 • Fax: 202-220-3759
www.medpac.gov

Glenn M. Hackbarth, J.D., Chairman
Robert D. Reischauer, Ph.D., Vice Chairman
Mark E. Miller, Ph.D., Executive Director

March 1, 2007

The Honorable Nancy Pelosi
Speaker of the House
U.S. House of Representatives
U.S. Capitol
Room H-232
Washington, DC 20515

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Glenn M. Hackbarth, J.D.
Chairman

Enclosure

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Executive summary

Executive summary

As required by the Congress, the Medicare Payment Advisory Commission reviews Medicare payment policies and makes recommendations concerning them each March. In this report, we consider Medicare payment policy in 2008 for eight sectors: hospital inpatient, hospital outpatient, physician, outpatient dialysis, skilled nursing, home health, long-term care hospitals, and inpatient rehabilitation facilities. The Commission recommends changes to payment and other policies designed to make payments more accurate and to improve the value received by beneficiaries and taxpayers for their expenditures on health care.

In this report, we also include recent findings on the Medicare Advantage (MA) plans beneficiaries can join in lieu of traditional fee-for-service (FFS) Medicare and the private plans offering the new prescription drug benefit. We express our support for the MA program, but also our concern that MA program payments are higher than the amount traditional Medicare would have spent on the same beneficiaries. We also provide information on the enrollment, benefits, and premiums of the plans offering the new prescription drug benefit, both the stand-alone prescription drug plans and the prescription drug plans affiliated with MA plans.

At the beginning of each chapter we list the recommendations it contains. Within the chapters, we present each recommendation; its rationale; and its implications for beneficiaries, providers, and program spending. The spending implications are presented as ranges over one- and five-year periods and, unlike official budget estimates, do not take into account the complete package of policy recommendations, the interactions among them, or assumptions about changes in provider behavior. In Appendix A, we list all recommendations and the Commissioners' votes.

Context for Medicare payment policy

Medicare was designed to help ensure access to medically necessary care for the aged and disabled. Many analysts give Medicare credit for improving the economic position of its beneficiaries. Today, however, Medicare and other purchasers of health care in our nation face enormous challenges for the future, which are discussed in Chapter 1. One challenge relates to the wide variation in the quality and use of services within our health care system, with

quality often bearing no relationship—or even a negative relationship—to spending. Analysts point to geographic variation in spending as evidence of inefficiency and waste. A second challenge is that, as is true for other purchasers of health care, Medicare's spending has been growing much faster than the economy. In Medicare, forces such as the broad use of newer medical technologies and growth in enrollment will likely push future spending higher. Because of these forces, the chapter warns of a serious mismatch between the benefits and payments the program currently provides and the financial resources available for the future. Projected levels of spending will also impose a significant financial liability on Medicare beneficiaries, who must pay premiums and cost sharing.

Strategies to help ensure a more sustainable Medicare program include using payment policy to obtain greater value (i.e., higher quality using fewer resources or restraining unnecessary spending), increasing the program's financing, and restructuring Medicare's benefits and supplemental coverage. Policymakers will need to use a combination of approaches to address Medicare's long-term sustainability. Since Medicare heavily influences many aspects of health care, policymakers should keep in mind that the program could play a leading role in initiating some types of change. At the same time, broad trends in the health care system affect the environment in which it operates, and Medicare needs to work in collaboration with payers in the private sector who face similar pressures from growth in spending on health care.

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

In Chapters 2 and 3, the Commission recommends payment updates for 2008 and other policy changes for FFS Medicare. An update is the amount (usually expressed as a percentage change) by which the base payment for all providers in a prospective payment system is changed. To help determine the appropriate level of aggregate funding for a given payment system, the Commission considers whether current Medicare payments are adequate by examining information about beneficiaries' access to care; changes in provider supply and capacity; volume and quality of care; providers' access to capital; and, where available, the relationship of Medicare payments to providers' costs. Whether current costs approximate those of efficient providers affects our assessment of the

relationship between Medicare's payments and providers' costs. Efficient providers use fewer inputs to produce quality services. We then account for expected cost changes in the next payment year, such as those resulting from changes in input prices.

Improvements in productivity also affect providers' costs in the coming year. Medicare's payment systems should encourage providers to reduce the quantity of inputs required to produce a unit of service by at least a modest amount each year while maintaining service quality. Consequently, we apply a policy goal for improvement in productivity (the 10-year average of productivity gains in the general economy, 1.3 percent for 2008). This factor links Medicare's expectations for efficiency to the gains achieved by the firms and workers who pay taxes that fund Medicare. Competitive markets demand continual improvements in productivity from these workers and firms; as a prudent purchaser, Medicare should expect the same of health care providers.

Chapter 2 addresses hospital inpatient and outpatient, physician, and outpatient dialysis services; Chapter 3 discusses post-acute care services.

Hospital inpatient and outpatient services

Most indicators of payment adequacy for hospitals are positive. More Medicare-participating hospitals have opened than closed in recent years. Inpatient and outpatient service volume continues to increase but at reduced rates of growth in 2005 and into 2006. The quality of care hospitals provide to Medicare beneficiaries is generally improving. Spending on hospital construction increased substantially in recent years while the median values of several financial indicators (e.g., measures of debt service coverage) reached their highest value ever recorded in 2005. Hospitals with consistently lower Medicare margins over the last three years tend to have higher private payer payments and thus are under less pressure to control costs. Excluding hospitals with consistently high standardized costs would raise the industry-wide Medicare margin by 3 percentage points. The lack of pressure to control costs also may have contributed to an increase in the growth in costs per unit of service in 2006, leading to the negative Medicare margin (-5.4 percent) we project in 2007.

Balancing positive indicators and negative margins, the Commission recommends that the Congress update both inpatient and outpatient services by the hospital market basket, with this increase implemented concurrently with

a quality incentive payment program. Although pay for quality performance would operate separately from the update, a hospital's quality performance would likely determine whether its net increase in payments in 2008 would be above or below the market basket increase.

Part of the funding for a quality incentive payment policy for all hospitals should come from reducing payments for indirect medical education (IME). Our analysis finds that more than half of the IME add-on payment is unrelated to the additional cost of care that results from the intensity of a hospital's teaching program (measured by the ratio of residents to beds). The Commission recommends that the Congress reduce the IME adjustment by 1 percentage point to 4.5 percent per 10 percent increment in the resident-to-bed ratio, concurrent with implementation of a system for adjusting payments for severity of illness. Teaching hospitals will benefit from the severity adjustments to hospital payments that CMS is considering for proposed regulation and that are necessary to help improve the accuracy of the payment system. Our two recommendations, along with the contemplated severity adjustments and a focused pay-for-performance initiative, should be viewed as a package that would improve the accuracy of Medicare's acute inpatient payments while creating an incentive for improving the quality of care.

For several years, policymakers have been considering options for the federal government to help hospitals with their uncompensated care. We found little evidence of a relationship between the disproportionate share payments hospitals receive and the cost of caring for Medicare patients or the amount of uncompensated care they provide. If policymakers desire to provide a federal payment for uncompensated care, it should be distributed on the basis of each hospital's uncompensated care and not as an add-on to a per case payment rate. To provide the necessary data, the Commission recommends that CMS improve its instrument for collecting information on uncompensated care. The Commission has previously suggested specific changes to help CMS revise its data collection instrument.

Physician services

Our analysis finds that most indicators of payment adequacy for physicians are stable. Beneficiary access to physicians is generally good, with few statistically significant changes in recent years. We find that the number of physicians providing services to Medicare beneficiaries has more than kept pace with growth in the

beneficiary population in recent years, and per beneficiary service volume grew at a rate of 5.5 percent in 2005. Our claims analysis shows small improvements in the quality of ambulatory care. The ratio of Medicare payment rates to private payment rates was essentially unchanged.

In consideration of expected input costs for physician services and our payment adequacy analysis, the Commission recommends that the Congress update payments in 2008 for physician services by the projected change in input prices less the Commission's expectation for growth in productivity.

Although the recently passed Tax Relief and Health Care Act directs additional funds to physicians in 2008, the sustainable growth rate (SGR) formula continues to call for substantial negative updates through 2015. Though currently we do not see overall access problems, the Commission is concerned that consecutive annual cuts would threaten beneficiary access to physician services over time, particularly those provided by primary care physicians. As a mechanism for volume control, the current national SGR has several problems, which the Commission examines in its mandated report to the Congress, *Assessing Alternatives to the Sustainable Growth Rate System*.

Fee-schedule mispricing may be one factor contributing to disparities in volume growth among services. The Secretary could play a lead role in identifying mispriced services by measuring volume growth for specific services, while taking into account changes in the number of physicians performing the service and other factors. CMS or the Relative Value Scale Update Committee (RUC) could use the results from these analyses to flag services for closer examination of relative work values. Alternatively, the Secretary could automatically correct such mispriced services and the RUC would review the changes during its regular five-year review process.

Outpatient dialysis services

Most of our indicators of payment adequacy for outpatient dialysis services are positive. Beneficiaries' access to dialysis care is generally good; the number of facilities increased, capacity increased, and there do not appear to be access problems. The growth in the number of dialysis treatments kept pace with growth in the number of patients. Quality of care is improving for some measures; more patients are receiving adequate dialysis and more have their anemia under control. Recent evidence about trends in opening new dialysis facilities suggests that

providers have sufficient access to capital. Between 2003 and 2005, the cost per treatment for composite rate services and dialysis drugs fell, largely driven by decreases in drug prices. We project that Medicare payments will cover the costs of providing outpatient dialysis services to beneficiaries in 2007 with a margin of 4.1 percent.

Considering expected input costs and our payment adequacy analysis, the Commission recommends that the Congress update the composite rate for outpatient dialysis services in 2008 by the projected change in input prices less the Commission's expectation for productivity growth.

The Commission remains concerned that Medicare continues to pay separately for drugs and laboratory tests that providers commonly furnish to dialysis patients. Medicare could better achieve its objectives of providing incentives for controlling costs and promoting access to quality services if all dialysis-related services, including drugs, were bundled under a single payment. In addition to broadening the payment bundle, the Secretary should continue efforts to improve dialysis quality. The Commission has recommended that Medicare base a portion of payments on the quality of care furnished by facilities and physicians who treat dialysis patients. The Secretary also needs to continue to develop quality measures and to monitor and improve dialysis care. Together, these steps should improve the efficiency of the payment system, better align incentives for providing cost-effective care, and reward providers for furnishing high-quality care.

Post-acute care providers

The recuperation and rehabilitation services that post-acute care (PAC) providers furnish are important to Medicare beneficiaries. In Chapter 3, the Commission analyzes payment adequacy for the four types of PAC providers: skilled nursing facilities (SNFs), home health agencies (HHAs), inpatient rehabilitation facilities (IRFs), and long-term care hospitals (LTCHs).

Prospective payment systems (PPSs) for each setting were developed and implemented separately. While the PPSs have changed the pattern of service use within each setting, we do not have adequate data to evaluate whether beneficiaries are being treated in the setting that provides the most value to them and the program. Three barriers undermine the program's ability to know if it is purchasing high-quality care in the least costly PAC setting consistent with the care needs of the beneficiary:

- Case-mix measures often do not accurately track differences in the costs of care.
- There is no common instrument for patient assessment across PAC settings, which makes it difficult to compare costs, quality of care, and patient outcomes.
- There is a lack of evidence-based standards of care.

Similar barriers limit our ability to assess differences in financial performance within each post-acute setting. We do not know if better financial performance results from higher efficiency or from differences in the mix of patients chosen for treatment. In our analysis of factors underlying financial performance since implementation of the PPSs, we found that PAC providers with consistently low unit costs used fewer resources (e.g., visits), had higher occupancy rates, and had higher Medicare margins than providers with consistently high unit costs.

Skilled nursing facility services

Our indicators of payment adequacy are generally positive for SNFs, but quality shows a decline. Beneficiaries have good access to SNF care, although those who need certain expensive services may experience delays in finding SNF care and end up staying longer in the hospital. The number of facilities providing SNF care to Medicare beneficiaries has remained almost constant. Spending and volume of days and stays increased in 2005, with cases continuing to shift to rehabilitation case-mix groups that receive higher payments. Two outcome measures for Medicare SNF patients show declining quality in recent years: Average facility rates of avoidable rehospitalizations increased and discharges to the community declined. SNFs appear to have good access to capital. We project that Medicare payments will more than cover the costs of providing SNF care to Medicare beneficiaries in 2007, with margins of 11 percent for freestanding SNFs.

The data suggest that SNFs should be able to accommodate cost increases in 2008. Therefore, the Commission recommends that the Congress eliminate the update to payment rates for SNF services for fiscal year 2008.

Home health services

Our measures for home health services are positive. Access to care continues to be satisfactory; more than 99 percent of beneficiaries live in an area served by a HHA in 2006. The number of beneficiaries using the benefit increased substantially. The number of HHAs participating

in Medicare also continues to increase rapidly, but the growth in new HHAs varies among regions, with two states accounting for two-thirds of the growth. For most measures, quality has increased slightly, but the rate of hospital readmissions and of unplanned admissions to emergency rooms has not changed. Between 2004 and 2005, average cost per episode grew at a rate of less than 1 percent, yielding a margin for freestanding agencies of over 16 percent. We project that Medicare payments will more than cover the costs of providing home health care to Medicare beneficiaries in 2007 and project margins remaining over 16 percent.

The data on access, quality, volume, and financial performance suggest that agencies should be able to accommodate cost increases in 2008; hence, the Commission recommends that the Congress eliminate the update to payment rates for home health care services for calendar year 2008.

Inpatient rehabilitation facility services

Judging payment adequacy for IRFs, which provide intensive rehabilitation services in an inpatient setting, is difficult because of a major change in Medicare policy. The change was CMS's modification of the 75 percent rule, which requires IRFs to have 75 percent of admissions with one or more of a specified list of conditions; 2005 was the first full year the new rule took effect.

The number of IRF cases increased rapidly after the introduction of the PPS but decreased as the 75 percent rule started to be phased in. Medicare spending followed the same trends, increasing rapidly from 2002 to 2004 but decreasing from 2004 to 2005. Our other indicators show that the supply of IRFs was stable in 2005, the patients treated by IRFs in 2005 were more complex than those who shifted to alternative settings, and quality indicators for all IRF patients and for those who were discharged home improved slightly. Most IRFs are hospital-based units that access capital through their parent institutions, which have good access to capital as we discuss in Chapter 2.

Growth in costs per case accelerated between 2004 and 2005 as, in response to the modified 75 percent rule, the volume of cases declined and the patient mix shifted—with patients needing the highest level of resources being treated in IRFs, and those with lesser needs being treated in other settings. Aggregate Medicare margins for 2005 were high, 13 percent. We estimate that margins in 2007 will be lower, largely because of the effect of the 75

percent rule. We estimate that the margin will range from 0.5 percent to 5.5 percent, depending on the ability of the IRFs to control their costs to compensate for the drop in volume.

In this time of transition from historically high margins and growth to lower margins and volume declines, the Commission recommends that the Congress update payment rates for IRFs for fiscal year 2008 by 1 percent.

Long-term care hospitals

Our indicators of payment adequacy for LTCHs are largely positive. The number of LTCH providers increased between 2004 and 2005, with the number of LTCH hospitals within hospitals (HWHs) growing twice as fast as the number of freestanding facilities. The rate of growth slowed in 2006. The number of cases increased 10 percent annually from 2003 to 2005 and Medicare spending grew at almost triple that pace during the same period. The evidence on quality is mixed. Risk-adjusted rates of death in the LTCH, death within 30 days of discharge, and one of four patient safety indicators (PSIs) showed improvement between 2004 and 2005. But more patients were readmitted to acute care and three PSIs worsened. Rapid expansion of both for-profit and nonprofit LTCHs demonstrates good access to capital for this sector.

LTCHs' Medicare margins for 2005 were high, almost 12 percent, but CMS has made a number of policy changes that will reduce payments. We estimate the margin in 2007 to be between 0.1 percent and 1.9 percent, with the magnitude depending on how LTCH HWHs respond to the 25 percent rule (this rule pays less for certain patients these facilities admit from their host hospitals).

The Commission is concerned about growth in LTCHs because we are not certain that this high-cost service is being used only for patients who need it. LTCHs have shown themselves to be very responsive to changes in payments and should be able to accommodate cost changes in 2008. These findings—as well as the other factors the Commission considers, which are almost all positive—lead us to recommend that the Secretary eliminate the update to payment rates for LTCH services for 2008. The Commission recommends limiting growth in payments per case until the industry and CMS agree on patient and facility criteria to better define these facilities and the patients appropriate for them, as we previously have recommended.

Update on Medicare private plans

In Chapter 4, we report recent findings on the MA plans beneficiaries can join in lieu of traditional FFS Medicare and the private plans offering the new prescription drug benefit.

All beneficiaries will be able to join an MA plan in 2007, and enrollment in MA plans grew substantially in 2006, with the percentage of beneficiaries enrolled in them reaching a level close to an all-time high. Almost half the growth in 2006 was in private FFS MA plans. Our analysis of MA payments shows that the benchmarks (which are the reference level for plan bids and the maximum program payment) now average 116 percent of traditional Medicare FFS levels, and payments average 112 percent.

The Commission has always supported a private plan option in Medicare and has recommended a policy of financial neutrality between private plans and traditional Medicare FFS. Financial neutrality includes setting payment benchmarks at 100 percent of FFS costs and removing the effect of payments for IME. In addition to financial neutrality between MA and FFS, the Commission has also recommended neutrality between types of MA plans, including eliminating the stabilization fund for preferred provider organization plans and making bidding rules consistent across plan types. Further, the Commission has recommended implementing a pay-for-performance program for MA plans and calculating clinical measures for the FFS program that would permit CMS to compare quality in the FFS program with that in MA plans.

The chapter also provides information on the enrollment, benefits, and premiums of plans offering the new prescription drug benefit, both the stand-alone prescription drug plans and the prescription drug plans affiliated with MA plans. Our analysis of Part D plan offerings for 2007 shows that more plans entered the market for 2007 than in 2006 and that the typical beneficiary has a choice of over 50 stand-alone drug plans. The range of Part D premiums for basic benefits narrowed over the two years, and a larger share of plans now offer supplemental benefits.

Plans bid to provide Part D coverage, and current law calls for weighting Part D plan bids for 2007 with plans' 2006 enrollment when calculating the national average bid (called enrollment weighting). Because enrollees tended to choose plans with lower premiums, enrollment weighting would have led to a smaller government subsidy, which would mean lower Medicare program payments and

higher enrollee premiums. Similarly, the law also calls for enrollment weighting in the formula for calculating each region's low-income premium subsidy amount for 2007. CMS chose not to use enrollment weighting fully for bids in either case. This action means that enrollees will pay lower premiums and more low-income enrollees will be able to remain in their current plan. However, it also does not allow the full benefits of competition to be realized; thus, the cost to Medicare will increase.

CMS is using its general demonstration authority to transition to enrollment weighting over time. The

Commission is concerned that CMS is using its demonstration authority to provide higher payments rather than to demonstrate policy options. The Commission has previously recommended that the Secretary use his demonstration authority to test innovations in the delivery and quality of health care and not as a mechanism to increase payments. The Commission has also previously recommended that the Secretary have a process for timely delivery of Part D data to congressional support agencies. CMS has proposed a regulation that supports the intent of that recommendation. ■

CHAPTER

1

**Context for Medicare
payment policy**

Context for Medicare payment policy

Chapter summary

When Medicare was enacted in 1965, it was designed to help ensure access to medically necessary care for aged workers and their spouses and significantly lessen the financial liability for medical care. The program achieved those aims, and many analysts give Medicare credit for improving the economic position of the elderly.

Today, however, Medicare and other purchasers of health care in our nation face enormous challenges for the future. One challenge relates to the wide variation in the quality and use of services within our health care system, with quality often bearing no relationship or even a negative relationship to spending. Patient safety may be at risk if Medicare's payment systems create incentives for providers to furnish unnecessary care or provide no incentives for providers to coordinate their services. Analysts point to geographic variation in spending as evidence of inefficiency and waste. This raises the question of whether the resources entrusted to the Medicare program by taxpayers and beneficiaries are used wisely.

In this chapter

- Understanding Medicare's initial design and financing
- Today's concerns about Medicare
- The broader U.S. health care system
- Changing Medicare policy within the broader U.S. health care system

Another difficult challenge relates to financing. As is true for other purchasers of health care, Medicare's spending has been growing much faster than the economy. Our substantial national income and the interaction between broad use of newer medical technologies and health insurance are thought to account for much of this long-term growth, and some of those forces will likely push future spending higher. Medicare will have the additional challenge of higher levels of enrollment associated with retiring baby boomers, which will affect program spending levels as well as the demand for federal resources for other programs that benefit the elderly, such as Social Security and Medicaid.

Because of these forces, the Medicare trustees and others warn of a serious mismatch between the benefits and payments the program currently provides and the financial resources available for the future. If Medicare benefits and payment systems remain as they are today, the trustees note that over time the program would require major new sources of financing for Part A. Also, Medicare would automatically require increased shares of general tax revenues for Parts B and D, which would restrict the availability of resources for other federal priorities. Projected levels of spending could also impose a significant financial liability on Medicare beneficiaries, who must pay premiums and cost sharing.

Strategies to help ensure a more sustainable Medicare program include restructuring Medicare's benefits and supplemental coverage, increasing the program's financing, and using payment policy to obtain better value. Policymakers will need to use a combination of approaches to address Medicare's long-term financing. Since Medicare heavily influences many aspects of health care, policymakers should keep in mind that the program could play a leading role in initiating some types of change. At the same time, broad trends in the health care system affect the environment in which Medicare operates, and the program should work in collaboration with other payers who face similar pressures from growth in health care spending. ■

Medicare fills a critical role in our society—ensuring that the elderly and disabled have access to medically necessary care. Along with other payers in our health care system, the program has helped to finance important strides in medical technology. For the sake of its beneficiaries, we must preserve those aspects of the Medicare program. However, we should also use Medicare’s considerable resources more wisely. The program rewards increases in the volume and specialized nature of services but not necessarily in the value of services in terms of health outcomes and efficiency. Practice patterns of care vary widely by geographic region, often with a poor relationship between quality and spending. Some stakeholders view the program as one in which all providers are entitled to payment, regardless of the quality, efficiency, or sometimes even the need for their services. Unless these aspects of Medicare change, the financial obligation of beneficiaries and future taxpayers will be onerous.

The program’s shaky financial outlook is a strong impetus for change. As is true for other purchasers of health care services in the United States, Medicare’s spending is growing much faster than the U.S. economy. Analysts often attribute this trend to the interaction of income, broad use of new medical technologies, and health insurance coverage. In addition, CMS began Medicare’s new outpatient prescription drug program, Part D, in 2006. This program adds an important benefit to Medicare but greatly expands the program’s need for resources. Finally, the leading edge of the baby boomers will become Medicare beneficiaries after 2010, which will also accelerate Medicare spending. These factors will lead Medicare to require an unprecedented share of our national income.

Moreover, because of the retirement of the baby boom generation, other federal programs such as Social Security and long-term care services financed through Medicaid will also require greater resources at the same time that Medicare spending expands. Some analysts point out that growth in our nation’s economy has historically been large enough to finance expansion of both health and nonhealth spending (Chernew et al. 2003). Future growth in the economy may be able to support Medicare’s financing needs, particularly if policymakers take steps to slow growth in health care spending or to reallocate federal revenues to health programs. Other analysts disagree, saying long-term economic growth alone will not be sufficient to bring the country’s fiscal position into balance (Bernanke 2007). According to this point of view,

fiscal stability will likely require a sizable slowdown in the growth rate of spending on health care and may also require a substantial increase in taxes as a share of our nation’s economy (CBO 2005a).

Because the projected shortfall in Medicare’s financing is so large, policymakers will need to use a variety of policy approaches. One strategy is to make changes that lead to efficient payments so that Medicare will pay no more than what is required to obtain quality services and good access to care for beneficiaries. However, Medicare faces constraints in making unilateral changes. Providers respond to the incentives of all their payers, not just Medicare’s. The conflict between other payers’ payment policies and Medicare’s can undermine Medicare’s incentives. Medicare takes the lead in initiating some changes. To be fully effective, however, Medicare must collaborate with other payers to create incentives for providers to improve their efficiency.

Understanding Medicare’s initial design and financing

Policymakers created the Medicare program in 1965 at a time of great concern about the financial hardship that could result from illness and the difficulties the elderly had in obtaining health insurance. The number of elderly was growing at the time, as were medical costs, and older people were more likely to have difficulties obtaining private insurance coverage. Policymakers tied eligibility for Medicare’s hospital insurance to an individual’s eligibility for Social Security benefits because many retirees lost ties to their employers, who had helped to finance health care when they were active workers.

Policymakers designed Medicare’s benefit structure and its payment methods to look like private insurance that was available at the time. An important provision within Medicare’s statute precludes the program from “exercising any supervision or control over the practice of medicine.” Medicare’s sister program, Medicaid, was created at the same time to finance health care costs for low-income individuals, primarily those on public assistance who had few means with which to purchase private health insurance (Moore and Smith 2005).

Eligibility and financing for Part A and Part B

Medicare shifted much of the financial liability for health care spending from the elderly to taxpayers through a

hybrid system with two major parts—A and B—that had different eligibility requirements and different financing mechanisms.¹

Part A, the Hospital Insurance (HI) program, covers stays in hospitals and skilled nursing facilities, hospice care, and some home health care. Policymakers designed Part A as a compulsory social insurance program tied to employment in work covered by Social Security, with dedicated payroll taxes held in the HI trust fund. The combined employer and employee amounts of HI taxes have increased gradually from an initial rate of 0.7 percent of earned income to 2.9 percent today.² Part A essentially finances health care expenses related to hospital and other care of current retirees through payroll taxes on current workers, with the promise of future benefits to those workers.

The Congress also established Part B, Supplementary Medical Insurance (SMI), covering services such as physician visits and outpatient hospital care. Part B is voluntary and became available in 1966 to anyone age 65 or older who enrolled and paid the \$3 monthly premium. States could elect to pay the Part B premium for low-income individuals. Initially, Part B premiums were to finance 50 percent of covered benefits, with the remainder paid from general revenues (broad-based federal tax dollars made up of income and other taxes on individuals and corporations). Today, beneficiary premiums finance about 25 percent of SMI program spending, and general revenues finance the remainder, which currently requires about 10 percent of all personal and corporate income tax revenue. Beneficiaries must also pay cost-sharing requirements for a portion of their services, described next.

Benefit design and cost sharing

Part A and Part B were designed so that beneficiaries retained some financial responsibility for health spending through cost-sharing requirements at the point the patient receives medical services. Medicare's benefit package also left certain services uncovered, most notably outpatient prescription drugs. Over time, these factors led most Medicare beneficiaries to obtain supplemental coverage, primarily through individual medigap policies or employer-based retiree coverage. Medicaid provides supplemental coverage for lower income Medicare beneficiaries.

The proportion of spending for Medicare-covered services paid through cost sharing has remained fairly stable over time. Part A cost-sharing requirements generally increased

at the same rate as payment updates for Part A services. Cost sharing for many Part B services is proportional to allowed charges (typically 20 percent coinsurance).³ Lawmakers rarely increased Part B's annual deductible; for example, it remained at \$100 from 1991 until 2004. As a result, beneficiary cost sharing for Part A and Part B combined made up a slightly smaller proportion of total spending for Medicare-covered services in 2003 than in earlier years (16 percent compared with 18 percent in 1977 (Table 1-1)). Beginning in 2005, the Part B deductible was raised to \$110 and it now increases over time at the same rate as growth in Part B spending per person.

Outpatient prescription drugs were not covered until Part D began in 2006. One reason drugs were not included originally is that, at the time, it was not common for health insurance plans to cover prescription drugs. A further concern was cost. Medications have grown more important in treating many conditions. Meanwhile, prescription drugs have been one of the fastest growing sectors in health care, which puts considerable financial pressure on private employers, states, and beneficiaries. These forces, in turn, led to political pressure for Medicare to offer prescription drug benefits.

In 2002, Medicare's benefit package covered about 45 percent of the cost of all medical and long-term care services for Medicare beneficiaries (Kaiser Family Foundation 2005). This percentage increased for 2006 and future years because of the start of Part D, but estimates of the magnitude are not yet available. Most Medicare beneficiaries have supplemental coverage to fill in some or all of Medicare's gaps in cost sharing and coverage. About 90 percent of Medicare beneficiaries obtained supplemental coverage in 2003 through former employers (33 percent), medigap policies (25 percent), Medicare Advantage plans (13 percent), Medicaid (16 percent), or other programs (2 percent) (MedPAC 2006b). Supplemental coverage often gives enrollees greater predictability of their out-of-pocket spending. In return for paying an annual premium, beneficiaries receive supplemental coverage, such as medigap policies, that reduces their cost sharing to zero or nearly zero from the time they begin using health services each year. Some protection against high out-of-pocket spending is desirable, but such coverage may reduce beneficiaries' sensitivity to costs. Those with supplemental coverage tend to have higher use of services than individuals with similar health status and no supplemental coverage—17 percent to 28 percent higher by one estimate (Christensen and Shinogle 1997).

**TABLE
1-1**

The shares of total spending paid by Medicare program payments and beneficiaries' cost sharing have remained fairly stable over time

	1977			1983			2003		
	HI	SMI	Total	HI	SMI	Total	HI	SMI	Total
Total spending (in billions)	\$15.8	\$9.2	\$25.0	\$39.6	\$25.3	\$64.8	\$141.4	\$134.5	\$275.7
Medicare program payments (in billions)	14.7	5.8	20.5	36.3	17.1	53.4	129.6	103.3	232.8
Beneficiary cost sharing (in billions)	1.1	3.4	4.5	3.3	8.2	11.4	11.8	31.2	42.9
Medicare program payments as a share of total spending	59%	23%	82%	56%	26%	82%	47%	37%	84%
Beneficiary cost sharing as a share of total spending	4	14	18	5	13	18	4	11	16

Note: HI (Hospital Insurance), SMI (Supplementary Medical Insurance). Total spending is the sum of Medicare program payments and beneficiary cost sharing for fee-for-service care. Payments and cost sharing for managed care plans are excluded. The estimates of beneficiary cost sharing for 2003 are significantly higher than they would have been using previous methodologies for calculating Part B cost sharing. Cost sharing excludes beneficiary premiums, which financed about one-third of SMI program spending in 1977 and less than one-quarter in 1983 and 2003. MedPAC estimates that the combination of beneficiary premiums and cost-sharing liability accounted for roughly 26 percent of total spending in 1977, 25 percent in 1983, and 24 percent in 2003.

Source: Percentages calculated by MedPAC from data in Table 19, Medicare & Medicaid statistical supplement for 2004. <http://www.cms.hhs.gov/MedicareMedicaidStatSupp/LI/list.asp#TopOfPage>.

Policymakers created the Medicaid program at the same time as Medicare to address the health care needs of low-income individuals. The federal government, along with the states, assumes nearly all the cost of health care for beneficiaries who meet means and asset tests, and the federal share is financed with general revenues (like Part B). Since 2003, policymakers introduced two measures to Medicare that also vary program subsidies based on financial need: variation in Part B's premium based on income and low-income subsidies for Part D.

The presence of Medicare and Medicaid creates certain challenges for serving individuals eligible for both programs (called dual eligibles or duals). Federal and state policy goals for the programs sometimes conflict, and current policies toward dual eligibles create incentives to shift costs between payers, often hinder efforts to improve quality and coordinate care, and may reduce access to care (MedPAC 2004b). Medicaid has become the primary public payer for long-term care, with many beneficiaries gaining eligibility and qualifying for benefits through medical indigence (Moore and Smith 2005). The intersection of the two programs' payment policies has

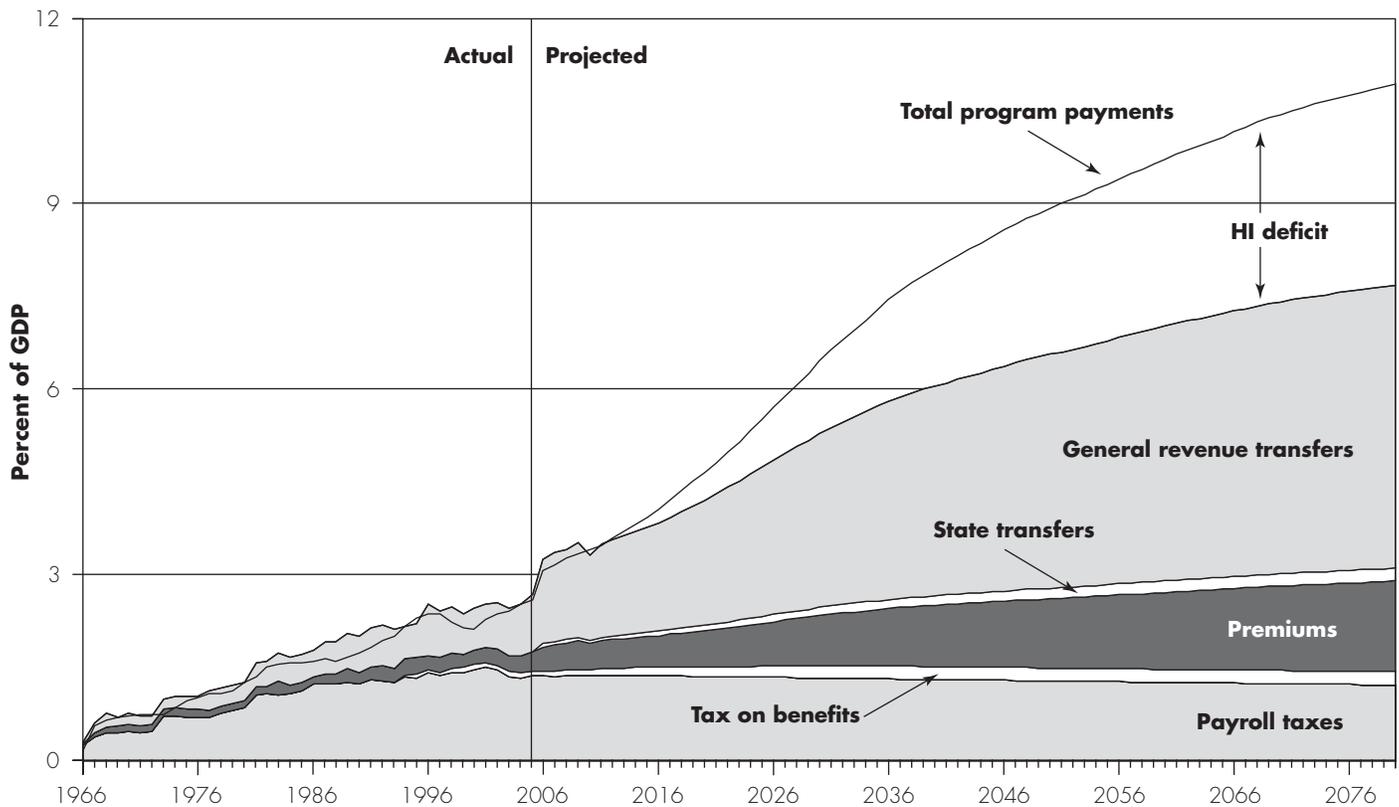
created particular problems related to shifting costs among payers for beneficiaries' post-acute and long-term care needs.

Shift from inpatient to outpatient services and post-acute care

Although Medicare relieved much of the financial liability associated with beneficiaries' health care, it quickly became apparent that the program's rising costs could become a significant concern for taxpayers and the economy. In the program's first few years, policymakers became concerned about increases in prices for medical care and any relationship between inflation and the introduction of Medicare (SSA 2006). Among all payers in the U.S. health care system, the main concern 40 years ago was the rise in inpatient hospital expenditures, which then constituted the bulk of spending on health care. This concern led to 1972 amendments to the Social Security Act that gave Medicare authority to conduct demonstrations (smaller scale experiments) of prospective payment methods, introduced the option of Medicare risk-sharing contracts, and constrained growth in reimbursement for physicians' practice costs to a

**FIGURE
1-1**

Medicare faces serious challenges with long-term financing



Note: GDP (gross domestic product), HI (Hospital Insurance). Tax on benefits refers to a 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”) refer to payments from the states to Medicare for assuming primary responsibility for prescription drug spending.

Source: 2006 annual report of the Boards of Trustees of the Medicare trust funds.

measure of such inflation (the Medicare Economic Index). Lawmakers thought these provisions had the potential to control program spending. At the same time, however, the amendments expanded Medicare eligibility to include the disabled and individuals with end-stage renal disease.

Implemented in 1983, the prospective payment system (PPS) for hospital inpatient care slowed growth in Part A spending but also had the foreseeable consequence of moving care to post-acute settings, funded through a mix of Part A and Part B, and outpatient settings, financed under Part B. On balance, growth in Part B spending has outpaced Part A. In 1977, Part A made up 63 percent of total spending (the sum of 59 percent Medicare program payments and 4 percent beneficiary cost-sharing liability), compared with about 51 percent in 2003 (Table 1-1, p. 7).

Meanwhile Part B grew from 37 percent of total spending in 1977 to 49 percent in 2003. In turn, the movement toward certain types of post-acute care and outpatient care means that a greater proportion of program spending is financed with broader-based general revenues than dedicated payroll taxes on current workers.

Today’s concerns about Medicare

Most of the initial concerns about Medicare’s rising costs still hold today. As is true for other purchasers of health care, Medicare’s spending is growing much faster than the economy. Projections of continued rapid growth in spending in the health care system combined with the

retirement of the baby boom population foreshadow accelerated growth in Medicare outlays in 2010 and beyond. At the same time, the Medicare program spends widely different amounts for beneficiaries across geographic regions, much of which can be attributed to differences in practice patterns rather than to differences in underlying health status. There are also wide geographic disparities in the quality of care beneficiaries receive, with no relationship or a negative relationship between quality of care and spending.

Projections of Medicare's long-term financing needs

Until recently, decision makers tended to focus on the financial status of the Medicare trust funds as the most important indicator of the program's sustainability. HI expenditures began to exceed HI tax income in 2004, with existing trust fund balances plus interest income keeping Part A in a solvent position. In their most recent report, the Medicare trustees project that, under intermediate assumptions, the HI trust fund will be exhausted in 2018. Under current law, Medicare does not have authority to pay for Part A services once the HI trust fund is exhausted. The SMI trust fund is financed automatically with general revenues and beneficiary premiums, but the trustees point out that SMI financing would have to increase sharply to match expected growth in spending.⁴ Such rapid growth would have repercussions on beneficiaries as well as on the availability of funds for other federal priorities.

The status of Medicare trust funds does not give a complete picture. If Medicare benefits and payment systems remain as they are today, the trustees note that over time the program will require major new sources of financing for Part A and will automatically require increasing shares of general tax revenues for Part B and Part D (see text box, pp. 10–11). The trustees project that dedicated payroll taxes will make up a smaller share of Medicare's total revenue and that a large deficit between spending for Part A and revenue from dedicated payroll taxes will develop (Figure 1-1).

To finance the projected deficit through 2080, the trustees estimate that Medicare's payroll tax would need to increase immediately from 2.9 percent to 6.41 percent of earned income, or HI spending would need to be decreased immediately by 51 percent. Delays in addressing the HI deficit would eventually require even larger increases in the tax rate or even more dramatic cuts to spending. The premiums and general revenues required to finance projected spending for SMI services could impose a

significant financial liability on Medicare beneficiaries and on resources for other priorities. If income taxes remain at their historical average share of the economy, the Medicare trustees estimate that the SMI program's share of personal and corporate income tax revenue would rise from 10 percent today to 24 percent by 2030 and to 40 percent by 2080. For beneficiaries, even though Part D now covers a portion of their spending on prescription drugs, growth over time in Medicare premiums and cost sharing for SMI services will require more of their incomes, which could lead to financial hardship for some; in 2002, roughly half of all noninstitutionalized Medicare beneficiaries had family incomes of \$20,000 or less (Kaiser Family Foundation 2005).

The 45 percent trigger

Medicare's problems with long-term financing will become more visible to policymakers over the next few years because of a warning system established in the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) known as the 45 percent trigger. Lawmakers included this provision to spark debate on balancing national priorities between Medicare and other uses for general revenue financing. The implication of the funding warning is that the Medicare program should not impose too heavy an obligation on the general taxpayer.⁵

Each year, the Medicare trustees are required to project the share of Medicare outlays that is financed with general revenues in the current and six succeeding fiscal years. Under the warning system, if two consecutive annual reports project that general revenue will fund 45 percent or more of Medicare outlays in any year of the seven-year projection window, then the President must propose and the Congress must consider legislation to bring Medicare's spending below this threshold. However, the provision does not require the Congress to pass legislation. In their 2006 report, the Medicare trustees projected that the program would hit this 45 percent trigger in 2012, the last year of the seven-year window (Boards of Trustees 2006). Moreover, the trustees expect a similar finding for their 2007 report, so policymakers will likely need to consider changes to Medicare's benefits, payments, and financing by the spring of 2008.

Increasing financial liability for beneficiaries

Rapid growth in Medicare spending has implications for beneficiaries as well as taxpayers, since both groups finance the program. Although the premiums Medicare

Projecting growth in Medicare spending

In making long-term projections of Medicare's costs, a critical assumption is the growth rate in program spending per person, after adjusting for the age and gender mix of the population.⁶ Before their 2001 report, the Medicare trustees assumed that long-range spending would grow at the same rate as gross domestic product (GDP) per person. Growth rates vary depending on the time period over which one calculates them. Nevertheless, on average, real rates of increase in our nation's health expenditures have risen faster than real growth in the economy over the past six decades—even during the 1990s when managed care techniques and expanded use of prospective payment methods slowed spending increases (2004 Technical Review Panel on the Medicare Trustees Report). In recognition of this, the Medicare trustees began assuming that long-range Medicare program spending per person would grow at a rate of GDP plus 1 percentage point, excluding effects resulting from the population's age and gender mix (which they model separately).⁷

A higher assumption would be more in keeping with experience. Between 1970 and 2003, for example, the inflation-adjusted growth rate in our nation's health spending per person was more than 2 percentage points higher than real GDP growth per person (CBO

2005a). Even an assumption that health care spending will grow 2 percentage points above GDP growth could be too low. One study combined projections of the health status of future Medicare cohorts with a look at 10 medical technologies that are likely to be adopted widely (Goldman et al. 2005).⁸ Under one set of assumptions about the future prevalence of disease and disability, the study projects that, for example, widespread use of a compound that extends life span could lead to health care spending in 2030 that is as much as 70 percent higher than in a scenario without such technology.

For their 2006 report, the trustees refined their assumptions. Overall, the new approach is consistent with calculations of 75-year Hospital Insurance actuarial balances under an assumption of growth rates at GDP plus 1 percentage point. However, the trustees adopted a forecasting model that makes a more gradual transition from current rates of growth to an assumption that Medicare growth rates ultimately will equal GDP growth. For example, the model assumes that per capita growth rates in Medicare spending for 2030 will be 1.4 percentage points above GDP growth, declining gradually to GDP plus 0.75 percent in 2050 and to less than GDP plus 0.2 percent in 2080 (Boards of Trustees

(continued next page)

beneficiaries pay (primarily for Part B and Part D) are projected to make up a steady 12 percent to 13 percent of total program revenue, the dollar amounts of those premiums will require growing shares of beneficiaries' incomes. Part B premiums for 2007 are \$93.50 per month (or \$1,122 for the year), a \$5 per month increase (5.6 percent) over the 2006 amount (CMS 2006). This is a much smaller increase than expected—the lowest since 2000. However, the 2007 premium increase was held down by an assumption that, under the sustainable growth rate system, Medicare's fees paid to physicians would decline by about 5 percent. Policymakers prevented cuts in physician fees for 2007 after CMS set the level of Part B premiums. CMS estimates that, with physician payment rates for 2007 held at their 2006 level, the 2007 monthly premium would have been \$1.50 higher, or \$95 (for a

total increase of 7.3 percent over 2006). Beginning in 2007, Part B premiums will be higher for individuals with higher incomes because the federal government's premium subsidies will be related to income.⁹ CMS estimates that about 4 percent of Part B enrollees will pay higher premiums based on income (CMS 2006).

Between 2000 and 2007, Medicare beneficiaries faced average annual increases in the Part B premium of nearly 11 percent—as high as 17 percent in 2005. Meanwhile, monthly Social Security benefits, which averaged around \$900 per month in 2005, grew by about 3 percent annually over the same period.¹⁰ Under current hold-harmless policies, Medicare Part B premiums cannot increase by a larger dollar amount than the cost-of-living increase in a beneficiary's Social Security benefit. The dollar amount of recent increases in Part B premiums has absorbed 30

Projecting growth in Medicare spending (continued)

2006). While providing somewhat more realistic nearer-term projections, the new approach still assumes that unknown policy changes or other unspecified forces will slow the rate of growth in future health spending.

The Medicare trustees are tasked with projecting the program's future costs based on how benefits are currently structured; that is, they do not forecast specific policy changes to Medicare benefits or payment rates. Nevertheless, one argument for assuming that Medicare's costs will grow somewhat more slowly than before is that past rates of growth are unsustainable. Projections based on higher assumptions about growth imply that future spending on health care will make up an unprecedented share of our nation's economy. One could argue that our nation will not be willing to devote, for example, nearly 40 percent of our national income to health care in 2075, because that would probably crowd out spending for other national priorities.¹¹

How much Medicare spending is sustainable? Individual definitions of sustainability are subjective, but our society's answer depends on how much value our political and budget-setting processes place on the Medicare program relative to other spending priorities. One definition of affordability is an amount

of health spending at which the United States would never reduce current levels of nonhealth spending and would devote 100 percent of future growth in income to greater consumption of health care. Chernew and colleagues believe that, under this definition, devoting 1 percentage point above GDP growth of our national income to health care is affordable because nonhealth spending would remain at current levels. They estimate that growth of 2 percentage points above GDP growth would lead to declines in nonhealth consumption by the middle of the century (Chernew et al. 2003).

A further question related to Medicare's financing is whether the federal government could feasibly raise the resources needed to fund the program's growth. One researcher argues that devoting ever-increasing shares of GDP to Medicare, Medicaid, and other federal programs will ultimately run into the "historical reluctance of American voters to allocate much more than 18 percent of the GDP to federal spending" (Newhouse 2004). In the future, Medicare beneficiaries may make up a growing share of voters, which could lead to changes from the historical pattern. On the other hand, beneficiaries will depend even more on nonelderly workers for the program's funding and younger generations may not want to foot this bill. ■

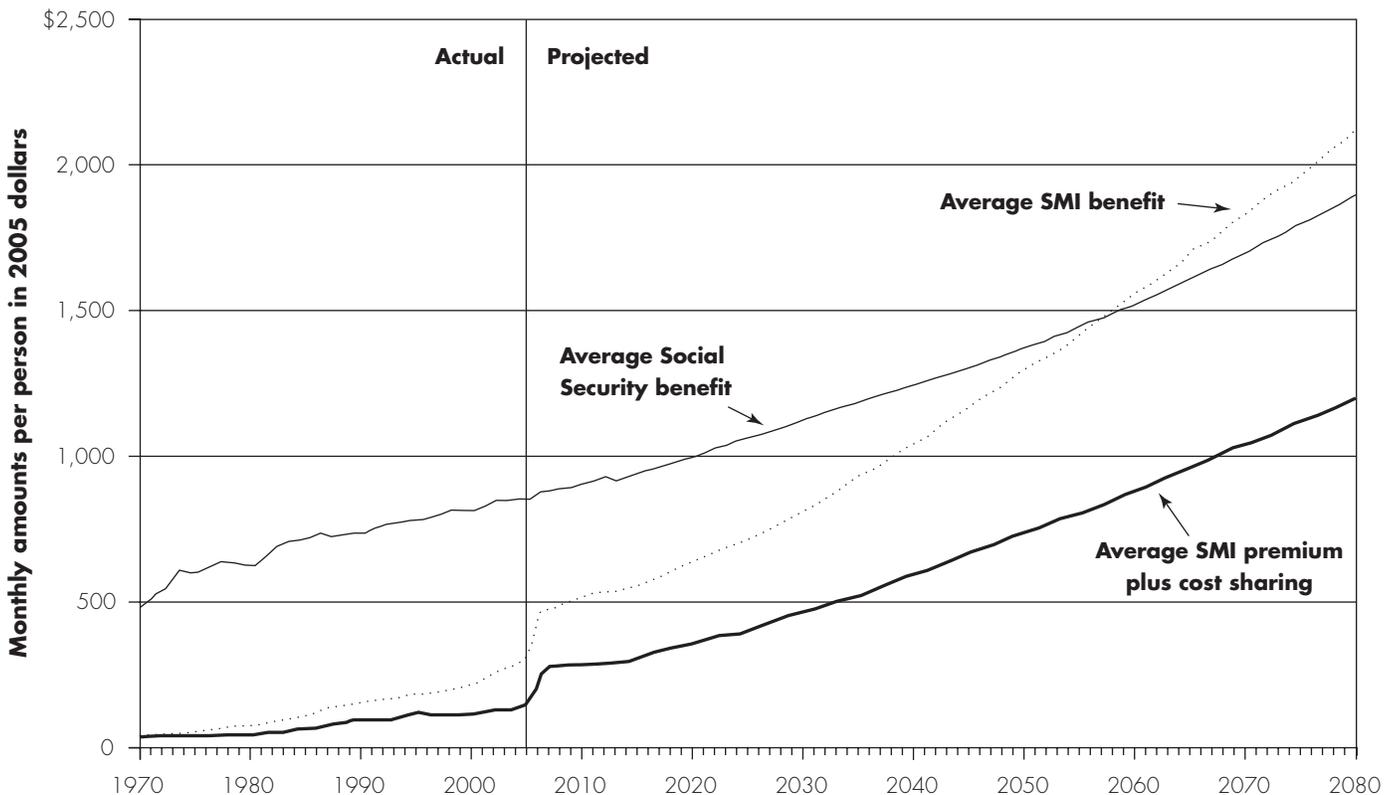
percent to 40 percent of the dollar increase in the average Social Security benefit. Part D premium increases are not subject to a hold-harmless provision.

The overall economic position of the elderly has improved over the past several decades. Still, most Medicare beneficiaries have limited incomes. In 2002, about half of noninstitutionalized beneficiaries had incomes of around \$20,000 or less (Kaiser Family Foundation 2005). Seventeen percent had incomes less than the poverty level (defined then as \$8,628 for people living alone and \$10,885 for married couples), and 46 percent had incomes at 200 percent of the poverty level or below (MedPAC 2006b). In 2003, for 60 percent of the elderly, Social Security benefits made up 75 percent or more of their total income (Kaiser Family Foundation 2005).

Some beneficiaries who enrolled in Medicare's Part D benefit have better insurance coverage than before and many will see lower out-of-pocket spending. One estimate suggests that, in 2006, average out-of-pocket spending on drugs was 28 percent lower for Part D enrollees than it would have been without the new drug benefit, and it was 83 percent lower for recipients of Part D's low-income subsidies (Mays et al. 2004b). As a specific example, a beneficiary with no prescription drug coverage before enrolling in Part D and \$3,000 in annual out-of-pocket drug spending paid an average of \$1,500 in 2006 for cost sharing plus an additional \$288 in premiums if she enrolled in a standard Part D plan.¹² The Medicare program paid for the remaining \$1,212 of her drug spending. Her savings would have been even greater if she had qualified for and enrolled in Part D's low-income

**FIGURE
1-2**

Average monthly SMI benefits, premiums, and cost sharing are projected to grow faster than the average monthly Social Security benefit



Note: SMI (Supplementary Medical Insurance). Spending on prescription drugs prior to January 1, 2006 (the start of Part D), is not shown in this figure. SMI benefits and premiums include those for Part B and Part D.

Source: 2006 annual report of the Boards of Trustees of the Medicare trust funds.

subsidy program, since the program would have covered much of her standard plan's premiums and cost sharing. However, other enrollees could pay higher out-of-pocket spending under Part D—one in four was projected to face increases in 2006 of up to \$250 (Mays et al. 2004b). Beneficiaries tend to use more prescription drugs as they age; thus, some enrollees with initially higher out-of-pocket spending could benefit more over time from the insurance that Part D provides.

Yet even with the expansion of Medicare's benefits to include prescription drugs, over time growth in Medicare premiums and cost sharing will continue to absorb an increasing share of Social Security income. With the introduction of Part D, the average cost of SMI premiums and cost sharing for Part B and Part D absorbs more than 30 percent of Social Security benefits.¹³ However, 30 percent is likely to be a smaller share of Social Security

benefits than what those individuals spent on premiums and cost sharing for Part B and prescription drugs before 2006. On balance, even though most beneficiaries get relief from out-of-pocket spending because of Part D, over time, growth in health care spending will outpace growth in Social Security benefits (Figure 1-2). At the same time, Medicare's lack of a catastrophic cap on cost sharing under Part A and Part B means that some beneficiaries could face extremely high out-of-pocket expenses.

Projections such as these highlight the importance of finding ways to slow growth in Medicare spending. If policymakers do not take steps quickly, Medicare's need for financing will place an increasing liability on beneficiaries through their premiums and cost sharing, crowd out resources for other federal priorities, and potentially affect the federal budget deficit, the level of federal debt, and economic growth.

The broader U.S. health care system

Medicare is a very large program with total expenditures of \$336 billion in 2005. Even so, it is just one part of an expansive and growing U.S. health care system. That system includes a broad array of private and public purchasers, insurers, providers, manufacturers, and suppliers. Combined expenditures on health care services in the United States totaled nearly \$1.9 trillion in 2004, or 16 percent of our economy (Smith et al. 2006).

Private versus public financing in the U.S. health care system

Currently, public financing—federal, state, and local programs—makes up about 45 percent of all U.S. health care spending, with private sources providing the rest. The public share will rise by a few percentage points to nearly 50 percent by 2015 with Medicare's prescription drug benefit (Borger et al. 2006). In 2004, employers were the largest source of health insurance, covering about 60 percent of individuals residing in the United States (Fronstin and Collins 2005).

The United States uses private health insurance extensively because of our country's tax policies and economic history. During the World War II era, larger U.S. companies began offering health insurance to provide higher compensation to relatively scarce labor while avoiding wage and price controls. The federal government did not consider such fringe benefits subject to wage controls, and health insurance contributions paid by employers were not considered taxable income (Helms 2005). At the time, the health insurance industry was in its infancy. Since then, the use of employer-sponsored health insurance and the broader market for private insurance have grown substantially. For 2004, the exemption of employer-paid health insurance from payroll and individual income taxes reduced federal revenues by about \$145 billion (CBO 2005b).

Some analysts believe that, if one considered the value of tax subsidies for employer-paid health insurance, the public share of health care spending would be closer to 60 percent (Woolhandler and Himmelstein 2002). A counterargument is that a wide variety of tax policies affect decisions about what mix of goods and services our country produces and consumes, yet generally we do not include the value of those tax subsidies in any of our national accounts.¹⁴ In any event, the exemption of employer-paid health insurance from payroll and

individual income taxes is one reason that our nation uses private health insurance so extensively.

Higher spending in the United States

Health care spending in the United States is far higher than in other countries—about \$6,100 per person in 2004, or more than twice the median of member countries of the Organisation for Economic Co-operation and Development (OECD) (OECD 2006).¹⁵ Nevertheless, rates of growth have been similar among industrialized countries—in other words, most are facing upward pressure on spending (Newhouse 2004).

Because the organizational structure of financing health care is more fragmented in the United States, providers may use their market power to negotiate more favorable payments than providers in other countries (Bodenheimer 2005b). By being more monopsonistic or exerting regulatory power to a greater degree, other governments may lower or restrain growth in payment rates for providers and prices for other services. The tactics of those governments include using a single purchaser approach, allowing multiple purchasers to bargain collectively, and using global budgets (Reinhardt et al. 2004).

The health care systems of other countries are not clearly preferable to ours. The drawbacks of other systems include longer waiting times for access to specialists and newer technologies—a cost not usually reflected in international comparisons—as well as inefficiency and issues concerning quality of care (Danzon 1992). For example, in recent years the United Kingdom and other countries that provide health care directly have introduced reforms that try to inject more competition by separating the roles of payer and provider (Docteur and Oxley 2003). Global budgets are only as successful as each country's ability to stick with its budget, even when providers and patients pressure it to spend more. Another issue is the system of price controls some countries use to limit profits: Manufacturers and other stakeholders claim that such policies stifle investment in research and development, thereby slowing the pace of medical innovation.

Some analysts believe that the high levels of spending in U.S. health care are largely attributable to paying higher prices for the same services than other countries do, including higher administrative costs. Data from the mid-1990s suggest that U.S. physicians had considerably higher incomes than physicians in other OECD countries (Reinhardt et al. 2002).¹⁶ However, the United States has a wider distribution of compensation for all workers. For

skilled health professionals, labor costs are higher because they would otherwise enter other fields that offer high compensation. The organizational structure of providers and the regulation of health services in other countries also affect the level of salaries. Countries with public systems that provide care directly often contract with general practitioners (GPs) at salaries negotiated centrally with physicians' associations. Other countries make risk-adjusted, capitated payments to GPs for each patient they add to their list, thereby putting insurance risk on those physicians for the volume of care they provide. A few countries mix salary with capitated payments (Docteur and Oxley 2003).

Is higher spending worth it?

Advances in medical technology have led, on average, to improvements in our health and gains in life expectancy. Recently, Cutler and colleagues concluded that, on average across all ages, increases in medical spending between 1960 and 2000 (attributed largely to advances in medical care) provided reasonably good value, with an average cost per life-year gained of \$19,900 (Cutler et al. 2006).

However, when focused on spending and life expectancy for individuals who are 65 and older, the same research found that the incremental cost of an additional year of life rose from \$46,800 in the 1970s to \$145,000 in the 1990s. These estimates suggest that the value of health care spending for the elderly has been decreasing over time, and the authors suggest that their estimates for the 1990s would fail many cost-benefit criteria.

Research on the wide geographic variation in health care spending suggests that we waste resources (Fisher et al. 2003). Some payment systems contribute to the problem of wasteful spending by rewarding inefficient or low-quality care as much as if not more than high-quality care delivered by efficient providers. Given questions about Medicare's sustainability, the Commission has called for distinguishing between high-quality care and care of more questionable value (MedPAC 2004a). Separate "siloes" reimbursements within payment systems also hinder providers from coordinating care for the same patient, which can lead to duplicative services.

Rapid growth in health care spending among all payers

For each of the past several decades, the United States has spent an expanding share of its resources on health care. In 1960, for example, national health expenditures made up

about 5 percent of the gross domestic product (GDP). That share grew to 16 percent by 2004, and CMS projects that it will make up 20 percent by 2015 (Figure 1-3) (Borger et al. 2006). All payers in the U.S. health care system—public (including Medicare and Medicaid) and private—are facing similar upward pressures on spending.

Although rates of growth in per capita spending for Medicare and private insurance often differ from year to year, over the long term they have been quite similar (Pauly 2003). When comparing spending for benefits that private insurance and Medicare have in common—notably excluding prescription drugs—Medicare's per enrollee spending grew at a rate about 1 percentage point lower than that for private insurance over the period from 1970 to 2002. However, the comparison is sensitive to the endpoints of time one uses for calculating average growth rates. Differences have been more pronounced since 1985, when Medicare began introducing the PPS for hospital inpatient services (Levit et al. 2004). Some analysts believe that, since the mid-1980s, Medicare, with its larger purchasing power, has had greater success than private payers at containing cost growth (Boccutti and Moon 2003). Others maintain that benefits offered by private insurers have expanded as cost-sharing requirements declined over the entire period and enrollment in managed care plans grew during the 1990s. The comparison is thus problematic, since Medicare's benefits changed little over the same period (Antos and King 2003).

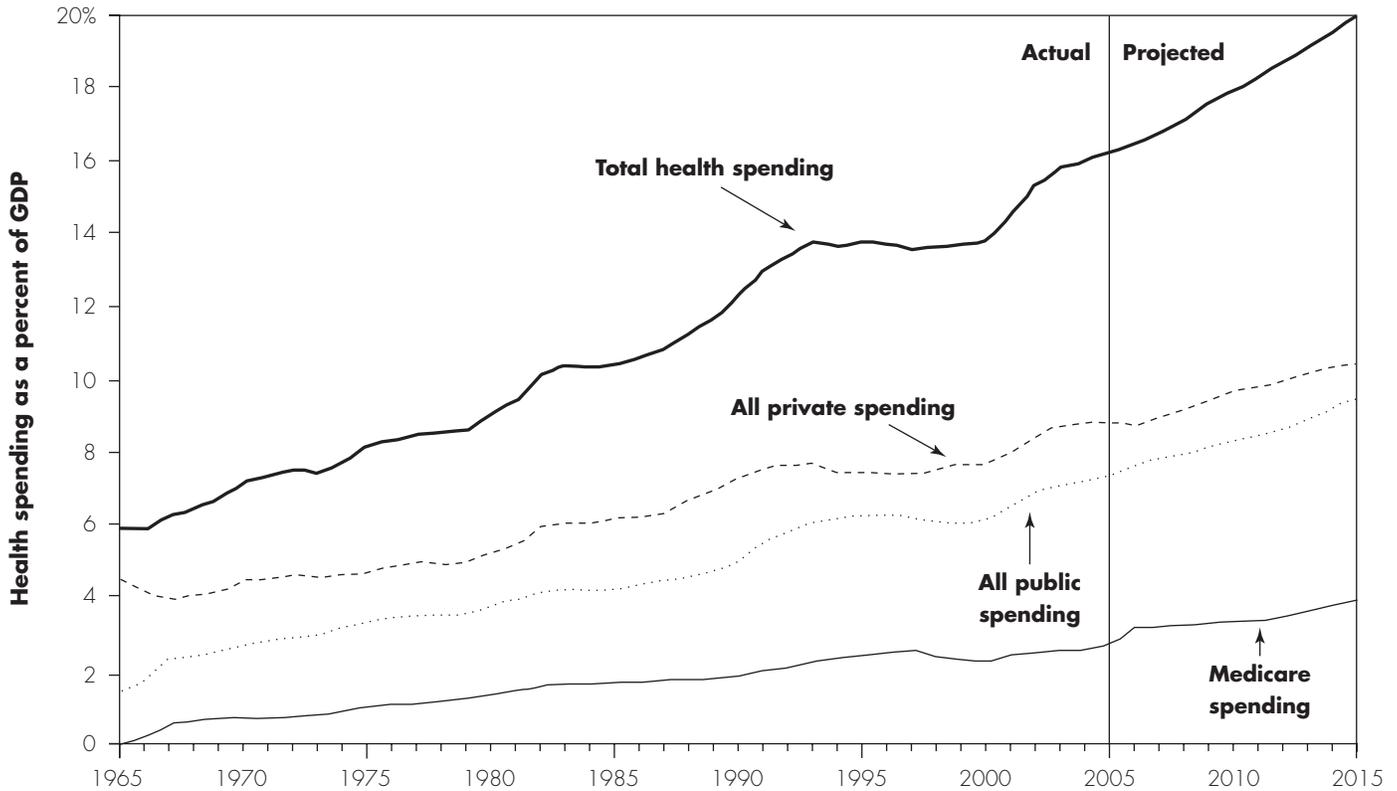
Although often disputed by economists, many analysts contend that certain health care sectors are able to shift costs by charging some payers higher prices to compensate for changes in the administered prices of other payers. Many hospital and other health industry executives are convinced that limits on Medicare and Medicaid payment rates lead to higher prices for private payers (Ginsburg 2003). Cost shifting could occur only in situations when providers have sufficient market power to raise their prices. If such a phenomenon occurs, it underscores the need for public and private payers to collaborate with one another on payment policy, since both sets of payers face similar upward pressures on spending over the long term.

Drivers of growth in health spending

One main driver of growth in spending is growth in income. Some analysts believe that, as our country's standard of living grows, we should expect to spend more on health care (Hall and Jones 2006). As individuals become better off and their consumption increases, the

**FIGURE
1-3**

Health care spending has grown more rapidly than GDP, with public financing making up nearly half of all funding



Note: GDP (gross domestic product). Total health spending is the sum of all private and public spending. Medicare spending is one component of all public spending.

Source: CMS, Office of the Actuary, National Health Expenditure Accounts, 2006.

incremental value of buying more commodities (e.g., another television or more clothing) falls. By contrast, the marginal value to them of an extended life span does not diminish as quickly. Similarly, the marginal value of procedures that are not life saving but that may improve the quality of life (e.g., joint replacements or cosmetic surgery) may increase relative to other goods. Hall and Jones suggest that, because of our underlying preferences, it is reasonable to expect health care spending to reach 30 percent of GDP by the middle of this century.

Many analysts point to the rates of development and diffusion of new technologies as another major driver of growth in health care spending (Fuchs 2005, Newhouse 1992). Many technologies reduce the invasiveness, serious side effects, discomfort, or recovery time associated with the therapies they replace, thereby lowering nonmonetary

obstacles to beneficiaries as they decide whether to seek treatment. When procedures, drugs, or devices become available, a base of evidence may not exist to help providers decide how newer therapies compare with older ones. When providers recommend newer therapies that are covered by Medicare or other insurance, patients do not face the full cost of their care and may not be concerned about the comparative value of those therapies (see text box, p. 16). Although some medical technologies lead to savings by reducing lengths of hospital stays or avoiding hospitalizations, most technologies tend to expand demand for health care and increase spending. In some cases, providers may use new technologies inappropriately or more broadly than intended.

Recent research highlights the important role of health insurance in fueling growth in spending. Finkelstein finds

Challenges of appropriate pricing for health care

Most sectors of the U.S. economy rely on market forces to ensure the efficient allocation of resources. Consumers buy a good or service if, at its price, the item has greater value to them than other items they could purchase. We rely on competition among producers and service providers to keep prices in check while they make the goods and services that society wants. Within most sectors of the economy, this interaction of demand and supply leads to prices that act as signals of how much society values a good or service relative to other uses and thus determines how resources are allocated.

Economists have long argued that the provision of health care differs from providing goods or services in other sectors (Arrow 1963). Problems with information and uncertainty, the use of insurance, and institutional details lead to prices for health services that are not necessarily good signals of value (Chernew 2005). Some of the unique challenges with health care are:

- Patients often do not know what specific health services they need or the relative benefits and costs of treatment options. They rely on physicians and other providers, in a principal–agent relationship, who help make decisions on their behalf. While professional codes of conduct should guide providers toward furnishing appropriate care, providers do not necessarily have the same motivations and preferences as their patients.
- Unlike sectors of the economy that produce standard products, health care providers must individually evaluate the symptoms and conditions of patients to tailor plans of care, and they must do so in the face of uncertainty about the best course of action. As a result, it can be difficult to evaluate the quality (including appropriateness) and efficiency of a specific provider’s care and build consensus among providers around standards of care.

- Most health care services are financed through insurance. In the event of a health crisis, insurance spares patients from a catastrophic financial liability. For lower income individuals, insurance may reduce barriers and lead to more timely care. However, insurance also shields patients from seeing the full cost of their care. This can lead individuals on the margin to use more and higher priced services than they would otherwise—particularly since they rely on providers to help decide what care they need.
- Lack of competition among certain types of suppliers can lead to relatively high prices for their products or services and little pressure to improve efficiency over time. Additionally, providers are increasingly organizing and marketing services for specific diseases, organ systems, and patient populations, and they are competing on the basis of these specialty services rather than on the basis of price (Berenson et al. 2006). This type of nonprice competition can raise health care costs.

These general characteristics of health care can affect how well prices act as signals of value in all types of delivery systems and payment arrangements. All types of payers confront these challenges—including public programs such as traditional Medicare that use administratively set prices as well as private payers that negotiate rates with providers and health plans.

Mispricing of services can lead to misallocation of investment resources, which can have large effects on the organizational structure and cost of health care delivery over time. For example, the process for reassessing relative value units for physician services in Medicare’s fee schedule does not do a good job of identifying services that may be overvalued. As a result, payments for some services may be too high. Such inaccurate payment rates may encourage inappropriate growth in volume and, over time, may affect the supply of generalists and specialists by influencing physician decisions about whether to specialize (MedPAC 2006a). ■

that Medicare had a much more pronounced effect on hospital spending than estimates of insurance effects on an individual's behavior would suggest (Finkelstein 2007). She thinks the broad increase in demand for hospital services that occurred after the start of Medicare led to greater incentives for hospitals to enter markets, purchase new equipment and facilities, and adopt new practice styles. Extrapolating from her Medicare findings, she suggests that about half of the increase in per capita health spending between 1950 and 1990 could be attributable to the spread of health insurance. Other analysts have noted that small changes in assumptions behind Finkelstein's extrapolation to all health care spending would lead to much smaller effects (Ellis 2006).

Our nation's underlying health status and changes in clinical treatment thresholds also affect spending. Recent work by Thorpe and Howard suggests that, between 1987 and 2002, nearly all the growth in health care spending for Medicare beneficiaries can be attributed to patients being treated for five or more conditions (Thorpe and Howard 2006). In 2002, about 50 percent of all Medicare beneficiaries were under medical management for five or more conditions, compared with about 31 percent of beneficiaries in 1987. At the same time, a larger proportion of patients being treated for five or more conditions reported that they were in excellent or good health—60 percent in 2002, compared with 33 percent in 1987. The authors conclude that medical professionals are treating healthier patients, treatments are improving health outcomes, or both are occurring.

Thorpe and Howard also suggest that the rising prevalence of obesity plays a part, since many obese individuals have multiple comorbidities. Obesity in the elderly is associated with increased risk of diabetes mellitus, cardiovascular disease, hypertension, stroke, lipid abnormalities, osteoarthritis, and some cancers. The prevalence of obesity doubled among Medicare beneficiaries between 1987 and 2002 (reaching 23 percent), and the share of spending associated with obese individuals nearly tripled (reaching about 25 percent). A separate study estimates that Medicare will spend about 34 percent more on an obese 70-year-old than on a 70-year-old of normal weight over their remaining life spans (Lakdawalla et al. 2005). Widespread obesity could have important implications for Medicare, and policymakers may want to consider creating public health campaigns aimed at lowering its prevalence.¹⁷

Consequences of rapid growth in health spending

Rapid growth in health spending has wide-ranging effects. The U.S. health care sector has produced many medical innovations that lengthen or improve quality of life. At the same time, some employers argue that the rising cost of health care premiums affects their ability to compete in the world marketplace. However, most economists contend that growth in health premiums paid by employers has no long-term effect on the competitive position of firms (Fuchs 2005). Instead, a firm's costs for health premiums substitute for cash compensation that it would otherwise pay to workers, in the same way that retirement and other benefits substitute for higher wages. Longer term contracts with workers may prevent some firms from keeping their full compensation package in line with their productivity. As would be the case with any other cost, rapid growth in health premiums can make firms' need for greater productivity more apparent. To achieve productivity gains quickly, firms sometimes take disruptive steps and redistribute income and health coverage for workers and retirees.

Other distributional issues arise from rapid growth in spending on health care. In response to rapid increases in premiums, many employers have raised cost-sharing requirements for their employees, asked them to pay a larger share of premiums, or, particularly for smaller firms, reduced the availability of coverage. The percent of individuals with employer-based health insurance fell from 67 percent in 2000 to 62 percent in 2005, which analysts attribute to the rising cost of providing health benefits (Fronstin 2006). Since required premium contributions by enrollees have risen faster than income, some workers choose to forgo coverage (Ginsburg 2004). During 2005, nearly 47 million people, or 15.9 percent of the U.S. population, were uninsured at some point in time.

Increases in the numbers of people without private health insurance raise demand for public coverage and, to finance providers' uncompensated care, may raise health care premiums for those who have insurance. The costs of caring for the uninsured do not fall equally on all providers, since the uninsured often postpone care until their condition becomes more serious. In turn, providers that bear more of those costs sometimes seek public subsidies or limits on the competition they face. Rising costs put upward pressure on the financing needs of public and private health care programs for those beneficiaries who already have coverage. And some analysts believe

that higher health care costs may also lead to greater fragmentation of risk pools in the health care market, as healthier people search for insurance alternatives that are less costly (Glied 2003).

New insurance products have emerged in response to rapid growth in spending on health care. Employers are beginning to offer consumer-directed health plans that combine a high-deductible policy (often including a health reimbursement or savings account) with catastrophic protection.¹⁸ Although larger numbers of employers are beginning to offer these products to their workers, thus far enrollment is low.¹⁹ Enrollees in these newer products generally accept higher cost sharing at the point of service, making them more cost conscious when they seek care. In return, they pay lower premiums (Tollen et al. 2004). The law allows employers to make nontaxable contributions to certain health savings accounts (HSAs), and contributions by individual account holders are tax deductible. Current Medicare beneficiaries cannot establish HSAs, but as individuals enroll in Medicare, they may use tax-free distributions from existing HSAs to pay for Medicare premiums or the retiree share of premiums for employment-based retiree health insurance. As of 2007, Medicare beneficiaries may use a similar type of product if they choose: medical savings accounts, a type of high-deductible plan that is combined with a savings account offered by several private organizations within Medicare Advantage. (Chapter 4 provides more detail on these offerings.)

Changing Medicare policy within the broader U.S. health care system

Medicare faces powerful upward pressures on spending that will be difficult to staunch. The interaction between broad use of newer medical technologies and health insurance is thought to account for much of the long-term spending growth in the United States, and some of those forces will likely push future spending higher. Additionally, Medicare's outpatient prescription drug benefit places a substantial new financial responsibility on the program. As we near the end of this decade, Medicare will have to grapple with the additional challenge of higher enrollment levels associated with retiring baby boomers, which will affect program spending levels as well as the demand for federal resources for other programs that benefit the elderly such as Social Security and Medicaid.

To finance Medicare for the future as the program is now structured, policymakers would need to redirect an unprecedented share of our nation's resources to the program. Projections suggest that federal program spending for Medicare could grow from less than 3 percent of GDP today to nearly 8 percent by 2037 and about 11 percent by 2077 (Boards of Trustees 2006). Beneficiaries' premiums and cost sharing will also require growing shares of their income. The financial pressures on both beneficiaries and the federal budget are likely to spark more policy debate about Medicare's future. Under the MMA's warning system, this debate could begin officially in the spring of 2008.

Several strategies are available to Medicare policymakers, but none is easy. These include:

- restructuring benefits and supplemental coverage,
- increasing the program's financing by raising taxes, and
- using payment policy to obtain better value.

Policymakers will need to use a combination of approaches to address Medicare's long-term financing because no single strategy will be sufficient to address the problem. The ultimate goal of using payment policy to obtain better value is to do more with the Medicare program's given level of resources without adversely affecting access to or quality of care. Payment systems are tools that can be used to create incentives for desirable behavior. Much of MedPAC's work focuses on such options, but those steps alone may not be sufficient to address problems with Medicare's long-term financing.

The magnitude of savings from any of these approaches is difficult to characterize because it depends on the details of individual policy proposals. In particular, the outcome of policies that try to improve the efficiency of health care delivery can be highly uncertain. Where available, we provide specific estimates of savings.

Restructuring benefits and supplemental coverage

This general approach could involve measures such as raising Medicare's age of eligibility, expanding the portion of program spending financed with beneficiary premiums, increasing cost-sharing requirements and placing limits on supplemental coverage, or limiting Medicare's coverage for specific benefits.

Raising the age of eligibility

Policymakers could gradually raise the age of eligibility for Medicare from 65 to 67, making the program more consistent with eligibility rules for full Social Security benefits.²⁰ As average life expectancy increases in the United States, encouraging longer participation in the labor force by raising the age at which people qualify for Medicare coverage is reasonable. If individuals work longer and delay retirement, they may also retain access to private health insurance at group rates—if their employers offer it.

By itself, the eligibility approach is unlikely to reduce Medicare's program spending by much. Fewer than 10 percent of today's Medicare beneficiaries are age 65 or 66, and those individuals have lower average Medicare spending because of their relative youth. One researcher estimates that if the eligibility age were raised to 67, the level of Medicare spending would fall by 4 percent to 5 percent, but Medicaid spending would increase somewhat (Johnson 2005). Others estimate that phasing in an increase in the eligibility age to 70 would equate to a 0.8 percent reduction in program spending relative to GDP (CBO 2005b). However, some of that reduced spending would be offset by higher spending under Medicaid and other programs.

A drawback of raising the eligibility age is that it would affect access to care for some individuals in an age group for which it is typically more difficult and expensive to obtain other health insurance coverage. Even though many of the younger elderly may find alternative sources of health coverage, one estimate suggests that 9 percent of 65- and 66-year-olds would not, and another 11 percent would be underinsured (Davidoff and Johnson 2003).²¹ If policymakers chose this approach, they could allow those individuals just under Medicare's eligibility age to buy into the program by paying the full premium for coverage at actuarially fair rates.²² Allowing people to buy into Medicare would help to reduce the numbers of uninsured, but premiums would likely be expensive and perhaps financially burdensome to those with no other coverage options. For this reason, some proposals for this buy-in approach would also subsidize premiums for low-income individuals (Johnson 2005). That further step would reduce the number of near elderly who are uninsured but would also reduce federal program savings from raising the eligibility age.

Changing premiums, cost sharing, and supplemental coverage

Policymakers could change Medicare's premiums or cost-sharing requirements, approaches used widely in the private sector. Raising cost-sharing requirements could rein in spending for health care services that are more prone to overuse. Increasing the share of Medicare's costs borne by beneficiaries through premiums would also reduce the federal government's share of Medicare spending. However, since many Medicare beneficiaries have limited incomes, indiscriminate increases could impose financial barriers to essential care or cause hardship. Relatively few individuals account for the bulk of Medicare spending, and they may be relatively insensitive to levels of cost sharing in the face of serious health conditions. Policy changes should try to balance these two sets of concerns.

One specific option would lower the federal government's funding of Part B premiums from the current 75 percent to 70 percent of average SMI expenditures for elderly beneficiaries. The Congressional Budget Office (CBO) estimates that increasing Part B premiums in this manner would reduce Medicare program spending by about \$85 billion over the 2006 to 2015 period (CBO 2005b). The MMA introduced a variant of this approach: Beginning in 2007, the federal government will provide lower subsidies to Part B enrollees who have higher adjusted gross incomes. CBO estimated that this policy would lower Medicare program spending by less than 0.5 percent over the 2004 to 2013 period. Some analysts contend that lowering federal premium subsidies could reduce the number of individuals who choose to enroll in Medicare. However, even at a level of 70 percent for most beneficiaries, federal subsidies would remain quite high. Moreover, others argue that enrollment would remain high because Medicare has advantages that private insurance may not—for example, a community-rated premium with unlimited access to most providers.

As structured today, Medicare's traditional benefit design does not protect against catastrophic levels of out-of-pocket spending. Medicare's cost-sharing requirements are also complex and vary depending on the type of service provided and the site of care. Supplemental coverage that shields beneficiaries from fee-for-service (FFS) cost-sharing requirements leads to greater use of services and would temper any savings from policies that raised Medicare's cost sharing.

Policymakers might want to combine increases in Medicare's cost-sharing requirements with catastrophic protection and limits on first-dollar coverage (CBO 2005b). A catastrophic cap on out-of-pocket spending could limit the financial liability on beneficiaries who need the most care. Restricting the ability of supplemental insurance to provide first-dollar coverage could lead to sizable savings for the Medicare program—large enough to finance some catastrophic protection (MedPAC 2002). As one specific example, CBO estimates that combining limits on first-dollar medigap coverage with a restructuring of Medicare's benefit for all services for Part A and Part B could save more than \$130 billion between 2006 and 2015 (CBO 2005b). The proposed Medicare benefit for 2006 included a combined deductible of \$500, 20 percent coinsurance for all services for Part A and Part B, and a catastrophic cap of \$4,500. (Proposed amounts would grow over time at the same rate as Medicare costs per capita.)

Although approaches that increase cost sharing could lower Medicare spending, they could also raise state and federal Medicaid spending. For example, beneficiaries who are dually eligible for Medicare and a state's full Medicaid benefit typically pay no Part B premium and low or no cost sharing on a package of medical services broader than Medicare's benefit. Eligibility requirements vary among states, but, in general, individuals who qualify as full dual eligibles have very low incomes and assets, and they are a vulnerable and costly group of beneficiaries (MedPAC 2004b). Thus, if Medicare were to increase its premium and cost-sharing requirements, the Medicaid program would pay for some of those changes on behalf of dual eligibles.

The literature is mixed on the effects of cost sharing on health outcomes. The RAND Health Insurance Experiment, which did not include elderly individuals, found no substantial differences in the health status of people who received free care versus those who faced higher cost sharing (Newhouse 1993).²³ This body of work suggests that, although both positive and negative effects are likely to exist on average, higher cost sharing might not adversely affect health outcomes. However, RAND research also suggests that higher cost sharing discouraged the use of some necessary as well as unnecessary care. More recent literature that focuses on the elderly suggests that higher cost sharing decreases the use of appropriate services, particularly the use of outpatient prescription drugs (Rice and Matsuoka 2004). For certain beneficiaries,

higher out-of-pocket costs could undermine patient compliance with recommended care, coordination of services, or the use of preventive services (Robinson 2002).

Limiting Medicare's coverage for specific benefits

Policymakers could set greater limits on the types of services or the share of costs that Medicare covers. For example, CMS could make national coverage decisions for new technologies to a greater degree than it does today, and the agency could base those decisions on analyses of both clinical and cost effectiveness. A variant of this approach would use information about clinical and cost effectiveness to set Medicare's payment rates and cost-sharing requirements.

The goal of such measures is to better target the use of new technologies toward patients for whom those innovations are most appropriate and of greatest value to the Medicare program. In this sense, better targeting the use of new technologies can increase efficiency even as it limits benefits.

To support Medicare's national coverage decisions, policymakers have tended to use information from clinical-effectiveness analyses rather than cost-effectiveness or comparative-effectiveness analyses. The Medicare Coverage Advisory Committee evaluates whether an innovation is "reasonable and necessary" for the diagnoses or treatment of Medicare beneficiaries, given available clinical evidence. In some cases, Medicare also considers clinical effectiveness when setting payment rates for new services. By focusing on clinical effectiveness, Medicare's process could lead to coverage of technologies that other countries might not find to be of sufficient value.²⁴

Numerous stakeholders have raised concerns about incorporating cost-effectiveness analysis into Medicare's coverage decisions. For example, inconsistencies in cost-effectiveness methodologies can lead to results that vary from study to study (MedPAC 2005c). Some stakeholders question whether, under the Social Security Act that authorizes Medicare, the Secretary of Health and Human Services has the authority to consider cost effectiveness when deciding what to cover. Others fear that cost-effectiveness information would be used solely for cost containment and not for promoting appropriate care. Perhaps for similar reasons, private payers in the United States have been reluctant to incorporate cost-

effectiveness analysis in their coverage and payment policies. Under these circumstances another useful approach is comparative-effectiveness analysis: evaluating the costs and benefits of alternative treatments for the same condition.

In recent years, CMS has taken some steps to better target new technologies. For example, one recent review of Medicare's national coverage decisions from 1998 through August 2003 found that, in more than 60 percent of cases, CMS chose to cover the technology under certain circumstances (Neumann et al. 2005). Most frequently, the agency limited coverage to patients who had more severe conditions, who met certain diagnostic thresholds, or who failed first-line therapies. For other cases, the agency made coverage conditional on the site of care, in settings that had demonstrated experience. More recently, CMS began linking national coverage under Medicare with participation in comparative clinical trials and data registries to determine the effectiveness of new services for Medicare beneficiaries. Over time, this approach of providing coverage with certain conditions attached (e.g., participation in a registry) could provide information that would enable the agency to refine coverage decisions and payment policies to target technologies to the patients for whom they are most appropriate.

Increasing program financing

Under the Medicare trustees' projections, the program's need for resources would grow from less than 3 percent of GDP today to about 8 percent by 2037 and nearly 11 percent by 2077. Required resources would be even higher if future growth in health spending is closer to its historical average than the intermediate set of assumptions that the Medicare trustees used for their projections. To finance such growth in spending, decision makers face difficult choices.

Addressing how to finance Part A services is particularly important, since Medicare will no longer have the authority to pay for claims once the HI trust fund is depleted. Currently, the trustees project that program spending will exhaust the HI trust fund in 2018.

Growth in spending for Medicare could be financed with more borrowing. Under that scenario, the federal government would have to increase spending to cover larger interest payments on the federal debt. However, given the magnitude of resources required to finance projected spending, this approach could put significant upward pressure on interest rates as the federal

government competes with other borrowers for investment capital. Higher interest rates, in turn, would slow economic growth.

For the longer term, the Congress could try to hold federal borrowing to manageable levels by allocating a greater share of resources to Medicare. This means that fewer resources would be available for other federal programs such as education and defense. If growth in health care spending does not slow and tax revenues remain at their historical share of GDP, reallocating federal spending alone may not be enough to address the problem. As the baby boom generation retires, the magnitude of resources needed for Medicare, Medicaid, and Social Security will reach unprecedented shares of GDP—even if some financing for those programs is offset with lower spending for other federal programs. Fiscal stability would require a sizable slowdown in growth rates in health spending and may also require a substantial increase in taxes as a share of our nation's economy (CBO 2005a).

A final financing approach is to raise federal taxes—payroll taxes on active workers, broader-based personal and corporate income taxes, or some new source of dedicated revenue. Some analysts believe that relying on increases in payroll tax rates to meet at least some of Medicare's funding shortfall is a desirable policy approach because the after-tax wages of workers will grow more rapidly than benefits net of taxes and out-of-pocket health costs for Medicare enrollees (Thompson 2000). Others say that the dependence of the elderly on succeeding generations is both undesirable and unsustainable and that other approaches—such as encouraging individuals to work after age 65 and save a larger portion of their preretirement income for health care costs—may be more equitable (Fuchs 2000). Still other analysts caution that relying on tax increases to address Medicare's unfunded liabilities could lead to substantial job losses and lower growth in personal income and GDP (Foertsch and Antos 2005). The magnitude of tax increases needed depends on what priority policymakers give to financing Medicare relative to other priorities.

Using payment policy to obtain better value

Policymakers can better use Medicare's payment systems to create incentives for higher quality and greater efficiency. The list of approaches that policymakers might use is long: Building in incentives for providers to furnish high-quality care and to coordinate care, and setting payments for larger bundles of clinical services are just a few examples. The vast majority of beneficiaries

are in traditional Medicare, and thus the program needs to become more of a strategic purchaser than a payer of claims. At the same time, some analysts think expanding the use of private plans to deliver Medicare benefits could be a means of achieving greater efficiency.

Improving incentives within FFS payment systems

A past notion behind setting accurate administered prices was to identify the costs of care for Medicare beneficiaries and to reimburse at that level. However, such an approach can create the wrong incentives by giving the same payments to inefficient providers as to ones that deliver high-quality care at lower cost. A better goal in setting administered prices is to create incentives for providers to deliver high-quality care efficiently.

Keeping administered prices accurate is also challenging. Over time, inaccuracies and lags in the timeliness of data that CMS uses to set payment rates can accumulate into significant mispricing and unintended overpayment for certain services at the expense of others (Ginsburg and Grossman 2005). One example of a Medicare payment system with such biases is inpatient hospital care, where providing certain procedures (e.g., cardiac care) and caring for less severely ill patients are predictably more profitable than providing other care (e.g., basic medical services) or caring for more severely ill patients. The Commission's recommendations for improving the inpatient PPS would make payments more equitable among hospitals that provide different mixes of services and serve more- or less-complex patients (MedPAC 2005b). They also may lead to more efficient resource use if certain lucrative procedures are oversupplied under the current system.

Policymakers can constrain annual growth in Medicare spending by limiting the annual updates or increases in payment rates to health care providers. The Commission shapes its payment update recommendations with the goal of making enough resources available in the aggregate to cover the costs of efficient providers within each health care sector (see Chapter 2). To some extent, setting such limits is part of being a prudent purchaser, since limiting available resources to the amount needed for efficient providers puts appropriate financial pressure on less efficient providers to control their costs (Chapter 2A).

Two factors allow Medicare to limit payments to providers—government authority and the program's size. However, the existence of a large number of other payers or of a small number of dominant providers may, at times, limit the effectiveness of this approach, particularly if

providers are able to shift costs from one set of payers to another. Even so, Medicare significantly influences how health care is organized and delivered in the United States through payment and coverage decisions. Medicare implicitly plays the role of market leader among private insurers that adopt the program's payment systems.

Constraining payment rates alone will not lower spending if the volume of services furnished increases. Medicare's payment system for physician services has been the most notable example of this phenomenon. Nor has the payment system provided incentives for physicians to coordinate the care that they provide to beneficiaries. Instead, the Medicare program may need more fundamental changes in how it pays physicians that reward them differently based on the quality of services they provide, including incentives to consider their use of resources and the degree to which they coordinate care with other providers. Investments by physicians in information technology (IT) and electronic medical records could help Medicare's ability to measure quality and make it easier for providers to coordinate with one another.

Medicare's payment systems are neutral and sometimes negative toward quality, paying the same or more for lower quality care as for higher quality care. In its March 2004 and 2005 reports, the Commission recommended policy changes that would differentiate among providers and lead Medicare to pay more for higher quality services (MedPAC 2005a, MedPAC 2004a). CMS has begun taking steps to move toward pay for performance and promote IT, but the agency has much more work ahead to build incentives into payment systems and ensure that they work as intended. Such a strategy may not reduce resource use; in fact, it could raise program spending. The aim, however, is that pay-for-performance measures would improve the value Medicare beneficiaries receive for the program's resources.

Medicare's FFS payment systems do not provide incentives to coordinate care, which can lead to unnecessary care and sometimes even iatrogenic illness. One tool many private payers and plans use to improve care coordination is disease management. These programs rely heavily on educating beneficiaries about their condition so that they can monitor their own health, adhere to prescribed therapies, and avoid hospitalizations. CMS established a chronic care improvement program called Medicare Health Support that is testing disease management in FFS Medicare using a randomized controlled trial design (MedPAC 2004b). The wide use

of disease management programs among private payers suggests promise in this approach. Nonetheless, there is no conclusive evidence that such programs generally lead to savings in the private sector, and there may be additional obstacles to implementing disease management for the Medicare population (CBO 2004a).

Reforms to FFS payment systems are not enough to ensure that Medicare does not waste or misdirect resources. Fundamentally, the incentives of traditional Medicare pay providers more for furnishing more services, even when the services are of limited value. Evidence for this is the literature on geographic variation in Medicare spending, which suggests that the nation could spend less on health care without sacrificing quality if physicians in regions with higher average use of resources reduced the intensity of their practices (Fisher et al. 2003). Traditional Medicare pays for certain services such as inpatient hospital care using payment systems that pay for larger bundles of services and, because of their prospective nature, put providers at financial risk. This combination of characteristics gives providers incentives to deliver care more efficiently. Even so, providers under these payment systems are still paid more for furnishing each additional bundle of services, and traditional Medicare pays for other types of services using fee schedules.

About 83 percent of Medicare beneficiaries are enrolled in traditional Medicare, accounting for the bulk of program spending. For this reason, FFS Medicare may need to adopt innovative purchasing strategies used in the private sector (MedPAC 2004b). In 2005, the Commission recommended that the Secretary measure the resource use of physicians using Medicare FFS claims and report that information back to physicians on a confidential basis. The objective of this policy is to provide physicians an opportunity to assess their practice style relative to their peers and determine whether they should make any changes. Today, some private payers draw on information about physicians' resource use to help them build networks, set payments under pay-for-performance programs, and design tiered cost sharing to steer beneficiaries toward more efficient providers. Another strategy of private payers is to set payment rates for certain services through a competitive bidding process. CMS is going to use this approach to set prices for durable medical equipment, prosthetics, and orthotics in certain parts of the country.

Observers from other industries, economists, and researchers assert that health care providers could use IT

and systems-engineering methods to increase efficiency while improving the safety and quality of their services. Systems engineering refers to methods for analyzing and improving the performance of complex systems such as hospitals and ambulatory care (Reid et al. 2005). These methods often rely on IT to analyze detailed data on the process and outcomes of care delivery. Industries such as telecommunications, securities trading, retail, and general merchandising invested heavily in IT and systems engineering during the 1990s and reaped continued annual gains in productivity. Some analysts believe that if health care providers used IT-enabled systems-engineering methods, including interconnected electronic medical records, health care industries might also improve their efficiency (Hillestad et al. 2005). However, current use of systems engineering and health IT is low due to start-up costs, the difficulty of implementing unfamiliar systems, and the lack of return on investment to providers under FFS payment methods (MedPAC 2005a).

Using private plans to deliver Medicare benefits

Some analysts believe the best way to address high growth in Medicare spending is for competing private plans to manage the delivery of benefits while assuming some or all insurance risk for their members. For competition among private plans to work well, beneficiaries must make informed choices among plans and understand the consequences of the plans' benefits and management tools. Proponents suggest that private plans could help (1) stimulate price competition as plans compete for members, (2) lead to greater cost-consciousness among enrollees, and (3) improve quality of care. These reasons lie behind the Medicare Advantage program and the structure of Medicare's Part D, which relies on competing private plans to deliver outpatient prescription drug benefits.

Without good risk adjustment to payments, competing private plans have an incentive to enroll healthier individuals and avoid sicker ones. Researchers have improved risk adjusters by incorporating diagnosis information from claims data, and Medicare risk adjusts its payments to private plans in the Medicare Advantage and Part D programs (Pope et al. 2004). Nevertheless, the accuracy of risk adjusters is highly dependent on accurate coding in claims data. If too few conditions are coded or if they are miscoded, risk adjusters will not be accurate. If the accuracy of diagnoses in claims data improves over time, Medicare may need to recalibrate risk adjusters to reflect newer data.

In general, some types of managed care plans may be able to constrain levels of health care spending relative to FFS by negotiating lower payment rates with preferred providers and applying management tools. However, a plan's ability to negotiate discounts depends highly on the degree of negotiating leverage within each market. Moreover, to achieve savings relative to FFS, private plans must more than offset their administrative costs and profits (CBO 2004b). Certain aspects of managed care proved unpopular in the latter part of the 1990s, such as provider networks and requirements for prior authorization that some members considered too restrictive. Nevertheless, many plans have reintroduced managed care techniques and tailored them toward the services that are most likely to be overused. Some plans have also begun measuring providers' utilization and quality, then establishing tiers of providers that are subject to different cost-sharing requirements or payment rates depending on their track record of quality and resource use (Mays et al. 2004a).

Some Medicare Advantage plans improve care coordination for their enrollees. However, a wide variety of Medicare Advantage plans exist today, with different methods for promoting appropriate care and managing growth in cost. Plans run by multispecialty group practices largely require their members to seek care through their own physicians. Some of these plans have been successful at encouraging quality care by fostering consensus among their physicians and developing evidence-based practice guidelines. Other plans negotiate discounts from network providers, monitor provider quality and resource use, and then try to steer members toward preferred providers. Still other types use relatively few tools for managing care. A concern is that the Medicare program may pay plans that do not coordinate care or manage cost and quality for their enrollees more than plans that provide high-quality care more efficiently.

Setting payment levels for Medicare Advantage plans is a challenge. For years, the Congress sought to encourage expansion of plans to new areas and to try to reverse declining enrollment. Consistent with those goals, in recent years, policymakers have set Medicare Advantage payment rates higher than what it would have cost to provide services to plan enrollees in FFS Medicare. The Commission supports private plans in the Medicare program. Medicare beneficiaries should be able to have a choice between the FFS program and the alternative delivery systems that private plans can provide. At the same time, the Commission supports financial neutrality between payment rates for the FFS program and plan

payment rates. Financial neutrality means that the Medicare program should pay the same amount, adjusting for the risk status of each beneficiary, regardless of which Medicare option a beneficiary chooses. Our analysis of recent Medicare Advantage data shows that plan payment rates continue to be well above FFS levels (see Chapter 4).

One policy approach that some researchers point to as a way to address Medicare's financial situation is called premium support (Dowd et al. 1992). Under some versions of premium support, beneficiaries could use an amount provided by the federal government to purchase their Medicare benefits through either a private plan or the FFS program. The subsidy could be based on a predetermined amount or on bids from private plans including a bid that represents average FFS spending. Beneficiaries who select a plan with premiums higher than the federal subsidy would pay the additional amount, while those in plans with lower premiums would receive additional benefits or rebates (CBO 2006). The magnitude of savings achievable under premium support is difficult to predict and depends on many details about how such competition would be carried out and how plans and beneficiaries would respond (CBO 2005b). The MMA includes a demonstration of one approach to premium support beginning in 2010.

Medicare within a multipayer health care system

Medicare is one large public program within an even larger health care system that includes many private payers and other public programs. Such a multipayer system has some distinct advantages. One advantage is that competitive pressure may lead some private payers to be innovative and better tailor their products to the populations in their "book of business." In geographic areas where they have bargaining leverage, private payers may be able to apply more pressure on providers to improve their performance than public payers because they can more credibly threaten to exclude providers from their networks. Private payers also need not hold political considerations in mind to the same degree as public payers, which could allow more room for experimentation and innovation.

A multipayer system has some liabilities as well. A more fragmented system of financing health care may mean that providers have a greater degree of bargaining leverage over prices than they would otherwise. Some analysts believe that certain providers are able to charge some payers higher prices to compensate for changes in the administered prices of other payers, perhaps allowing

providers to circumvent pressure to improve their performance. Because of the need for providers to interact with a variety of payers, each with different requirements for billing and performance measures, a multipayer system has higher administrative costs. Moreover, driving gains in efficiency can be difficult for any one payer because of each payer's differing sets of priorities and rewards.

There may be ways policymakers who are concerned about Medicare can enjoy some of the advantages of a multipayer system and reduce some of its liabilities. For some types of services, the Medicare program should take a leading role in carrying out policy changes. For others, Medicare will likely need to collaborate with other payers to carry out broader changes among health care providers. The following examples use different policy tools to improve efficiency and vary in their degree of collaboration with other payers.

- ***Tightening standards and making payment rates more accurate.*** Technological progress in imaging over the past years and its promise for improving diagnosis, treatment, and outcomes are impressive. At the same time, we have observed rapid and sustained growth in the volume of imaging services for Medicare beneficiaries, which has led to concerns about quality and patient safety, possible inaccuracies in Medicare payments, and potential overuse of imaging services. In 2005, the Commission recommended that CMS take steps to make coding edits that adjust payment amounts for multiple imaging services, set standards for physicians who bill Medicare for interpreting diagnostic imaging studies, and similarly set standards for all providers who bill Medicare for performing diagnostic imaging studies (MedPAC 2005a). The Commission also recommended taking steps to strengthen rules that restrict physician investment in imaging centers. Since many private and some other public payers use Medicare payment rates and policies as their own, by adopting such measures, the Medicare program could take a leading role in better ensuring that imaging services are provided safely and used appropriately.
- ***Using comparative-effectiveness analysis for new technologies.*** In collaboration with other public and private payers, Medicare could advance the use of comparative-effectiveness analysis and work to develop consensus about appropriate uses for new medical technologies. One example of a federal role in comparative-effectiveness analysis can be found in the

MMA, which authorized the Agency for Healthcare Research and Quality to conduct and support research studying the outcomes, comparative clinical effectiveness, and appropriateness of health care items and services. Under a model of public-private collaboration, CMS could help facilitate greater consensus around methodologies and help build capacity for conducting analyses. For such analysis to be accepted and used widely, it would need to be authoritative and unbiased. In past national coverage decisions, CMS relied primarily on information about the clinical effectiveness of new technologies rather than on cost effectiveness. Given the widespread use of new technologies and medical practice patterns, policymakers may begin to incorporate comparative-effectiveness analysis in Medicare's coverage or payment policies if other payers are also doing so.

- ***Paying differentially among providers based on measures of quality and resource use.*** Last year, the Institute of Medicine issued a call for Medicare to phase in pay-for-performance measures to stimulate systemwide improvements in the quality of U.S. health care (IOM 2006b). Medicare could collaborate with other payers, providers, and interested parties to agree on measures of quality and resource use for pay-for-performance programs. CMS, along with accreditation and provider organizations, has begun to play a critical role in building the infrastructure to move to pay for performance. The agency identified and developed quality measures, collected standard data on quality, and published information on the performance of some providers. It also designed demonstration programs to test various aspects of paying for improved quality and efficiency. To ensure that a pay-for-performance strategy is successful for Medicare, CMS must continue to work with other payers and stakeholders so that the measures the agency uses are accepted widely. A common set of measures for quality and resource use across payers would also reduce the reporting burden on providers.

Medicare relies on providers who also deliver care to the broader set of payers in the health care system. In some health care sectors, Medicare can and should take the lead in initiating certain changes. In many situations, Medicare must often work in collaboration with other payers to make lasting changes. ■

Endnotes

- 1 As Robert Myers, the Social Security Administration's Chief Actuary in 1965 put it, designing a two-part program resulted from a "legislative process [that] was a matter of political compromise and was not by any means dictated by actuarial principles" (Myers 2000).
- 2 Aside from the direct method of increasing the payroll tax rate, a number of changes over the years have increased revenue to the HI trust fund. Certain employment groups were not included in the Social Security system and were added over the years, expanding the payroll tax base. For example, self-employed physicians were not covered under Social Security until 1965. State and local government employees and federal civil servants were also excluded from the set of workers covered under Social Security (and therefore were not paying HI payroll taxes) until the 1980s. While the Social Security portion of the payroll tax has an upper limit of yearly earnings that are taxable (\$97,500 for 2007, having gradually increased from the 1966 level of \$6,600), the upper limit on HI contributions was removed in 1994 so that all earnings are subject to the HI tax. The age of Medicare entitlement for the nondisabled remains 65, but raising the "normal retirement" for Social Security—the age at which beneficiaries can receive unreduced retirement benefits—also increases the pool of workers contributing to the HI trust fund to the extent that individuals 62 or older continue to work. Provisions that make Medicare the secondary payer in relation to other insurers have also reduced expenditures for Medicare. An additional source of funds for Medicare is the income tax on Social Security benefits that is designated for the HI trust fund.
- 3 There are some important exceptions to this. For example, Medicare patients seeking care at hospital outpatient departments must pay about 32 percent coinsurance (rates vary by service), and beneficiaries face 50 percent coinsurance for most outpatient mental health services.
- 4 In their projections, the trustees are required to assume what they consider unrealistically low physician payment updates (consecutive negative updates between 2007 and at least 2015). This fact, as well as the need to raise Part B assets in the SMI trust fund to more appropriate levels, puts even more upward pressure on SMI's financing needs.
- 5 Some analysts have criticized the trigger provision on several grounds. One can argue that the threshold of 45 percent arbitrarily caps general revenue financing (Moon 2005). If decision makers conclude that they must increase taxes to help ensure Medicare's sustainability, some may find raising general revenue more desirable than raising payroll taxes because income taxes are more progressive and may not discourage work effort as directly. Another criticism is that policymakers could carry out options to lower the general revenue funding share (by, for example, raising payroll taxes) without addressing concerns about the level of Medicare spending or program inefficiencies. Another critique of the 45 percent trigger is that, because of the way HI and SMI services are financed and the trigger measure is calculated, the mechanism favors certain policy options over others. The policy tools one chooses to use can have different effects. Specifically, payroll tax and premium increases lower the trigger measure by more than policies to lower Medicare spending.
- 6 The Medicare trustees make their projections in three phases. Short-range projections cover a 12-year period and reflect current Medicare policies by type of service as well as recent trends in growth of spending. For years 25 to 75 of the projection period, the trustees use projection models that apply assumptions about long-term growth rates in health spending to projections of growth in the economy, growth in numbers of beneficiaries and their demographic mix, and the relative cost of care for different demographic groups. For the intermediate period, the trustees gradually smooth the growth rate in per capita health spending between the short- and long-range assumptions (2004 Technical Review Panel on the Medicare Trustees Report).
- 7 The trustees characterize long-range growth rates in these terms to reflect the effects of technology on health spending. The GDP term reflects an income effect—broader use of technology as our nation's income increases. The 1 percentage point term reflects an increasing trend in the use of technology independent of income.
- 8 Even as the health status of people age 65 and older has been improving, the prevalence of chronic diseases and rates of disability among younger people have been rising. Researchers found that the combined effects of the changing health status of older and younger cohorts will lead to only modest upward pressure on aggregate health spending. However, the adoption rate of key technologies could affect spending levels more because some innovations are forecast to be very expensive. The 10 technologies considered include intraventricular cardioverter defibrillators, left ventricular assist devices, pacemakers to control atrial fibrillation, telomerase inhibitors, cancer vaccines, anti-angiogenesis, treatment of acute stroke, prevention of Alzheimer's disease, prevention of diabetes, and compounds that extend life span.

- 9 Individuals with modified adjusted gross incomes (MAGIs) of \$80,000 or more and married couples with MAGIs of \$160,000 or more will receive less than the 75 percent subsidy that all other Part B enrollees receive. CMS is phasing in higher premiums over a three-year period. By the end of that time, higher income individuals will pay monthly premiums equal to 35 percent, 50 percent, 65 percent, or 80 percent of Medicare's average Part B costs for aged beneficiaries, depending on income. All other individuals pay premiums equal to 25 percent of average costs for aged beneficiaries. For 2007, CMS estimates that 1.3 percent of Part B beneficiaries will pay \$106 per month, 1.2 percent will pay \$124.70 per month, 0.5 percent will pay \$143.40 per month, and 0.8 percent will pay \$162.10 per month, compared with a premium of \$93.50 per month for the remaining 96 percent of Part B enrollees. In 2007, the additional premium amounts are one-third of the full higher amount that higher income beneficiaries will ultimately pay. If CMS had not phased in lower premium subsidies for higher income individuals, 2007 income-related premiums would have been about \$131, \$187, \$243, and \$299 per month. Whether higher premiums will affect beneficiaries' willingness to remain enrolled in Part B remains to be seen.
- 10 Social Security recipients received a 3.3 percent increase for 2007.
- 11 An implication of calculations made in the late 1990s for Medicare trustees' reports was that medical care services would make up 38 percent of GDP by 2075 (2004 Technical Review Panel on the Medicare Trustees Report).
- 12 For a beneficiary with a total of \$3,000 in drug spending, this \$1,500 out-of-pocket spending calculation is the sum of the \$250 deductible, 25 percent coinsurance on the next \$2,000 in drug spending (\$500), and \$750 of out-of-pocket spending in the standard benefit's coverage gap.
- 13 SMI premiums and cost sharing will make up a lower percentage—just under 20 percent—for those beneficiaries who do not enroll in Part D.
- 14 For example, we would not include the value of personal exemptions from individual income tax for dependent minors when calculating how much we spend on children.
- 15 Dollar amounts are adjusted for purchasing power parity—differences in the cost of living across countries—by comparing prices for a fixed basket of goods. OECD's adjustment is a broad-based basket, not one specific to health costs.
- 16 Analysts raise a similar argument about the higher price of acute hospital days in the United States, although inpatients receive more intensive care per bed day than in many other countries (Bodenheimer 2005b).
- 17 Reports document shortcomings in the evidence base about what works to address obesity and call for more programs and more evaluation. One recent report compared obesity rates across states and found that only one state had reduced the obesity rate; the report calls for development of strategies and a research program to evaluate them (Robert Wood Johnson Foundation 2006). Another recent report focusing on progress in preventing childhood obesity calls for multiple efforts from government, industry and media, communities, schools, and individuals. It also stresses the need to evaluate these programs and to disseminate the results of the programs that work (IOM 2006a).
- 18 Consumer-directed health plans are designed to make patients more sensitive to the price of their care. Some insurers that offer consumer-directed products provide decision-support tools to help individuals understand treatment options and locate price information about providers. This type of insurance product assumes that consumers can weigh the costs and benefits of their alternatives. One limitation of consumer-directed health plans stems from their benefit design combined with the concentration of health care spending among relatively few patients. Generally, about 10 percent of people account for about 70 percent of health care spending (Berk and Monheit 2001). Beneficiaries in fee-for-service Medicare exhibit only a slightly smaller concentration, with the top 10 percent of individuals accounting for 67 percent of program spending (MedPAC 2004b). A strategy of raising enrollees' sensitivity to the costs of their care may reduce spending for some discretionary services, but it may not be as successful at constraining spending for patients whose use of services quickly pushes them beyond both the deductible and the out-of-pocket spending limits.
- 19 In 2005, about 10 percent of privately insured, nonelderly adults were enrolled in high-deductible health plans (Fronstin and Collins 2005). Nevertheless, such plans have attracted considerable attention. Supporters believe that higher cost sharing will lead members to lower their use of unnecessary services, thereby slowing growth in health spending. Other analysts expect that this new type of product will encourage risk segmentation, since healthier enrollees might find lower premiums attractive while sicker individuals would likely stay with more comprehensive coverage. A recent review of literature on these products suggests that, at this early stage, the evidence is not sufficient to draw firm conclusions. Nevertheless, early studies show modest favorable selection into consumer-directed health plans, some evidence that such plans may help lower costs and cost increases, and mixed effects on quality with evidence of both appropriate and inappropriate changes in use of services (Beeuwkes et al. 2006).

- 20 Retirees can obtain a reduced level of Social Security benefits beginning at age 62 but obtain full benefits only if they wait until age 65. Under current law, Social Security's normal retirement age will rise gradually from 65 to 67.
- 21 This study defines the underinsured as those individuals who, given their health status, would have purchased more extensive coverage but had insufficient income to do so. The authors used simulation models to predict the purchase of nongroup health insurance policies among the near elderly based on their health status and then constrained the type of insurance those individuals could purchase to policies that would cost no more than 20 percent of their income.
- 22 An alternative option would be to broaden the availability of disability coverage to the near elderly.
- 23 One should note that each of the Health Insurance Experiment's insurance alternatives included a cap on out-of-pocket spending, which could have affected behavior.
- 24 An increasing number of countries have public and private agencies that evaluate new technologies (Bodenheimer 2005a). Some explicitly use cost-effectiveness analysis—a methodology in which one quantifies both the health outcomes and the costs of new technologies (MedPAC 2005c). Organizations such as the United Kingdom's National Institute for Clinical Excellence (NICE) measure health outcomes in terms of quality-adjusted life years (QALYs), the arithmetic product of life expectancy and a measure of the quality of the remaining life years. U.K. policymakers use NICE's analyses to help decide which treatments should be funded publicly, based on whether a technology's resulting QALYs are at or below certain ranges of cost effectiveness (Reinhardt et al. 2004). If NICE's analyses conclude that a new technology is not cost-effective, patients in the United Kingdom must use their own funds or private supplemental insurance to pay for treatment.

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CHAPTER

2

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

R E C O M M E N D A T I O N S

Section 2A: Hospital inpatient and outpatient services

2A-1 The Congress should increase payment rates for the acute inpatient and outpatient prospective payment systems in 2008 by the projected rate of increase in the hospital market basket index, concurrent with implementation of a quality incentive payment program.

COMMISSIONER VOTES: YES 14 • NO 0 • NOT VOTING 0 • ABSENT 3

.....

2A-2 Concurrent with implementation of severity adjustment to Medicare's diagnosis related group payments, the Congress should reduce the indirect medical education adjustment in fiscal year 2008 by 1 percentage point to 4.5 percent per 10 percent increment in the resident-to-bed ratio. The funds obtained from reducing the indirect medical education adjustment should be used to fund a quality incentive payment system.

COMMISSIONER VOTES: YES 13 • NO 1 • NOT VOTING 0 • ABSENT 3

.....

2A-3 The Secretary should improve the form and accompanying instructions for collecting data on uncompensated care in the Medicare cost report and require hospitals to report using the revised form as soon as possible.

COMMISSIONER VOTES: YES 14 • NO 0 • NOT VOTING 0 • ABSENT 3

Section 2B: Physician services

2B The Congress should update payments for physician services in 2008 by the projected change in input prices less the Commission's expectation for productivity growth.

COMMISSIONER VOTES: YES 14 • NO 0 • NOT VOTING 0 • ABSENT 3

Section 2C: Outpatient dialysis services

2C The Congress should update the composite rate in calendar year 2008 by the projected rate of increase in the end-stage renal disease market basket index less the Commission's expectation for productivity growth.

COMMISSIONER VOTES: YES 14 • NO 0 • NOT VOTING 0 • ABSENT 3

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

Chapter summary

The Commission makes payment update recommendations annually for fee-for-service Medicare. An update is the amount (usually expressed as a percentage change) by which the base payment for all providers in a prospective payment system is changed. To determine an update, we first assess the adequacy of Medicare payments for efficient providers in the current year (2007). Next, we assess how those providers' costs are likely to change in the year the update will take effect (the policy year—2008). Finally, we make a judgment as to what, if any, update is needed. When considering whether payments in the current year are adequate, we account for policy changes (other than the update) that are scheduled to take effect in the policy year under current law. This year we make update recommendations in eight sectors: hospital inpatient, hospital outpatient, physician, skilled nursing facilities, home health, outpatient dialysis, inpatient rehabilitation facilities, and long-term care hospitals. The analyses of payment adequacy by sector are in the sections that follow and in Chapter 3. ■

In this chapter

- Are Medicare payments adequate in 2007?
- What cost changes are expected in 2008?
- How should Medicare payments change in 2008?

The goal of Medicare payment policy is to get good value for the program's expenditures. This means maintaining beneficiaries' access to high-quality services while encouraging efficient use of resources and preserving equity among providers and beneficiaries. Necessary steps toward achieving 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 cost differences for varying market conditions outside the control of providers and among types of services and patients; and
- considering the need for a payment update and other policy changes annually.

Our general approach to developing payment policy recommendations attempts to do two things: first, make enough funding available in aggregate to cover the costs of efficient providers, and second, distribute payments equitably among services and providers. Together, these steps should maintain Medicare beneficiaries' access to high-quality care while getting the best value for taxpayers' and beneficiaries' resources.

To help determine the appropriate level of aggregate funding for a given payment system, we consider:

- Are payments at least adequate for efficient providers in 2007?
- How will efficient providers' costs change in 2008?
- How should Medicare payments change in 2008?

Efficient providers use fewer inputs to produce quality outputs. In the first part of our adequacy assessment, we judge whether Medicare payments are too high or too low compared with efficient providers' costs in the current year—2007. In the second part, we assess how we expect efficient providers' costs to change in the policy year—2008. Within a level of aggregate funding, we may also consider changes in payment policy that would affect the distribution of payments and improve equity among providers or improve equity and access to care for beneficiaries. We then recommend updates and other policy changes for 2008. This analytic process is illustrated in Figure 2-1.

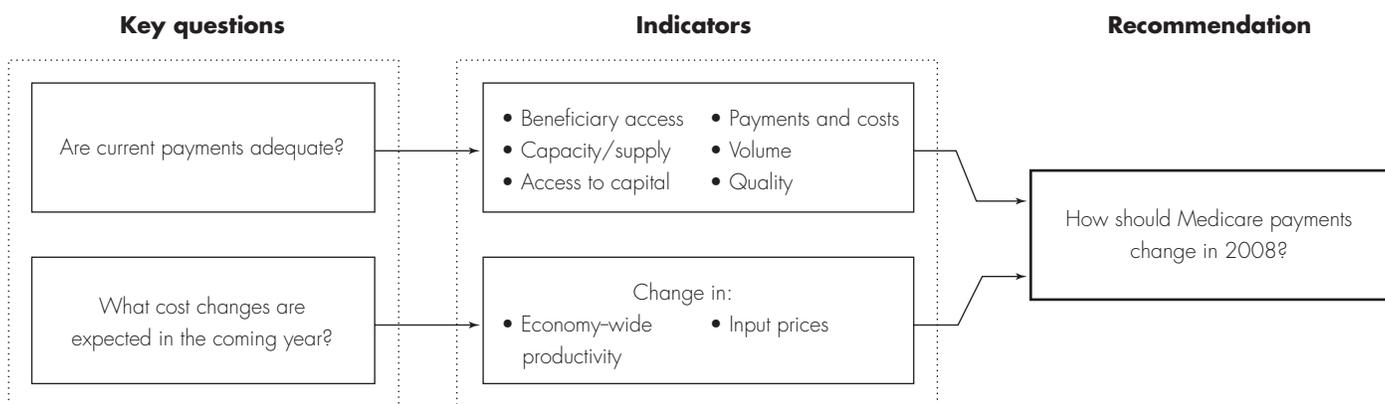
Are Medicare payments adequate in 2007?

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:

- beneficiaries' access to care
- changes in the capacity and supply of providers
- changes in the volume of services
- changes in the quality of care
- providers' access to capital
- Medicare payments and providers' costs for 2007

FIGURE 2-1

Payment adequacy framework



Some measures focus on beneficiaries (e.g., access to care) and some on providers (e.g., the relationship between payments and costs in 2007). We consider multiple measures because the direct relevance, availability, and quality of each type of information varies among sectors, and no one measure provides all the information needed for the Commission to judge payment adequacy.

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. (Poor access could indicate payments are too low; good access could indicate payments are adequate or more than adequate.) However, other factors unrelated to Medicare's payment policies may also affect access to care. These factors include coverage policy, beneficiaries' preferences, supplemental insurance, transportation difficulties, and the extent to which Medicare is the dominant payer for the service.

The measures we use to assess beneficiaries' access to care depend on the availability and relevance of information in each sector. For example, using results from several surveys, we assess physicians' willingness to serve beneficiaries and beneficiaries' opinions about their access to physician care. For home health services, using information on the CMS website, we examine whether communities are served by providers.

Changes in the capacity of providers

Rapid growth in the capacity of providers to furnish care may indicate that payments are more than adequate to cover their costs. Changes in technology and practice patterns may also affect providers' capacity. For example, less invasive procedures or lower priced equipment could increase 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. For instance, rapid growth in the number of home health agencies could suggest that Medicare's payment rates are at least adequate and potentially more than adequate. If Medicare is not the dominant payer, 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.

Changes in the volume of services

An increase in the volume of services beyond that expected for the increase in the number of beneficiaries could suggest that Medicare's payment rates are too high. Reductions in the volume of services, on the other hand, may indicate that revenues are inadequate for providers to continue operating or to provide the same level of services. Changes in the volume of services are often difficult to interpret because increases or decreases also could be explained by other factors, such as incentives in the payment system, population changes, changes in disease prevalence among beneficiaries, technology, practice patterns, and beneficiaries' preferences. Explicit decisions about service coverage can also influence volume. For example, in 2004 CMS redefined arthritis conditions it thought appropriate for treatment in inpatient rehabilitation facilities (IRFs), a decision that contributed to a reduction in IRF volume. Changes in the volume of physician services must be interpreted particularly cautiously because some evidence suggests that volume may also go up when payment rates go down—the so-called volume offset. Whether this phenomenon exists in other settings depends on how discretionary the services are and on the ability of providers to influence beneficiary demand for the services.

Changes in the quality of care

The relationship between changes in quality and Medicare payment adequacy is not direct. Many factors influence quality, including beneficiaries' preferences and compliance with providers' guidance and providers' adherence to clinical guidelines. Medicare's payment systems are not generally connected to quality; payment is usually the same, regardless of the quality of care. In fact, undesirable outcomes (e.g., unnecessary complications) may result in additional payments. The influence of Medicare's payments on quality of care may also be limited when Medicare is not the dominant payer. However, the program's quality improvement activities can influence the quality of care for a sector. Changes in quality are thus a limited indicator of Medicare payment adequacy. In addition, increasing payments through an update for all providers in a sector regardless of their individual quality may not be an appropriate response to quality problems in a sector, particularly if other factors point to adequate payments.

The Commission supports linking payment to quality to hold providers accountable for the care they furnish as discussed in our March 2004 and 2005 reports (MedPAC 2005, MedPAC 2004). Specifically, the Commission recommended that pay-for-performance programs be implemented for all the settings in this chapter: hospitals, physicians, and dialysis facilities and physicians furnishing services to dialysis patients. For hospitals and dialysis providers, measures are already available for such a program. For physicians, we described a two-step process that starts with measures of information technology function and then moves on to process of care and other measures. The Commission also recommended that pay for performance be adopted for home health agencies and Medicare Advantage plans.

The Commission developed four principles for Medicare's pay-for-performance programs.

- The program should reward providers based on improving care and achieving absolute better performance to have the broadest effect on providers' incentives and thus beneficiaries' care.
- The program should be funded by setting aside, initially, a small proportion of payments (e.g., 1 percent to 2 percent of payments) to minimize possible disruption to beneficiaries and providers.
- The program should be budget neutral. It should distribute all withheld dollars every year; pay for performance is a way to improve quality of care, not to realize savings.
- The program should have a process to update the measures to reflect changes in quality measurement and practice patterns. We provide a detailed description of the type of entity we envision for this task in our March 2005 report.

Providers' access to capital

Access to capital is necessary for providers to maintain and modernize their facilities and capabilities for patient care. An inability to access capital that was widespread throughout a sector might in part reflect on the adequacy of Medicare payments (or, in some cases, even on the expectation of changes in the adequacy of Medicare payments). However, access to capital may not be a useful indicator of the adequacy of Medicare payments when the sector has little need for capital, when there is a perception that regulatory action may affect the sector, or when

providers derive most of their payments from other payers or other lines of business. For example, most hospital and skilled nursing facility (SNF) revenues come from private sources (e.g., health insurance) or other government payers (e.g., Medicaid).

We examine access to capital for both nonprofit and for-profit providers. Changes in bond ratings may indicate that access to needed capital for nonprofit entities has deteriorated or improved, although the data are difficult to interpret because access to capital depends on more than just bond ratings. We also use indirect measures that can demonstrate providers' access to capital, such as the acquisition of facilities by chain providers, spending on construction, and overall volume of borrowing. For publicly owned providers, we can also monitor changes in share prices, debt, and other publicly reported financial information.

Payments and costs for 2007

For most payment sectors, we estimate aggregate Medicare payments and costs for the year preceding the policy year. In this report, we estimate payments and costs for 2007 to inform our update recommendations for 2008.

For providers that submit cost reports to CMS—acute care hospitals, SNFs, home health agencies, outpatient dialysis facilities, IRFs, and long-term care hospitals—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 payments less costs divided by payments.

To estimate payments, we first apply the annual payment updates specified in law for 2006 and 2007 to our 2005 base data. We then model the effects of other policy changes that will affect the level of payments including those—other than payment updates—that are scheduled to go into effect in 2008. This method allows us to consider whether current payments would be adequate under all applicable provisions of current law. Our result is an estimate of what payments in 2007 would be if 2008 payment rules were in effect. To estimate 2007 costs, we generally assume that the cost per unit of output will increase at the rate of input price inflation. As appropriate, we adjust for changes in the product (i.e., changes within the service provided, such as fewer visits in an episode of home health care) and trends in key indicators, such as historical cost growth, productivity, and the distribution of cost growth among providers.

Using 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). When a facility provides services that are paid for in multiple payment systems, however, our measures of payments and costs for an individual sector may become distorted because of allocation of overhead costs or cross subsidies among services. In these instances, we assess—to the extent possible—the adequacy of payments for the whole range of Medicare services the facility furnishes. For example, a hospital might furnish inpatient, outpatient, SNF, home health, psychiatric, and rehabilitation services (each of which is paid under a different Medicare payment system). We compute an overall hospital margin encompassing Medicare-allowed costs and payments for all the sectors.

Total margins—which include payments from all payers as well as revenue from nonpatient sources—do not play a direct role in the Commission’s update deliberations. Medicare payments should relate 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 aggregate Medicare margin to inform our judgment about whether total Medicare payments cover efficient providers’ costs. To assess whether changes are needed in the distribution of payments, we calculate Medicare margins for subgroups of providers that are important in Medicare’s payment policies. 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 by their teaching status (major teaching, other teaching, or nonteaching).

Multiple factors can contribute to the difference between current payments and costs, including changes in the efficiency of providers, unbundling of the services included in the payment unit, and other changes in the product (e.g., reduced lengths of stay at inpatient hospitals). Information about the extent to which these factors have contributed to the difference may help in deciding how much to change payments.

Finally, the Commission makes a judgment when assessing the adequacy of payments relative to costs. No single

standard governs this relationship. It varies from sector to sector and depends on the degree of financial risk faced by individual providers, which can change over time.

Appropriateness of current costs

Our assessment of the relationship between Medicare’s payments and providers’ costs is influenced by whether costs reflect efficient providers’ expected spending on high-quality care. Measuring 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 kinds of visits in a home health episode changed significantly after the introduction of the home health prospective payment system. In other systems, coding may change. Any kind of rapid change can make it difficult to measure costs per unit of comparable product.

To assess whether reported costs provide a reasonable representation of the costs of efficient providers, we examine recent trends in the average cost per unit of output, variation in cost growth, and evidence of change in the product being furnished. Other things being equal, including the product being delivered, we generally expect average growth in unit costs to be somewhat below the forecasted increase in input prices because of productivity improvements. The federal government should benefit from providers’ productivity gains, just as private purchasers of goods in competitive markets benefit from the productivity gains of their suppliers.

Other payers and market conditions also may affect providers’ efficiency. In a sector where Medicare is not dominant, if other payers do not promote cost containment, providers may have higher growth in cost than they would have if Medicare were dominant. Lack of cost pressure would be more common in markets where a few providers dominate and have negotiating leverage over the payers. For example, economic literature on the hospital industry and our analysis suggest that providers that are under cost pressure generally have managed to slow their growth in cost more than those facing less cost pressure (Gaskin and Hadley 1997, MedPAC 2005).

Variation in cost growth among providers in a sector can give us insight into the range of performance that facilities are capable of achieving. For example, if some providers have more rapid growth in cost than others, we might question whether those increases were appropriate.

Changes in product can significantly affect unit costs. Returning to the example of home health, substantial reductions in the number of visits in home health episodes would be expected to reduce the growth in per episode costs. If costs per episode instead increased at the same time as the number of visits decreased, one would question the appropriateness of the cost growth.

Accurate reporting is important for determining costs. When data are obtained from unaudited cost reports, costs could be understated or overstated. In some instances, some portion of costs has been found to be unallowable after CMS contractors audited facilities' cost reports.

In principle, we would like audits of all sectors' cost reports to ensure the accuracy of the reporting. For most providers, the current audit process reveals little about the accuracy of the Medicare cost information. The frequency of audits varies by sector. When audits are done, they generally focus on a narrow set of cost components that directly affect payment instead of broadly examining the accuracy of costs included in the reports.

What cost changes are expected in 2008?

The second part of the Commission's approach to developing payment update recommendations is to account for anticipated cost changes in the next payment year. For each sector, we review evidence about the factors that are expected to affect providers' costs. One major factor is changes in input prices, as measured by the applicable CMS price index. For most providers, we use the forecasted increase in an industry-specific index of national input prices, called a market basket index. For physician services, we use a similar index of input price changes—the Medicare Economic Index (before it is adjusted for productivity). Forecasts of these indexes approximate how much providers' costs would rise in the coming year if the quality and mix of inputs they use to furnish care remained constant. Any errors in the forecast are taken into account in future years while judging payment adequacy.

Another factor that may also affect providers' costs in the coming year is improvement in productivity. Medicare's payment systems should encourage providers to reduce the quantity of inputs required to produce a unit of service by at least a modest amount each year while maintaining

service quality. Consequently, the Commission has adopted a policy goal to create incentives for efficiency, including an adjustment for productivity when accounting for providers' cost changes in the coming year. The Commission's productivity factor—1.3 percent for our 2008 deliberations—is a 10-year average of the Bureau of Labor Statistics' (BLS) estimate of economy-wide, multifactor productivity growth. Our approach links Medicare's expectations for efficiency to the gains achieved by the firms and workers who pay taxes that fund Medicare. Market competition constantly demands improved productivity and reduced costs from other firms; as a prudent purchaser, Medicare should also require some productivity gains each year. Unless evidence suggests that this goal is unattainable systematically across a sector for reasons outside the industry's control, Medicare should expect improvements in productivity consistent with the average realized by the firms and workers who fund the Medicare program.

Due to a change in data availability, the productivity factor for our 2008 deliberations is substantially higher than it was for 2007. The BLS now releases its multifactor productivity data a year earlier than it did previously. Accordingly, our calculation of the most recent 10 years adds two new years of data (2003 and 2004) and drops two years (1993 and 1994). Because the two dropped years had relatively low productivity (0.3 percent in 1993 and 0.8 percent in 1994) and the two new years had high productivity (2.7 percent in 2003 and 2.9 percent in 2004), the 10-year average has increased markedly. BLS officials attribute recent gains in productivity to improved use of information technology, firm specialization resulting in outsourcing of certain business functions, and contributions from research and development.

How should Medicare payments change in 2008?

The Commission's judgments about payment adequacy and expected cost changes result in an update recommendation for each payment system. Coupled with the update recommendations, we may also make recommendations about the distribution of payments among providers. These distributional changes are sometimes, but not always, budget neutral. Our recommendations for pay for performance are one example of distributional changes that will affect providers differentially based on their performance.

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 requires the Commission to consider the budget consequences of our recommendations. We document in this report how spending for each recommendation would compare with expected spending under current law. We develop rough estimates of the impact of recommendations relative to the current budget baseline, placing each recommendation into one of several cost-impact categories. In addition, we assess the impacts of our recommendations on beneficiaries and providers. ■

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SECTION
2 A

**Hospital inpatient and
outpatient services**

R E C O M M E N D A T I O N S

2A-1 The Congress should increase payment rates for the acute inpatient and outpatient prospective payment systems in 2008 by the projected rate of increase in the hospital market basket index, concurrent with implementation of a quality incentive payment program.

.....
COMMISSIONER VOTES: YES 14 • NO 0 • NOT VOTING 0 • ABSENT 3

2A-2 Concurrent with implementation of severity adjustment to Medicare's diagnosis related group payments, the Congress should reduce the indirect medical education adjustment in fiscal year 2008 by 1 percentage point to 4.5 percent per 10 percent increment in the resident-to-bed ratio. The funds obtained from reducing the indirect medical education adjustment should be used to fund a quality incentive payment system.

.....
COMMISSIONER VOTES: YES 13 • NO 1 • NOT VOTING 0 • ABSENT 3

2A-3 The Secretary should improve the form and accompanying instructions for collecting data on uncompensated care in the Medicare cost report and require hospitals to report using the revised form as soon as possible.

.....
COMMISSIONER VOTES: YES 14 • NO 0 • NOT VOTING 0 • ABSENT 3

SECTION 2A

Hospital inpatient and outpatient services

Section summary

Most of our indicators of payment adequacy for hospital services are positive. More Medicare-participating hospitals have opened than closed in recent years, suggesting continued access to care for Medicare beneficiaries. Inpatient and outpatient service volume continues to increase but at reduced rates of growth in 2005 and into 2006. The quality of care is generally improving. Mortality rates have dropped while CMS's indicators of clinical effectiveness and appropriateness of care have improved, but the results for adverse events are mixed.

Spending on hospital construction increased substantially in recent years—with 30 percent growth just in the last year—and the value of debt for hospitals with upgraded credit ratings far exceeds the value of those with downgrades. The median values of several financial indicators (e.g., measures of debt service coverage) reached their highest value ever recorded in 2005.

Cost growth has fallen since 2003 and on a case-mix-adjusted basis was just slightly higher than the increase in the operating market basket in

In this section

- Are Medicare payments adequate in 2007?
- How should Medicare payments change in 2008?
- The indirect medical education and disproportionate share adjustments

2005. Data from several for-profit chains and a survey sponsored by CMS and MedPAC, however, suggest that the rate of growth in costs may have edged up again in 2006.

The overall Medicare margin for hospitals covered by prospective payment declined from –3.1 percent in 2004 to –3.3 percent in 2005. Considering the evidence of higher cost growth in 2006, we project a margin of –5.4 percent for 2007 (reflecting 2008 policy other than payment updates).

Hospitals with consistently low Medicare margins had smaller declines in length of stay and higher growth in costs than hospitals with consistently high margins. Consequently, they had higher standardized costs per case than other hospitals. One explanation for the difference in performance is that the hospitals with low Medicare margins appear to face less pressure to control their costs, primarily because private payers pay much more than the cost of care. Their revenue from all sources other than Medicare was 16 percent more than associated costs, generating more than enough extra income to offset Medicare losses. The high-margin hospitals, in contrast, roughly broke even on their non-Medicare business. To perform well overall, they had to control their costs, and we see the result in higher Medicare margins.

In considering the appropriate payment update, we had positive findings for beneficiaries' access to care, volume growth, quality of care, and access to capital. But Medicare margins are low and recent cost trends suggest they will fall between 2005 and 2007. At the same time, our analysis of hospitals with consistently high costs and low margins suggests that fewer than a fifth of hospitals contribute to lowering the industry-wide Medicare margin below zero. Medicare should put pressure on hospitals to control their costs rather than accommodate the recent rate of cost growth.

Balancing these considerations, we conclude that an update of market basket is appropriate for inpatient and outpatient services, with this increase implemented concurrently with a quality incentive payment program. The

Commission previously recommended a 1 percent to 2 percent payment pool for a pay-for-performance program. We estimate that our recommendation for reducing the adjustment for indirect medical education (IME) would generate 1 percentage point of funding for the pool. For a larger pool, the additional amount would be taken from the base rates. Although pay for performance would operate separately from the update, hospitals' quality performance would determine whether their net increase in payments in 2008 is above or below the market basket increase.

The Congress should increase payment rates for the acute inpatient and outpatient prospective payment systems in 2008 by the projected rate of increase in the hospital market basket index, concurrent with implementation of a quality incentive payment program.

Recommendation 2A-1

COMMISSIONER VOTES:
YES 14 • NO 0 • NOT VOTING 0 • ABSENT 3

In 2004, Medicare spent \$5.5 billion on the IME adjustment and \$7.7 billion on the adjustment for disproportionate share (DSH), together accounting for 14 percent of inpatient payments. Almost one-third of hospitals receive an IME adjustment and three-quarters receive a DSH adjustment. Hospitals that receive IME or DSH payments—and particularly those that receive both—have much higher Medicare margins than those that receive neither adjustment.

The IME adjustment has always been set higher than the estimated effect of teaching on hospitals' costs per case (the so-called "empirical level"). Based on 2004 data, we found that more than half of IME payments were beyond the empirical level, accounting for \$3 billion in Medicare spending. Reducing the IME adjustment to the empirical level and redistributing the savings among all hospitals would markedly reduce the differences in financial performance under Medicare.

The Commission previously recommended refinements to inpatient payments, including an adjustment for severity of illness, and CMS is developing a mechanism to account for severity. Concurrent with implementation of severity adjustment, the Commission recommends that the Congress reduce the IME adjustment by 1 percentage point to 4.5 percent

per 10 percent increment in the resident-to-bed ratio. The savings should be used to fund a quality incentive payment policy for all hospitals.

Recommendation 2A-2

COMMISSIONER VOTES:

YES 13 • NO 1 • NOT VOTING 0 • ABSENT 3

Concurrent with implementation of severity adjustment to Medicare's diagnosis related group payments, the Congress should reduce the indirect medical education adjustment in fiscal year 2008 by 1 percentage point to 4.5 percent per 10 percent increment in the resident-to-bed ratio. The funds obtained from reducing the indirect medical education adjustment should be used to fund a quality incentive payment system.

The Commission recommends updates and changes to IME concurrent with a pay-for-performance program and adjustment for severity of illness. These policy changes should be viewed as a package to improve the accuracy of Medicare's payments for acute inpatient services and the quality of care.

We found a weak relationship between hospitals' costs per discharge and their share of low-income patients. Many have viewed the DSH adjustment as helping hospitals with their uncompensated care rather than offsetting the cost impact of treating low-income patients. However, we found little evidence of a relationship between the DSH payments hospitals receive and the amount of uncompensated care they provide.

A federal payment for uncompensated care could be funded inside or outside Medicare. If the payment for uncompensated care were within Medicare, the current DSH payments could provide funding. A payment for uncompensated care should be distributed on the basis of each hospital's aggregate costs for uncompensated care. To provide the necessary data, we recommend that CMS improve its instrument for collecting information on uncompensated care. ■

Recommendation 2A-3

COMMISSIONER VOTES:

YES 14 • NO 0 • NOT VOTING 0 • ABSENT 3

The Secretary should improve the form and accompanying instructions for collecting data on uncompensated care in the Medicare cost report and require hospitals to report using the revised form as soon as possible.

Background

Hospitals provide Medicare beneficiaries with inpatient care for the diagnosis and treatment of acute conditions and manifestations of chronic conditions. They also provide ambulatory care through outpatient departments and emergency rooms. In addition, many hospitals provide home health, skilled nursing facility, psychiatric, or rehabilitation services. Medicare purchases these services from short-term general and specialty hospitals that meet its conditions of participation and agree to accept the program's payment rates.

Medicare spending on hospitals

Medicare payments for acute inpatient and outpatient services account for more than 90 percent of Medicare payments made to hospitals covered by the inpatient prospective payment system (PPS).¹ Growth in Medicare spending for hospital services has been robust and is expected to continue to be so. Spending grew from \$91

billion in 1995 to \$145 billion in 2005, an average annual increase of 4.7 percent (Figure 2A-1). Since 2000, the growth rate has been higher, 8.3 percent per year. CMS's Office of the Actuary projects that spending will increase 4.8 percent per year from 2006 to 2016 (OACT 2006).

Medicare's payment system for inpatient and outpatient services

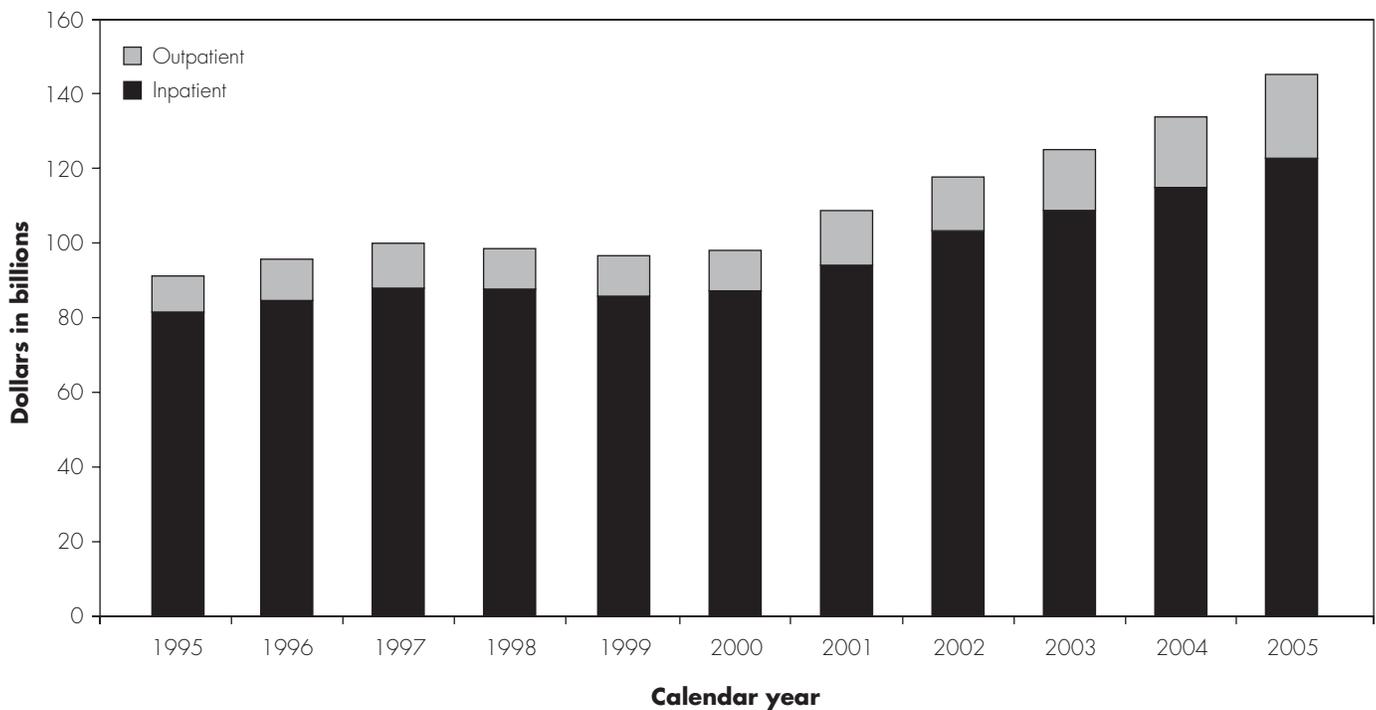
This section provides a brief overview of the inpatient and outpatient PPSs, which have a similar basic construct (a base rate modified for differences in type of case or service as well as geographic differences in wages) but somewhat different sets of payment adjustments.

Acute inpatient payment system

Medicare's acute inpatient PPS pays hospitals a predetermined amount per hospital discharge, with separate payments to cover hospitals' operating and capital expenses. The diagnosis related group (DRG) classification system sorts patients into 538 groups, which aggregate cases with related clinical problems and similar

FIGURE 2A-1

Medicare payments for hospital services continue to grow

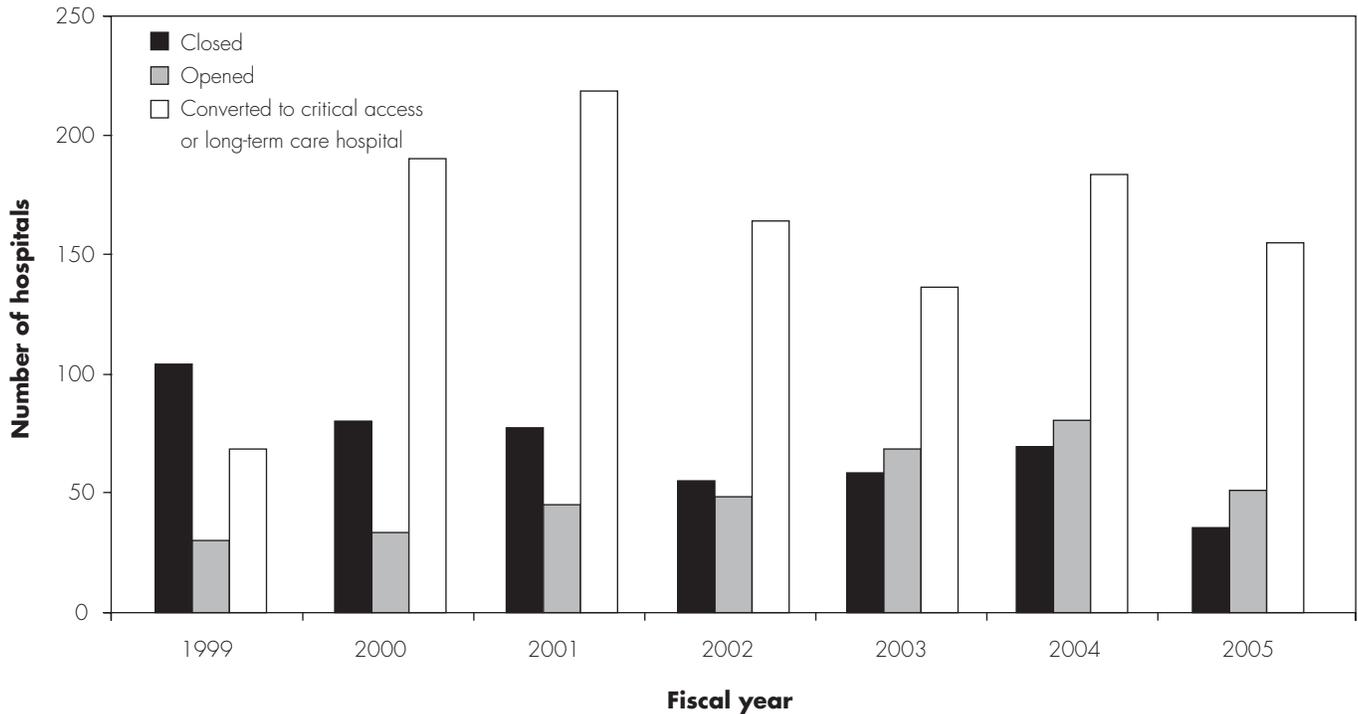


Note: Data include all Medicare-participating hospitals. Includes acute inpatient services covered by the prospective payment system (PPS); critical access hospitals; other inpatient services (psychiatric, cancer, children's, rehabilitation, and long-term care hospitals); outpatient services covered by PPS; and other outpatient services. Payments include program outlays but not beneficiary cost sharing.

Source: 2006 annual report of the Boards of Trustees of the Medicare trust funds.

**FIGURE
2A-2**

More hospitals have opened than closed since 2002, and many have converted to critical access and long-term care hospitals



Source: MedPAC analysis of Provider of Services file from CMS.

costs. The DRG payment rate is the product of a base payment rate and the relative weight of the DRG. The labor portion of the DRG payment rate is further adjusted by the hospital-wage index to account for differences in area wages.

The inpatient PPS makes policy adjustments to payments for certain cases and to hospitals with specific characteristics, including outlier payments for cases with unusually high costs, an adjustment for indirect medical education (IME) to account for the higher costs of patient care in teaching hospitals, and an adjustment for disproportionate share (DSH) for hospitals that treat an unusually large share of low-income patients. A more detailed description of the acute inpatient PPS can be found on MedPAC's website at http://www.medpac.gov/publications/other_reports/Sept06_MedPAC_Payment_Basics_hospital.pdf.

In a 2005 report to the Congress on physician-owned specialty hospitals, the Commission recommended several improvements to the acute inpatient PPS (MedPAC 2005a). These included:

- refining the current DRGs to capture more fully the differences in severity of illness among patients,
- basing the DRG relative weights on the estimated cost of providing care rather than on charges,
- basing the weights on the national average of hospitals' relative values in each DRG, and
- adjusting the weights to account for differences in the prevalence of high-cost outlier cases.

CMS responded to one of these recommendations by adopting a method of basing relative weights on costs. Basing DRG relative weights on costs eliminates bias from differences in markup of charges over costs among hospitals and among services within a hospital. After proposing a system of refined DRGs, CMS announced that it would study alternative approaches to adjusting for differences in severity of illness within DRGs and consider adopting one in fiscal year 2008. As an interim step, CMS made several changes to the DRG system in fiscal year 2007 to better recognize differences in severity.

Hospital outpatient payment system

The outpatient PPS pays hospitals a predetermined amount per service. CMS assigns each outpatient service to 1 of approximately 850 ambulatory payment classification (APC) groups. Each APC has a relative weight based on its median cost of service compared with the median cost of a midlevel clinic visit, and a conversion factor translates relative weights into dollar payment amounts. A more detailed description of the outpatient PPS can be found on MedPAC's website at www.medpac.gov/publications/other_reports/Sept06_MedPAC_Payment_Basics_OPD.pdf.

Are Medicare payments adequate in 2007?

Each year, MedPAC makes payment update recommendations for hospital inpatient and outpatient services for the coming year. In our framework, we address whether payments for the current year (2007) are adequate to cover the costs efficient hospitals incur and then how much efficient providers' costs should change in the coming year (2008). In determining payment adequacy, we consider beneficiaries' access to care, changes in the volume of services, changes in the quality of care, hospitals' access to capital, and the relationship of Medicare's payments and providers' costs. In addition, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) requires that we consider the efficient provision of services in recommending updates. Therefore, we consider the appropriateness of hospitals' costs—that is, whether actual costs provide a reasonable representation of efficient hospitals' costs.

Beneficiaries' access to care and supply of providers

We assess beneficiaries' access to care through measures of the number of hospitals participating in the Medicare program, including critical access hospitals in rural areas, and the proportion of hospitals offering certain specialty and outpatient services. We found no indication of significant change in hospitals' capacity to provide services to Medicare beneficiaries.

In each year since 2002, more Medicare-participating hospitals opened than closed. In 2005, 51 hospitals joined the Medicare program and 35 dropped out, for a net gain of 16 (Figure 2A-2). The annual number of closures

**TABLE
2A-1**

The share of hospitals offering most specialized services has grown

Service	1998	2001	2004
Neonatal intensive care	19%	20%	21%
Burn care	3	3	5
Transplant services	6	9	8
Open heart surgery	20	22	23
Trauma center (level 1-3)	26	32	32
Cardiac catheterization	37	38	36
Angioplasty	24	26	27
Hemodialysis	N/A	27	30
Psychiatric services	50	47	47
MRI	50	55	58

Note: N/A (not available). Data are for services provided directly by community hospitals, which include critical access hospitals in addition to those covered by the acute inpatient and outpatient prospective payment systems.

Source: American Hospital Association annual survey of hospitals.

dropped by more than 60 percent from 1999 to 2005. Some hospitals ceasing participation in the PPS for acute inpatient services continue in Medicare as critical access or long-term care hospitals.

Four rural and 31 urban hospitals closed in 2005. On average, the closing facilities operated at 32 percent occupancy in their last year of operation and were located nine miles from the nearest other hospital covered by the acute inpatient PPS. Thus, closures did not appear to have serious implications for beneficiaries' access to care in surrounding communities.

In addition to those leaving Medicare altogether, more than 1,200 rural hospitals converted to critical access hospital status between 1998 and 2005. Another 73 converted to long-term care hospitals. These facilities are no longer paid under the acute inpatient and outpatient PPSs but are still available to provide care to beneficiaries.

We examined a set of 10 specialized services and found that the share of hospitals offering most of them increased from 1998 to 2004 (Table 2A-1). The proportion offering trauma center services (level 1, 2, or 3) grew from 26 percent to 32 percent and the share offering burn care increased from 3 percent to 5 percent, even though trauma and burn care services are often considered unprofitable for hospitals. The largest change was in MRI services, which increased from 50 percent to 58 percent

**TABLE
2A-2**

The share of hospitals offering outpatient services has remained stable

Service	1997	2001	2002	2003	2004	2006
Outpatient services	93%	94%	94%	94%	94%	94%
Outpatient surgery	81	84	86	86	86	86
Emergency services	92	93	93	92	92	92

Note: Includes services provided or arranged by short-term hospitals, excluding critical access hospitals.

Source: Provider of Services file from CMS.

of hospitals. We observed small decreases in cardiac catheterization and psychiatric services.

The percentage of hospitals offering outpatient and emergency services has been fairly stable (Table 2A-2). A small increase in the share of hospitals providing outpatient care followed introduction of the outpatient PPS in August 2000. The only notable change since 2001 was a small increase in the percentage of hospitals offering outpatient surgery.

Changes in volume of services

Inpatient and outpatient volume have increased in recent years, with particularly strong growth on the outpatient side. We use number of discharges and average length of stay as indicators of inpatient volume, while we measure outpatient volume by number of services.

Inpatient volume

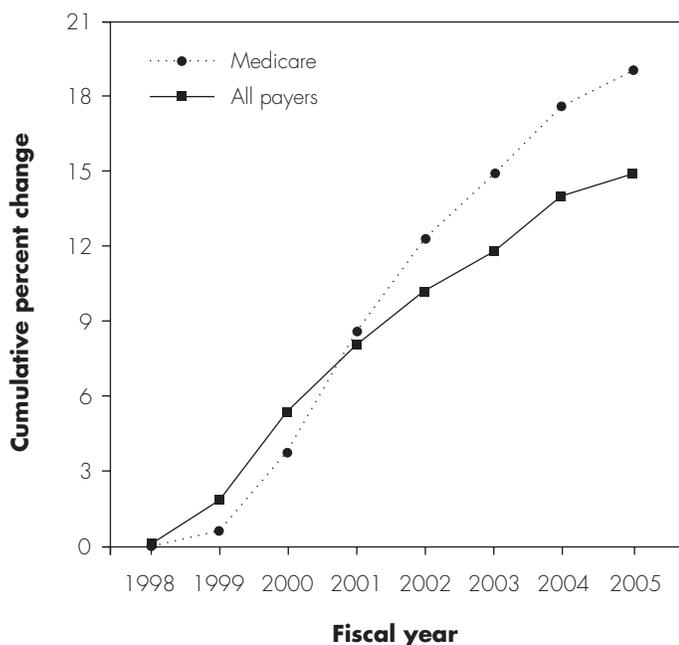
The number of discharges, whether calculated for Medicare or all payers (which includes Medicare), increased every year from 1999 through 2005 (Figure 2A-3). Medicare discharges grew more rapidly than fee-for-service enrollment from 2000 to 2004 but shifted to slightly below beneficiary growth in 2005. The average growth rate for Medicare discharges has exceeded that for all-payer discharges. Results from a quarterly hospital survey of approximately 600 hospitals indicate that growth in both Medicare and all-payer discharges slowed in the four quarters ending March 2006.² The Medicare trustees project a drop in Medicare discharges in 2007 (Boards of Trustees 2006).³

The average length of stay for Medicare patients fell more than 30 percent during the 1990s, with annual declines exceeding 5 percent from 1993 through 1996. The rate of decline then slowed to 1.4 percent in 2005 (Figure 2A-4). The drop in length of stay has been greater for Medicare than for all payers every year since 1999.

The case-mix index (CMI) for Medicare inpatient services provided by acute care hospitals decreased slightly from 1998 through 2001, in part due to changes in hospital coding (MedPAC 2001). Since then, the CMI has registered increases of 1.0 percent in 2002, 0.5 percent in 2003, 0.3 percent in 2004, and 1.3 percent in 2005. In Medicare's per case payment system, case-mix increases result in proportionate increases in payment.

**FIGURE
2A-3**

Hospital discharges continued to grow through 2005

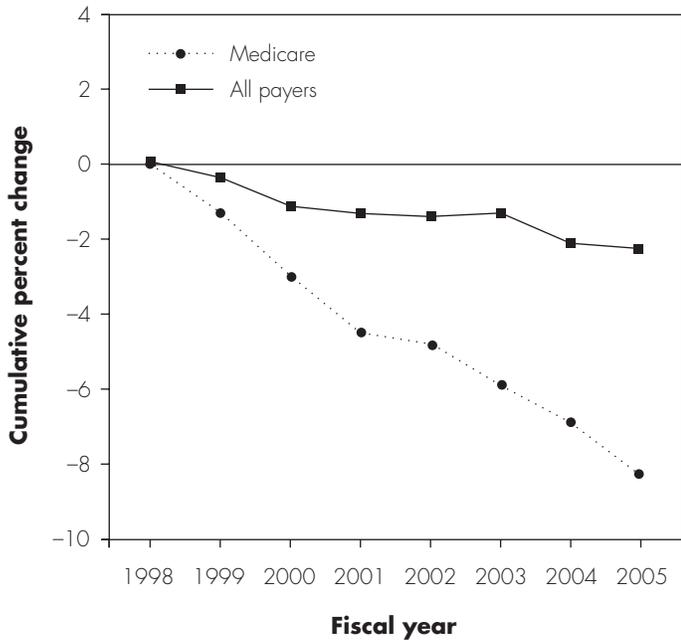


Note: Data are for hospitals covered by the Medicare acute inpatient prospective payment system.

Source: Medicare cost report data from CMS.

FIGURE 2A-4

Hospital length of stay continued to decline through 2005



Note: Data are for hospitals covered by the Medicare acute inpatient prospective payment system.

Source: Medicare cost report data from CMS.

Outpatient volume

We measure the volume of outpatient care as the number of services provided because the outpatient PPS generally pays for individual services.⁴ Service volume has grown rapidly since 2001—the first full year of the PPS—but the rate of increase has slowed (Figure 2A-5). Analysis of claims data indicates that the number of services increased by 11.9 percent in 2002, 7.7 percent in 2003, 4.9 percent in 2004, and 3.0 percent in 2005. Our analysis excludes separately paid drugs and pass-through devices.⁵

Much of the growth in service volume from 2003 through 2005 resulted from increases in the number of services per beneficiary who received services, rather than from increases in the number of beneficiaries served. To restore their rate of volume growth and reduce competition with physicians (who may set up their own hospital, ambulatory surgery center, or imaging center), hospitals are increasingly pursuing joint ventures, employment of physicians, and other physician–hospital financial relationships (Farnham 2006; Merritt, Hawkins & Associates 2006). As hospitals compete for physician

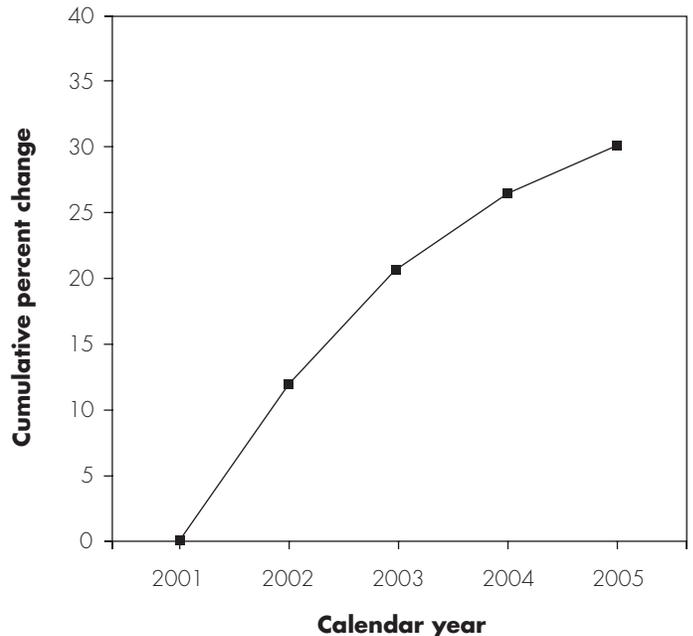
loyalties and patient volume, some of the growth we see in patient volume over time—in the imaging area, for example—may be due to financial incentives to increase volume rather than to changes in the medical needs of the population.

While the rate of growth in service volume declined, the complexity of services increased. The service-mix index for outpatient services increased by 2.5 percent in 2004 and by 2.2 percent in 2005. The service-mix index is calculated as the sum of the relative weights of all outpatient PPS services divided by the volume of all services.⁶ The concept is similar to the CMI for inpatient services.

The services that contributed most to the increase in the service-mix index in 2005 had high relative weights (which measure the resources necessary to furnish the service relative to the national average) and large increases in volume (Table 2A-3, p. 56). Most of the growth is attributable to insertion of devices and complex imaging services.

FIGURE 2A-5

Annual growth in the number of Medicare outpatient services has slowed, but remains strong



Note: Data are for hospitals covered by the Medicare outpatient prospective payment system.

Source: Hospital outpatient claims data from CMS.

**TABLE
2A-3**

Device insertion and imaging contribute most to the increase in outpatient service complexity, 2004–2005

APC	Title	Relative weight	Percent change in volume	Volume in 2005 (in thousands)
0107	Insertion of cardioverter-defibrillator	315.2	104.4%	19
0108	Insertion/replacement/repair of cardioverter-defibrillator leads	423.3	48.3	11
0105	Revision/removal of pacemakers, AICD, or vascular	21.5	47.2	66
0222	Implantation of neurological device	217.1	43.7	8
0654	Insertion/replacement of permanent dual chamber pacemaker	105.4	27.0	29
0283	CT with contrast material	4.7	3.1	3,400
0259	Level VI ear, nose, and throat procedure	444.1	66.0	2
0337	MRI/MRA without contrast followed with contrast	9.2	9.3	845
0339	Observation	7.2	62.8	146
0229	Transcatheter placement of intravascular shunt	62.1	11.1	57
	Overall average	2.8	3.0	362

Note: APC (ambulatory payment classification), AICD (automatic implantable cardioverter defibrillator), CT (computed tomography), MRA (magnetic resonance angiography). The APCs shown are those contributing most to the 2004–2005 change in service-mix index, in order of contribution.

Source: MedPAC analysis of 2004–2005 outpatient claims files from CMS.

The substantial growth in the number of outpatient services and service-mix index has contributed to strong growth in spending in the outpatient PPS (CMS 2006b). This strong spending growth, in turn, has been a major contributor to increases in the Medicare Part B premium (CMS 2006a).

The large increases in outpatient volume and service complexity suggest a need to recalibrate the outpatient PPS. Regression analysis indicates that relatively complex outpatient services may be more profitable to hospitals than less complex services (CMS 2005, MedPAC 2006). Favorable payments for complex services give hospitals an incentive to provide more of those services and fewer basic services, which increases overall service complexity. MedPAC is concerned about this disparity and plans to examine options for recalibrating the payment system to accurately match payments to the costs of individual services.

Changes in quality of care

Trends in the quality of care hospitals provide to Medicare beneficiaries show a mixed picture. Mortality rates dropped and CMS’s indicators of clinical effectiveness and appropriateness of care show improvement. But the results for adverse events are mixed, with rates increasing for some measures and decreasing for others. We discuss each of these indicators next.⁷

The Agency for Healthcare Research and Quality (AHRQ) developed our measures of mortality and adverse events. To assess safety in hospitals, we examined in-hospital mortality and mortality 30 days after admission to the hospital as well as the incidence of potentially preventable adverse events resulting from inpatient care. AHRQ chose these indicators after an extensive literature review, discussions with clinical and measurement experts, and empirical testing to explore the frequency and variation of the indicators and their potential biases.

We calculated the mortality and patient safety indicators from Medicare administrative data and examined all Medicare inpatient claims with specified conditions or procedures using CMS’s MedPAR file. We used an AHRQ methodology to risk-adjust the data on adverse events.

In-hospital and 30-day mortality (risk adjusted) declined from 1998 to 2005 for seven of the eight conditions or procedures we measured. In-hospital mortality rates for congestive heart failure, gastrointestinal hemorrhage, acute myocardial infarction, and pneumonia fell by more than 20 percent. The 30-day rate is somewhat more difficult to interpret because it reflects care experienced in post-acute and outpatient settings along with the in-hospital experience.

Adverse events reflect another dimension of quality: patient safety. The rate of adverse events (risk adjusted) increased for 5 of the 13 measures analyzed from 1998 to 2005; we show results for the 9 most common measures (Table 2A-4). Although these events are rare, often with rates of less than 100 per 10,000 eligible discharges, collectively they affected approximately 367,000 cases in 2005. The most common adverse event is decubitus ulcer (bed sores), for which the rate increased. The second most common event is failure to rescue, which results in death. The rate for this measure decreased, which is consistent with the decline in mortality rates.

CMS and the Hospital Quality Alliance report clinical effectiveness data on the CMS Hospital Compare website. These measures reflect hospital performance in delivering recommended care to Medicare beneficiaries with heart attack, heart failure, and pneumonia. Care improved for 15 of 17 measures from 2004 to 2005.

Despite the widespread improvement in these indicators, many beneficiaries still do not receive clinically indicated services. For example, fewer than one-third of patients with acute myocardial infarction receive thrombolytic agents within 30 minutes of arrival at the hospital and fewer than 60 percent of patients with pneumonia receive pneumococcal immunizations.

Although many measures show improvement, we are concerned about the trend for the patient safety indicators. The increase in some adverse events coupled with the gap between actual and recommended care reflected in the Hospital Compare measures indicate that further efforts to improve quality are needed, including linking payment to quality performance. As we discussed in our March 2005 report, the Commission recommends that the Congress establish a quality incentive payment policy for hospitals that participate in Medicare (MedPAC 2005b).

Hospitals' access to capital

Access to capital allows hospitals to maintain and modernize their facilities and capabilities for patient care. The inability of hospitals to access capital might in part reflect problems with the adequacy of Medicare payments, as Medicare represents about a third of hospital revenues. Payments from other payers, changes in uncompensated care, management actions concerning the hospital and related businesses, and investors' perception of the regulatory environment (including potential changes in federal and state hospital payment policies) also influence access to capital.

**TABLE
2A-4**

Patient safety indicators show mixed changes

Indicator	Change in rate 1998 to 2005	Events 2005
Decubitus ulcer	Worse	159,016
Failure to rescue	Better	61,174
Postoperative PE or DVT	Worse	43,108
Puncture/laceration	Worse	38,771
Infection due to care	Better	19,247
Postoperative respiratory failure	Worse	11,944
Iatrogenic pneumothorax	Better	11,015
Postoperative hemorrhage	Better	7,438
Postoperative sepsis	Worse	6,715

Note: PE (pulmonary embolism), DVT (deep vein thrombosis). Measures are risk-adjusted rates per eligible discharge.

Source: MedPAC analysis of CMS data using an Agency for Healthcare Research and Quality risk-adjustment method.

Indicators suggest that access to capital is good

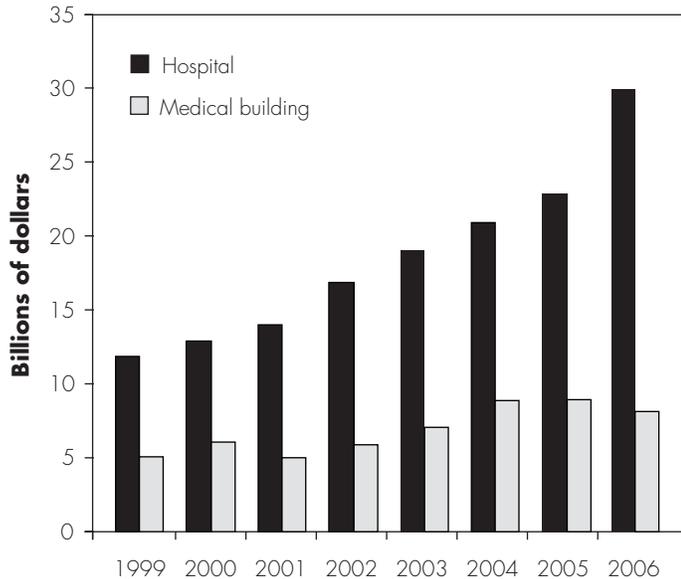
The trend in spending on hospital construction suggests that access to capital for the overall sector is good. Hospital construction has increased steadily since 1999, and it increased almost 30 percent in the last year to \$30 billion (Figure 2A-6, p. 58) (Census Bureau 2006). Some of the recent increase may be to replace obsolete facilities, to increase capacity, or, in California, to meet seismic standards.

The three major bond rating agencies report that the capital spending ratio—the ratio of capital spending to depreciation and amortization—was 1.4 or more in 2005, implying that hospitals may be going beyond merely replacing worn-out plant and equipment (FitchRatings 2006a; Moody's 2006a; S&P 2006a, 2006b). Tax-exempt municipal bond issuances for hospitals increased from the 2000 level of less than \$15 billion to more than \$34 billion in 2005 and reached about \$24 billion through October 2006 (Thomson 2006).

Overall, bond ratings in this sector have improved from the previous year. In the Standard & Poor's ratings, for example, more credits were upgraded than downgraded in the first half of 2006, continuing the trend started in 2005. The report also points out that the important trend is stability, with more than 80 percent of ratings unchanged (S&P 2006c). Similarly, Moody's reports that, although downgrades (33) exceeded upgrades (21) in the first three

**FIGURE
2A-6**

**Spending on hospital construction
continues to grow**



Note: Data for 2003 through 2005 are revised. 2006 data are estimated based on seasonally adjusted annual rate through August.

Source: Census Bureau. <http://census.gov/C30/private.xls>. October 2006.

quarters of 2006, most ratings were affirmed (213). In addition, the amount of debt upgraded (\$9.3 billion) far exceeded that of debt downgraded (\$4.8 billion) (Moody's 2006b).

Trends in the cost of capital continue to be favorable. For example, the interest rate on A-rated 30-year tax-exempt hospital bonds was lower in November 2006 than a year earlier (Cain 2006b). Interest rates on insured bonds were also lower, which one analyst believes will allow hospitals to continue to decrease their cost of capital while continuing to issue more debt through at least the first half of 2006 (FitchRatings 2006b).

This improvement occurs at the same time that hospitals have been making larger capital investments and borrowing more money. Few ratings have been lowered, implying that hospitals' operating results and the increase in the market value of investments have been sufficient to offset higher debt and preserve key measures the ratings industry uses, such as debt service coverage ratios and days cash on hand. Many of the median financial indicators, such as days cash on hand and debt service coverage, are the best ever recorded (FitchRatings 2006a).

Hospitals expect access to capital to remain good

Hospitals plan to continue to add capacity and increase capital spending, implying that they expect to have continued access to capital. A recent survey of nonprofit hospitals found the following (BoA 2006):

- Nearly 83 percent of hospitals plan to add capacity over the next two years. Some 80 percent intend to add outpatient capacity, 47 percent intend to add inpatient capacity, and 44 percent intend to add both.
- The mean forecasted increase in 2006 capital spending over the previous year is 16 percent.
- The top two capital spending priorities were diagnostic equipment (83 percent) and clinical information systems (72 percent). It is possible that these intentions may not be carried out; for example, insufficient return on investment may delay capital investment in information technology systems.

Access to capital for nonprofit hospitals is important because about 60 percent of the hospitals in Medicare are nonprofit, and they account for more than 70 percent of Medicare discharges. For-profit and government hospitals make up the remaining 40 percent of hospitals and 30 percent of discharges in roughly equal proportions.

Some believe this substantial increase in building and capacity could result in higher costs for the health care system. The Center for Studying Health System Change, for example, has reported an ongoing building boom and expansion of both inpatient and outpatient capacity in the 12 health care markets they track (HSC 2005). Much of the added capacity is located in suburban areas and in particular specialties, raising the possibility that health care costs will increase without significantly improving access to services in lower income areas.

Improvements may be closing the credit gap

Some in the industry are concerned about a divergence in access to capital between "haves" and "have-nots" and fear that hospitals with weaker credit will languish. However, a combination of limited supply and increased demand has resulted in very favorable market conditions for investment grade not-for-profit borrowers, increasing access to capital for some hospitals (Cain 2006a). One agency noted that operating improvement "was dispersed across all rating categories including the lower investment-grade and below-investment-grade categories" (FitchRatings 2006a). Analysts also point out that hospitals that cannot put

money into capital spending may merge or be acquired by a stronger hospital or health system. Although mergers might affect competition within market areas, they do not necessarily imply a decline in access to hospital care for Medicare beneficiaries.

Among the have-nots may be hospitals that are not rated, because hospitals that do not expect a favorable rating might not approach the public tax-exempt market at all. However, those hospitals may have alternative sources of financing—for example, loans from commercial lenders such as banks and private placement of tax-exempt bonds. Hospitals may also lease equipment instead of using capital to purchase it outright. The leasing market for health care equipment is projected to reach \$8 billion in 2007 (HFMA 2006).

Is access to capital good for for-profit hospitals?

For-profit hospital chains have the advantage of being able to access capital through the equity markets as well as the debt market. The Cain Brothers' hospital index of share prices for seven publicly traded companies had increased in 2006 just under 2 percent through December 15 (Cain 2006b). The big story in this sector is that HCA, the largest for-profit hospital firm, announced that it is going private. A consortium of private capital firms and management is buying out the stockholders in a transaction estimated at about \$33 billion: a new record for a private buyout of a public company. Most of the cost of the buyout will be financed through debt—demonstrating access to capital—although not necessarily indicating a top-level valuation of the company.

Investors in this sector have some of the same concerns as those in the nonprofit sector about bad debt, charity care, and the ability or willingness of payers, particularly Medicaid, to continue to increase payments over the longer term. Bad debt and the delayed recognition of bad debt are causing concern in this sector, particularly for firms with facilities concentrated in areas of the country with high rates of self-pay patients. However, in the near-term Medicare PPS rates and managed care reimbursement rate increases, along with some increase in volume, are expected to contribute to growth in revenue. This growth, coupled with improving trends in labor and supply costs, is expected to lend support to the sector and partially offset problems with bad debt (S&P 2006d).

Payments and costs for 2007

In assessing payment adequacy, the Commission considers the estimated relationship between Medicare payments

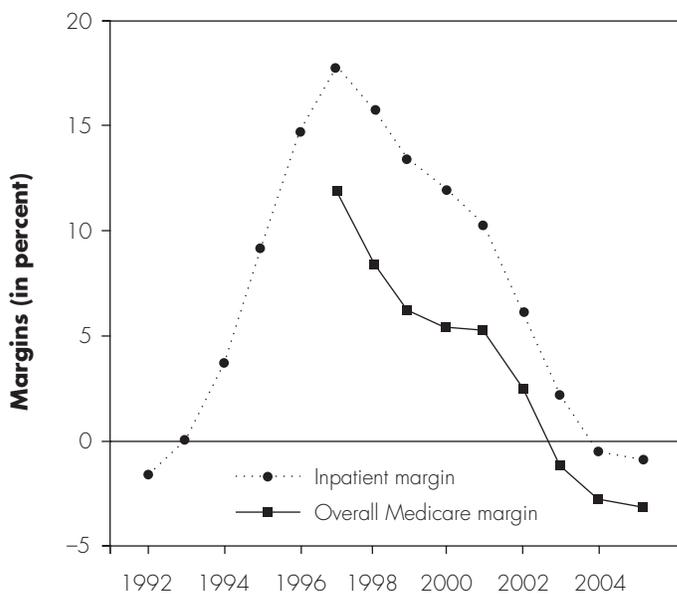
and hospitals' costs in the current year, fiscal year 2007. We assess the adequacy of Medicare payments for the hospital as a whole, and thus our indicator of the relationship between payments and costs is the overall Medicare margin.⁸ This margin includes payments and costs for the six largest services that hospitals provide to Medicare patients, plus graduate medical education. We take this approach because hospitals have large amounts of overhead that they allocate across service lines, particularly between inpatient and outpatient care. Only by combining data for all major services can we estimate Medicare costs without the influence of how overhead costs are allocated.

Trend in Medicare margins

The overall Medicare margin has trended downward since 1997 (Figure 2A-7), falling to -3.3 in 2005. The 0.2 percentage point decline from 2004 to 2005, however, was the smallest in the last five years (Table 2A-5, p. 60). The Medicare inpatient margin decreased by 0.4 percentage

FIGURE 2A-7

Overall Medicare and Medicare inpatient margins



Note: A margin is calculated as payments minus costs, divided by payments; margins are based on Medicare-allowable costs. Analysis excludes critical access hospitals. Medicare inpatient margin includes services covered by the acute inpatient prospective payment system. Overall Medicare margin covers acute inpatient, outpatient, hospital-based home health and skilled nursing facility (including swing bed), inpatient psychiatric and rehabilitation services, and graduate medical education.

Source: MedPAC analysis of Medicare cost report data from CMS.

point in 2005 to -0.9 percent, while the outpatient margin improved for the second year in a row, though it is still lower than the inpatient margin. The improvement on the outpatient side was primarily due to lower growth in outpatient costs, as is discussed further in the next section.

For the first time in 2005, rural hospitals' overall Medicare margin was higher (-3.0 percent) than that of urban hospitals (-3.3 percent) (Table 2A-6). This change is due to several years of increased payments to rural hospitals as well as to rural facilities with low margins dropping out to become critical access hospitals. Nonteaching hospitals, most of which are located in urban areas, had the poorest financial performance.

We estimate that the overall Medicare margin in 2007—reflecting 2008 payment policies other than updates—will be -5.4 percent.⁹ The key factor explaining the forecasted decline in margin for 2007 is preliminary evidence that the rate of growth in hospitals' unit costs will exceed the forecasted growth in the hospital market basket index. (CMS's market basket index is a measure of price inflation for the goods and services hospitals use in producing patient care.) In addition, a number of policy changes are expected to affect payments for inpatient, outpatient, and hospital-based post-acute services between 2005 and 2008, with some increasing and some decreasing payments. The text box (opposite page) details these policy changes.

Our forecast applies the same rate of cost growth to all hospitals and consequently will not capture any behavioral responses to policy changes. Unless urban and rural

TABLE 2A-5

Hospital Medicare margin

Measure	2002	2003	2004	2005
Overall Medicare	2.4%	-1.4%	-3.1%	-3.3%
Inpatient	6.4	2.0	-0.5	-0.9
Outpatient	-8.3	-11.6	-10.8	-9.4

Note: Data are for all hospitals covered by Medicare acute inpatient prospective payment system in 2005. 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 home health and skilled nursing facility (including swing bed), inpatient psychiatric and rehabilitation services, and graduate medical education.

Source: MedPAC analysis of Medicare cost report data from CMS.

hospitals have different rates of growth in cost, we expect the 2007 margins of these two groups to be about the same.

Cost growth has been high for inpatient services and low for outpatient services In addition to changes in payment policy, the other major factor affecting hospitals' overall Medicare margins is the change in the rate of cost growth. The weighted average of Medicare inpatient and outpatient costs—unadjusted for changes in case mix—increased by 5.3 percent in 2004 and by 5.0 percent in 2005 (Table 2A-7, p. 62). However, much of that increase was due to an increase in the complexity of patients treated (which Medicare pays for).¹⁰ Lowering the number to take

TABLE 2A-6

Overall Medicare margin by hospital group

Hospital group	2002	2003	2004	2005
All hospitals	2.4%	-1.4%	-3.1%	-3.3%
Urban	3.0	-1.0	-3.0	-3.3
Rural	-2.2	-4.2	-3.8	-3.0
Major teaching	11.4	6.4	4.8	4.2
Other teaching	1.6	-1.8	-3.6	-3.9
Nonteaching	-2.1	-5.5	-7.2	-6.9

Note: Data are for all hospitals covered by the Medicare acute inpatient prospective payment system in 2005. 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 home health and skilled nursing facility (including swing bed), inpatient psychiatric and rehabilitation services, and graduate medical education.

Source: MedPAC analysis of Medicare cost report data, MedPAR, and impact file from CMS.

Policy changes between 2005 and 2008 increase some payments and decrease others

A number of payment policy changes, including some scheduled to be implemented in 2008, affect our projection of the 2007 margin under 2008 policy. These changes affect Medicare's payments for inpatient, outpatient, home health, skilled nursing facility (SNF), and rehabilitation services.

Inpatient payments

The acute inpatient prospective payment system (PPS) makes extra payments—known as outlier payments—for cases with unusually high costs. Changes in the administration of this program are expected to increase payments for 2007. CMS reports that outlier payments were 4.0 percent of total payments in 2005 and are projected to be 4.6 percent in 2006. Our payment projection for 2007 reflects an expectation that CMS will return the outlier share to the target 5.1 percent in 2007, thus increasing inpatient payments compared with those in 2006.

Changes in the indirect medical education adjustment paid to teaching hospitals reduce inpatient payments in 2006 and 2007 but will increase payments in 2008. Expansion of the post-acute transfer policy reduced payments in 2006, while provisions of the Deficit Reduction Act (DRA) increased payments to small rural Medicare-dependent hospitals.

Hospitals may qualify for reclassification to a different labor market for purposes of the wage index used to adjust PPS payments for geographic differences in input prices. Section 508 of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) gave eligible hospitals an opportunity for one-time reclassification from mid-2004 to mid-2007. This reclassification increased inpatient and outpatient payments for some hospitals. Expiration of Section 508 will reduce aggregate inpatient and outpatient hospital payments for fiscal year 2008 and beyond.

Outpatient payments

Aggregate outpatient payments are expected to decline because of shrinking hold-harmless payments. Sole

community hospitals in rural areas had their hold-harmless payments sunset at the end of 2005. Other rural hospitals with 100 or fewer beds will continue to receive hold-harmless payments through 2008, but they will receive only 95 percent of full hold-harmless payments in 2006, 90 percent in 2007, and 85 percent in 2008.

Outpatient payments were initially increased by extra payments for specified covered outpatient drugs (SCODs). The MMA gave these drugs special status and required that they be paid on the basis of average wholesale price in 2004 and 2005, which usually increased the payment rate. Moreover, these additional payments were not subject to budget neutrality, which raised aggregate payments in the outpatient PPS. In 2006, however, the basis of payment for SCODs was changed to average sales price and budget neutrality was reimposed, which will decrease payments.

Post-acute payments

The DRA froze home health payments in 2006 while previous law provided a market basket update in 2007. The 5 percent rural add-on for home health services provided to beneficiaries living outside metropolitan areas expired on April 1, 2005, but was reinstated by the DRA for the one-year period of calendar year 2006.

The Balanced Budget Act of 1997 set a market basket update for SNFs in 2006 and 2007. Elimination of certain payment add-ons reduced SNF payments, and case-mix refinements increased payments in 2006.

Phased implementation of the 75 percent rule, which limits the types of patients who can be treated in an inpatient rehabilitation setting, reduced payments to hospital-based rehabilitation units beginning in fiscal year 2004 (see Chapter 3C). The DRA delayed phasing in the 75 percent rule but rehabilitation payments will still decline in 2007. ■

**TABLE
2A-7****Medicare cost growth slowed in 2004 and 2005**

Hospital group	Unadjusted			Case-mix adjusted		
	2003	2004	2005	2003	2004	2005
Inpatient costs	6.6%	5.6%	5.1%	6.0%	5.4%	4.0%
Outpatient costs	2.0	3.7	4.6	2.3	1.2	2.4
Weighted average	5.8	5.3	5.0	5.3	4.6	3.7

Note: The results are adjusted to account for changes in hospitals' case mix (complexity of services provided) as measured by diagnosis related groups for inpatient services and ambulatory patient classifications for outpatient services. Analysis excludes critical access hospitals. The weights in the weighted average are based on hospitals' inpatient and outpatient Medicare revenue.

Source: MedPAC analysis of Medicare cost report data and claims files from CMS.

reported case-mix increases into account, the weighted average cost increase was 4.6 percent in 2004 and 3.7 percent in 2005. The 3.7 percent rate of cost growth in 2005 was slightly more than the 3.3 percent operating update hospitals received from Medicare in 2005.

Looking at inpatient costs separately, unadjusted inpatient costs per discharge increased by 5.6 percent in 2004 and 5.1 percent in 2005. Case-mix-adjusted inpatient costs rose 5.4 percent in 2004 and 4.0 percent in 2005 (Table 2A-7). Medicare outpatient cost per unit of service (adjusted for case-mix change) has been relatively low, increasing by only 1.2 percent in 2004 and 2.4 percent in 2005.

At least three factors could explain why outpatient costs grew more slowly than inpatient costs. First, outpatient service volume for Medicare patients has increased at a strong rate—about 3 percent in 2005—allowing hospitals to spread fixed costs over more services. Much of this growth is due to a 1.8 percent increase in the number of services patients received each day they visited the hospital outpatient department. As patients receive more services per trip to the outpatient department, the cost per service should decline. Second, hospitals' outpatient service mix for Medicare patients is gradually shifting toward more complex and highly paid services. Research by MedPAC and CMS indicates that outpatient costs may not rise proportionately with the service-mix index (i.e., as complexity increases, the average payment per service rises faster than the average cost per service). This suggests that services of higher complexity (e.g., those involving new technology) may be more profitable. Third, hospitals may face some pressure to contain outpatient

costs due to competition with ambulatory surgery centers, physician offices, and freestanding imaging centers.

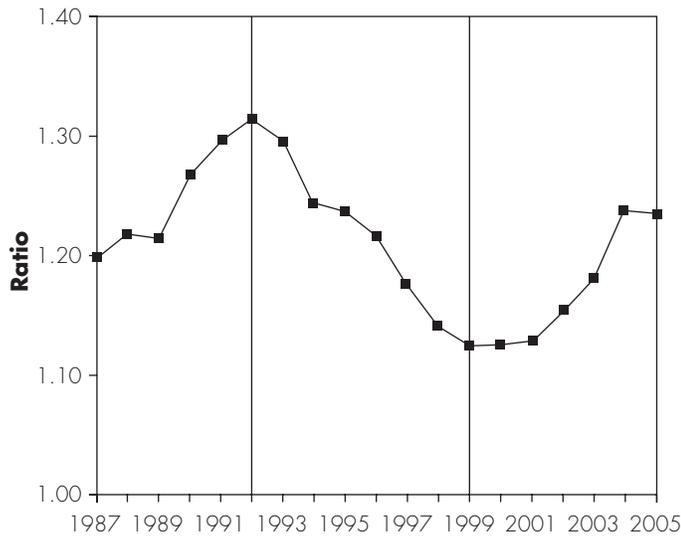
Data are available on case-mix-adjusted Medicare costs through 2005 but are not yet available for 2006. For a sample of hospitals, however, we have 2006 data on the unadjusted increase in cost per unit of service.¹¹ This measure is a weighted average of the cost growth for all services provided to all types of patients. A survey of about 600 hospitals (sponsored by CMS and MedPAC) indicates that unadjusted costs per unit of service grew by approximately 5.2 percent in the year ending June 2006—slightly higher than the rate of 4.8 percent in the prior year. In addition, a review of financial reports from six large publicly traded hospital systems shows that their unadjusted growth in cost averaged 6.4 percent per year in the nine months ending in September 2006, relative to 4.8 percent in 2005. If we average data from these two samples, costs per discharge appear on pace to grow roughly 1 percent faster in 2006 than in 2005.

One reason 2006 differs from 2005 is that capital costs (measured as depreciation plus interest expense) are increasing more rapidly. The rate of growth in capital costs rose by more than a percentage point in 2005; with the expansion in hospital construction noted earlier, further escalation is expected (Figure 2A-6, p. 58).

A second reason for higher cost growth in 2006 is that patient volume grew more slowly than hospital employment in the first half of the year; in contrast, patient volume appeared to grow faster than employment in 2005 (BLS 2006, HCA 2006, HMA 2006, MedPAC survey data). If the 2006 increase in employees per unit of service is a temporary phenomenon, then in 2007 cost growth

**FIGURE
2A-8**

Three distinct periods in the private payer payment-to-cost ratio



Note: Data include all inpatient, outpatient, and post-acute hospital services.

Source: American Hospital Association annual survey of hospitals.

may be similar to the 3.7 percent case-mix-adjusted increase experienced in 2005. However, if the expansion in employees per unit of service persists, then cost growth in 2007 may be higher. A sustained increase in the rate of growth in costs and in the number of employees per unit of service would raise questions about whether hospitals are building excess capacity and whether they are under sufficient financial pressure to generate improvements in efficiency.

Financial pressure and cost growth In recent years, hospitals have been able to increase their costs per discharge faster than the rate at which input prices and Medicare payments have increased due to improving profits on private payer patients. The level of private payer profits has been cyclical. During the first cycle (1986 through 1992), most insurers still paid hospitals on the basis of their charges, with little price negotiation or selective contracting. With limited pressure from private payers, hospital margins on private payer business increased rapidly (Figure 2A-8). In the mid-1990s, HMOs and other private insurers began to negotiate much harder with hospitals, and most insurers switched to paying for inpatient services on the basis of DRGs or flat per diem amounts for broad types of services. The payment-to-cost

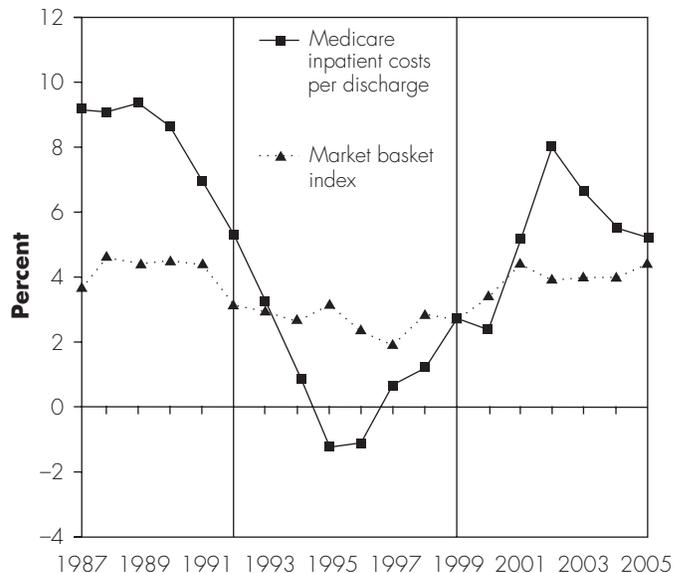
ratio for private payers declined by 17 percentage points from 1993 through 1999.

By 2000, hospitals had regained the upper hand in price negotiations due to hospital consolidations and consumer backlash against managed care. Rates for private payers rose rapidly and their payment-to-cost ratio rose by 11 percentage points from 2000 to 2004. In 2005, private payer profit margins appear to have leveled off, which suggests that either hospitals are not pushing as hard for increased payment rates (given total profit margins that are high by historical standards) or payers are starting to push back and asking for reduced rates of growth in their payments.

When we examine cost growth during the same three periods, we see that the rate of increase tended to follow trends in private payer profitability. From 2001 to 2004, increases in private payer profitability were accompanied by hospital costs rising at a rate faster than the market basket (Figure 2A-9). In 2005, we see the trend in private payer profit margins leveling off and (as discussed previously) cost growth returning to a level close to the market basket increase.

**FIGURE
2A-9**

Costs have risen faster than the market basket in recent years



Source: MedPAC analysis of Medicare cost report data from CMS and CMS's rules for the acute inpatient prospective payment system.

**TABLE
2A-8**

Hospitals with high adjusted overall Medicare margins have lower costs and have been under more financial pressure than other hospitals

Hospital characteristic	Hospitals with consistently:	
	Low margins	High margins
Percent of hospitals	18%	18%
Annual change in length of stay (1997–2005)		
Medicare	-2.3	-3.1
All payers	-1.1	-1.7
Average annual change in inpatient cost per case (2002–2005)	6.3	5.2
Standardized cost per case (2005)		
Subject hospital	\$6,203	\$4,527
Hospitals within 15 miles	5,742	5,103
Distance to nearest hospital (in miles)	7	12
Non-Medicare ratio of revenues to costs (2005)	1.16	0.99

Note: Hospitals with consistently low or high margins had adjusted overall Medicare margins (margins calculated excluding indirect medical education and disproportionate share payments over empirically justified amounts) from 2002 to 2005 that were in the top or bottom third each year. Per case costs are standardized for wages, case mix, severity, outlier cases, and teaching intensity. The non-Medicare ratio of revenues to costs includes revenues and costs associated with private pay, Medicaid, and self-pay patients as well as nonpatient revenues and costs. Median values shown.

Source: MedPAC analysis of impact file, MedPAR, and Medicare cost report data from CMS.

The private sector is not the only potential source of financial pressure on hospitals; Medicare payment rates can also influence cost growth (Gaskin and Hadley 1997). In recent years, Medicare inpatient payments have increased at a rate higher than the hospital market basket (reflecting updates equal to the market basket plus a small additional increase due to case-mix change), but payments have not risen fast enough to fully accommodate the rapid increase in hospital costs. By not fully accommodating growth in hospital costs, Medicare can place some pressure on hospitals to constrain costs.

Hospitals with consistently low Medicare margins have higher costs In past reports, we described differences between hospitals with consistently negative and positive

overall Medicare margins and found that those with consistently negative margins had smaller changes in length of stay, higher growth in costs, and higher costs per case than hospitals with consistently positive margins (MedPAC 2006, 2005b).¹² Because the IME and DSH adjustments are set well over their empirically justified levels, however, major teaching and high DSH hospitals are overrepresented in the positive margin group and underrepresented in the negative margin group (see section on the IME and DSH adjustments starting on p. 67 for further discussion of this relationship). To cancel out the impact of these adjustments on the picture of hospitals' financial performance, we removed the portion of IME and DSH payments above the empirical level this year before determining which hospitals perform consistently well or poorly under Medicare. Our analysis identifies hospitals that from 2002 to 2005 had adjusted Medicare overall margins that were consistently in either the top or bottom third of all PPS hospitals.

The low- and high-margin groups are roughly the same size, with 18 percent of hospitals in each group. Under this new approach, major teaching hospitals are proportionately distributed between the low- and high-margin groups. Proprietary hospitals are the only group underrepresented in the low-margin group of providers. In the high-margin group, proprietary and rural hospitals are overrepresented and hospitals in small urban areas (fewer than a million people) and hospitals with small teaching programs (fewer than 25 residents per 100 beds) are underrepresented.

Hospitals with consistently low adjusted Medicare margins have had smaller declines in length of stay and higher growth in costs than those with consistently high margins (Table 2A-8). From 1997 to 2005, Medicare length of stay fell an average of 2.3 percent per year in the low-margin group compared with 3.1 percent in the high-margin group. All-payer length of stay also fell less for the low-margin group, indicating that the high-margin group has been better at reducing lengths of stay. Hospitals with consistently low Medicare margins also had larger average annual increases in Medicare inpatient costs per case—6.3 percent compared with 5.2 percent for hospitals with consistently high Medicare margins.

These differences in cost growth and change in length of stay translate into big differences in Medicare costs between these two groups of providers. The median Medicare standardized cost per case in the low-margin

group was \$6,203 in 2005 compared with only \$4,527 in the high-margin group, a 37 percent difference.

We found that hospitals with consistently low margins faced more competitors and those competitors were closer. (Competitors are defined as hospitals covered by Medicare's acute inpatient PPS that are located within 15 miles.) The typical low-margin hospital had two competitors compared with one for high-margin hospitals. For the low-margin hospitals, the competitors were an average of 7 miles away compared with 12 miles for the high-margin hospitals. Standardized costs were 9 percent higher for the low-margin group than for their neighbors, suggesting that these hospitals are not competitive in their own markets. In contrast, standardized costs for the high-margin hospitals were 12 percent lower than their neighbors' costs.

One key factor in this disparate performance is that hospitals with consistently low Medicare margins are not under as much pressure to control costs. In 2005, the ratio of revenue to costs for these hospitals was 1.16 for all sources of revenue other than Medicare (Table 2A-8). Non-Medicare revenue exceeding associated costs generated more than enough extra income to cover their losses from treating Medicare patients. Most of this extra income came from private insurers paying substantially more than the cost of their patients' care.¹³ Moreover, the low-margin group has been able to increase non-Medicare revenues faster than their costs have grown, even though their rate of cost growth has been above average. Hospitals with consistently high Medicare margins, in contrast, had a revenue-to-cost ratio of only 0.99, which means they roughly broke even on their non-Medicare business, so that they needed to do well under Medicare to perform well overall. These hospitals apparently have responded to the added financial pressure by controlling their costs better than other hospitals.

Hospitals with consistently high costs contribute to lowering the overall Medicare margin. The 2005 margin would be 3 percentage points higher—about zero—if the hospitals with standardized costs in the top third every year from 2003 to 2005 were excluded from the margin calculation. The apparent lack of financial pressure on hospitals that consistently have low Medicare margins and high costs was a concern to the Commission in determining the appropriate update to Medicare's payment rates for hospitals.

How should Medicare payments change in 2008?

When we consider whether Medicare's aggregate payments are adequate, we look at the six largest hospital service lines—acute inpatient, outpatient, rehabilitation, home health, psychiatric, and skilled nursing facility (including swing beds). In this section, we provide update recommendations for services covered by Medicare's operating inpatient and outpatient PPSs.

For the acute inpatient PPS, the update in current law for fiscal year 2008 is the forecasted increase in the hospital market basket index. Beginning in 2007, current law requires CMS to reduce inpatient payments by 2.0 percentage points for hospitals that fail to provide data to CMS on specified quality indicators. About 4 percent of hospitals have not reported the necessary data. For the outpatient PPS, current law provides an update equal to the forecasted increase in the market basket for calendar year 2008.

Changes in input prices

CMS measures price inflation for the goods and services hospitals use in producing inpatient and outpatient services with the hospital operating market basket index. CMS's latest forecast of this index for fiscal year 2008 is 3.1 percent, but it will update the forecast twice before using it to update payments in 2008.

Productivity

One of the Commission's key policy principles is that Medicare's payment systems should encourage efficiency. Hospitals and other health care providers should be able to reduce the quantity of inputs required to produce a unit of service by at least a modest amount each year while maintaining quality of care. The Commission's approach links the target for improving efficiency to the gains achieved by firms and workers who pay the taxes and premiums that fund Medicare benefits. Our target is set equal to the Bureau of Labor Statistics' estimate of the 10-year average growth rate of multifactor productivity in the general economy, which is currently 1.3 percent.

Technology

Much of hospitals' spending for new devices, drugs, and equipment has the potential to improve their productivity—that is, reduce costs with constant or improving quality—and fixed payment rates provide a

strong financial incentive for hospitals to adopt these technologies. Providers have less incentive to adopt quality-enhancing technologies that increase costs, but Medicare's inpatient and outpatient PPSs provide direct payment for certain technologies used in delivering patient care that meet certain criteria. In addition, Medicare can support the adoption of information technology (IT) through a quality incentive payment policy.

Payment system mechanisms addressing technology

Since fiscal year 2003, new technology payments have supplemented the base DRG payment rates in the acute inpatient PPS, and the MMA removed the budget-neutrality constraint for these payments in 2005. These payments provide a direct funding source for cost-increasing technologies—one that improves hospitals' accountability by providing extra funds only when a new technology is in place and being used to treat patients. CMS approved three technologies for add-on payments in 2005, accounting for about \$125 million in payments.

CMS's criteria for approving technologies for payment emphasize that they must be new, offer substantial clinical improvement, and have a major impact on costs. These criteria play an important role in ensuring the appropriate expenditure of Medicare funds. Base payments already contain funding for technology, and small improvements to existing technologies usually do not have significant independent cost implications. In addition, there have been instances in which the clinical benefit of new technologies is later questioned (e.g., drug-eluting stents), which could provide additional justification for the new technology review process. Finally, additional payment should not be made when the technology reduces costs over time or substitutes for existing technologies of approximately equal cost.

In addition to these add-on payments, the use of new technologies (e.g., cardiac stents) often shifts patients into higher-weighted DRGs. The resulting rise in CMI raises payments (i.e., increases in case mix produce a corresponding increase in payments, all else held constant).

Medicare's outpatient PPS makes new technology add-on payments similar to those in the inpatient PPS, although these payments are budget neutral. But the outpatient PPS also creates new technology APCs, which cover completely new services for which CMS does not yet have adequate data to establish payment rates. The new

technology APCs generate a new payment for each service rendered, resulting in an increase in total Medicare payments. New technology APCs accounted for about \$200 million in outpatient payments in 2005. In addition, much of the substantial increase in outpatient service volume in recent years has been in APCs using expensive technology, such as insertion of cardiac defibrillators and pacemakers, MRIs and CAT scans, and placement of intravascular shunts (Table 2A-3, p. 56). The increases in volume and complexity resulting from these new services generate additional payments for hospitals.

Information technology considerations

While add-on payments and new technology APCs address new technologies in patient care, they do not provide direct funding for investment in IT, such as computerized physician order entry systems and electronic medical records. While such systems are expensive, IT is reflected in the historical cost base Medicare's DRG and APC payment are designed to cover, including medical records and data processing costs as well as depreciation for past purchases of computer systems and software. For the increment above what base payments will cover, productivity improvements should provide an adequate return on investment in the long run.

In the shorter term, a pay-for-performance program provides a better mechanism than the update for encouraging hospitals to invest in IT. Paying for the use of IT through a pay-for-performance program will target payments to hospitals that install quality-improving IT systems. Increasing the update, in contrast, does not provide Medicare with any tool for ensuring that hospitals spend the additional payment on IT. Because IT has the potential to improve the quality of patient care, we have recommended that the Congress direct CMS to include measures of functions supported by the use of IT in pay-for-performance measures (MedPAC 2005b). Pay for performance will help give providers the business case to adopt IT and reap rewards from payments for improvements in quality that flow from better clinical information.

As discussed earlier in the chapter, hospitals appear able to support large increases in their capital expenditures. Spending for construction alone reached \$30 billion in 2006 (Figure 2A-6, p. 58). This spending should and apparently does include investment in IT. Moody's estimates that investments in clinical and other IT account for 15 percent to 20 percent of hospitals' capital expenditures, and the share is growing (Moody's 2005). A

RAND study estimates that 20 percent of hospitals have implemented an at least partially integrated electronic medical records system for inpatient care and 9 percent have implemented a computerized physician order entry system (Fonkych and Taylor 2005).

Pay for performance

The Commission has concluded that Medicare should take the lead in developing incentives for high-quality care. To that end, our March 2005 report recommended that the Congress establish a quality incentive payment policy for hospitals under Medicare (MedPAC 2005b). A number of accepted quality measures are available—including process measures, measures of safe practices, and mortality measures. These measures would enable CMS to implement the program fairly quickly and then to enhance and expand the set of measures in future years. Recent research finds that most hospitals appear capable and willing to move forward into a pay-for-performance environment (Felt-Lisk and Laschober 2006).

Pay for performance would result in a larger share of payments going to hospitals that achieve high quality scores or improve their quality substantially from one year to the next. Funding for the pool should come from existing Medicare hospital payments. Initially, the pool of money used to support hospital pay for performance should be set at 1 percent to 2 percent of aggregate payments, with the pool of funds fully expended. Our recommended update and the pay-for-performance program would replace the provision in current law that reduces a hospital's payments by 2 percent if it fails to report required quality data to CMS.

Update recommendation

This section presents our update recommendation covering acute inpatient and outpatient payments along with a summary of our rationale and the implications of the recommendation.

RECOMMENDATION 2A-1

The Congress should increase payment rates for the acute inpatient and outpatient prospective payment systems in 2008 by the projected rate of increase in the hospital market basket index, concurrent with implementation of a quality incentive payment program.

RATIONALE 2A-1

Most of the Commission's indicators of payment adequacy are positive. Access to care remains strong, as indicated

by more hospitals opening than closing and the share of hospitals offering many services rising. Volume of services is growing, the quality of care is generally increasing, and access to capital is by some measures at an all-time high. On the other hand, Medicare margins are low and recent cost trends suggest they will fall in 2007. At the same time, our analysis of hospitals with consistently high costs and low margins suggests that a fairly small minority of hospitals—fewer than a fifth—have contributed to the industry-wide Medicare margin falling below zero. Further, Medicare should put pressure on hospitals to control their costs rather than accommodate the current rate of cost growth.

Balancing these considerations, we conclude that an update of market basket is appropriate for both inpatient and outpatient services, with this increase implemented concurrently with a quality incentive payment program.¹⁴ The Commission previously recommended a 1 percent to 2 percent payment pool for a pay-for-performance program. As we discuss in the next section, we estimate that the reduction in IME payments we recommend would generate the first percentage point of funding for the pool. For a larger pool, the additional amount would be taken from the capital and operating base rates. Although pay for performance would operate separately from the update, hospitals' quality performance would then determine whether their net increase in payments in 2008 is above or below the market basket increase.

IMPLICATIONS 2A-1

Spending

- This recommendation would have no effect on federal program spending.

Beneficiary and provider

- This recommendation should have no impact on beneficiary access to care and is not expected to affect providers' willingness and ability to provide care to Medicare beneficiaries.

The indirect medical education and disproportionate share adjustments

Our analysis of payment adequacy addressed whether Medicare's aggregate payments to hospitals are sufficient to cover the costs of efficient hospitals. In this section, we consider how well Medicare's inpatient payments are distributed among hospitals, considering that 14

History of the adjustment for indirect medical education

In developing the adjustment for indirect medical education (IME), regression analysis was used to estimate the effect of resident training on teaching hospitals' costs (the so-called "empirical level"). The initial analysis suggested that inpatient operating costs increase by about 5.8 percent for every 10 percent increase in the ratio of residents to beds.

The Congressional Budget Office conducted an impact analysis before the acute inpatient prospective payment system (PPS) was implemented, which forecast that the new payment system would adversely affect most teaching hospitals. The analysis also forecast that, in aggregate, payments to teaching hospitals would fall 7 percent compared with a 7 percent increase for nonteaching hospitals. Because the negative effects seemed larger than was politically tolerable, the Assistant Secretary for Planning and Evaluation of the Department of Health and Human Services suggested doubling the IME adjustment. Before passing the PPS legislation, the Congress accepted the Secretary's proposal and doubled the adjustment to 11.6 percent (Lave 1985).¹⁵ Because total projected payments were held constant, the revenues to double the adjustment were obtained by reducing the base payment rates for all hospitals.

While it appeared that doubling the IME adjustment would narrow but not eliminate the gap in financial performance between teaching and nonteaching hospitals, that did not prove to be the case. In the first year of the PPS, teaching hospitals' inpatient margins were 5 percentage points higher than those of nonteaching hospitals, and the gap has since widened to 10 percentage points. One reason posited for teaching hospitals faring better than expected was that they substantially improved their coding of diagnosis related groups after the PPS was implemented. Before prospective payment, most hospitals had little experience with patient classification systems.

When the disproportionate share (DSH) adjustment was introduced in 1986, the IME adjustment was reduced from 11.6 percent to 8.1 percent to help pay for the new adjustment and to reflect the impact of DSH payments on the empirical level of the IME estimate. (In the original regression, some of the cost effect of low-income patients was attributed to teaching. Accounting for care to the poor separately resulted in a smaller effect for teaching.) At this point, the adjustment was still double the relationship between resident intensity and costs per case. With additional expansion of the DSH adjustment in 1988, the IME adjustment was further reduced to 7.7 percent.

percent of them are made in the form of two policy adjustments: IME and DSH payments. In addition to IME and DSH payments, Medicare has several payment programs designed to help rural hospitals. These include extra payments for rural referral, sole community, and Medicare-dependent hospitals within the acute inpatient PPS and separate cost-based payment for critical access hospitals.

The IME adjustment has always been set higher than the estimated effect of teaching on hospitals' costs per case. Based on 2004 data, we found that more than half of IME payments were above the empirical level. Similarly, the DSH adjustment has a weak relationship to the cost of treating low-income patients, although over the last decade many observers have argued that the adjustment subsidizes

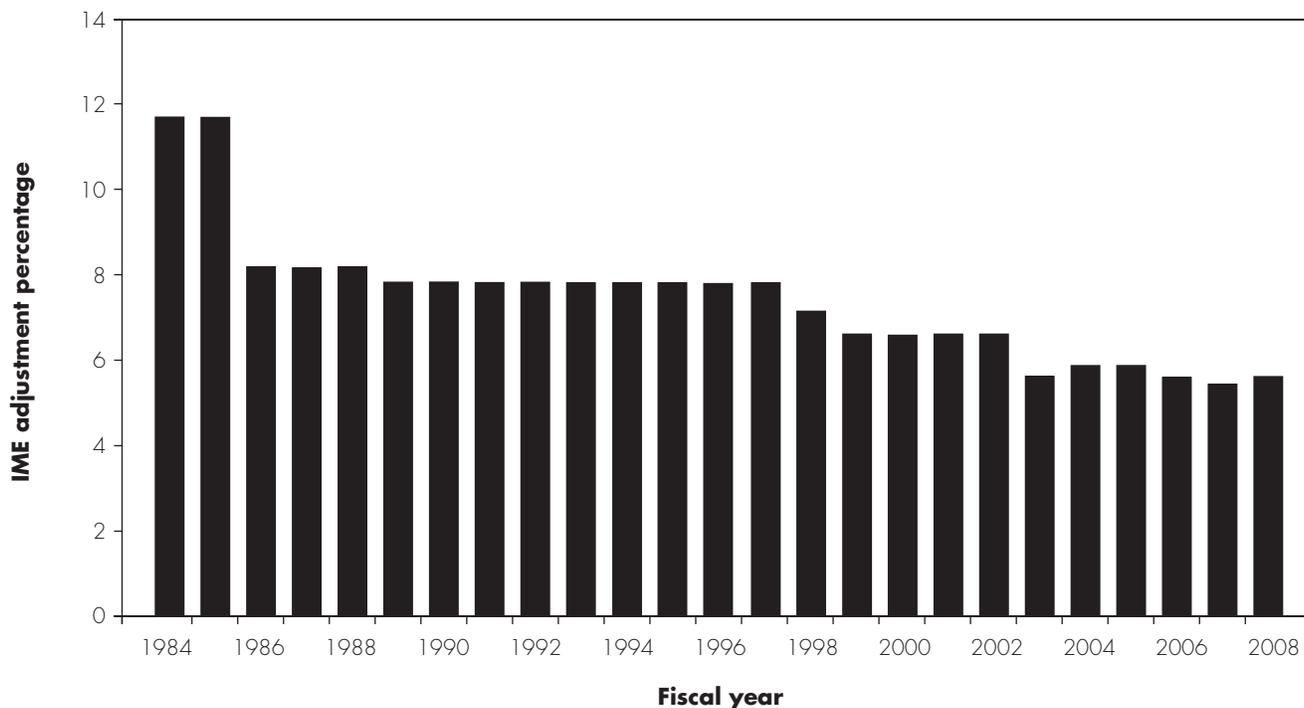
uncompensated care. We found that almost three-quarters of DSH payments were not related to the costs of treating Medicare patients. As a result of payments beyond the empirical level, the hospitals receiving IME or DSH payments—and particularly those receiving both—have much higher Medicare margins than hospitals that receive neither adjustment.

Our analysis shows that reducing the IME adjustments to the empirical level and returning the savings to the base rates would markedly reduce differences in Medicare payments. Redistributing both the IME and DSH subsidies would further level payments. In this section, we discuss options for using the IME subsidy as well as options for how DSH payments—or a more broad-based revenue source—could be used to fund a federal payment to offset

History of the adjustment for indirect medical education

**FIGURE
2A-10**

IME adjustment percentage



Note: IME (indirect medical education). The IME adjustment percentage shown is per 10 percent increment in the ratio of residents to beds.

Source: Section 1886(d) of the Social Security Act.

The IME adjustment remained at 7.7 percent for about a decade until the Balanced Budget Act of 1997 (BBA) legislated a gradual reduction to 5.5 percent in fiscal year 2001. However, subsequent legislation slowed the reduction, and the final payment rate of 5.5 percent is now scheduled for fiscal year 2008. The BBA also extended IME payments to Medicare+Choice patients

(now Medicare Advantage), phased in over five years. Some of the decrease in the level of the IME adjustment was offset by the additional payments for these Medicare managed care patients and by increases in the number of residents and declines in the number of beds (which raises the ratio of residents to beds). Figure 2A-10 shows the history of the IME adjustment. ■

hospitals' uncompensated care. As a precursor to such a payment, we recommend that CMS improve its instrument for collecting data on uncompensated care.

Adjustment for indirect medical education

Teaching hospitals—hospitals that train physicians in approved residency training programs—have always had higher Medicare inpatient costs per discharge than nonteaching hospitals. Part of the cost difference reflects

the direct costs of operating graduate medical education (GME) training programs, such as stipends for residents, salaries for teaching physicians, and related overhead expenses. But the cost difference may also reflect unmeasured differences in patients' severity of illness, inefficiencies in the use of services associated with residents' learning by doing, and greater use of emerging technologies.

When the Congress established the hospital inpatient PPS in 1983, it recognized teaching hospitals' higher costs in two ways. First, it excluded direct GME costs from the PPS rates; these costs continued to be reimbursed on a reasonable cost basis. The Congress later established a separate prospective payment for direct GME based on hospital-specific costs per resident in 1984 trended forward to account for inflation.

Second, the Congress included an IME adjustment to the hospital inpatient payment rates. The IME adjustment is a percentage add-on to the PPS rates that varies with the number of residents a hospital trains. A hospital's IME payments are therefore tied to its volume and mix of PPS cases as well as to the number of residents it trains. There are separate adjustments for operating and capital payments, and hospitals receive additional IME payments from Medicare for Medicare Advantage patients.¹⁶

The text box (p. 68) summarizes the history of the IME adjustment.

IME adjustment formula

Medicare's IME adjustment is based on a statutory formula that increases payments in fiscal year 2007 by about 5.35 percent for each 10 percent increment in teaching intensity, as measured by the ratio of residents to hospital beds:

$$\text{Adjustment percentage} = 1.32 \times [(1 + \text{number of residents/bed})^{0.405} - 1]$$

This formula applies to operating IME payments in the acute inpatient PPS as well as to IME payments for Medicare Advantage patients.¹⁷

A lower IME adjustment—set at the Commission's empirical estimate of 2.7 percent using 1999 data—is applied for additional residents that hospitals obtained through provisions in the MMA allowing a redistribution of residency training positions.¹⁸ This lower IME adjustment is applied to about 2,500 residents.

Capital payments (which comprise about a tenth of Medicare's inpatient PPS payments) receive a separate IME adjustment, set by the Secretary. The capital formula uses the ratio of residents to average daily census of patients, rather than residents to beds, to measure resident intensity. In general, the capital payment formula produces a slightly lower adjustment than the operating formula.¹⁹

Commission's past views on the IME adjustment

In MedPAC's March 2003 report, the Commission stated that it was not satisfied with the current policy because it provides payments above the empirically justified level to teaching hospitals without requiring them to account for how they use the money. The Commission stated that it would explore ways to target some or all of the IME payments above the empirically justified level to advance specific Medicare policy objectives and that this problem should be addressed promptly. Potential uses of the portion of IME payments above the empirically justified level are discussed later.

Disproportionate share adjustment

The Medicare DSH adjustment was implemented in 1986, two years after prospective payment began. The original justification for the adjustment was that poor patients are more costly to treat, so that hospitals with substantial low-income patient loads would likely experience higher costs for their Medicare patients than otherwise similar institutions. Over the last decade, however, many observers have shifted to arguing that the adjustment subsidizes uncompensated care provided to the uninsured and underinsured.

DSH payment structure and funding

DSH payments are distributed through a hospital-specific percentage add-on applied to the base DRG payment rates. Consequently, a hospital's DSH payments are tied to its volume and mix of PPS cases. The add-on for each case is determined by applying a formula to the hospital's share of low-income patients. Low-income shares are calculated as the sum of two ratios:

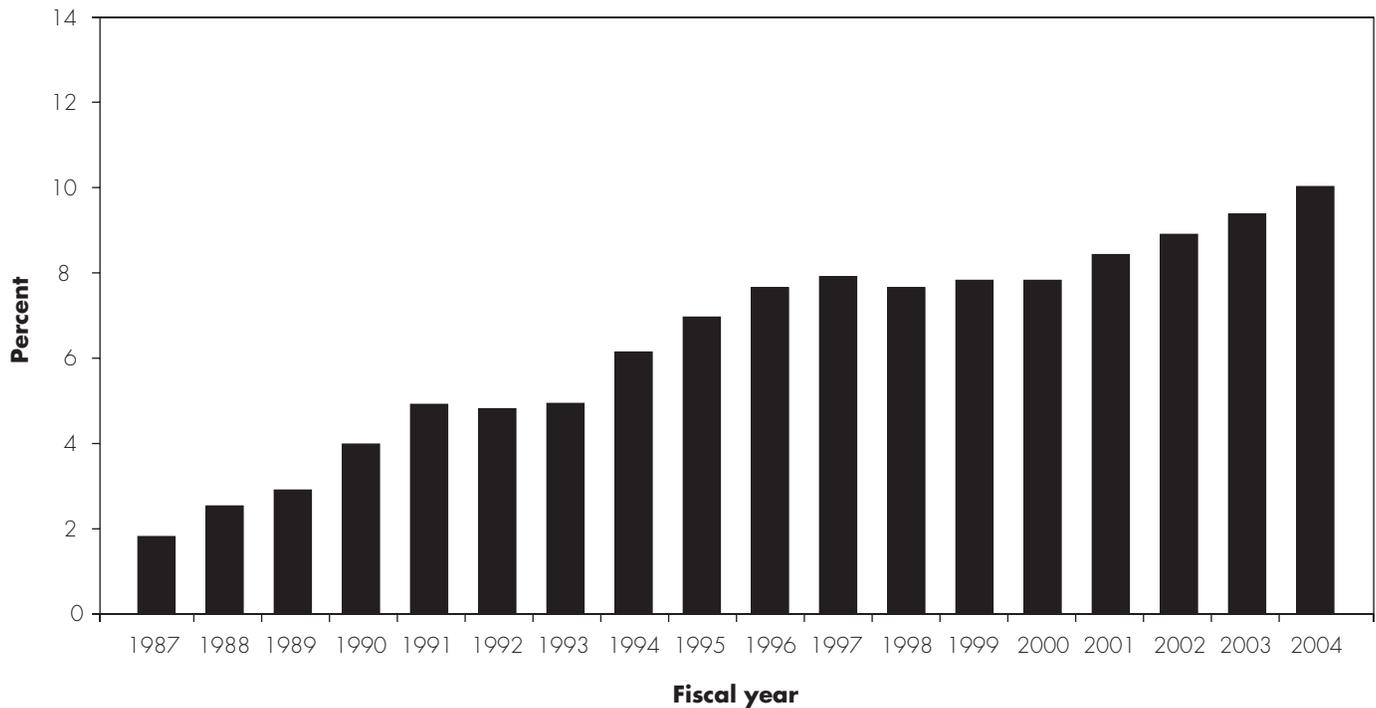
- Medicaid patient days as a share of total patient days, and
- patient days for Medicare beneficiaries who receive Supplemental Security Income (SSI) as a percentage of total Medicare patient days.

These two ratios are not equivalent because the second one uses Medicare days instead of total days in the denominator. One implication of this construction is that a hospital can have a low-income share that exceeds 100 percent.

Funding for DSH payments totaled \$7.7 billion in 2004. DSH spending grew rapidly over the last two decades

**FIGURE
2A-11**

DSH payments as a percent of base payments



Note: DSH (disproportionate share). Data through 1996 measure operating DSH payments as a percent of operating base payments. Data from 1997 through 2004 measure operating and capital DSH payments as a percent of operating and capital base payments.

Source: ProPAC June Reports to the Congress through 1996 and MedPAC analysis of Medicare cost report data from CMS from 1997 through 2004.

because the Congress expanded eligibility for DSH and liberalized the adjustment formula several times, and also because the courts expanded the count of Medicaid patient days used in calculating hospitals' low-income shares. For example, days beyond several states' length-of-stay limits and days paid for under Section 1115 waivers are now included. Between 1987 and 2004, DSH payments grew five-fold, from 1.9 percent to 9.9 percent of base DRG payments (Figure 2A-11).

DSH distribution formulas

The formulas governing the DSH adjustment for operating payments have two parts: a threshold, or minimum low-income share required to qualify for a DSH adjustment, and a payment rate that defines the percentage add-on for a given low-income share. The original distribution formulas reflected two general concepts:

- Easier qualification thresholds and higher payment rates for urban hospitals with more than 100 beds,

because an initial regression analysis found that the cost impact of treating low-income patients was concentrated among these facilities.

- A graduated payment structure (i.e., a higher payment rate for hospitals with the largest shares of low-income patients) to make up for the fact that many of the facilities with the largest low-income shares were public hospitals with relatively small shares of Medicare patients. Without the graduated payments, these facilities would not receive large DSH payments.

The Congress also established separate formulas for various bedsize groups, for rural referral centers, and for sole community hospitals. All told, DSH payments were distributed on the basis of 10 different formulas.²⁰

Subsequent legislation brought the DSH payment rates of urban and rural hospitals closer together. Today, we have separate distribution formulas for four groups of hospitals, with a cap of 12 percent applied to the DSH add-on of

**TABLE
2A-9**

Current DSH adjustment formulas for operating payments

Percentage adjustment

Hospital qualifies if:	Formula	Cap
Its low-income patient share is 15% to 20.2%	2.5% + 0.65 times portion of share over 15%	none
Its low-income patient share is more than 20.2%		
Urban hospitals with more than 100 beds, rural hospitals with more than 500 beds, and rural referral centers	5.88% + 0.825 times portion of share over 20.2%	none
All other	5.88% + 0.825 times portion of share over 20.2%	12%
Special provision: 30% of its net patient revenue (excluding Medicare and Medicaid) is obtained from state and local government subsidies	35%	none

Note: DSH (disproportionate share). The percentage adjustment resulting from the formula and cap shown is made to the operating base payment rate.

Source: Section 1886(d) of the Social Security Act.

most rural hospitals and urban hospitals with fewer than 100 beds. (Table 2A-9 shows the specific distribution formulas.)

The capital DSH adjustment uses a single distribution formula where the add-ons are generally lower than under the operating formulas and the DSH payment rate increases more slowly as low-income share rises. In addition, most rural facilities and urban hospitals with fewer than 100 beds receive no capital DSH payments. The capital DSH formula was based on a regression analysis

that measured the impact of low-income share on total (operating plus capital) costs per discharge.

Spending and payment adjustments for IME and DSH hospitals

Medicare paid about \$13 billion, or 14 percent of total PPS payments, to acute care hospitals in fiscal year 2004 through the IME and DSH adjustments (Table 2A-10). Of this total, capital IME and DSH payments accounted for \$700 million and IME payments for Medicare Advantage patients accounted for about \$600 million. Teaching hospitals received an additional \$2.6 billion for the direct costs of GME programs for residents.

About 30 percent of hospitals covered by the acute inpatient PPS received an IME payment in fiscal year 2004, while 75 percent received a DSH payment (Table 2A-11). A quarter of hospitals received both IME and DSH payments, and 18 percent received neither.

IME payments go to 42 percent of urban hospitals compared with just 7 percent of rural hospitals. This difference results from the concentration of residency training programs in urban areas. In contrast, 81 percent of rural hospitals receive some DSH payments compared with 74 percent of urban hospitals. The vast majority of major teaching hospitals, 91 percent, also receive DSH payments, while DSH payments go to 74 percent of nonteaching hospitals.

**TABLE
2A-10**

Medicare payments for IME, DSH, and GME, 2004

Payment (in billions)

Payment type	Payment (in billions)			
	Operating	Capital	Medicare Advantage	Total
IME	\$4.5	\$0.4	\$0.6	\$5.5
DSH	7.4	0.3	0.0	7.7
Total	11.9	0.7	0.6	13.2
GME	2.3	0.0	0.3	2.6

Note: IME (indirect medical education), DSH (disproportionate share), GME (graduate medical education).

Source: MedPAC analysis of Medicare cost report data from CMS.

**TABLE
2A-11****Hospitals receiving IME and DSH payments**

Hospital group	Share of hospitals	Percent of hospitals receiving:			
		IME and DSH payments	IME payment	DSH payment	Neither payment
All hospitals	100%	25%	30%	75%	18%
Urban	70	34	42	74	18
Rural	30	6	7	81	18
Major teaching	8	91	100	91	0
Other teaching	23	78	100	78	0
Nonteaching	69	74	0	74	26

Note: IME (indirect medical education), DSH (disproportionate share).

Source: MedPAC analysis of 2004 impact file data from CMS.

Ten percent of all hospitals receive at least a 32 percent payment add-on through either or both the IME and DSH adjustments (Table 2A-12). The highest add-ons, though, go to hospitals that receive both payments. The top 10 percent of this group, representing almost 2.5 percent of all hospitals, receive a combined IME and DSH adjustment of 54 percent or more.

For major teaching hospitals, the IME adjustment is a bigger source of revenue than the DSH adjustment—16

percent compared with 10 percent (Figure 2A-12, p. 74). For other hospitals, however, the DSH adjustment is a larger source of revenue. The DSH adjustment for other teaching hospitals, for example, is twice the size of the IME adjustment.

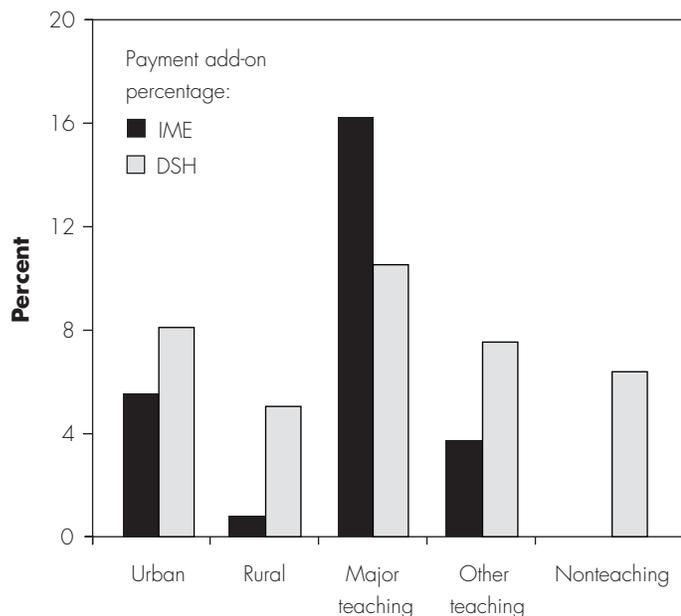
IME and DSH payments are highly concentrated: 200 teaching hospitals account for 68 percent of all IME payments, and 200 DSH hospitals account for 38 percent of all DSH payments. Of the \$13 billion in total DSH

**TABLE
2A-12****The largest adjustments go to hospitals receiving both IME and DSH payments**

Hospital group and payment adjustment	Distribution of payment add-on percentage (percentile)				
	25th	50th	75th	90th	95th
All hospitals					
IME	0%	0%	1%	10%	20%
DSH	2	6	10	22	33
IME and DSH	3	7	14	32	45
Hospitals receiving either IME or DSH					
IME	1	3	7	13	16
DSH	5	7	10	18	27
Hospitals receiving both IME and DSH	11	19	37	54	62

Note: IME (indirect medical education), DSH (disproportionate share). Values shown are IME and/or DSH payments as a percent of base payments.

Source: MedPAC analysis of 2004 Medicare cost report data from CMS.

**FIGURE
2A-12****Major teaching hospitals receive the largest IME and DSH adjustments**

Note: IME (indirect medical education), DSH (disproportionate share). Nonteaching hospitals do not receive IME payments.

Source: MedPAC analysis of 2004 cost reports from CMS and payment model simulations.

and IME payments made in 2004, 45 percent goes to 200 hospitals, an average of almost \$30 million per hospital.

The distribution of hospitals receiving the largest IME and DSH add-ons (defined as those with adjustments above the 75th percentile) differs by ownership. Proprietary hospitals are overrepresented in the DSH-only group (36 percent compared with 21 percent of hospitals nationally), nonprofit hospitals are overrepresented in the IME-only group (94 percent compared with 61 percent nationally), and government hospitals are overrepresented in the group that receives both adjustments (36 percent compared with 18 percent nationally).

Medicare margins and IME and DSH payments

Receiving IME and DSH payments substantially affects hospitals' Medicare margins. Focusing on the Medicare inpatient margin, hospitals receiving neither IME nor DSH payments have the lowest margins, -14.3 percent in 2004 (Table 2A-13). Even those receiving IME payments only or DSH payments only have below-average margins. But

hospitals receiving both IME and DSH payments have margins well above average—5.6 percent—although this is inevitable given that the denominator of the margin ratio is the cost of treating Medicare patients and the numerator includes extra payments unrelated to the cost of treating Medicare patients. Major teaching hospitals (more than 90 percent of which receive both IME and DSH) have the highest margins of all, 12.5 percent.

The difference between hospitals receiving both IME and DSH adjustments and those receiving neither adjustment is smaller if measured with the overall Medicare margin than with the Medicare inpatient margin (15 percentage points rather than 20 percentage points), as is the difference between major and nonteaching hospitals (14 percentage points rather than 19 percentage points). This difference primarily reflects the fact that Medicare's PPS for hospital outpatient services does not contain an IME or a DSH adjustment.

The range of Medicare inpatient margins is quite wide in all four groups defined by IME and DSH status. Hospitals receiving both IME and DSH payments have the highest margins at each breakpoint through the 90th percentile, but, at the 95th percentile, those receiving both IME and DSH payments along with those receiving only DSH have margins of about 30 percent (Table 2A-14).

The advantage of receiving both IME and DSH payments has expanded over time. The difference in financial performance between hospitals receiving both payment adjustments and those receiving neither was about 12 percentage points in 1997 and increased gradually to about 20 percentage points in 2004 (Figure 2A-13, p. 76).

Estimating the relationship between hospital costs and teaching and care to the poor

We estimated the relationship of hospitals' Medicare costs per case to teaching and care to the poor. Our analysis is based on 2004 cost report data, and it updates and expands on an analysis we last conducted for the Commission's March 2003 report to the Congress (which used 1999 data). (See the text box, p. 81, for a summary of the methods used in the analysis.)

Findings on the IME adjustment

IME payments exceed the estimated relationship between teaching intensity and costs per case. The IME adjustment for Medicare operating payments is set at 5.35 percent in fiscal year 2007; in fiscal year 2008 and beyond, it will be

**TABLE
2A-13****Medicare margins by teaching and disproportionate share status**

Hospital group	Share of hospitals	Share of inpatient payments	Medicare inpatient margin	Overall Medicare margin
All hospitals	100%	100%	-0.3%	-3.0%
Major teaching	8	23	12.5	6.0
Other teaching	23	36	-1.6	-3.6
Nonteaching	69	41	-6.6	-7.5
Both IME and DSH	24	47	5.6	1.2
IME only	6	10	-4.6	-5.4
DSH only	51	30	-3.7	-5.3
Neither IME nor DSH	19	12	-14.3	-13.4

Note: IME (indirect medical education), DSH (disproportionate share).

Source: MedPAC analysis of impact file and 2004 Medicare cost report data from CMS.

5.5 percent. Our analysis (which reflects implementation of MedPAC's recommendations for refining Medicare's DRGs) found that Medicare inpatient costs per case (operating and capital costs combined) increase about 2.2 percent for every 10 percent increase in the ratio of residents to hospital beds (Figure 2A-14, p. 76). Under the current DRGs, we find the cost effect slightly smaller, 2.1 percent.²¹ These estimates are lower than our prior estimate of 2.7 percent based on 1999 data.²² As shown in Figure 2A-14, the size of this subsidy—the difference between the top line representing the current payment adjustment and the bottom line representing the actual cost

relationship between teaching intensity and cost—gets larger at higher levels of resident intensity. In fiscal year 2004, more than half of IME payments were not empirically justified, accounting for about \$3 billion in Medicare spending.²³

The empirical relationship between teaching and costs per case has fallen, probably as a result of two factors. One reason is that teaching hospitals, on average, have had lower growth in costs than other hospitals. The second reason is that increases in the resident-to-bed ratio do not necessarily correspond to higher costs for patient care.

**TABLE
2A-14****Hospitals receiving DSH only or both DSH and IME payments have the highest margins****Distribution of Medicare inpatient margins (percentile)**

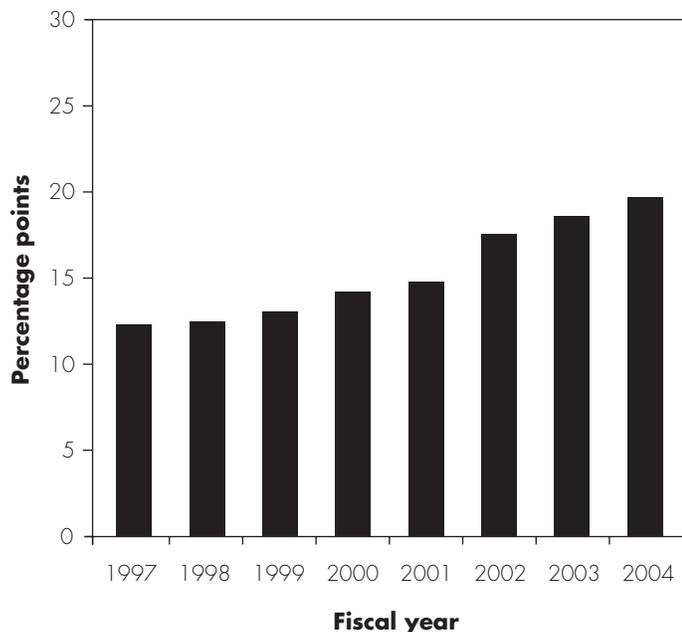
Hospital group	25th	50th	75th	90th	95th
Hospitals receiving:					
Both IME and DSH	-5.2%	4.9%	15.0%	25.0%	29.9%
IME only	-15.6	-6.0	5.3	13.2	19.7
DSH only	-13.0	-0.4	11.2	22.5	30.3
Neither IME nor DSH	-25.6	-13.2	-0.3	9.3	18.6

Note: IME (indirect medical education), DSH (disproportionate share). The distribution of Medicare inpatient margins in 2004 is shown.

Source: MedPAC analysis of 2004 Medicare cost report data from CMS.

FIGURE 2A-13

The difference in Medicare inpatient margin between hospitals receiving neither and both IME and DSH payments has grown



Note: IME (indirect medical education), DSH (disproportionate share).

Source: MedPAC analysis of Medicare cost report data from CMS.

For instance, the ratio can increase if hospitals decrease their number of beds without changing the number of residents trained. Over the past four years, the number of acute care beds in teaching hospitals has fallen every year. In addition, the number of residents in training has increased by more than 35 percent since the beginning of the PPS, and increases in the number of residents trained may cause little if any increase in costs per case (especially considering that resident salaries and benefit costs are paid for separately).²⁴

Relationship of standby services and hospital costs

Some policymakers have noted that teaching hospitals are often a major provider of standby services and have suggested that the IME adjustment covers some of the higher costs associated with these services. In our analysis, we added selected standby services to our regression equation for the IME adjustment to observe how the provision of these services is related to patient care costs and the empirical level of the teaching adjustment. Our analysis identifies Medicare-certified transplant centers,

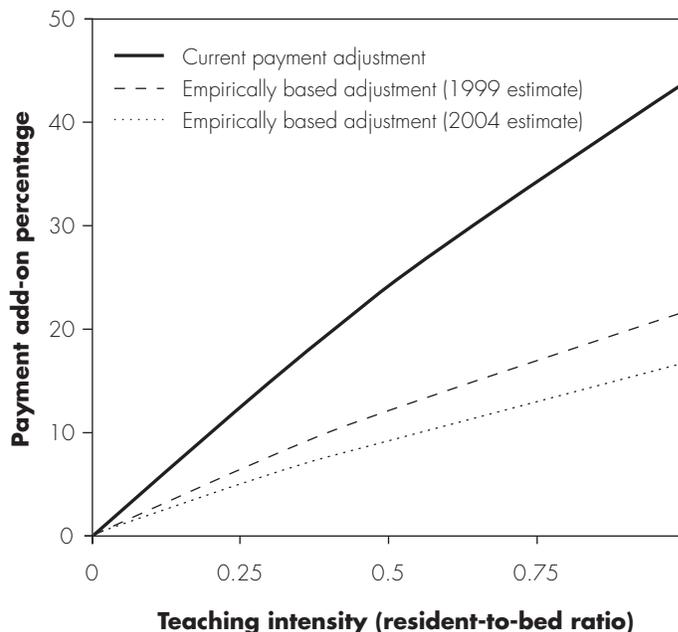
burn care centers, and trauma care centers. These are not the only services in which standby capacity is potentially important, but they are the ones where reliable measures were available. Hospitals that had these services were shown to have higher patient care costs. However, the empirical estimate for the IME adjustment drops substantially, from 2.2 percent to 1.4 percent, when these variables are included in the regression, an indication that some of what we call the empirical effect of teaching is actually the cost effect of these services.

Table 2A-15 displays how these services are distributed across teaching and nonteaching hospitals, showing a heavy concentration in teaching facilities, particularly teaching hospitals with a resident-to-bed ratio of 0.5 or more. However, not all teaching hospitals provide these services, and the services are not provided exclusively in teaching hospitals.

We also identified hospitals with large amounts of spending on research as reported on the hospital cost reports. Research costs are a nonallowable Medicare

FIGURE 2A-14

The IME adjustment is higher than empirically based estimates of the cost impact of teaching



Note: IME (indirect medical education). The empirically based adjustments are calculated using regression analysis of the impact of teaching intensity on hospitals' Medicare costs per case. The 2004 empirically based adjustment reflects MedPAC's recommendations for refining the diagnosis related groups used for Medicare inpatient payments.

Source: MedPAC analysis of Medicare cost report data from CMS.

**TABLE
2A-15****Provision of selected standby services, by teaching intensity, 2004**

Teaching intensity (resident-to-bed ratio)	Number of hospitals	Percent of hospitals	Percent of hospitals with service		
			Burn	Transplant	Trauma
0	2,278	68.9%	0.4%	0.7%	6.3%
0 to 0.25	717	21.7	2.6	8.4	22.2
0.25 to 0.5	166	5.0	7.2	24.7	33.7
Above 0.5	143	4.3	28.7	59.4	63.6
All hospitals	3,304	100.0	2.5	6.1	13.6

Note: Standby services are those for which extra capacity is maintained to meet wide fluctuations in nonelective demand. Most academic medical centers (the principal teaching hospital of a medical school) have a resident-to-bed ratio of 0.5 or higher.

Source: MedPAC analysis of 2004 Medicare cost report data from CMS.

expense and thus are excluded from the calculation of Medicare costs. One might expect research spending to be an indication of hospital mission, and hospitals involved in research may attract a more complex mix of patients. However, in our analysis we identified the top 25, 50, and 100 hospitals in terms of research spending and found no cost relationship.

Academic medical centers are the main teaching hospital of medical schools. Because of this relationship, a large number of medical students in addition to residents might also be involved in patient care activities in these facilities. One might expect this to lead to higher costs for the same reasons we think residents increase costs—more tests, inefficient practice, and learning by doing as part of the training process. The close ties to the medical school may also affect delivery of patient care in other ways. If we calculate separate adjustments for academic medical centers and other teaching hospitals, we find a higher cost relationship in academic medical centers. The IME coefficient is 2.6 percent in these centers compared with 1.5 percent in other teaching hospitals.

Findings on the DSH adjustment

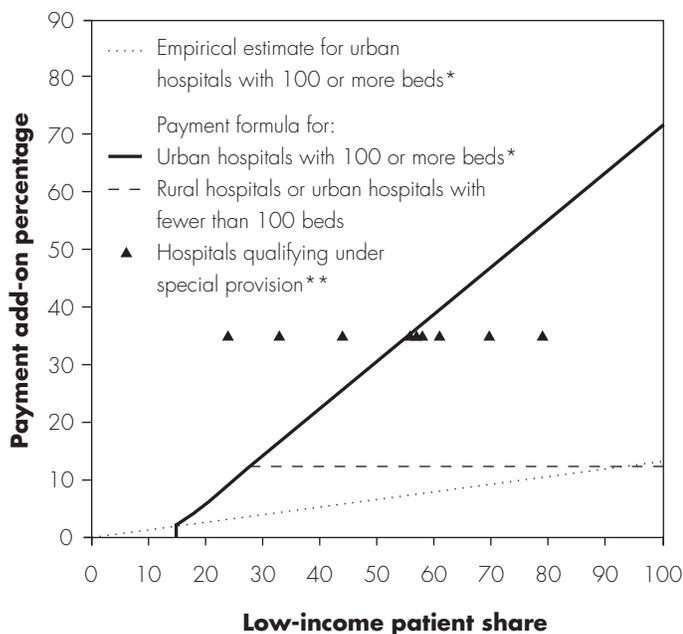
In this analysis, we identify the relationship between Medicare costs per case and the low-income patient care percentage used in the DSH formula. The original justification for the adjustment was that low-income patients are more costly to treat, so that hospitals with a substantial share of them would likely experience higher costs for Medicare patients than otherwise similar institutions.

Entering the percentage of low-income patients into the regression (along with the resident-to-bed ratio), we found that costs per case increase about 0.4 percent for each 10 percent increment in this ratio, substantially less than the current set of DSH adjustment formulas (Figure 2A-15, p. 78). Again, we measure the relationship in the presence of DRG refinement. In fiscal year 2004, about three-quarters of DSH payments were not empirically justified, accounting for about \$5.5 billion in Medicare spending.

We also looked separately at urban hospitals with more than 100 beds and all other hospitals. A stronger and much larger effect of low-income patient share is observed if the adjustment is limited to urban hospitals with more than 100 beds. In this case, costs increase about 1.4 percent for every 10 percent increment of low-income share. Using 2004 payment parameters, our estimates of the DSH effect are a little higher, at 1.8 percent.²⁵ We found no positive cost relationship with the low-income patient care percentage for other hospitals.

Hospitals with a higher share of low-income patients receive a larger subsidy from having the DSH adjustment set above the empirical relationship with costs, the difference between the top and bottom lines in Figure 2A-15 (p. 78). Since we find no positive cost relationship between care to the poor and costs per case for rural hospitals and urban hospitals with fewer than 100 beds, the subsidy for this group is their full payment, the middle dashed line in Figure 2A-15. Including low-income share in the regression also lowers the empirical level of the teaching adjustment. The empirical level for teaching drops to 1.7 percent when the variable for share of low-

FIGURE 2A-15 The DSH adjustment is almost always higher than empirically based estimates of the cost impact of care to low-income patients



Note: DSH (disproportionate share). Hospitals can have a share of low-income patients above 100 because this share is the sum of two percentages with different denominators.
 * MedPAC's analysis finds a relationship between costs per case and low-income patient share only for this group, which also includes a small number of rural referral centers and rural hospitals with 500 or more beds.
 ** Nine hospitals receive a fixed payment adjustment of 35 percent because at least 30 percent of their net revenue (excluding Medicare and Medicaid) is obtained from state and local government subsidies.

Source: MedPAC analysis of 2004 Medicare cost report data from CMS.

income patients for urban hospitals with more than 100 beds is included in the regression. This implies a strong relationship between teaching intensity and low-income share, in that part of the effect that the IME adjustment is picking up (when the variable for low-income share is not included in the regression) is the cost effect of treating low-income patients.

Relationship of uncompensated care to IME and DSH payments

To explore the relationship between hospitals' costs for uncompensated care and Medicare's DSH payments, we obtained data on uncompensated care (charity care and bad debts) compiled by the Government Accountability Office from state mandated reporting systems (GAO 2005). The database covers only five states—California, Florida, Georgia, Indiana, and Texas—but those states

contain a quarter of all PPS hospitals and include a mix of large urban, other urban, and rural areas. Every hospital in these states is required by law to report data on uncompensated care meeting the specifications of a designated state agency, although these specifications are not necessarily the same in each state. Because all hospitals are required to report, there is no sample bias, and the data are frequently (but not uniformly) audited.

Uncompensated care is highly concentrated—the top 10 percent of hospitals in terms of the share of resources they devote to furnishing uncompensated care provide 41 percent of all unpaid care (Figure 2A-16). But we found that DSH payments are poorly targeted to hospitals' shares of uncompensated care. This top group of uncompensated care providers receives only 10 percent of DSH payments. The bottom 10 percent of hospitals, in contrast, provide less than 2 percent of all uncompensated care but receive about 8 percent of DSH payments.

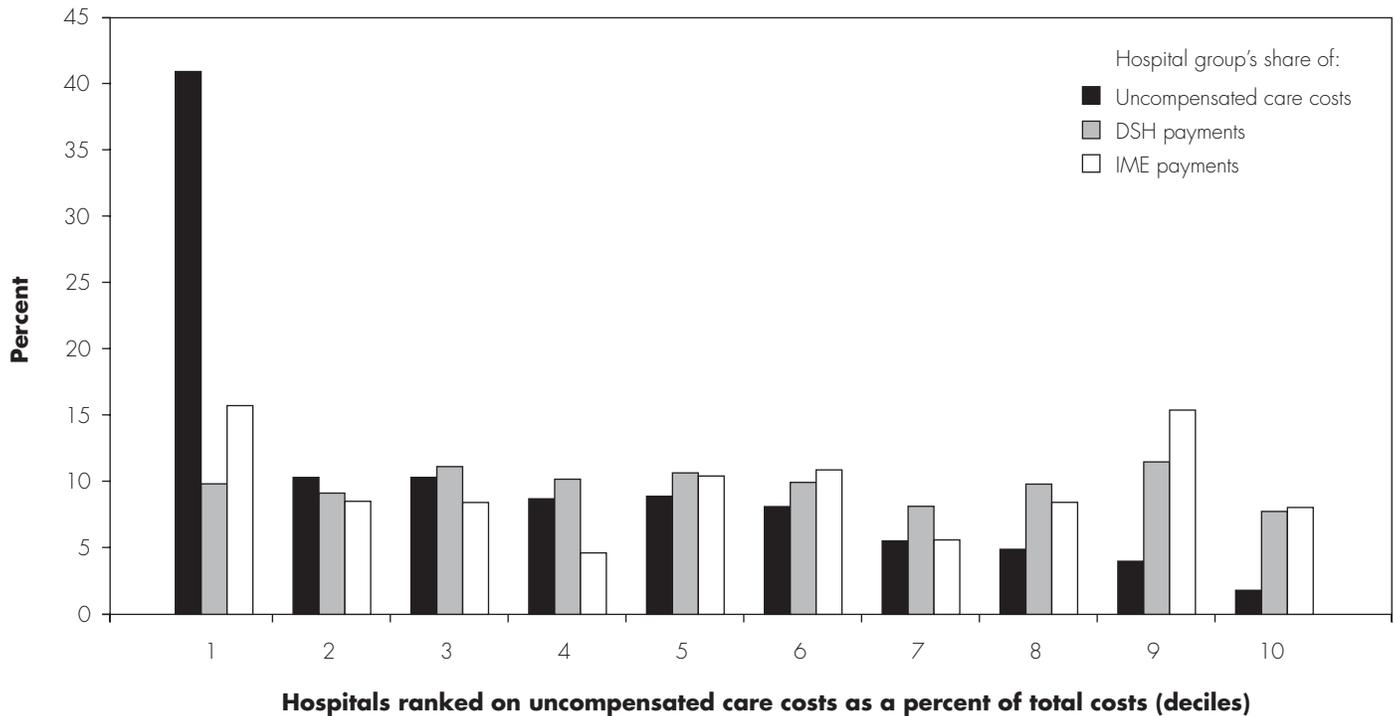
Although not designed for this purpose, the IME adjustment could help teaching hospitals that have large shares of uncompensated care. However, the relationship between IME payments and hospitals' shares of uncompensated care is also weak. The top uncompensated care group (providing more than two-fifths of the uncompensated care) receives just 15 percent of IME payments.

We identified the roughly one-fifth of hospitals that receive the largest add-on payments—defined as above the 75th percentile of DSH, IME, or both DSH and IME payments as a percent of base payments. This analysis provides more evidence that IME and DSH payments track poorly to hospitals' shares of uncompensated care.

- Hospitals receiving the largest DSH adjustments have shares of uncompensated care that are below the average for all hospitals (5.0 percent compared with the average of 6.6).
- Hospitals receiving the largest IME adjustments have even smaller shares of uncompensated care (3.9 percent).
- Hospitals receiving the largest combined IME and DSH payments have 14 percent shares of uncompensated care—well above the all-hospital figure—but this average masks a wide range of values. For example, the 75th percentile is a 20 percent share of uncompensated care while the 25th percentile is only 4 percent.

**FIGURE
2A-16**

Hospitals with the most uncompensated care do not receive the largest DSH and IME adjustments



Note: DSH (disproportionate share), IME (indirect medical education). The first group includes the 10 percent of hospitals with the highest ratio of uncompensated care costs to total costs. The last group includes the 10 percent of hospitals with the lowest such ratio.

Source: State mandated reporting systems in California, Florida, Georgia, Indiana, and Texas (2002 and 2003 data, N=848); Medicare cost report data from CMS; and state-level data compiled by the Government Accountability Office.

Thus, it appears that the hospitals most involved in teaching and in treating Medicaid and low-income Medicare patients are not, by and large, the ones that devote the most resources to treating patients who are unable to pay their bills.

MedPAC also had access to the data on uncompensated care that hospitals report on the American Hospital Association’s (AHA) annual survey of hospitals. In this case, however, what hospitals include in their charity care is not regulated, and the data are not audited. These data would not be reliable or consistent enough to use as the basis for distributing payments. Furthermore, we have no way of knowing whether the roughly one-third of hospitals that do not submit a survey or that leave the charity care and bad debt fields blank differ from reporting hospitals in the amount of uncompensated care they provide.

Nonetheless, the AHA data offer the advantage of including information from hospitals nationwide, so we

used this database to duplicate our five-state analysis. We observed the same general pattern—uncompensated care heavily concentrated in the top 10 percent of hospitals and little evidence of any relationship between a hospital’s share of uncompensated care and the DSH and IME payments it receives.

Key issues in evaluating the IME and DSH adjustment

In evaluating the appropriateness of the current IME and DSH adjustments, one side of the argument centers on the accuracy of payments and how well they are distributed. Under this view, the primary goal of the Medicare rate-setting process is to make the best possible estimates of the costs of Medicare services and then align payments as closely as possible to these costs. The IME and DSH adjustments have distributed large sums of money in a manner that is not strongly related to the costs of treating Medicare beneficiaries, resulting in large differences in Medicare payments among hospitals.

Although we previously found that factors over which hospitals have considerable control (particularly their average costs per case) are closely associated with having consistently negative Medicare margins (MedPAC 2006), those margins nonetheless vary by the IME and DSH payments hospitals receive. Moreover, the gap in financial performance between hospitals receiving and not receiving IME and DSH payments has widened in recent years.

Even though some would argue that the IME and DSH payments are too high, the other side of the argument begins with the fact that the Congress made a conscious decision to fund the IME adjustment at twice the estimated impact of teaching on Medicare costs out of concern that teaching hospitals would fare poorly under the PPS. As discussed earlier, the Congressional Budget Office's analysis at the time implied that doubling the IME adjustment rate budget neutrally would simply narrow the gap between the financial performance of teaching and nonteaching hospitals. In fact, teaching hospitals have always had higher Medicare margins than nonteaching facilities.

Some policymakers argue that the portion of the IME and DSH adjustments above the empirical level is appropriately used to help fund social missions, although it is difficult to account for hospitals' use of the funds. In addition to the social objectives the IME and DSH adjustments may advance, the Congress has implemented several payment mechanisms to promote the social objective of access to care in rural areas.

The debate about social benefits encompasses three questions:

- What are these benefits?
- Is Medicare the best mechanism for funding them?
- How can hospitals be held accountable for providing the benefits?

The primary social benefit teaching hospitals are expected to provide is to produce a well-trained physician workforce with skills to match the nation's need for health care services.²⁶ Other commonly cited social benefits include:

- furnishing uncompensated care;
- delivering broad-based services such as patient education and screening programs without charge or at below-cost rates;

- maintaining standby capacity (staffing, equipment, and beds) for responding to natural disasters, large-scale accidents, outbreaks of infectious disease, or terrorism;
- providing specialty services that frequently operate at a loss, such as trauma care, burn care, and transplants; and
- serving as first adopters of sophisticated, and sometimes experimental, technology.

Teaching and nonteaching hospitals provide these social benefits, but major teaching hospitals are most likely to play a substantial role in furnishing standby services and introducing sophisticated new technologies.

When it is agreed that the federal government should at least partially underwrite the cost of a social benefit, what is the best way to provide the funding? One argument is that the best funding source is general revenues allocated through the appropriations process. Because these are public goods, benefiting all patients if not the entire population, ideally society as a whole—through a broad-based revenue source—should provide the financing. In addition, some have suggested that spending large sums of money through Medicare to support vaguely defined social benefits all too often does not result in the social benefits being provided. In this vein, it is unclear how much of the IME and DSH monies have gone to supporting social benefits rather than to improving the competitive position of the hospitals receiving them. On the other hand, some are concerned that appropriations are subject to year-to-year changes while the IME and DSH adjustments are more protected within Medicare's mandatory funding. A mandatory entitlement structure, however, could mitigate some of the uncertainty of appropriations.

Impact of reducing the IME and DSH adjustments and increasing the base payment rates

Because the DSH and IME adjustments are set above their empirical levels, Medicare margins for teaching hospitals and hospitals receiving above-average DSH payments are well above those that receive neither of these adjustments. This section illustrates how Medicare payments and margins would change if the IME adjustment, DSH adjustment, or both were reduced to the empirical level or reduced by 1 percentage point, with savings returned to operating and capital base payment rates.

Methods used to estimate relation between hospitals' costs and teaching and care to the poor

We used regression analysis to estimate the effect of both teaching and care to the poor on hospitals' Medicare costs per case under the Commission's diagnosis related group (DRG) refinement proposal. We modeled our estimates using MedPAC's recommendations for DRG refinements, because they would help substantially in improving the accuracy of the payment system. Thus, our indirect medical education (IME) and disproportionate share (DSH) estimates ultimately reflect the direction in which we believe payment policy should be headed. We also examined the empirical level of these relationships under the current DRGs and note in our presentation of results where this makes a notable difference.²⁷ In most cases, it did not make a difference.

In conducting our analysis, using 2004 cost report data, we standardized hospitals' inpatient costs for cost-related payment factors (the area wage index, case mix, and outlier payments) to reflect how these factors are used in the acute inpatient prospective payment system.²⁸ The direct costs of teaching programs—resident and faculty salaries and associated overhead costs of running training programs—are excluded from the analysis because they are reimbursed separately. This method allows the variables for teaching intensity

and share of low-income patients to pick up the effect of any remaining variation in costs not accounted for by the payment system.³¹

This approach tends to produce higher estimates of the effect of teaching or care to the poor on Medicare costs than we would get if we included other factors (e.g., number of hospital beds or standby services) in the analysis. The estimated impact of teaching or treating a large share of low-income patients would be lower (and the amount of payments above the empirical level would be even higher) if we were to control for other factors like these; that is, this method results in a conservative estimate of the IME and DSH subsidies currently provided to hospitals. We do not control for these other factors because the payment system does not consider them in setting payment rates.

The calculation of the empirical level of the IME and DSH adjustments is based on policy parameters in place in 2004 and may change somewhat with future modifications to the payment system. For example, changes in the wage index—such as the 2005 addition of the occupational mix adjustment—could change the empirical level of the IME estimate somewhat. ■

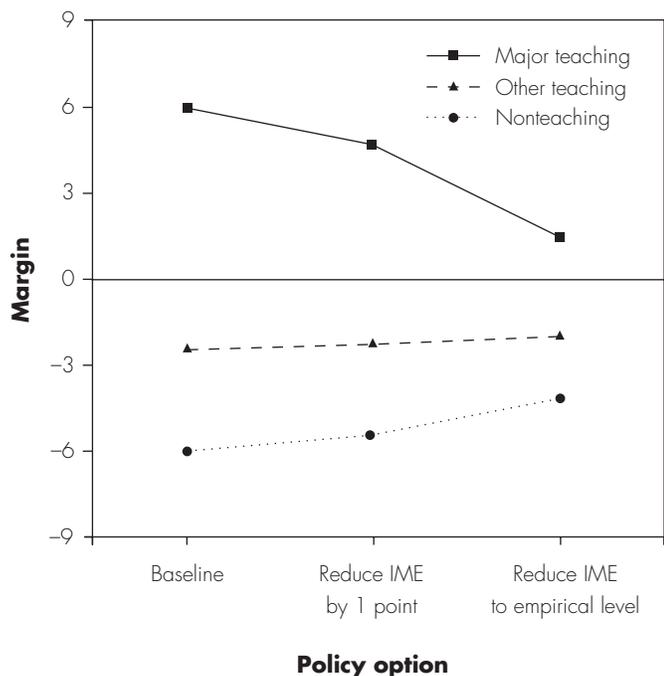
Differences in financial performance under Medicare would narrow if the IME, DSH, or IME and DSH adjustments were reduced closer to their empirical cost relationship, with the savings redistributed among all hospitals. If the IME adjustment were reduced by 1 percentage point to 4.5 percent per 10 percent increment of teaching intensity, the difference in overall Medicare margins between major teaching and nonteaching hospitals would decrease from 12 percentage points to 10 percentage points (Figure 2A-17, p. 82).²⁹ It would drop further to 5.5 percentage points if the IME adjustment were brought down to the empirically justified relationship between resident intensity and costs per case.³⁰

The impact on payments of lowering the IME adjustment is related to the size of a hospital's teaching program and the size of the reduction. Hospitals with higher resident-

to-bed ratios would see larger reductions in payments than those with lower ratios. For example, hospitals with a resident-to-bed ratio of 0.5 or more would see their Medicare inpatient payments fall on average 2.1 percent with a 1 percentage point drop in the IME adjustment compared with a 0.3 percent decrease for hospitals with a resident-to-bed ratio between 0.1 and 0.25. Smaller teaching hospitals, those with a resident-to-bed ratio below 0.08, would actually see a small increase in payments. Nonteaching hospitals would see an average increase in payments of about 0.7 percent.³² These payment changes would be almost four times as large if the IME adjustment were reduced to the empirical level. This redistribution of payments would be different if the savings from reducing the IME adjustment were used in some other way, such

**FIGURE
2A-17**

**Overall Medicare margin under
selected IME policies**



Note: IME (indirect medical education). Baseline margin is a simulated 2004 margin adjusted to reflect full implementation of Medicare Prescription Drug, Improvement, and Modernization Act of 2003 disproportionate share policies, a 5.5 percent IME adjustment, and a fixed loss threshold for outlier cases that ensures the full 5.1 percent outlier pool will be paid to hospitals. Major teaching hospitals are hospitals with 25 or more residents per 100 beds.

Source: MedPAC analysis of 2004 Medicare cost report data.

as funding pay for performance or improving residency training. (The next section further discusses these options.)

DSH subsidies are not a major factor in explaining the difference in financial performance between major teaching and nonteaching hospitals. The difference in overall Medicare margin between major teaching and nonteaching hospitals would narrow only slightly if the DSH adjustment were reduced (Figure 2A-18). Cutting it by 1 percentage point would narrow the gap in margins by 0.3 percentage point, while reducing the adjustment to the empirical level would narrow the gap by 1.5 percentage points, still leaving major teaching hospitals' margins 10.5 percentage points higher than those of nonteaching hospitals. The major factor contributing to the difference in Medicare margins between major teaching and nonteaching hospitals would continue to be IME payments above the empirical level. If both the IME and

DSH adjustments were brought to their empirical cost relationship, the gap in aggregate financial performance between major teaching and nonteaching hospitals would narrow substantially to 3.4 percentage points.

This analysis indicates that the portion of the IME and DSH adjustments above the empirical level explains a large part of the difference in aggregate financial performance between hospitals that receive the adjustments and those that do not. However, other factors, such as provider efficiency and ability to control costs, also play a significant role in the financial performance of providers and cannot be overlooked when evaluating the performance of individual providers.

IME policy options

Keeping the IME subsidy at its current level directs more than \$3 billion in extra payments to teaching hospitals. One argument that has been made for paying above the empirical cost relationship is that the payment system does not adequately reflect the higher severity of patients treated in teaching hospitals. But adjusting the DRG payment rates for severity differences is one of four refinements the Commission believes are needed to improve the payment system (MedPAC 2005a), and CMS is currently evaluating severity adjustment options for possible implementation in fiscal year 2008 (CMS 2006d).

Commission analysis of all patient refined diagnosis related groups (APR-DRGs) found that severity adjustment would increase payments to teaching hospitals by an average of 1 percent.³³ When a credible severity adjustment system is implemented, the IME adjustment should be reduced by 1 percentage point, to 4.5 percent per 10 percent increment of teaching intensity, approximately offsetting the increase in payments teaching hospitals would receive from severity adjustment.

If the IME adjustment were reduced, the payments could be redirected in one or more ways. The funds could be returned to the base rates to reduce the difference in financial performance between teaching and nonteaching hospitals under Medicare. Alternatively, they could be used to fund a pay-for-performance program for all hospitals to reward high-quality care and quality improvement. A third option would retain these funds for teaching hospitals but redirect them to reward innovations in residency training programs to better prepare the physician workforce for the 21st century. This section discusses these potential uses of IME payments above the empirical level. In the end, the Commission agreed that using the funds for pay for

performance is the best option, though we recognize the value of the other two.

Using a portion of IME payments to increase base rates

The IME adjustment was originally funded by reducing the base rates for all hospitals. While the IME adjustment could be reduced with savings returned to the treasury, hospitals' Medicare margins—particularly those of hospitals not receiving IME or DSH payments—are currently low, so that a more appropriate use of the IME funds over the empirical level may be to return them to the base rates. In addition, returning these funds to the base rates would narrow the difference in financial performance between teaching and nonteaching hospitals under Medicare. The base rates would increase about 0.8 percentage point if the IME adjustment were reduced a percentage point and 2.8 percentage points if the adjustment were reduced to the empirical level.

Using a portion of IME payments to fund a pay-for-performance program for all hospitals

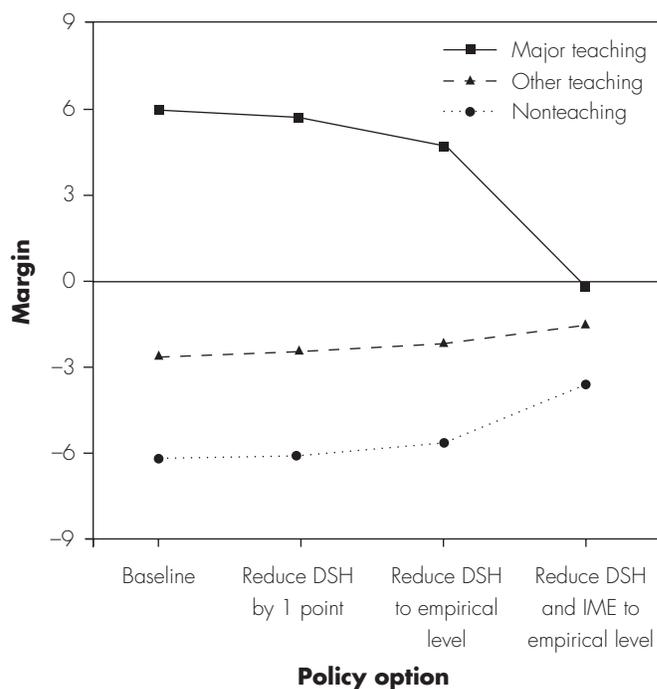
The IME funds above the empirical level also could be used to fund Medicare pay-for-performance initiatives for hospitals. Under this approach, teaching hospitals would compete with all other hospitals for the payment set-aside based on their performance on selected quality measures. Allocating the funds based on pay-for-performance criteria would ensure better accountability than current payment policy and may boost momentum in implementing such a program. We believe an appropriate set of quality measures is available, but neither CMS nor the Congress has established a systemwide pay-for-performance program. The Commission previously recommended that a pay-for-performance pool be funded with a 1 percent to 2 percent withhold on hospital payments (MedPAC 2005b). A 1 percentage point reduction in the IME adjustment could provide part of the funding for the pay-for-performance program for all hospitals without reducing payments to nonteaching hospitals. It could be combined with an amount withheld from base rates to create a larger performance pool.

Using a portion of IME payments to reward innovation in residency training

A third possible use of IME funds above the empirical level is to support initiatives in residency training designed to better prepare residents for practice in the 21st century. Such an effort would provide more accountability for how these funds are used but would retain the payments

FIGURE 2A-18

Overall Medicare margin under selected DSH and IME policies



Note: DSH (disproportionate share), IME (indirect medical education). Baseline margin is a simulated 2004 margin adjusted to reflect full implementation of Medicare Prescription Drug, Improvement, and Modernization Act of 2003 DSH policies, a 5.5 percent IME adjustment, and a fixed loss threshold for outlier cases that ensures the full 5.1 percent outlier pool will be paid to hospitals. Major teaching hospitals are hospitals with 25 or more residents per 100 beds.

Source: MedPAC analysis of 2004 Medicare cost report data.

used to support such initiatives among teaching hospitals. Restricting the funds to teaching hospitals, though, would not reduce differences in financial performance between teaching and nonteaching hospitals that have resulted from the IME adjustment being set substantially above the empirical level.

The Commission is concerned that the nation's medical schools and residency programs are not adequately training physicians to be leaders in shaping and implementing needed changes in the health care system. The system should change from one that focuses on care for acute illness at the expense of prevention, management of chronic conditions, and coordination of care across settings. As a major purchaser of health care, Medicare should reward a culture that values patient-centered care, quality improvement, and resource conservation.

Key to this transformation is having physician training programs emphasize a new set of skills and knowledge. For example, programs need to train residents to measure their performance against quality benchmarks, use patient registries and evidence-based care guidelines, work in interdisciplinary teams, manage the hand-off of patients, and initiate improvements in the process of caring for patients to reduce medication and other costly errors.

The culture and complexity of teaching hospitals make it difficult to introduce this emphasis into the curriculum. Current culture tends to value physician autonomy, which is counterproductive to fostering team-based care and using evidence-based care guidelines (Blumenthal and Ferris 2006). In addition, the diversity of teaching hospitals' missions—research, teaching, and patient care—combined with the priority placed on research has led to hospitals underinvesting in their physician faculty and in patient safety (Blumenthal and Ferris 2006, Cooke et al. 2006). As a result, many programs do not have leaders with the vision and institutional support to make curriculum changes, including reallocating limited resident time and investing in initiatives for patient safety, which will likely be felt institution-wide.

The accrediting body for residency programs, the Accreditation Council for Graduate Medical Education (ACGME), has also recognized the need for curriculum change. ACGME's stance on these issues is critical because accreditation is a requirement for facilities to be eligible for Medicare IME payment. In 2002, ACGME launched a multiphased approach toward integrating an updated list of "core competencies" into every residency program. Now, ACGME requires residents to demonstrate competency in "systems-based care," which refers to things such as partnering with others to assess, coordinate, and improve health care; assisting patients in dealing with system complexities; advocating for quality patient care; and knowing methods of controlling health care costs and allocating resources.

It is unclear how rigorously and quickly ACGME will enforce these standards. The council recognizes that competing pressures on teaching hospitals may slow the response of residency programs to the new competencies. Furthermore, ACGME values allowing innovation from the field to emerge and defining best practices rather than being too prescriptive at the outset. The risk in this approach, however, is that residency programs may respond slowly.

Policymakers may want to consider a role for Medicare in supporting reform or bolstering the efforts of ACGME. By tying the portion of the IME adjustment above the empirical level to specific programs or curriculum characteristics, as discussed later, Medicare would also be better able to ensure that the funds were used for their intended purpose.

Fund fellowships that train a new generation of physician faculty Because today's residents are taught by yesterday's residents, it can be difficult to introduce a new skill set into the practice of medicine. Medicare could redirect a portion of spending on medical education to fund post-training fellowships to better equip a cadre of teaching physicians. Over time, the supply of teaching physicians prepared to lead would grow, ideally infusing residency programs nationwide with a commitment to a new teaching paradigm. The curriculum of these fellowships could be developed nationally or by individual programs.

Reward explicit types of curriculum innovations Among the types of curriculum innovations to consider rewarding are requiring that residents continually benchmark their performance against relevant specialty society measures, integrating geriatric training for physicians involved in longitudinal care of their patients, using only experiential learning (rather than passive didactic) strategies to teach systems-based medicine, and requiring programs to have a significant role for faculty trained in process reengineering. These innovations are consistent with but not required by ACGME. The challenge of this approach is to create a greater impetus for innovation without constraining the flexibility teaching hospitals need to operate and continually reevaluate their residency programs.

RECOMMENDATION 2A-2

Concurrent with implementation of severity adjustment to Medicare's diagnosis related group payments, the Congress should reduce the indirect medical education adjustment in fiscal year 2008 by 1 percentage point to 4.5 percent per 10 percent increment in the resident-to-bed ratio. The funds obtained from reducing the indirect medical education adjustment should be used to fund a quality incentive payment system.

RATIONALE 2A-2

The IME adjustment is currently set considerably above the empirical level, which contributes to the large differences between teaching and nonteaching hospitals

in financial performance under Medicare. These funds are provided to teaching hospitals with no accountability for how they are to be used, and a better use of the funds is desired. Teaching hospitals will benefit from the implementation of severity adjustment to the DRGs, which we strongly believe is necessary to help improve the accuracy of the payment system. The Commission therefore recommends that the IME adjustment be reduced from 5.5 percent to 4.5 percent per 10 percent increment in the resident-to-bed ratio concurrent with the implementation of severity adjustments in the payment system. We also recommend that the savings from reducing the IME adjustment be used as part of the funding for a quality-incentive payment policy. The Commission recommended a pay-for-performance program for hospitals in its March 2005 report to the Congress.

IMPLICATIONS 2A-2

Spending

- This recommendation would have no impact on federal program spending.

Beneficiary and provider

- This recommendation would reduce IME payments to teaching hospitals but would redistribute payments to all hospitals (including teaching hospitals) that perform well under a quality-incentive program. There is the potential for improved quality of care for beneficiaries.

DSH policy options

For several years, policymakers have been considering options for the federal government to help hospitals with their uncompensated care. To enable a payment mechanism for offsetting uncompensated care, the Congress (in the Balanced Budget Refinement Act of 1999) directed CMS to collect data on uncompensated care from all hospitals covered by the acute inpatient PPS. CMS added a schedule for reporting uncompensated care and other forms of indigent care to the Medicare cost report beginning in 2003. This form is known as the “S-10.” However, there has been widespread recognition that the form and instructions for the S-10 have not resulted in accurate and consistent reporting of uncompensated care.

Obtaining accurate data on hospitals’ uncompensated care

CMS’s S-10 form includes a questionnaire on hospitals’ charity care practices and a form to report uncompensated care charges (the sum of charity care and bad debt charges) and associated costs. It also includes charges and costs for insurance programs covering low-income patients, including Medicaid, State Children’s Health Insurance Programs, and local indigent care programs. Finally, the form asks hospitals to report revenues that partially offset their costs for uncompensated and indigent care.

Several organizations’ examination of the S-10 form and instructions as well as the data hospitals have reported to date have revealed some general problems:

- In several fields on the form, it is unclear whether charges or revenues are requested.
- Because hospitals were not asked to categorize their uncompensated care into charity care and bad debt components, an important opportunity for quality control was lost.³⁴
- It was initially unclear whether hospitals were required to include Medicare bad debts.
- Limited guidance was provided on what hospitals can and cannot include in bad debts and charity.

Examples of needed improvements include:

- Definitions of charity care and bad debts that are consistent with longstanding guidance hospitals rely on in filing their own financial reports;
- Separate reporting of charity care and bad debts as well as Medicare and other bad debts;
- Clarification that uncompensated care should not include unpaid amounts owed for physician services (when the hospital employs physicians) and that only the unpaid obligations of individuals (not Medicaid or other insurers) can be reported as bad debts;
- Guidance on whether charity care or bad debts on noncovered services provided to Medicaid patients can be included,³⁵ and
- Clarification that charity care cannot include the contractual discounts of Medicare or Medicaid patients, courtesy discounts (e.g., those offered to

members of a religious order), or discounts given to uninsured patients without regard to their financial circumstances.

We also suggest that CMS require all hospitals covered by the acute inpatient PPS to maintain a formal policy spelling out their criteria for deciding whether patients qualify for charity care. A charity care policy typically defines eligibility on the basis of patients' (or their families') income, assets, and financial obligations for medical care. CMS's S-10 asks hospitals whether they "have a written charity care policy," and in 2003, about 20 percent of all PPS hospitals and more than 35 percent of those in outlying rural areas reported that they did not.³⁶ Without such a policy for reference, CMS would be unable to conduct a meaningful audit of the charity care hospitals report.

RECOMMENDATION 2A-3

The Secretary should improve the form and accompanying instructions for collecting data on uncompensated care in the Medicare cost report and require hospitals to report using the revised form as soon as possible.

RATIONALE 2A-3

Accurate data on hospitals' charity care and bad debts are crucial to any effort to develop a federal payment mechanism to help hospitals with their uncompensated care. CMS's current instrument for collecting uncompensated care data does not provide hospitals with sufficient guidance on what to report; consequently, the data collection effort has not been successful.

IMPLICATIONS 2A-3

Spending

- This recommendation would have no impact on federal program spending.

Beneficiary and provider

- This recommendation would have no impact on beneficiary access to care but would cause a small increase in hospitals' reporting burden for the Medicare cost report.

Additional comments

Based on input from several accounting and financial management experts, MedPAC staff have already consulted with CMS on revising the form and instructions, and we stand ready to continue working closely with CMS in the coming year. After a revised data collection

instrument is implemented, it will take about two years to obtain useful data for analysis. Critical access hospitals are not required to report their uncompensated care, but when the revised S-10 form is implemented we believe that CMS should require them to report along with hospitals covered by the acute inpatient PPS. In addition, it will be important for CMS to develop an edit that rejects cost reports that do not contain complete S-10 data and to include the S-10 in its cost report audits.

Options for a federal program to offset hospitals' uncompensated care

The uncompensated care hospitals provide can be viewed as a social good that is better funded by revenue sources other than Medicare because:

- the share of hospitals' patient loads accounted for by uncompensated care, like the share of Medicaid or SSI patients, probably has only a small effect on the cost of treating Medicare patients;
- the charity care hospitals provide goes to patients with all types of insurance as well as the uninsured, and Medicare already has a mechanism in place to reimburse hospitals for bad debts resulting from Medicare beneficiaries failing to pay their deductibles and copayments; and
- the primary benefit of a federal payment for uncompensated care would be to protect access to care for all patients by offsetting potentially large financial losses.

The concept of a separate federal program to pay for a portion of hospitals' uncompensated care has been proposed in the past. Funding could be provided through a direct appropriation, similar to the approach taken for an IME payment for children's hospitals, or through a mandatory entitlement structure to lessen the uncertainty of the appropriations process. The personal and corporate income taxes that finance most federal appropriations are less regressive than the payroll tax that funds the Part A trust fund, and the trust fund is scheduled to be exhausted by 2018. However, using general revenues would increase pressure on the federal budget.

Alternatively, the Congress could finance a payment for uncompensated care through a broad-based tax on the revenues of health care organizations such as hospitals and insurance companies or by redirecting the federal portion of Medicaid DSH payments. Several states (e.g., Virginia) have used provider taxes to fund a charity care

pool, and this approach has the advantage of spreading the funding burden among all patient groups. The states control the allocation of Medicaid DSH payments within broad federal guidelines. A number of states distribute DSH payments based on hospitals' shares of charity care along with their Medicaid shares (e.g., Wisconsin), and some use DSH monies to augment funding for a charity care pool (e.g., New York) (Wynn et al. 2002). Medicaid DSH payments totaled \$17.2 billion nationally in 2004, of which the federal government financed \$9.7 billion (CMS 2006c).

If the uncompensated care payment is organized within the Medicare program, the current DSH payments—\$7.7 billion in 2004—could provide the necessary funding. A decision would be needed on whether to use all the DSH monies to fund the uncompensated care payment or whether to use some of the funds for that purpose and some to improve the distribution of payments among all hospitals. Helping hospitals with their uncompensated care to advance access for all patients and promoting Medicare payment equity among all PPS hospitals are important goals, which must be balanced. This policy direction would represent a way for Medicare to contribute to offsetting hospitals' costs of uncompensated care; ideally, other payers would also contribute, although that is unlikely.

Once the amount of funds is established, the next question is how to distribute the payments. An uncompensated care payment could be paid in the form of a percentage add-on to the base DRG rate, as is currently done for the DSH adjustment. But this approach would not work well because hospitals with small shares of Medicare patients would have a smaller proportion of their uncompensated care costs paid than hospitals with large Medicare shares. We already have evidence that hospitals' shares of Medicare patients do not correlate with their uncompensated care loads. Public major teaching hospitals, for example, report an average share

of uncompensated care to the AHA that is three times the national average, while their Medicare share of inpatient days is a third below the national average.

A better option is to break the link to per case payment by distributing the payment based on each hospital's aggregate costs of uncompensated care. Once the funding level is established, policy would articulate the allocation of funds among hospitals. Payment for a given year could be based on the uncompensated care hospitals reported in the previous year's cost reports, or the previous year's experience could set an interim payment rate, with the final payment determined after the current year's cost reports are settled.

Although Medicare's payment for uncompensated care would be limited to a fixed amount, it would still lead to significant political pressure to increase funding. One way to address this pressure is to limit the payment to hospitals' charity care rather than to their total uncompensated care (charity care plus bad debts). The payment could be further narrowed by limiting it to charity care provided to patients whose personal or family income is below a certain threshold, such as twice the federal poverty level. Although it imposes an additional record-keeping and reporting burden on hospitals, some states have taken this approach in administering their uncompensated care pools and hospitals have been willing to provide the necessary data.

The targeting of the payment for uncompensated care might also be improved by limiting each hospital's payment to the amount of charity care exceeding a certain threshold, such as 5 percent of its total patient care expenses. If the federal government decides to pay directly for uncompensated care, one might question whether the issue of hospitals' tax exemption should be revisited. Requiring hospitals to provide a certain minimum amount of charity care before they become eligible for additional payment is one way to address this concern. ■

Endnotes

- 1 Outpatient payments are made to several classes of hospitals that are not paid under the acute inpatient prospective payment system, including psychiatric, rehabilitation, cancer, and long-term care hospitals.
- 2 This survey is cosponsored by CMS and MedPAC and is conducted under contract by the American Hospital Association and The Lewin Group.
- 3 In 2001 and 2002, a substantial portion of the measured increase in fee-for-service discharges resulted from beneficiaries' decisions to leave Medicare managed care plans and return to traditional Medicare. The Trustees estimate that increased enrollment in Medicare Advantage plans reduces growth in fee-for-service admissions after 2004 and explains the negative growth expected in 2007.
- 4 A service in our volume measure is identified by a Healthcare Common Procedure Coding System (HCPCS) code that is payable under the outpatient PPS. HCPCS definitions can change over time, which can affect annual changes in volume.
- 5 We exclude separately paid drugs because their definition has been unstable over our period of analysis. We exclude pass-through devices because the list of devices with pass-through status has changed substantially throughout our period of analysis.
- 6 The sum of the relative weights of all outpatient PPS services includes the costs of pass-through drugs. However, the sum of the relative weights does not include the cost of pass-through devices because we do not have the data necessary to accurately estimate the cost of the devices. Excluding the pass-through devices has a small decreasing effect on the service-mix index in each year.
- 7 The mortality, patient safety, and process measures we have considered in this analysis are the most comprehensive public data available to indicate changes in the quality of care provided to Medicare beneficiaries in hospitals over time and across the country. However, a recent review of available quality measures suggests that, while these data are important for providers, payers, and patients, some caveats should accompany them (Lee et al. 2004). These indicators rely on administrative data such as patients' secondary diagnoses from claims, which may be prone to changes in coding, or they rely on self-reported data that may not be adequately audited (GAO 2006). The researchers suggest that larger aggregations of data are preferable to smaller ones and that conclusions should be based on the evidence from multiple measures.
- 8 A margin is calculated as payments minus costs, divided by payments. The overall Medicare margin covers acute inpatient, outpatient, hospital-based home health and skilled nursing facility (including swing bed), inpatient psychiatric and inpatient rehabilitation services, and graduate medical education.
- 9 Our forecast is for 2007, but we considered the policy environment hospitals will be operating under in 2008 as we deliberated the appropriate update for that year. Therefore, the forecast reflects what payments would have been in 2007 if 2008 policy (other than the 2008 update) had been in effect at the time.
- 10 One possible explanation for the increase in inpatient case mix is the increase in Medicare Advantage (MA) plans and the fact that MA plans tend to have less severely ill patients than the general Medicare population. That could lead to a higher case mix among patients remaining in Medicare fee-for-service plans. As severity increases, hospital costs and Medicare payments increase to the degree that severity is measured by the case-mix index. In 2005, MedPAC recommended that CMS implement an improved severity adjuster to more accurately match Medicare payments to the level of resources needed to treat individual patients.
- 11 This measure is a weighted average of all services including inpatient, outpatient, and post-acute services provided by the hospital. Services are measured in discharge equivalents, which are calculated as number of discharges times the ratio of total charges to inpatient charges. This provides a weighted average of the increase in costs per inpatient and outpatient unit of service. However, this measure does not adjust for increasing complexity (as measured by case mix) of inpatient cases.
- 12 A hospital's financial performance can vary substantially from one year to the next due to a number of factors affecting its costs and payment rates, including the types of services offered and changes in the mix and volume of patients seen. Because of this variation, a single-year margin may not best represent an individual hospital's performance.
- 13 Non-Medicare revenues and costs also encompass Medicaid patients, uncompensated care, and non-patient care activities.
- 14 The inpatient update would apply to fiscal year 2008 and the outpatient update would apply to calendar year 2008.

- 15 Two factors contributed to the projected adverse effects on teaching hospitals. First, teaching hospitals understated their case mix in the base year, leading to an underestimate of the PPS payments they would receive. Second, the analysis used to estimate the relationship between teaching intensity and costs per case included some factors, such as number of beds, that were not a part of the new payment system, lowering the estimated IME-cost relationship.
- 16 The acute inpatient payment system has separate base payment rates for operating and capital costs—the only one of Medicare’s PPSs structured in this way—and both the IME and DSH adjustments have separate formulas for the add-ons to operating and capital payments. In addition, hospitals in large urban areas (metropolitan statistical areas over 1 million population) receive a 3 percent add-on to their capital payments separate from the IME and DSH adjustments.
- 17 The product of the 1.32 multiplier and the 0.405 exponent is often used to describe the level of the IME adjustment, which in 2007 is 5.35 percent per 10 percent increment of teaching intensity. This multiplier is what the Congress has changed when it has altered the level of the IME adjustment. In fiscal year 2008 and thereafter, the multiplier will be set at 1.35, which corresponds to an adjustment of 5.5 percent. The resident-to-bed ratio reflects the number of residents training in the hospital and the number of licensed inpatient beds a hospital is operating. The resident count used in the IME formula, however, is capped at 1996 levels, with some exceptions. The MMA allowed for a redistribution of residency positions, which resulted in lower caps for hospitals that did not use all their slots and higher caps for those that applied for an expansion. Before the BBA, any additional residents a hospital trained resulted in an increase in its IME adjustment. The 0.405 exponent factor was derived from a Congressional Budget Office analysis of 1981 cost report data on the relationship between teaching intensity and costs per case and several other factors.
- 18 MedPAC’s March 2003 report to the Congress included an analysis that showed inpatient operating costs increase about 2.7 percent for every 10 percent increase in the ratio of residents to hospital beds (2.8 percent if capital costs are included). The MMA provided for a redistribution of some residency positions that brought down the residency caps for hospitals that were below their cap and raised the cap by as much as 25 residents for hospitals that wanted to expand residency programs or were already over their cap. The multiplier for this group is 0.66, which gives the 2.7 percent adjustment for every 10 percent increment in teaching intensity.
- 19 The capital IME adjustment is based on the following formula: $e^{(0.2822 \times \text{residents/average daily census})}$.
- 20 These included a special formula that created a fixed add-on of 35 percent for any hospital that obtains 30 percent of its patient care revenue (excluding Medicare and Medicaid) from state and local government subsidies. This criterion was viewed as a proxy for hospitals with unusually large uncompensated care loads; in most years, fewer than 10 hospitals have qualified.
- 21 The empirical estimate for the IME adjustment in 2004 would have been 1.9 percent if the fixed loss threshold for outlier payments were set so that the full 5.1 percent outlier pool were paid to hospitals. In fiscal year 2004, only about two-thirds of the outlier offset was paid back to hospitals.
- 22 This earlier estimate does not reflect DRG refinements and includes only operating payments. The estimate reflecting both operating and capital costs was 2.8 percent.
- 23 The IME adjustment in fiscal year 2004 was set at 5.5 percent for the first half of the year and at 6.0 percent for the second half, resulting in an average adjustment of 5.75 percent.
- 24 Our analysis also examined the use of residents to average daily census (the capital payment adjustment measure) in place of residents per bed and found similar empirical results. Payments increase about 1.8 percent for each 10 percent increment in this measure. Total indirect teaching costs are about the same under both measures.
- 25 DRG refinements proposed last year by the Commission yield a slightly lower empirical estimate for the DSH adjustment compared with estimates based on the current DRGs. The decrease in the coefficient estimate is an indication that DRG refinements are picking up some of the higher costs that may be associated with treating low-income patients. This is consistent with findings in Maryland’s rate-setting system regarding the effect of introducing APR–DRGs into their payment system.
- 26 It is important to remember that Medicare’s GME payments, as well as its IME payments, are intended to support this social benefit.
- 27 This second set of estimates reflects policies in place in 2004. In fiscal year 2007, CMS started using cost-based weights. Our estimates do not reflect this change, but we believe the likely impact on our empirical estimates would be small.
- 28 Case mix and outlier payments reflect what would have been paid to hospitals if the Commission’s DRG refinement proposal had been in effect in 2004.

- 29 The base case margin estimate used in this analysis adjusts 2004 margins to reflect full implementation of MMA DSH policies, a 5.5 percent IME adjustment that will be in place in 2008, and an outlier fixed-loss threshold that ensures the full 5.1 percent outlier pool is paid to hospitals. The analysis does not reflect the use of cost-based weights that were implemented in 2007. It also does not reflect behavioral changes that hospitals might make in response to payment rate changes. This simulated margin is a little higher than the actual margin in 2004.
- 30 A similar narrowing is observed for inpatient margins, with a spread of 17 percent narrowing by half that amount if the adjustment were brought to its empirical level.
- 31 To obtain the empirical estimate for the effect of teaching on hospital costs, we include only the resident-to-bed ratio in the regression. For the empirical level of the DSH adjustment, we include both the share of low-income patients and the resident-to-bed ratio.
- 32 All nonteaching facilities other than those receiving hospital-specific rates under the sole community hospitals program would receive an increase.
- 33 Accounting for severity also reduces the empirical cost effect of teaching by about 1 percentage point. Our analysis of the impact of just APR-DRGs (and not the other refinements the Commission recommended) on the empirical cost effect of teaching shows that the IME adjustment falls to 1.1 percent for each 10 percent increment in teaching intensity.
- 34 GAO compared the uncompensated care hospitals reported to CMS with what they submitted to a mandated state reporting system and found that the amount several hospitals reported to CMS as uncompensated care matched the amount they had reported to their state as either charity care alone or bad debts alone.
- 35 This issue arises from the practice of some Medicaid programs to limit the number of inpatient days they will cover and under Section 1115 waivers to make some Medicaid recipients eligible only for select services such as emergency care or prenatal services.
- 36 In 2004, 17 percent of all hospitals reported that they did not have a formal charity care policy, a slight improvement over the 20 percent in 2003. But the number of hospitals filling out the survey in 2003 was too small for statistical inference.

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SECTION
2B

Physician services

R E C O M M E N D A T I O N

The Congress should update payments for physician services in 2008 by the projected change in input prices less the Commission's expectation for productivity growth.

COMMISSIONER VOTES: YES 14 • NO 0 • NOT VOTING 0 • ABSENT 3

SECTION 2B

Physician services

Section summary

Our analysis of beneficiary access to physician care, physician supply, comparisons of Medicare and private fee levels, service volume, and quality of ambulatory care finds that most of these indicators are stable and the large majority of beneficiaries are able to obtain physician care. The volume of services used per beneficiary continues to grow significantly. In consideration of expected input costs for physician services and our payment adequacy analysis, the Commission recommends that the Congress update payments in 2008 for physician services by the projected change in input prices less the Commission's expectation for growth in productivity.

The Congress should update payments for physician services in 2008 by the projected change in input prices less the Commission's expectation for productivity growth.

In this section

- Are Medicare payments for physician services adequate?
- How should Medicare payments for physician services change in 2008?
- Update recommendation

Recommendation 2B

COMMISSIONER VOTES:
YES 14 • NO 0 • NOT VOTING 0 • ABSENT 3

Although the recently passed Tax Relief and Health Care Act directs funds to physicians in 2008, the sustainable growth rate (SGR) formula continues to call for substantial negative updates through

2015. Currently we do not see overall access problems, but the Commission is concerned that such future consecutive annual cuts would threaten beneficiary access to physician services, particularly those provided by primary care physicians. As a mechanism for volume control, the current national SGR has several problems, and the Commission has examined alternative approaches in a mandated report to the Congress, *Assessing Alternatives to the Sustainable Growth Rate System*. The report states that, ideally, Medicare's physician payment system would include incentives for physicians to provide better quality of care, to coordinate care (across settings and medical conditions), and to use resources judiciously.

As with other sectors, our approach for recommending updates for 2008 first considers payment adequacy from the most currently available data and then assesses the factors that will affect efficient providers' costs in the coming year. Following is a summary of our findings from this analysis for physician services.

Beneficiary access—Results from several surveys conducted between 2004 and 2006 show that beneficiary access to physicians is generally good with few statistically significant changes in recent years. Most beneficiaries are able to find new doctors and schedule medical appointments in an amount of time they find acceptable, but small subsets of beneficiaries report problems. Researchers have found that other factors, such as developments in local health systems, may be a major influence on beneficiary access (Lake et al. 2005, Trude and Ginsburg 2005).

Supply of physicians treating and accepting Medicare fee-for-service beneficiaries—Our claims analysis shows that the number of physicians providing services to fee-for-service Medicare beneficiaries has kept pace with growth in the beneficiary population. Also, according to a 2006 MedPAC survey of physicians, most physicians (80 percent) accept all or most new Medicare beneficiaries, with 97 percent reporting that they accept at least some. Other national surveys show similar results for 2005.

The Commission notes the importance of monitoring the future supply of physicians and plans to examine workforce issues in forthcoming work.

Private insurer rates compared with Medicare—To assess payment adequacy, we also compare Medicare’s physician fees with private insurer fees.

Averaged across all services and areas, the 2005 ratio of Medicare rates to private rates was essentially at the same level as in 2004, with Medicare rates computed as 83 percent of private rates. Within a market area and for a given service, the difference between Medicare and private fees may vary substantially.

Volume growth—Service volume per beneficiary continued to grow aggressively in 2005. Across all physician services, volume (as a function of service units and intensity) grew 5.5 percent per beneficiary, which matches the average annual volume growth seen in recent years. Among broad categories of services—evaluation and management, major procedures, other procedures, imaging, and tests—volume growth rates varied, but all were positive. As in previous years, per beneficiary volume for imaging grew the most, at about 9 percent.

Fee-schedule mispricing may be one factor contributing to disparity in volume growth among services. As certain procedures become increasingly profitable, physicians face financial incentives to favor them over less profitable services—putting less profitable services at risk of being underprovided. For example, work relative value units (RVUs) for rapidly growing services may need revaluation, and practice expense RVUs are subject to distortions due to data lags and assumptions about equipment pricing. The Secretary could play a lead role in identifying misvalued services through detailed analyses of volume growth. CMS or the Relative Value Scale Update Committee could use the results from these analyses to flag services for closer examination of relative work values. Alternatively, the Secretary could automatically correct such misvalued services. Additionally, revisiting the entire resource-based Relative Value Scale may be in order.

Some observers suggest that the pricing of individual services should account not just for input costs, but also for the value of the service and the price needed to ensure an adequate supply.

Ambulatory care quality—Our claims analysis shows small improvements in the quality of ambulatory care. We see increases in the share of beneficiaries receiving necessary ambulatory care and averting potentially avoidable hospitalizations. For some medical conditions, we see improvements in outcome measures concurrent with improvements in process measures. Few measures indicated a worsening of care; however, for 11 measures, fewer than two-thirds of beneficiaries in the sample received specified services indicated for their condition.

The Commission has recommended that the Congress establish a quality incentive payment policy for physicians in Medicare but acknowledges several challenges associated with measurement at the physician level (MedPAC 2005). Because we do not currently have well-established performance measures for all providers of physician services, policymakers might consider prioritizing the implementation of some pay-for-performance measures over others. Focusing measures on high-cost, widespread, chronic conditions to maximize benefits to beneficiaries and to the Medicare program might be a good short-term strategy. Further, measures that reflect coordination between health sectors (e.g., hospitals and physicians) will encourage and reward communication among providers, which may improve patient outcomes and reduce Medicare costs.

Input costs—CMS forecasts that input prices for physician services will increase by 3.0 percent in 2008. This forecast excludes productivity adjustments that are integrated into CMS's publicly released Medicare Economic Index (MEI); thus, it is higher than CMS's publicly released MEI. This input cost forecast is revised on a quarterly basis and may change as we approach 2008. Although professional liability insurance (PLI) continues to be the fastest growing input cost, PLI premium increases have slowed in the past few years. ■

Background

Physician services include office visits, surgical procedures, and a broad range of other diagnostic and therapeutic services. These services are furnished in all settings, including physician offices, hospitals, ambulatory surgical centers, skilled nursing facilities, other post-acute care settings, hospices, outpatient dialysis facilities, clinical laboratories, and beneficiaries' homes. Physician services are billed to Medicare Part B. Payments for these services (about \$58 billion in 2005) account for about 17 percent of total Medicare spending. If beneficiary cost sharing were included in physician spending calculations, total annual spending would be about \$70 billion.

Medicare pays for physician services according to a fee schedule that lists services and their associated payment rates. The fee schedule assigns each service a set of three relative weights intended to reflect the resources needed to provide the service. These weights are adjusted for geographic differences in practice costs and multiplied by a dollar amount—the conversion factor—to determine payments. In general, Medicare updates payments for physician services by increasing or decreasing the conversion factor. For further information, see MedPAC's Payment Basics publications, available on our website.¹

By law, these updates are determined by a formula called the sustainable growth rate (SGR), which ties physician payment updates to a number of factors, including growth in input costs, growth in Medicare fee-for-service (FFS) enrollment, and growth in the volume of physician services relative to growth in the national economy. Over the last several years, physician fees were slated to decrease in accordance with the SGR formula.

Recent laws, however, overrode cuts for the past four consecutive years and moved the negative updates to later years. The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) increased payments for all physician services through a 1.5 percent update to the conversion factor in 2004 and 2005 and instituted additional fee increases to certain physicians, particularly those in rural areas. The Deficit Reduction Act (DRA) again overrode the SGR by averting a cut to the 2006 conversion factor and holding payment rates for physician services at 2005 levels. (Although the conversion factor was not increased for 2006, refinements to the relative value units resulted in an overall update of 0.2 percent in 2006.) Most recently, the Tax Relief and Health Care Act effectively held 2007 payments at 2006 levels through a

conversion factor bonus.² Also, the Act extended through 2007 the work geographic practice cost index (GPCI) floor—originally imposed by the MMA and set to expire at the end of 2006.

The Tax Relief and Health Care Act also directs spending to physicians in 2008 through two other provisions. Physicians are eligible to receive a 1.5 percent bonus on all covered services they furnished to Medicare beneficiaries between July 1 and December 31, 2007, provided they submit to CMS an adequate number of approved quality measures. CMS will pay this quality reporting bonus to physicians as a lump sum in 2008. Another provision in the law establishes a \$1.35 billion fund to be used toward physician payments at the Secretary's discretion in 2008; the law explicitly allows the Secretary to direct the funds toward the 2008 update in the conversion factor.

Together, these four provisions in the Tax Relief and Health Care Act—the conversion factor bonus, the GPCI floor extension, the quality reporting bonus, and the physician fund—account for \$5 billion, which will be directed toward physician payments over the next three years.³ These spending increases will be financed through Medicare's Supplementary Medical Insurance (SMI) program (Part B), which is funded through general revenues (75 percent) and beneficiary premiums (25 percent).

Despite these additional payments, the SGR continues to call for substantial negative updates for 2008—the year for which we are making our recommendation—through at least 2015. The Commission is concerned that such consecutive annual cuts would threaten beneficiary access to physician services over time, particularly those provided by primary care physicians. As a mechanism for volume control, the current national SGR system has several problems, and the Commission has examined alternative approaches to it in a mandated report to the Congress, *Assessing Alternatives to the Sustainable Growth Rate System*, available through the MedPAC website.

In the SGR report, the Commission states that, ideally, Medicare's physician payment system would include incentives for physicians to provide better quality of care, to coordinate care (across settings and medical conditions), and to use resources judiciously. However, Medicare's current FFS payment system does not contain these incentives. It does not reward physicians who provide higher quality care or care coordination, and it offers higher revenues to physicians who furnish the most

services—whether or not the services add value or result from medical errors. These deficiencies must be corrected for the Medicare program to promote high-quality health care and avert unsustainable growth in spending. The Commission discusses steps to improve the payment system in its report to the Congress on the SGR. Under its mandate, the Commission will continue to consider ways to improve value in Medicare.

As with other sectors, our approach for recommending updates for 2008 first considers payment adequacy from the most currently available data and then assesses the factors that will affect efficient providers' costs in the coming year.

Are Medicare payments for physician services adequate?

The Commission's framework for assessing payment adequacy for physician services relies on several indicators. We cannot look at financial performance directly because physicians are not required to report their costs to Medicare, as are other providers such as hospitals. Instead, we consider other available indicators. We analyze information on beneficiary access to physician care, including beneficiary and physician survey information and physician supply data. We also compare Medicare's reimbursement levels with those of the private sector and examine changes in the volume and quality of physician services.

Access to physician services: Beneficiary indicators

Physicians are often the most important link between Medicare beneficiaries and health care. According to national survey data from the Medicare Current Beneficiary Survey (MCBS), 87 percent of noninstitutionalized beneficiaries report that a doctor's office or a doctor's clinic is their usual source of care. Beneficiary access to physicians, therefore, is an important indicator of access to health care generally as well as being an indicator of payment adequacy.

To assess beneficiary access to physician services, this section examines results from beneficiary and physician surveys and reviews data on physician supply. By design, many of the surveys' questions rely on respondents' views. For example, respondents use their own judgment when determining if they are able to

schedule timely appointments. Subjective responses can be useful measures for tracking beneficiary experience and perceptions over time, but perceptions of concepts such as "timeliness" may vary across individuals and subpopulations.

Additionally, it is difficult to determine what the appropriate level of access should be. Beneficiary judgments on access to physicians are made in an environment where most beneficiaries have supplemental insurance against out-of-pocket liability. This coverage effectively lowers their costs for physician visits, thereby diminishing the likelihood that cost will temper demand. Some economists might argue that a payment policy goal of no, or almost no, beneficiaries reporting access problems is inefficient or unattainable. Even so, monitoring for changes in access is crucial for the Medicare program.

We find access measures most useful, therefore, when looking for trends across years. They help us observe changes in beneficiaries' access to physicians over time and supplement our analysis of payment adequacy. However, our access measures do not necessarily inform us about the quality or content of physician-patient encounters.

MedPAC's 2006 beneficiary survey on access to physicians

Results from several surveys conducted from 2003 to 2006 show that beneficiaries appear to have steady access to physicians, with most reporting few or no problems. Most beneficiaries are able to schedule timely medical appointments and find new doctors, but small subsets of beneficiaries report access problems.

To obtain the most current access measures possible, the Commission sponsors a telephone survey. In our last three rounds—2004 to 2006—we surveyed both Medicare beneficiaries and privately insured individuals (age 50 to 64) to assess the extent to which access problems, such as appointment scheduling, are unique to the Medicare population. (Our survey does not distinguish FFS Medicare enrollees from those in Medicare Advantage because of difficulty identifying these individuals in the scope of the survey.) The results from this telephone survey are weighted to be nationally representative with respect to basic demographic variables. We did not survey Medicare beneficiaries younger than age 65 because of limited sample size.

Most Medicare beneficiaries have one or more doctor appointments in a given year. Therefore, one access indicator we examine is their ability to schedule timely appointments. The 2006 survey found that most Medicare beneficiaries and privately insured people age 50 to 64 did not have to delay getting an appointment because of scheduling issues (Table 2B-1, p. 102). Further, Medicare beneficiaries enjoyed lower rates of scheduling delays than their privately insured counterparts. In 2006, among those who tried to schedule a routine-care appointment, 75 percent of Medicare beneficiaries and 69 percent of privately insured individuals reported that they never experienced delays. Three percent of Medicare beneficiaries and 4 percent of privately insured individuals reported always experiencing delays. As expected, for illness or injury, timely appointments were more common. Among those who scheduled an appointment for an illness or injury, 84 percent of Medicare beneficiaries and 79 percent of privately insured individuals said they never experienced a delay.

Among those who indicated they had to wait longer for an appointment than they wanted, most reported that they took the later appointment date, but 8 percent of Medicare beneficiaries and 7 percent of privately insured individuals reported that they went to the emergency room (data not shown). As expected, the rate of emergency room use was higher for illness- and injury-related problems. Recent research on variation in the use of emergency departments found that longer waiting times for physician appointments and a higher number of physician office visits relative to the number of physicians in a community increased the rate of emergency room visits; the effects were greatest for people with low incomes (Cunningham 2006). The author suggests that physicians with full practices are less willing to see low-income patients in their offices and more likely to refer such patients to the emergency department.

Our survey also monitors beneficiaries' ability to find a new physician. Compared with the number who schedule doctor appointments, a considerably smaller number of beneficiaries seek a new physician during the year. Therefore, survey questions about problems finding a new doctor apply only to a small share of respondents (e.g., fewer than 10 percent are looking for a new primary care doctor). With this small subset, the differences we see across years and between privately insured and Medicare respondents are often not statistically significant. In our sample, 76 percent of Medicare beneficiaries and 75 percent of privately insured individuals who were looking for a new primary care physician reported that they

experienced no problems. These rates have been relatively stable over the years of the survey.

Although most individuals appear to have good access to primary care physicians, some concerns are worth noting. Among the subset of people who reported any problems in the last two years of this survey, Medicare beneficiaries were somewhat more likely than their privately insured counterparts to characterize their problem as big (versus small). Also, the share of Medicare beneficiaries indicating that they experienced big problems accessing a primary care physician grew slightly in both the 2005 and the 2006 samples. These trends in our samples, however, may not generalize to the actual population because of the small share of people looking for new doctors and the even smaller share reporting problems. (Specifically, fewer than 10 percent of the beneficiaries in our sample reported that they tried to find a new primary care doctor. Of them, only about one-quarter reported having any problems.) Nevertheless, these trends are important to monitor. Some subpopulations of beneficiaries may be experiencing more difficulty accessing primary care physicians in recent years and to a greater degree than privately insured individuals. Additional data are needed, however, to draw this conclusion.

Similar to the previous year, we found that access to new specialists in our sample was generally better than access to new primary care physicians; 80 percent of Medicare beneficiaries and 83 percent of privately insured individuals looking for a new specialist reported no problem accessing one. While this difference in our sample between Medicare beneficiaries and privately insured people is not large enough to be considered statistically significant, 2006 is the first year when problem rates were higher for Medicare beneficiaries than for privately insured people. Also, the share of beneficiaries reporting big problems finding a specialist significantly increased between 2004 and 2006. We will continue to monitor this change closely.⁴

Our survey asked a follow-up question to those beneficiaries who indicated they had a problem (big or small) finding a new physician (specialist or primary care physician, or both). This question asked if anyone from the doctor's office told them that their problem finding a doctor was because they were covered by Medicare. Eleven percent of these beneficiaries answered "yes" to this question in 2006. This share amounts to less than 1 percent of our entire Medicare sample and is smaller than it was in 2005. The MCBS also asks this question, and

**TABLE
2B-1**

Access to physicians is similar for Medicare beneficiaries and privately insured people

Survey question	Medicare (Age 65 and older)			Private insurance (Age 50-64)		
	2004	2005	2006	2004	2005	2006
Unwanted delay in getting an appointment:						
Among those who had an appointment, "How often did you have to wait longer than you wanted, to get a doctor's appointment?"						
For routine care						
Never	73%	74%	75% ^{a, b}	66%	67%	69% ^{a, b}
Sometimes	21	21	18 ^b	26	25	21 ^b
Usually	4	3	3 ^b	5	5	5 ^b
Always	2	2	3	3	3	4
For illness or injury						
Never	83	82	84 ^b	77	75	79 ^b
Sometimes	13	15	11 ^b	19	19	15 ^b
Usually	2	1	2	3	3	2
Always	2	1	1 ^b	2	2	2 ^b
Getting a new physician:						
Among those who tried to get an appointment with a new primary care physician or a specialist, "How much of a problem was it finding a primary care doctor/specialist who would treat you? Was it..."						
Primary care physician						
No problem	77	75	76	73	75	75
Small problem	11	12	10	15	16	15
Big problem	11	13	14	13	9	10
Specialist						
No problem	89	89	80 ^a	83	86	83
Small problem	5	6	7	8	7	9
Big problem	5	5	11 ^a	8	6	7
Not accessing a doctor for medical reasons:						
"In the past year, do you think you should have seen a doctor for a medical problem, but did not?"						
	6	7	8 ^{a, b}	11	12	11 ^b

Note: Numbers may not sum to 100 percent due to rounding. Missing responses are not presented. For the 2004 survey, n=4,122 (2,087 Medicare, 2,035 privately insured); for the 2005 survey, n=4,021 (2,012 Medicare, 2,009 privately insured); for the 2006 survey, n=4,029 (2,005 Medicare, 2,024 privately insured).
^a Indicates a statistically significant difference between 2006 and 2004 for the same group (Medicare or privately insured), at a 95% confidence level.
^b Indicates a statistically significant difference between the Medicare and privately insured populations in 2006, at a 95% confidence level.

Source: MedPAC-sponsored telephone surveys, conducted August-September 2004, 2005, and 2006.

results from its 2004 survey are very similar to our results. The Commission will continue to track this question closely in future surveys and perhaps develop additional survey questions to gain more insights.

Another set of questions in our survey examines reasons respondents give for not seeing a physician for their

medical problems. As in previous years, Medicare beneficiaries report better access than privately insured people on this measure, and the difference between the two is statistically significant. The 2006 survey found that 8 percent of Medicare beneficiaries and 11 percent of privately insured individuals thought they should have seen

a doctor for a medical problem in the past year but did not. Within this small subset, just 11 percent of the Medicare beneficiaries and 12 percent of the privately insured people listed physician availability issues (appointment time, finding a doctor) as the problem. The remaining reasons they gave included cost, procrastination, and low perceived seriousness of the problem (at the time of the illness).

Earlier beneficiary surveys

Earlier studies by CMS and other organizations also examine beneficiary access to physician services and have similar findings. As reported in our March 2006 report, the Center for Studying Health System Change (HSC) found that approximately 10 percent of Medicare beneficiaries and 17 percent of privately insured individuals reported delaying or not getting care in 2003 (Trude and Ginsburg 2005). Both Medicare and privately insured people waited a little longer for appointments in 2003 than in 2001. The authors state that the parallel movement of these indicators suggests that other factors, such as developments in the local health system, may influence beneficiary access as much as or more than Medicare payment levels.

An even larger beneficiary survey, the Consumer Assessment of Healthcare Providers and Systems[®] for Medicare FFS (CAHPS–FFS), includes two questions related to beneficiary access to physicians: one on access to specialists and the other on appointment scheduling for routine care. CMS did not sponsor this survey in 2005, but for 2004 nearly 95 percent of beneficiaries reported either no problem or small problems accessing a specialist. Also, most beneficiaries reported always or usually being able to schedule timely appointments for routine care. These rates have remained stable over the last several years. We also found that beneficiaries age 85 and older were least likely to report big problems finding a new specialist or getting an appointment. These patients may be more likely than younger patients to have long-established relationships with physicians.

CMS sponsored another survey—the Targeted Beneficiary Survey (TBS)—devoted specifically to beneficiary access to physicians in 11 market areas suspected of having access problems (Lake et al. 2005).⁵ Conducted in 2003 and 2004, the TBS found that, even in these selected areas, only a small percentage of beneficiaries had access problems attributed to physicians not taking new Medicare patients. The rates of access problems did not change between 2003 and 2004. In fact, in both years, 93 percent of beneficiaries surveyed on the TBS

said the ease of seeing a doctor in the past year had either stayed the same or gotten easier. In both years, the study showed that certain subgroups in these markets were more likely to experience access problems. For example, transitioning beneficiaries—those new to a market area, new to Medicare, or recently disenrolled from a Medicare Advantage plan—had slightly higher rates of reported problems seeing a specialist and “getting a personal doctor they were happy with since joining Medicare.” The rates of reported difficulty getting timely routine appointments or urgent care were similar to those of the other Medicare FFS beneficiaries in the survey. A more detailed discussion of this survey’s findings can be found in Chapter 2B of our March 2006 report.

MedPAC has begun studying ways Medicare may need to respond to changes in the Medicare population. This research will likely examine access issues related specifically to demographic differences. Recent work by the National Academy of Social Insurance calls for strengthening Medicare’s role in reducing racial and ethnic health disparities through improved data reporting and targeted bonus payments (Vladeck et al. 2006).

Access to physician services: Physician indicators

For our payment adequacy analysis, we also consider physician survey information and other physician indicators, such as trends in physician supply. For 2006, we conducted a physician survey that found that most physicians (97 percent) are accepting at least some new Medicare beneficiaries, with 80 percent reporting that they accept all or most new Medicare beneficiaries. Also, Medicare FFS claims data show that the number of physicians providing services to Medicare beneficiaries has more than kept pace with growth in the beneficiary population in recent years.

MedPAC’s 2006 survey of physicians

Findings from a recent MedPAC-sponsored survey of physicians present a mixed picture of physician willingness to accept new Medicare FFS patients. Most physicians (97 percent) accept at least some new Medicare FFS patients, and a smaller share (80 percent) accept all or most. Acceptance of new Medicare FFS patients compares favorably with Medicaid and HMO patients but is a little lower than for private non-HMO patients. Across all insurers, most physicians report that they are “very” or “somewhat concerned” about several aspects of practice, including reimbursement levels,

**TABLE
2B-2**

Most physicians accept new patients, 2006

	Type of patient insurance			
	Private, non-HMO	FFS Medicare	Non-Medicaid HMO	Medicaid (including HMO)
Percent of physicians who are accepting new patients*				
At least some new patients	98.3%	96.7%	86.3%	70.4%
All new patients	72.7	66.6	49.6	38.4
Most new patients	13.3	13.6	15.7	8.4
Some new patients	12.3	16.6	21.1	23.6
No new patients	1.7	3.3	13.7	29.6
Percent of physicians who are accepting at least some new patients				
Urban	98.5	97.2	86.4	68.4**
Rural	96.8	93.1	85.8	84.8**
Proceduralists	99.0	97.9	91.9**	75.4
Surgeons	99.1	99.1**	88.2	74.2**
Nonproceduralists	97.5	94.8**	83.6**	66.4**
Percent of physicians who said finding a referral was 'very difficult' for their patients*				
	3.2	6.8	14.3	50.8

Note: FFS (fee-for-service). Proceduralists include physicians in medical specialties that are procedurally oriented (cardiology, dermatology, gastroenterology, and radiation oncology). Nonproceduralists include physicians in all other nonsurgical specialties.
 *The distribution of responses is significantly different from FFS Medicare patients ($p < 0.0001$), chi-square test.
 **Responses by type of physician are statistically significant within insurance group, at a 95% confidence level.

Source: MedPAC-sponsored survey of physicians conducted by NORC at the University of Chicago and The Gallup Organization.

billing and paperwork, practice costs, and timeliness of claims payments. More physicians were concerned about reimbursement for Medicare FFS patients than for private non-HMO patients. Many physicians have reported recent changes to their practice to increase revenue. Increasing service volume, for example, may be an important factor, as most physicians report that their own productivity is a “very important” determinant of their individual compensation—to a greater extent than quality and patient satisfaction.

This survey was conducted by NORC at the University of Chicago and The Gallup Organization (Schoenman et al. 2006) and was fielded in the summer of 2006.⁶ The survey included nonfederal physicians who spent at least 10 percent of their patient care time with FFS Medicare patients.⁷ Physicians with closed practices—practices not taking any new patients, regardless of insurance

type—were excluded from survey questions about patient acceptance.

Physician willingness to accept new patients Among the physicians in our survey, 3.3 percent reported that they were not accepting any new Medicare patients (Table 2B-2). These rates are slightly lower for new private non-HMO patients (1.7 percent) but are higher for new HMO and Medicaid patients (13.7 percent and 29.6 percent, respectively). These results are similar to those found in the 2005 National Ambulatory Medical Care Survey (NAMCS), which we discuss later in this section.

Relative to the rates of acceptance of *at least some* new patients, the percentages of physicians reporting that they accept *all or most* new patients are lower across all insurance types. For example, about 97 percent of physicians reported that they accept at least some new Medicare FFS patients, and about 80 percent reported

**TABLE
2B-3**

Most physicians are concerned about several aspects of practice, 2006

Aspect and type of patients	Very concerned	Somewhat concerned	Not very concerned	Not at all concerned
Level of reimbursement				
Private, non-HMO patients	53.2%	38.9%	6.5%	1.4%
Medicare FFS patients	72.0	23.0	3.9	1.1
Non-Medicaid HMO patients	62.2	33.5	3.5	0.8
Medicaid patients	78.2	17.5	3.7	0.7
Billing and paperwork				
Private, non-HMO patients	49.6	40.8	8.8	0.8
Medicare FFS patients	51.5	35.1	10.6	2.7
Non-Medicaid HMO patients	53.5	37.8	7.2	1.5
Medicaid patients	56.4	32.7	9.4	1.5
Timeliness of claims payment				
Private, non-HMO patients	33.8	44.5	18.4	3.3
Medicare FFS patients	34.0	37.2	24.2	4.5
Non-Medicaid HMO patients	37.2	44.6	16.7	1.6
Medicaid patients	43.8	35.6	18.4	2.2

Note: FFS (fee-for-service).

Source: MedPAC-sponsored survey of physicians conducted by NORC at the University of Chicago and The Gallup Organization.

accepting all or most. For new private non-HMO patients, about 98 percent of physicians reported accepting at least some, and 86 percent reported accepting all or most. Acceptance of all or most new HMO patients (about 65 percent) or Medicaid patients (about 47 percent) is lower than for both Medicare FFS and private non-HMO patients.

Acceptance rates of Medicare FFS patients varied by physician characteristics, but this variation generally corresponds with physicians' overall patient acceptance, regardless of insurance type. Compared with urban physicians, a smaller but statistically insignificant share of rural physicians reported accepting at least some Medicare FFS patients (about 97 percent compared to 93 percent). Nonproceduralists (e.g., primary care physicians) were less likely than other types of physicians to accept new patients by each given insurance type (though this difference is not statistically significant for the private, non-HMO group).

Physicians more frequently reported difficulty referring their Medicare FFS patients (about 7 percent) than their private, non-HMO patients (about 3 percent). Conversely, physicians less frequently reported difficulty referring

their Medicare FFS patients than their HMO patients (about 14 percent) or Medicaid patients (about 51 percent). In further survey analysis, two-thirds of physicians reported that the level of difficulty in finding appropriate referrals for their Medicare FFS patients was "the same" or "better" than for their private non-HMO patients.

Not surprisingly, physicians who devoted a larger share of their practice to Medicare FFS patients were generally more likely to accept new Medicare FFS patients. The survey excluded specialties with typically low Medicare caseloads, such as pediatricians. Fewer than 10 percent of the physicians in our sample reported that they prioritized appointment slots by patient insurance. Of this relatively small subset of physicians, about 65 percent reported that their priority level for Medicare patients was unchanged or better than for the previous year.

Concerns about reimbursement and billing issues In our survey, most physicians indicated that they were "very" or "somewhat concerned" about reimbursement levels across patients of all insurance types (Table 2B-3). Specifically, about 53 percent of physicians were "very concerned" about reimbursement levels for their private non-HMO

**TABLE
2B-4**

Physician practice changes may link to compensation factors, 2006

	Percent
Physicians who reported:	
In the last year, their practice had:	
Increased number of patients	70.1%
Changed mix of personnel in practice	38.0
Expanded in-office tests and lab services	26.7
Expanded imaging services	19.2
Expanded equipment and supplies sales	5.9
That the factor below was a 'very important' determinant of compensation:	
Physician's own productivity	80.0
Measures of quality of care provided	32.7
Profiling or benchmarking of practice patterns	21.3
Patient satisfaction surveys	16.0

Source: MedPAC-sponsored survey of physicians conducted by NORC at the University of Chicago and The Gallup Organization.

patients, about 62 percent of physicians were similarly concerned for their non-Medicaid HMO patients, about 72 percent for their Medicare FFS patients, and about 78 percent for their Medicaid patients. A comparison of the relative ratings given for each payer (not shown in this table) reveals that a quarter of physicians reported that they were relatively more concerned about Medicare FFS reimbursement than private non-HMO reimbursement, while 70 percent reported similar levels of concern for these payment sources. For both private non-HMO patients and Medicare FFS patients, surgeons were most likely to report being “very concerned” about reimbursement. Proceduralists were next most likely and nonproceduralists were least likely to report being “very concerned” about reimbursement.

Physicians also reported concern about administrative burdens imposed by insurers. For private non-HMO patients and Medicare FFS patients, about half of all physicians reported being “very concerned” about billing paperwork and administration. Rates for Medicaid and HMOs were a little higher.

Compared with the previously mentioned concerns, physicians were less likely to be anxious about the timeliness of claims payments; this was true across all insurers. About one-third of physicians reported that they were “very concerned” with the timeliness of claims

payment for private non-HMO patients and Medicare FFS patients. Rates for Medicaid and HMO patients were, again, a little higher.

Practice changes Many physicians reported recent changes to their practice to increase revenue. Specifically, about 70 percent of physicians reported that in the last year they have increased the number of patients they see (Table 2B-4).⁸ About 27 percent of physicians reported that they expanded in-office testing and lab services and about 19 percent reported expanding imaging services. Approximately 38 percent reported changes to the mix of personnel they have in their practice (e.g., the share of administrative to clinical staff). Surveys conducted by the Center for Studying Health System Change have found similar results (Pham et al. 2004).

Perhaps related to efforts to increase patient caseloads, almost half of the physicians surveyed reported that, in the past year, they had increased the number of hours they worked per week; 12 percent indicated that they decreased the number of hours worked and 41 percent said their hours did not change.

Compensation factors Our survey also asked physicians about the factors that affect their individual compensation. Most—80 percent—reported that their own productivity (typically measured by their service volume) was a “very important” determinant of compensation (Table 2B-4).⁹ Other factors, including patient satisfaction, quality measures, and resource use, were considerably less likely to be important to their compensation. However, physicians who rely more heavily on capitated payments were more likely to report that these other factors were “very important” to their compensation. Our findings are similar to those found by HSC in their 2004–2005 survey (Reschovsky and Hadley 2006).

About 20 percent of physicians reported that they or their practice experienced pay-for-performance (P4P) incentives from private insurer(s), in the form of bonuses, withholds, or both.

Among these physicians, about 60 percent indicated that such payment incentives were “not very effective” or “not at all effective” in improving patient care. A little more than a third reported that they were “somewhat effective.” Survey limitations prevented us from exploring further the characteristics of programs that physicians found most and least effective.

Although more analysis is needed to draw conclusions about why physicians determined that P4P systems were

or were not effective, results suggest that the pervasive incentive for physicians to increase their income by increasing the quantity and intensity of services they provide may, in fact, be a greater influence on practice styles than current P4P programs. Also, these compensation incentives may help to explain the volume increases we see in Medicare FFS. As discussed later in this section, beneficiaries received, on average, 5.5 percent more services in 2005 than in the previous year, with similar growth seen the year before.

Earlier physician surveys

The NAMCS—a national physician survey conducted annually by the National Center for Health Statistics—also shows that a large majority of physicians accept some or all new Medicare patients. For 2005, this survey found that, among physicians with at least 10 percent of their practice revenue coming from Medicare, 92 percent accepted at least some Medicare patients (Cherry 2006). NAMCS also found that more physicians accepted new Medicare patients than privately insured patients in capitated and noncapitated health plans. Importantly, both the overall patient acceptance rate and the Medicare acceptance rate remained relatively steady compared with results from the 2003 and 2004 NAMCS.

HSC reported that only 3 percent of physicians with practices open to private patients completely closed their practices to new Medicare patients in 2004 and 2005 (Cunningham et al. 2006). In contrast, 73 percent of physicians with practices open to private patients reported that they accepted all new Medicare patients, 13 percent said they accepted most new Medicare patients, and 10 percent said they accepted some new Medicare patients. Cunningham and colleagues suggest that while there was a dip in acceptance of Medicare patients between the 1996–1997 survey and the 2000–2001 survey, some increases occurred in the 2004–2005 survey, which suggests stabilization.

Similar to the MedPAC-sponsored surveys, the HSC survey found that physician acceptance of new Medicare patients follows a trend similar to acceptance of new privately insured patients. The HSC study authors suggest, therefore, that overall health system dynamics have played a larger role in physician decisions about accepting Medicare patients than have Medicare payment policies. For example, compared with 2000, the study authors say that physician capacity constraints may have eased somewhat, decreasing physician pressures to limit the number of new patients—of any type—in their practices.

All rounds of HSC's survey show that acceptance of new Medicare patients continues to be lower for primary care physicians than it is for both medical and surgical specialists, but the most recent survey round found a statistical increase in the share of primary care physicians accepting new Medicare patients. Rates for specialists in the most recent survey were statistically unchanged from the previous round.

Among the 3 percent of physicians in the HSC survey who reported that they did not accept new Medicare patients, the top reasons were inadequate reimbursement, billing and paperwork, high clinical burden, and already full practice. This study did not explore reasons physicians gave for not accepting private patients, which occurred at a similar rate.

Some local market analyses reveal that physician surveys and patient surveys produce seemingly contradictory results. HSC found that, in some local markets, patients' assessments of access to physician care do not necessarily track with physicians' willingness to accept patients. In Boston, for example, HSC found relatively high rates of appointment delays reported by Medicare and privately insured near-elderly patients but relatively low rates of physician unwillingness to accept these patients. The reverse effects were reported in the Seattle area (Hargraves et al. 2003).

The small share of physicians who leave the Medicare market, or who report reluctance to serve Medicare beneficiaries, may be responding to a variety of factors other than, or in addition to, payment adequacy. These other factors may relate to local conditions such as physician supply, demand for physician services, and insurance market conditions. Also factoring into physicians' decisions to accept Medicare patients may be their dependence on referrals, the size of their Medicare patient caseload, the amount of time they are willing to devote to patient care, and their personal retirement decisions. Disentangling these other factors from Medicare payment adequacy is difficult. To some extent, comparing physicians' willingness to accept Medicare patients with their willingness to accept all patients helps to control for non-Medicare factors.

Changes in the supply of physicians

Our analysis of Medicare FFS claims data shows that the number of physicians providing services to Medicare beneficiaries has more than kept pace with growth in the beneficiary population in recent years. Comparing growth

**TABLE
2B-5****Number of physicians billing Medicare is increasing steadily**

	Number of Medicare patients in physician caseload				
	≥1	≥15	≥50	≥100	≥200
Number of physicians					
2000	514,419	444,187	398,905	351,012	274,059
2001	535,834	457,292	411,424	364,023	286,862
2002	544,615	466,299	419,269	370,144	291,593
2003	544,922	470,213	424,684	374,721	292,183
2004	561,514	483,945	440,462	393,730	315,398
2005	566,629	492,131	449,524	402,451	322,643
Percent growth, 2000–2005	10.1%	10.8%	12.7%	14.7%	17.7%
Physicians per 1,000 beneficiaries					
2000	13.8	11.9	10.7	9.4	7.3
2001	14.2	12.1	10.9	9.7	7.6
2002	14.3	12.3	11.0	9.7	7.7
2003	14.1	12.2	11.0	9.7	7.6
2004	14.4	12.4	11.3	10.1	8.1
2005	14.3	12.4	11.4	10.2	8.1

Note: Calculations include physicians (allopathic and osteopathic). Nurse practitioners, physician assistants, psychologists, and other health care professionals are not included in these calculations. Medicare enrollment includes beneficiaries in fee-for-service Medicare and Medicare Advantage, on the assumption that physicians are providing services to both types of beneficiaries. Physicians are identified by their Unique Physician Identification Number (UPIN). UPINs with extraordinarily large caseload sizes (in the top 1 percent) are excluded because they may represent multiple providers billing under the same UPIN.

Source: MedPAC analysis of Health Care Information System from CMS.

in the number of physicians with growth in the Medicare population, we see that, from 2000 to 2005, the number of physicians who billed Medicare grew faster than Medicare Part B enrollment. During this time, Part B enrollment grew 6.0 percent. In comparison, the number of physicians with at least 15 Medicare patients grew 10.8 percent (Table 2B-5).¹⁰ The number of physicians with 200 or more Medicare patients grew even faster at 17.7 percent. Therefore, the ratio of physicians per 1,000 beneficiaries grew more rapidly for physicians with higher Medicare caseloads. This growth reflects increases in the share of physicians seeing more Medicare patients. In 2005, a little more than half of all physicians billing Medicare saw at least 200 different Medicare patients.

Our claims analysis also shows that a large share of the 2005 physicians (80 percent) stayed active in the Medicare market during all six study years (2000 through 2005). Despite the overall increase in physicians who

regularly saw Medicare FFS beneficiaries, the supply of physicians was still somewhat dynamic, with small shares of physicians either starting or stopping their regular Medicare practice. These changes affect existing patient–physician relationships and could contribute to the small, but persistent, share of beneficiary complaints about access problems.

Traditionally, MedPAC has not examined workforce issues in the context of our update analyses. However, the Commission plans to study this issue, especially with respect to the supply of primary care providers. Although currently we do not see overall problems with physician supply, the aging of the baby boomers prompts us to examine the issue. Not only do we expect them to use more services as they age over the next several decades, but baby-boomer physicians will begin to retire. Thus, we plan to examine research and analysis on future workforce projections for both physicians and nonphysician

practitioners. Among the workforce issues to consider will be the factors that influence the choices medical students and residents make about their career specialty.

Assignment and participation rates To supplement our data on the supply of physicians treating Medicare patients and patients' access to physician care, we examine assignment rates (the share of allowed charges for which physicians accept assignment) and physician participation rates (the share of physicians signing Medicare participation agreements). Claims data show that 99.3 percent of allowed charges for physician services were assigned in 2005 (Figure 2B-1). That is, for almost all allowed services, physicians agreed to accept the Medicare fee schedule charge as the service's full charge.

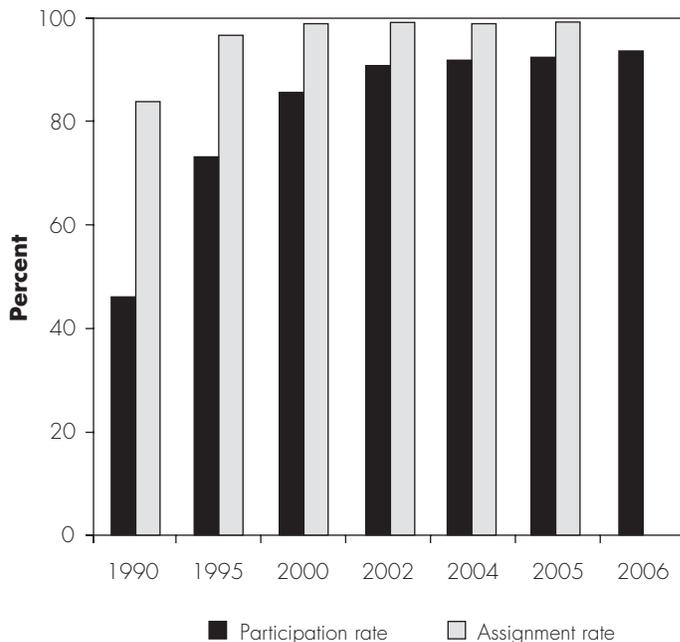
The number of participating physicians as well as the participation rate increased in 2005 and 2006. Participating physicians agree to accept assignment on all allowed claims in exchange for a 5 percent higher payment on allowed charges. Participating physicians receive other valuable benefits, including having their name and contact information listed on Medicare's website and being given the ability to verify a patient's Medicare eligibility and medigap status. Medicare's physician participation agreement does not require physicians to take Medicare patients.

While 96.2 percent of allowed charges were for services provided by participating physicians, 3.1 percent were for services provided by nonparticipating physicians who decided to accept assignment. Only 0.67 percent of allowed charges were for services provided by nonparticipating physicians who did not accept assignment.

For this small amount of nonassigned charges, physicians likely billed higher amounts, making the beneficiary liable for added coinsurance. This practice is called balance billing. Medicare limits the amount physicians may balance bill a patient. The total nonassigned charges for a service may not exceed the fee schedule amount by more than 9.25 percent. (This amount is equal to 115 percent of the nonparticipating physicians' allowed charge, which is 95 percent of the fee schedule amount.) In general, physicians do not consider the additional payment from balance billing to be worth forgoing the nonmonetary benefits associated with accepting assignment. A chief nonmonetary benefit, for example, is that when physicians accept assignment, they can receive payments directly from Medicare (less the beneficiary cost-sharing

FIGURE 2B-1

Participation and assignment rates have grown to high levels, 1990-2006



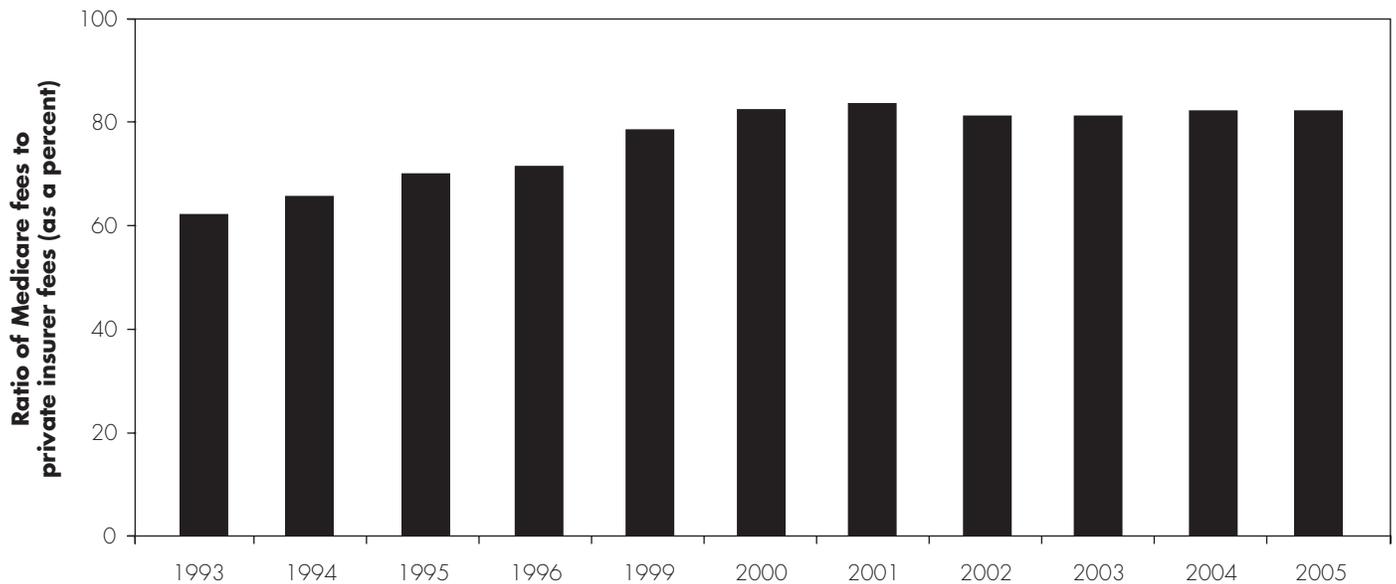
Note: Participation rate is the percentage of physicians and nonphysician providers signing Medicare participation agreements. Assignment rate is the percentage of allowed charges paid on assignment. The assignment rate for 2006 is not shown; it requires calculations from claims not yet available.

Source: Ways and Means Greenbook 2004, unpublished CMS data, and MedPAC analysis of Medicare claims for a 5 percent random sample of Medicare beneficiaries.

portion) rather than collecting from the beneficiary. This arrangement is a major convenience for many physicians. The high rate of assigned charges also reflects the fact that most physicians and nonphysician providers who bill Medicare agree to participate in Medicare—93.3 percent in 2006.

Private payer payment rates for physician services

As another means of gauging the adequacy of Medicare payments, we compare trends in Medicare's physician fees with payment rates of private insurers for physician services. Historically, Medicare payment rates for physician services were below private insurer rates, with Medicare averaging about two-thirds of private payment rates in the early 1990s. The difference between the two narrowed by the late 1990s and has essentially remained

**FIGURE
2B-2****Ratio of Medicare to private reimbursement rates for physician services is stable**

Note: Data are not available for 1997 and 1998.

Source: Direct Research, LLC, for MedPAC for 1993–2004 data. MedPAC analysis for 2005 data.

steady in recent years (Figure 2B-2). Averaged across all services and areas, 2005 Medicare rates were 82.6 percent of extrapolated private rates. In 2004, we found a similar ratio, 83.4 percent. Looking specifically at evaluation and management services, there is less of a difference between Medicare and private payers. In 2005, Medicare rates for such services were about 89 percent of private payer rates, and in 2004 Medicare paid rates that were about 90 percent of private payer rates for evaluation and management services.

The comparison of Medicare to private rates is based on an analysis of private claims for two large national insurers.¹¹ In addition to physician fee comparisons, the analysis estimates average annual fees based on private enrollment trends for different types of plans, including HMOs, preferred provider organizations (PPOs), point-of-service (POS) plans, and traditional indemnity insurance. Analyses from earlier years showed that Medicare payment rates were substantially lower than commercial rates until the late 1990s.

Although in the early to mid-1990s Medicare rates were about two-thirds of commercial payment rates for

physician services, beginning with 1999, Medicare rates consistently have been in the range of 80 percent of commercial rates. Enrollment shifts in the private market from higher paying indemnity plans to lower paying HMOs accounted for much of the narrowing between Medicare and private insurance rates from the mid-1990s to 2001.

Since 2001, the types of health plans that have had the highest rates of enrollment growth in the private sector are network plans with looser structures than HMOs—that is, PPOs and POS plans. The data show a slight increase in payment levels among private POS plans and among HMO plans, compared to Medicare between 2004 and 2005. The relationship between commercial PPO rates and indemnity plan rates compared with Medicare rates remained the same, and there was continued decline in indemnity plan enrollment. The combination of enrollment shifts and slight changes in payment differences did not result in a material change in the aggregate relationship across all payers when comparing private rates with Medicare rates.

While our research averages payments across all areas, some research by HSC has compared access rates by geographic area, with particular attention to the difference between Medicare and private insurer fees in each area (Trude and Ginsburg 2005).¹² This research has found that, despite differences in Medicare and commercial payment rates across markets, the proportion of Medicare beneficiaries reporting problems with access to care in markets with the widest payment rate gaps did not vary significantly from the proportion reporting problems in markets with more comparable payment rates. In addition, privately insured people age 50 to 64 did not appear to gain better access to care relative to Medicare beneficiaries in markets with higher commercial payment rates. These findings suggest that developments in local and national health systems may be more important influences on both Medicare beneficiary and privately insured access. Indeed, these conditions may affect beneficiary access as much as or more than Medicare payment levels.

Changes in the volume of physician services used

Changes in the volume and intensity of services may be another indicator of the adequacy of Medicare's payments for services. However, data on growth in the volume of physician services must be interpreted cautiously; there is evidence that volume goes up for some services when payment rates go down, the so-called volume offset (Codespote et al. 1998). Such a volume offset makes it difficult to interpret volume increases as a payment adequacy indicator. Nevertheless, analyzing service volume can give us some important information on trends in service use.

Using claims data from 2000 through 2005, we calculated per beneficiary growth in the units of services beneficiaries used. We then weighted the units of services used by each service's relative value units (RVUs) from the physician fee schedule. The result is a measure of growth—or volume—that accounts for changes in both the number of services and the complexity, or intensity, of those services (Table 2B-6, p. 112). We thus distinguish growth in volume from growth in units of service: Volume growth includes an adjustment for change in intensity; unit-of-service growth does not. Compared with an analysis of growth in spending, measuring growth in RVU volume removes the effects of price inflation.

The volume of physician services beneficiaries received continued to grow in 2005. Across all services, volume

grew 5.5 percent per beneficiary. This growth rate matches the average annual growth in volume seen in the five previous years. Among broad categories of services—evaluation and management, major procedures, other procedures, imaging, and tests—volume growth rates varied (from about 3 percent to about 9 percent), but all were positive. As we have seen before, per capita volume for imaging grew the most. From 2004 to 2005, imaging volume grew at a rate of 8.7 percent. The volume of other procedures (which includes nonmajor procedures and outpatient therapies) grew at a similar rate—8.5 percent.¹³ The categories with the lowest growth rates are major procedures (3.5 percent) and evaluation and management services (2.9 percent).

The imaging category includes several services with double-digit volume increases in 2005, including certain MRI and computed tomography procedures. Chapter 3 of MedPAC's March 2005 report discusses volume increases in imaging and explores a variety of policy options and recommendations to address volume and expenditure growth in imaging services, some of which were included in regulations for the 2007 Medicare physician fee schedule.

The other procedures category includes a subcategory called minor procedures, which had a volume growth of 15.6 percent per beneficiary. This subcategory includes drug administration and outpatient rehabilitation. Much of the growth is attributable to physical therapy services; we also find growth in drug administration, some of which may be due to payment changes included in the MMA.¹⁴ The volume of cystoscopy services also increased substantially.

Although all broad categories of service increased in volume in 2005, some individual services decreased. The largest decrease (8.6 percent) was for coronary artery bypass graft, which likely represents substitution of less invasive services and has been declining steadily over the last several years. We also see a small decline in coronary angioplasty, which is likely related to coding changes in 2005 that prohibit physicians from billing for both angioplasty and stent insertion (meant to include angioplasty procedures) for the same vessel or artery at the same time.

Overall volume increases translate directly to growth in Part B spending and are largely responsible for the negative updates required by the SGR formula. In fact,

**TABLE
2B-6**

Use of physician services per fee-for-service beneficiary continues to increase

Type of service	Change in units of service per beneficiary		Change in volume per beneficiary*		Percent of total volume*
	Average annual 2000-2004	2004-2005	Average annual 2000-2004	2004-2005	
All services	4.3%	5.7%	5.5%	5.5%	100.0%
Evaluation and management	2.2	1.5	3.6	2.9	40.0
Office visit—established patient	2.3	1.4	3.4	2.5	17.1
Hospital visit—subsequent	1.7	1.3	2.9	2.4	7.8
Consultation	3.9	2.1	5.5	3.6	5.7
Emergency room visit	2.5	2.6	5.5	5.0	2.7
Hospital visit—initial	0.7	1.0	1.3	1.2	1.9
Office visit—new patient	0.4	1.9	0.4	1.9	1.8
Nursing home visit	1.0	0.5	2.8	1.3	1.8
Imaging	5.5	6.5	10.3	8.7	16.3
Standard—nuclear medicine	11.3	5.4	15.7	7.1	2.4
Echography—heart	8.0	7.8	10.5	8.2	2.2
Advanced—CT: other	13.2	11.2	16.1	14.7	2.2
Advanced—MRI: other	17.0	14.7	18.3	14.2	1.9
Standard—musculoskeletal	3.7	5.9	5.0	4.9	1.2
Advanced—MRI: brain	17.4	6.4	17.0	7.1	1.1
Echography—other	8.6	12.4	12.6	12.5	0.8
Standard—chest	0.5	3.8	0.0	3.0	0.7
Standard—breast	9.5	10.2	-5.2	4.3	0.7
Imaging/procedure—other	11.1	15.4	10.6	12.8	0.6
Echography—carotid arteries	5.5	7.2	9.6	9.6	0.6
Advanced—CT: head	6.3	7.3	7.5	9.0	0.5
Major procedures	2.2	1.7	3.8	3.5	8.9
Cardiovascular—other	-0.2	-2.1	2.8	0.4	2.0
Orthopedic—other	7.4	7.2	7.7	7.7	1.1
Knee replacement	11.9	11.2	11.5	11.1	0.7
Coronary artery bypass graft	-4.3	-8.0	-5.3	-8.6	0.6
Coronary angioplasty	6.6	-0.6	6.5	-0.8	0.5
Explore, decompress, or excise disc	7.8	4.4	8.8	4.3	0.4
Hip fracture repair	-1.0	-0.8	-0.2	0.5	0.4
Hip replacement	6.2	2.0	6.2	2.0	0.4
Cardiovascular—pacemaker insertion	7.9	12.6	9.5	11.7	0.3
Other procedures	6.8	15.8	6.4	8.5	22.3
Minor—other, including outpatient rehab	14.6	27.8	14.4	15.6	4.8
Ambulatory procedures—skin	5.0	4.1	4.8	4.9	2.1
Oncology—radiation therapy	1.9	2.9	9.8	10.5	2.1
Minor procedures—skin	2.2	4.1	3.9	6.0	1.9
Cataract removal/lens insertion	1.2	6.9	1.5	7.8	1.8
Minor procedures—musculoskeletal	7.0	10.2	10.2	12.9	1.4
Colonoscopy	6.3	3.0	6.3	2.9	1.1
Oncology—other	4.3	13.5	4.0	12.8	0.9
Upper gastrointestinal endoscopy	3.7	1.1	3.4	1.2	0.6
Cystoscopy	3.1	3.6	4.2	13.9	0.5
Tests	7.1	3.0	8.2	6.2	5.2
Other tests	14.4	3.7	14.4	11.1	2.1
Electrocardiogram	2.0	4.2	2.2	0.8	0.7
Cardiovascular stress test	7.4	6.7	9.8	4.7	0.6
Electrocardiogram monitoring	2.7	7.3	3.9	1.0	0.2

Note: CT (computed tomography). To put service use in each year on a common scale, we used the relative weights for 2005. For billing codes not used in 2005, we imputed relative weights based on the average change in weights for each type of service. Some low-volume categories and services are not shown in the table but are included in the summary calculations. Services without relative value units (RVUs) are excluded from analysis (e.g., labs and Part B drugs).

*Volume is measured as units of service multiplied by each service's relative weight (measured by RVUs) from the physician fee schedule.

Source: MedPAC analysis of claims data for 100 percent of Medicare beneficiaries from all 12 months of each year.

the SGR target provides allowances for growth in three factors:

- inflation in physicians' practice costs,
- changes in enrollment in FFS Medicare, and
- changes in spending due to law and regulation.

It then allows for growth above those factors based on growth in real gross domestic product (GDP) per capita. GDP, the measure of goods and services produced in the United States, is used as a benchmark of how much growth in spending the U.S. can afford. The spending target in the SGR system combines all these factors. The basic SGR mechanism lowers the update when cumulative actual spending exceeds target spending. For 2005, for example, the cumulative impact of actual spending was estimated at about \$31.7 billion higher than the SGR target (i.e., allowed expenses) for that year (Office of the Actuary 2006). The disparity in actual spending relative to the target has grown mostly because of volume and legislated fee increases. Further, by statute, the SGR target was not increased to offset the fee increases enacted by the MMA and the DRA. As a mechanism for volume control, the current national SGR system has several problems, and the Commission has examined alternative approaches to it in a mandated report to the Congress, *Assessing Alternatives to the Sustainable Growth Rate System*.

Some observers have hypothesized that growth in volume of physician services is spurred by new technology, demographic changes, and shifts in site of service. Changes in medical protocols and a rise in the prevalence of certain conditions may also play a role. Volume growth of some services may be desirable, but analyses by MedPAC and others have found that much of the rise in volume is unexplained (Beeuwkes Buntin et al. 2004; Fisher et al. 2003a, 2003b). Moreover, it is difficult to determine whether growth in volume is improving the health and well-being of Medicare beneficiaries; indeed, unnecessary services can harm rather than help beneficiaries. In addition, rapid growth in volume and expenditures directly affects beneficiaries' out-of-pocket costs by driving up Part B cost sharing and premiums as well as increasing supplemental insurance premiums.

Our analysis of volume growth for this payment adequacy analysis shows that per capita service use is increasing for the vast majority of services, suggesting that beneficiaries are able to access Medicare-covered services. In a recent report, the Government Accountability Office (GAO)

also found growth in both the share of beneficiaries using services and the volume of services they used (GAO 2006b). GAO concluded that increases in utilization and complexity of services demonstrate that beneficiaries are able to access physician services. GAO also stated that the implications of these utilization trends for the long-term fiscal sustainability of the Medicare program require careful examination.

Volume growth as a signal for mispriced fee-schedule services

Fee-schedule mispricing may be one factor contributing to disparity in volume growth among services. In previous work, MedPAC has made recommendations on the importance of ensuring that fee-schedule payments are accurate to prevent market distortions for physician services (see text box, p. 114). For example, work RVUs for rapidly growing services may need revaluation, and practice expense RVUs are subject to distortions due to data lags and equipment pricing assumption issues.

Rapid volume growth for specific services may signal that Medicare's payment for those services is too high relative to the cost of furnishing them. Specifically, the physician work component of a given procedure may be overvalued if physicians (or their staff) are able to perform the procedure considerably more quickly than they did when it was first introduced. Consequently, physicians can increase their volume of these procedures with little change in the number of hours they work. As these procedures become increasingly profitable, physicians face clear financial incentives to favor them over services that may be less profitable.

Beneficiary access to undervalued services may be threatened if providers are confronted with incentives to avoid furnishing them relative to more profitable services. Evaluation and management services, for example, may have less opportunity for productivity gains because the clinician's face-to-face time with the patient is a major component of the service. It is, therefore, difficult for the physician to perform the office visit faster or fit more into a day's schedule, in contrast to some procedure-based services. Facing these incentives, new physicians may be less willing to choose specialties that frequently provide undervalued services, resulting in reduced access to certain physicians and certain services.

In the future, the Secretary could play a lead role in identifying misvalued services by conducting analyses that calculate changes in the productivity of individual

MedPAC's previous analysis of fee-schedule relative values

Given the importance of accurate payment, the Commission concluded in our March 2006 report to the Congress that CMS's process for reviewing the relative values of physician services must be improved (MedPAC 2006). The three five-year reviews, completed in 1996, 2001, and 2006, led to substantially more recommendations for increases than decreases in the relative values of services, even though many services are likely to become overvalued. We noted that physician specialty societies have a financial stake in the process and therefore have little incentive to identify overvalued services. We recognized the valuable contribution made by the Relative Value Scale Update Committee (RUC), but we concluded that CMS relies too heavily on physician specialty societies, which tend to identify undervalued services without identifying overvalued ones. We found that CMS also relies too heavily on the societies for supporting evidence.

To maintain the integrity of the physician fee schedule, the Commission recommended that CMS play a lead role in identifying overvalued services so that they are not ignored in the process of revising the fee schedule's relative weights; we also recommended that CMS establish a group of experts, separate from the RUC, to help the agency conduct these and other activities. This recommendation was intended not to supplant the RUC but to augment it. To that end, the panel should include members who do not directly benefit from changes to Medicare's payment rates, such as experts in medical

economics and technology diffusion and physicians who are employed by managed care organizations and academic medical centers.

MedPAC's public discussions on the importance of reviewing the work relative values of physician services coincided with meetings by the RUC. Consistent with the RUC's recommendations, CMS substantially increased the work values for evaluation and management services for 2007. Because these changes must be budget neutral, work values for other services declined somewhat. The RUC has since formed a committee to identify overvalued services and procedures.

The Commission also recommended that the Secretary, in consultation with an expert panel, initiate reviews of services that have experienced substantial changes in volume, length of stay, site of service, practice expense, and other factors that may indicate changes in physician work. The Secretary also could go further to institute automatic revisions for services that have experienced such changes.

Ensuring the accuracy of payments to other providers—including hospitals and post-acute care providers—is also important. To this end, the Commission has recommended refinements to the diagnosis related groups used in Medicare's hospital inpatient prospective payment system and to the case-mix systems used in Medicare's payment systems for post-acute care services. ■

services. Such analyses could begin by examining specialties that show rapid volume increases per physician over a given time period. Volume calculations would need to take into account changes in the number of physicians furnishing the service to Medicare beneficiaries and the hours those physicians worked. Analyses would also need to consider how changes in practice expenses (e.g., nonphysician staff and equipment) may increase the output of physician services.

CMS could use the results from these analyses to flag services for closer examination (by CMS or by the

Relative Value Scale Update Committee (RUC)) of their relative work values. The RUC could also conduct such volume analyses when making its work value recommendations to CMS, but the RUC's current review schedule (every five years) may not be timely enough to capture services that enjoy rapid productivity gains. Alternatively, the Secretary could automatically correct such misvalued services and the RUC would review the changes during its regular five-year review process. Last year, MedPAC made several recommendations to improve the RUC process (see text box).

Corrections to the practice expense values may also be in order. MedPAC is currently studying the impact of CMS's recent changes to the fee schedule practice expense calculation, including the use of newer practice cost data from some, but not all, specialties. We are also analyzing equipment pricing assumptions that are used to derive the practice expense values, particularly for imaging services. Ensuring that practice expense values are accurately priced reduces market distortions that make some services considerably more profitable than others, thus creating financial incentives to provide some services more than others.

Finally, revisiting the entire resource-based Relative Value Scale (RBRVS) system may be in order. Some observers suggest that the pricing of individual services should account not just for input costs, but also for the value of the service and the price needed to assure an adequate supply.

Changes in quality of ambulatory care

Our physician payment adequacy analysis also examines the quality of ambulatory care through Medicare claims data. Using a set of indicators, the Medicare Ambulatory Care Indicators for the Elderly (MACIEs), we measure the provision of necessary care and rates of potentially avoidable hospitalizations over time.¹⁵ Our analysis shows mostly small improvements and stability in these measures, but despite these improvements, for many measures, fewer than two-thirds of beneficiaries received the service(s) indicated for their condition.

Comparing 2003 with 2005, we find that most of the indicators we measured remained steady or showed small improvements (Table 2B-7). Specifically, among 38 measures, 22 showed improvement and 13 did not change statistically. This finding suggests that, in 2005, beneficiaries with selected conditions were a little more likely to receive certain indicated services for their condition and avert potentially avoidable hospitalizations related to their condition. Further, we see improvements on outcome measures concurrent with improvements on process measures for the same conditions.

We found a decline in quality, as defined by our measures, in only 3 of 38 measures. All three of these measures were related to breast cancer. We found small declines (2 percentage points to 3 percentage points) in general mammography screenings for females and clinically indicated imaging for women with a history or new diagnosis of breast cancer. Recent findings from the National Committee for Quality Assurance (NCQA)

**TABLE
2B-7**

Most ambulatory care indicators improved or were stable, 2003-2005

Indicators	Number of indicators			Total
	Improved	Stable	Worsened	
All	22	13	3	38
Anemia & GI bleed	2	2	0	4
CAD	3	1	0	4
Cancer	1	3	3	7
CHF	6	2	0	8
COPD	2	0	0	2
Depression	0	1	0	1
Diabetes	6	1	0	7
Hypertension	1	0	0	1
Stroke	1	3	0	4

Note: GI (gastrointestinal), CAD (coronary artery disease), CHF (congestive heart failure), COPD (chronic obstructive pulmonary disease).

Source: MedPAC analysis of Medicare Ambulatory Care Indicators for the Elderly (MACIE) from the Medicare 5 percent Standard Analytic Files.

also show slight declines in breast cancer screening for applicable women in commercial plans (NCQA 2006, 2005). NCQA notes that some public debate on the effectiveness of mammography may contribute to confusion about how often—and whether—women should be screened for breast cancer. NCQA's findings suggest that factors for this decline may not necessarily be related to payment adequacy. GAO reported recently that the current nationwide capacity for mammography remains adequate, but closures of certified mammography facilities outpaced openings between 2001 and 2004 (GAO 2006a). Some have suggested that physicians may be less willing to interpret mammograms because of malpractice concerns. However, reports that mammography rates for staff-model HMO patients have declined over the last several years suggest that broader factors may play a role.

Among the 38 indicators, 6 measured the occurrence of potentially avoidable hospitalizations or emergency department visits for selected chronic conditions. All these measures improved between 2003 and 2005. For example, in 2005, a smaller share of beneficiaries with chronic obstructive pulmonary disease (COPD) had COPD-related inpatient hospitalizations, and a smaller share of beneficiaries with diabetes were hospitalized for

serious short-term (e.g., diabetic coma) or long-term (e.g., nontraumatic amputations) complications.

We found that, for several conditions, declines in potentially avoidable hospitalizations occur concurrently with increases in the use of clinically necessary services for the same condition. For example, for diabetes we found decreases in the rate of diabetes-related hospitalizations over the same time period when we found increases in the use of diagnostic testing and follow-up. Therefore, we see improvements in outcome measures (lower rates of short-term and long-term complications) concurrent with improvements in process measures (higher rates of necessary care, such as lipid and hemoglobin testing).

In addition to measuring change from 2003 to 2005, we evaluated the underlying percentages of beneficiaries receiving the indicated care for their conditions. Indicators with the highest rates were generally for condition-specific follow-up visits. Among the lowest rates was the indicator for gastrointestinal work-up near the time of initial diagnosis of iron deficiency anemia. For 2005, we found that, for 21 of the 32 process measures, at least two-thirds of beneficiaries received the indicated care for their condition. At the same time, for 11 measures, fewer than two-thirds of beneficiaries received the specified care for their condition. Among these low-performing indicators, five improved since 2003, two worsened, and four did not change statistically. Further research is needed to analyze whether increased use of these affects *overall* volume, and to what extent.

Quality incentives for physicians

The Commission recognizes the importance of implementing P4P initiatives in Medicare but acknowledges the challenges associated with measurement at the physician level. Compared with the data infrastructure available in other areas—namely Medicare Advantage plans, dialysis facilities, home health agencies, and hospitals—physician offices lack sufficient data collection and reporting systems. Before P4P can be implemented for all physicians serving Medicare patients, a transition strategy may be needed. The Commission has recommended that the Congress establish a quality incentive payment policy for physicians in Medicare (MedPAC 2005). In previous work, we have stated that P4P policies should first focus on measuring quality-enhancing functions and outcomes associated with information technology use, such as if a physician office tracks whether its patients receive appropriate follow-up

visits. Claims-based measures are also important and should include prescription and lab values as soon as possible.

In August of 2007, CMS will publish proposed quality measures for 2008 reporting. By law, these measures must be adopted or endorsed through a consensus-based process by an organization such as the National Quality Forum or the AQA. The Institute of Medicine (IOM) and MedPAC have stated that, ideally, measures should be developed and used for all physician service providers to create incentives to provide better quality care. However, currently we do not have well-established measures for all providers of physician services. Thus, initially, policymakers might consider prioritizing the implementation of some P4P measures over others. Focusing measures on high-cost, widespread, chronic conditions to maximize benefits to the Medicare program and to beneficiaries might be a good short-term strategy.¹⁶

Although under this strategy some specialties may have more P4P measures than others, a targeted approach for measure selection would maximize benefits to the Medicare program and to beneficiaries. Further, measures that reflect coordination between health sectors (e.g., hospitals and physicians) will encourage and reward communication between providers, which may improve patient outcomes and reduce Medicare costs. For example, P4P incentives associated with congestive heart failure could reduce hospital admissions through better ambulatory care or lower readmission rates through improved communication between physicians, patients, and hospitals upon patient discharge. The Commission will continue to examine P4P initiatives in future work.

A discussion of how P4P initiatives fit into our update framework is included in Chapter 2.

How should Medicare payments for physician services change in 2008?

After considering current payment adequacy, we also analyze changes in input costs projected for the coming year. For physicians, we examine two factors to forecast input costs: change in input prices and the Commission's policy goal of increased productivity.

Input price increases

To measure input price inflation for physician services, we use information that CMS collects from various data sets and surveys. CMS uses this information in its calculation of the Medicare Economic Index (MEI), which provides a weighted average of price changes for inputs used to provide physician services. The text box, p. 119, discusses CMS's input cost calculations in more detail. For 2008, CMS forecasts that input prices for physician services will increase by 3.0 percent (Table 2B-8). This forecast excludes productivity adjustments that are integrated into CMS's publicly released MEI; thus, it is higher than CMS's publicly released MEI. Our update framework requires an examination of input costs for each sector—separate from productivity adjustments, which may be used across all provider sectors.

CMS's latest forecast of a 3.0 percent increase in overall input costs for physician services in 2008 is based on increases of 2.8 percent in wages and salaries and 3.7 percent in nonwage compensation. Practice expenses are projected to increase by 3.1 percent.¹⁷

Productivity growth

In making our update recommendation, the Commission has adopted a productivity objective, or goal, to encourage provider efficiency. Chapter 2 discusses the source of our productivity estimates and our rationale for incorporating productivity goals into our payment update analyses. We currently estimate productivity growth to be 1.3 percent for 2008. CMS also uses this methodology for adjusting input costs within the MEI.

Update recommendation

The Tax Relief and Health Care Act effectively held 2007 payments at 2006 levels by allowing the 2007 conversion factor to be cut by 5 percent (as directed by the SGR), but then offset by a 5 percent bonus to the 2007 conversion factor. Thus, compared with the conversion factor that physicians actually experienced in 2007 (inclusive of the 5 percent bonus), the Commission recommends that the Congress increase the conversion factor in 2008 by the projected change in input prices less the Commission's expectation for productivity growth. The latest forecast suggests that this update would be approximately 1.7 percent.

Considering our recommendation to increase payments to physicians in 2008, it is the Commission's view that

**TABLE
2B-8**

Forecasted input price increases and weights for physician services for 2008

Input component	Price increases for 2008	Category weight
Total	3.0%	100.0%
Physician work	3.0	52.5
Wages and salaries	2.8	42.7
Fringe benefits (nonwage compensation)	3.7	9.7
Physician practice expense	3.1	47.5
Nonphysician employee compensation	3.0	18.7
Wages and salaries	2.8	13.8
Fringe benefits (nonwage compensation)	3.4	4.8
Office expense	3.0	12.2
Professional liability insurance	5.2	3.9
Medical equipment	0.6	2.1
Drugs and supplies	2.9	4.3
Pharmaceuticals	3.7	2.3
Medical materials and supplies	1.8	2.0
Other professional expense	2.0	6.4

Note: Forecasted price changes for individual components are calculated by multiplying the component's weight (as listed in the Medicare Economic Index) by its price proxy. Forecasted price changes are not adjusted for productivity. Numbers may not sum to total due to rounding.

Source: Unpublished estimates from CMS, dated December 7, 2006.

the \$1.35 billion fund—established by the Tax Relief and Health Care Act—be directed entirely toward a conversion factor update for 2008.

IOM and MedPAC have stated that, ideally, P4P measures should be developed and used for all physician service providers to create incentives to provide better quality care. However, currently we do not have well-established measures for all providers of physician services. Thus, initially, policymakers might consider prioritizing the implementation of some P4P measures over others. Focusing measures on high-cost, widespread, chronic conditions to maximize benefits to the Medicare program and to beneficiaries might be a good short-term strategy. Further, measures that reflect coordination between health sectors (e.g., hospitals and physicians) will encourage and reward communication between providers, which may improve patient outcomes and reduce Medicare costs. The Commission considers that P4P initiatives would be implemented in a budget neutral manner.

RECOMMENDATION 2 B

The Congress should update payments for physician services in 2008 by the projected change in input prices less the Commission's expectation for productivity growth.

RATIONALE 2 B

Access, supply, and volume measures suggest that most Medicare beneficiaries are able to obtain physician services with few or no problems. Ambulatory quality measures are generally stable and improving. Our analysis of the most recently available data finds that Medicare payments for physician services are adequate.

IMPLICATIONS 2 B

Spending

- Our estimates indicate that this recommendation for 2008 would increase federal program spending by more than \$2 billion in the first year and \$5 billion to \$10 billion over five years, relative to current law. Note that any positive update would increase spending relative to current law because current statute calls for substantial negative updates from 2008 to 2015, under the SGR system. If the Secretary directs the \$1.35 billion fund (established by the Tax Relief and Health Care Act and discussed in the background section of this chapter) toward a conversion factor update for 2008, the spending implication of our recommendation would decrease, particularly for the one-year estimate.

Beneficiary and provider

- This recommendation would increase premiums and beneficiary liability for cost sharing. Coinsurance liability for Part B services would increase directly with the increase in the conversion factor. Part B premiums and the deductible would increase subject to statutory formulas and actuarial projections to ensure that the Medicare program has sufficient revenue to cover costs.

Additional comments

The Commission is concerned that differences in the profitability across physician services create financial incentives for physicians to favor furnishing some procedures and services over other, less profitable ones. In this environment, beneficiary access to relatively undervalued services—and to the providers that generally perform them—may be threatened. Misvalued services should be identified and payments corrected. For example, work RVUs for rapidly growing services may need revaluation, and practice expense RVUs are subject to distortions due to data lags and equipment pricing assumptions. Also, revisiting the RBRVS may be needed to explore the possibility of including other factors—in addition to input costs—in the pricing of individual services.

The Secretary could play a lead role in identifying misvalued services by measuring volume growth for specific services, taking into account changes in the number of physicians performing the service, and other factors. CMS or the RUC could use the results from these analyses to flag services for closer examination of their relative work values. Alternatively, the Secretary could automatically correct such misvalued services and the RUC would review the changes during its regular five-year review process.

With recent passage of the Tax Relief and Health Care Act, physicians did not experience a cut to their 2007 conversion factor. Further, additional payments were directed to physicians in 2008. Nevertheless, the consecutive annual cuts currently called for by the SGR system threaten beneficiary access to physician services over time, particularly those provided by primary care physicians. As a mechanism for volume control, the current national SGR has several problems, and the Commission examines alternative approaches to it and steps to improve the overall Medicare payment system in a mandated report to the Congress, *Assessing Alternatives to the Sustainable Growth Rate System*. ■

Input cost forecasts from CMS

To measure input price inflation for physician services, CMS first estimates the share, or weight, of physicians' practice revenues attributable to each input, based primarily on data supplied by the American Medical Association (AMA). CMS attributes 52.5 percent of physician revenues to physician work and 47.5 percent to practice expense, which includes a professional liability insurance weight of 3.9 percent. In 2004, CMS updated its input category weights based on 2000 survey data from the AMA. Rebasings these weights resulted in a decrease in the share of revenues going toward physician work and an increase in the share of revenues going toward practice expense. AMA is constructing a new survey that can help CMS update the Medicare Economic Index (MEI) category weights. The field dates of the survey have not yet been determined, however. CMS uses more timely data to forecast input price changes.

Although costs for professional liability insurance (PLI) continue to be the fastest growing input cost, PLI premium increases have slowed a little in the past few years. CMS shows that average increases for 2005 were 9.9 percent, compared with 18.7 percent in 2004 and 30.3 percent in 2003. Historically, changes in premiums for PLI have generally followed a cyclical pattern. From past experience, one would have predicted a slowdown in 2001 and 2002; in fact, premium increases did not slow until more recently (MedPAC 2003).

Some physicians—especially in certain geographic areas and with specialties that include high-risk procedures—report PLI premium increases that are much higher and thus take up a significantly larger percentage of their revenues than forecasted in the MEI. The MEI, however, is not designed to reflect price changes for individual physicians; instead, it accounts for an average price change for all physicians. The fee schedule, on the other hand, is the primary tool that reimburses services differentially to account for PLI premium variation by service and geographic area. For example, the fee schedule's PLI relative value units designate higher payments for services furnished by neurosurgeons and cardiothoracic surgeons because they pay higher PLI premiums. Similarly, the fee schedule's PLI geographic practice cost indexes adjust payments to physicians who practice in geographic areas with high PLI premiums, such as Detroit, Michigan. Given both of these factors, more than 20 percent of Medicare's payments to a Detroit neurosurgeon (under the fee schedule) can be attributable to PLI if a fairly high proportion of the neurosurgeon's practice consists of major procedures (MedPAC 2003). ■

Endnotes

- 1 http://www.medpac.gov/publications/other_reports/Sept06_MedPAC_Payment_Basics_Physician.pdf.
- 2 The Act allows the 2007 conversion factor to be cut by 5 percent as directed by the SGR but then funds a 5 percent bonus to the 2007 conversion factor through Medicare's Supplementary Medical Insurance (Part B).
- 3 Combining the conversion factor bonus and the quality reporting bonus, the Congressional Budget Office estimates that these two provisions will cost \$3.1 billion, the GPCI floor extension will cost \$500 million, and the physician fund will cost \$1.35 billion.
- 4 Although our survey is unable to distinguish between beneficiaries in FFS and those in Medicare Advantage (MA) plans, if we compare our results with the Medicare Advantage Consumer Assessment of Healthcare Providers and Systems[®] (CAHPS) survey, 82 percent of MA beneficiaries reported having “big problems” finding a specialist in the 2003–2004 round and 84 percent reported the same in the 2005–2006 round. The two rounds of the MA CAHPS survey are not comparable to each other because different methodologies were used in data collection, so it is difficult to compare this trend over the survey years with trends we see in the MedPAC survey.
- 5 These 11 selected areas were chosen based on relatively high rates of physician access problems reported on the 2001 CAHPS–FFS and in other CMS monitoring activities on physician access. CMS combined the 2001 CAHPS–FFS measures with state-level information taken from CMS monitoring activities, including environmental scanning reports by CMS regional offices and telephone calls to 1-800-Medicare and Medicare carriers in 2002. Areas designated as eligible for site selection generally met two criteria: (1) they had high rates of 2001 access problems reported on CAHPS–FFS, and (2) they were located in states where CMS monitoring efforts in 2002 indicated emerging physician access issues related to Medicare payment or Medicare physician participation. The 11 areas that met these criteria were Phoenix, AZ; San Diego, CA; San Francisco, CA; Denver, CO; Tampa, FL; Springfield, MO; Las Vegas, NV; Brooklyn, NY; Ft. Worth, TX; Seattle, WA; and Alaska (entire state).
- 6 With 934 physicians participating in the survey, the response rate was 56 percent.
- 7 Physicians in the following specialties were excluded: anesthesiology, radiology, pathology, nephrology, and pediatrics as well as smaller specialties unlikely to meet the other screening criteria (e.g., undersea medicine).
- 8 When asked about increasing the number of patients seen, physicians were not asked to distinguish between Medicare and non-Medicare patients.
- 9 About 72 percent of employee physicians reported that their own productivity was a “very important” determinant of compensation. The percentage of full or part practice owners was higher (83 percent) and could reflect the direct relationship between service volume and practice revenue in a FFS environment.
- 10 We conservatively categorized physicians who saw fewer than 15 patients under the assumption that they did not regularly serve FFS beneficiaries and provided services to beneficiaries for only a short time during a year or only on an emergency or temporary basis while covering for colleagues.
- 11 The methodology used for the comparison involves a calculation of a price index for each type of private plan (HMO, point-of-service, preferred provider organization, and indemnity). Each price index is a weighted average of service-level price comparisons between Medicare and private payment rates, using Medicare's volume in each service as the weights. The plan-specific estimates were then weighted based on the Kaiser Family Foundation/Health Research and Educational Trust (Kaiser/HRET) yearly estimates of private enrollment in each type of plan for 2005 (Kaiser Family Foundation/HRET Employer Health Benefits 2006 Annual Survey). For 2006, the Kaiser/HRET survey is beginning to report enrollment in high-deductible health plans with savings options, such as health savings accounts. This would be a new plan type for which we would develop a separate index for comparing Medicare and private insurance.
- 12 Our analysis relies on data from two national insurers, but—like all insurers—they face different market conditions in different areas. In a particular area, for example, there may be one dominant insurer that is better able to negotiate lower prices with providers, while other insurers have to pay higher rates. Although the data we use for our analysis from the two national insurers have a wide and diverse geographic distribution, we may not be fully able to capture the variation in private payment rates in different areas that results from local competitive circumstances. Our estimate of the ratio of Medicare to private payment levels may be lower or higher than the actual ratio across the nation.

- 13 These estimates include only services paid for under the physician fee schedule. The estimates would be higher if they included the volume of other services in CMS's broader definition of physician services, such as Medicare Part B drugs and laboratory services. The Commission has found, for example, that volume of chemotherapy drugs increased 12 percent from 2003 to 2004 and volume of erythropoietin (for patients without end-stage renal disease) grew 36 percent (Hogan 2005).
- 14 Prior to 2004, oncologists were allowed to bill for the administration of only one chemotherapy drug per day by injection, referred to as "push technique," regardless of the actual number of drugs administered. Starting in 2004, CMS allows oncologists to bill for each additional drug administered by push technique on the same day. The MMA also increased payments for drug administration services, but this payment increase is held constant in our volume analysis.
- 15 The text box (p. 96) of our March 2006 report describes the development of the MACIEs in more detail. We updated our analysis from last year's report with 2005 claims, but because our model makes comparisons between cohorts that span two years, we do not expect large differences from our findings in the previous report.
- 16 CMS is currently sponsoring a demonstration project that includes comprehensive performance measures for large medical groups. Many of the measures focus on high-cost widespread diseases, such as congestive heart failure and diabetes.
- 17 CMS also examines service-level changes in practice expenses in the physician fee schedule. MedPAC is currently examining the impact of CMS's recent changes to the fee-schedule practice expense calculation, including the use of newer practice cost data from some, but not all, specialties.

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SECTION
20

Outpatient dialysis services

R E C O M M E N D A T I O N

The Congress should update the composite rate in calendar year 2008 by the projected rate of increase in the end-stage renal disease market basket index less the Commission's expectation for productivity growth.

COMMISSIONER VOTES: YES 14 • NO 0 • NOT VOTING 0 • ABSENT 3

SECTION 2C

Outpatient dialysis services

Section summary

Each year, MedPAC makes a payment update recommendation for outpatient dialysis services for the coming year. We first judge whether payments for the current year (calendar year 2007) are adequate by considering beneficiaries' access to care, changes in providers' capacity, changes in the volume of services, changes in the quality of care, providers' access to capital, and Medicare's payments and costs for 2007.

Most of our indicators of payment adequacy are positive. Beneficiaries' access to dialysis care is generally good; there was a net increase of 79 facilities between 2004 and 2005. Providers, including the two largest dialysis organizations, did not change the mix of patients they treated between 2004 and 2005. However, facilities that closed in 2005 were more likely to treat African Americans and beneficiaries also receiving Medicaid benefits than those that opened. Although this phenomenon does not appear to affect overall access to care, the Commission is concerned about the continuity of care for African Americans and dual eligibles. The Commission will continue to track access to care by patients' demographic and clinical characteristics for the different provider types.

In this section

- Are Medicare payments adequate in 2007?
- How should Medicare payments change in 2008?
- Update recommendation
- Modernizing the outpatient dialysis payment system
- The use of home dialysis is declining

The growth in the number of dialysis treatments—one indicator of the volume of services—kept pace with patient growth between 2004 and 2005. The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) changed the way Medicare pays for dialysis drugs. As intended by policy, the payment rate for most dialysis drugs decreased while the prospective payment (the composite rate) that CMS pays for each dialysis treatment increased. The use of dialysis drugs continued to increase between 2004 and 2005 but at a slower rate than in previous years.

Quality of care is improving for some measures. More patients are receiving adequate dialysis and have their anemia under control. Some researchers have raised concerns about the potential overuse of erythropoietin, a drug used to treat anemia. A payment bundle that includes all dialysis drugs might encourage providers to use drugs more efficiently. One quality measure—patients' nutritional status—has not improved during the past five years. The Commission intends to study different ways to improve dialysis patients' nutritional status.

Recent evidence about trends in the increase in dialysis facilities and capacity suggests that providers have sufficient access to capital. The largest dialysis organizations and smaller chains have obtained private capital to fund acquisitions.

Between 2004 and 2005, the cost per treatment for composite rate services and dialysis drugs fell by 5 percent. The Medicare margin for composite rate services and dialysis drugs was 8.4 percent in 2005. The Medicare margin varies by provider type: The two largest dialysis organizations realized a higher Medicare margin than all other providers (10.7 percent vs. 2.6 percent). We project the Medicare margin will be 4.1 percent in 2007. This estimate reflects the update to the composite rate and the add-on payment in 2006 and 2007.

In summary, most of our payment adequacy indicators are positive. Therefore, the recommendation is to update the composite rate in 2008 by

the projected rate of increase in the end-stage renal disease (ESRD) market basket less the Commission's expectation for productivity growth. We base our productivity objective on the 10-year moving average of multifactor productivity in the economy as a whole, which is 1.3 percent for 2006. Under the current forecast of the ESRD market basket, the Commission's recommendation would update the composite rate by 1.2 percent in 2008.

The Congress should update the composite rate in calendar year 2008 by the projected rate of increase in the end-stage renal disease market basket index less the Commission's expectation for productivity growth.

Recommendation 2C

COMMISSIONER VOTES:
YES 14 • NO 0 • NOT VOTING 0 • ABSENT 3

The Commission remains concerned that Medicare continues to pay separately for drugs and laboratory tests that providers commonly furnish to dialysis patients. Medicare could better achieve its objectives of providing incentives for controlling costs and promoting access to quality services if all dialysis-related services, including drugs and laboratory tests, were bundled under a single payment. In addition to broadening the payment bundle, the Secretary should continue efforts to improve dialysis quality. The Commission has recommended that Medicare base a portion of payments on the quality of care furnished by facilities and physicians who treat dialysis patients (MedPAC 2004a). The Secretary also needs to continue to develop quality measures and to monitor and improve dialysis care. Together, these steps should improve the efficiency of the payment system, better align incentives for providing cost-effective care, and reward providers for furnishing high-quality care.

We conclude the chapter by noting that the recent payment changes mandated by the MMA have not increased the use of home dialysis. In the future, we may address issues about paying for home and in-center dialysis under a broader payment bundle and the benefits and costs of programs that counsel patients about the different dialysis methods before they require dialysis. ■

Background

End-stage renal disease (ESRD) is a chronic illness characterized by permanent kidney failure. ESRD patients include those who are treated with dialysis—a process that removes wastes and excess fluids from the body—and those who have undergone kidney transplantation and have a functioning kidney transplant.¹ Because of the limited number of kidneys available for transplantation, nearly three-quarters of ESRD patients undergo dialysis. Patients also receive items and services related to their dialysis treatments, including dialysis drugs to treat conditions that result from the loss of kidney function, such as anemia and bone disease.

The 1972 amendments to the Social Security Act extended Medicare benefits to people with ESRD who are eligible for Social Security benefits. This disease-specific entitlement is unique to Medicare. ESRD patients entitled to Medicare due to ESRD alone have the same benefits as other Medicare beneficiaries.

Medicare entitlement begins for most beneficiaries in the fourth month after the start of maintenance dialysis except for patients who have undergone a kidney transplant or who receive training to perform dialysis at home. If an employer group health plan (EGHP) covers a patient at the time of ESRD diagnosis, then the EGHP is the primary payer for up to 33 months of care.² Medicare is the secondary payer during this time. EGHPs include the health plans that patients were enrolled in through their own employment or through a spouse's or parent's employment before they became eligible for Medicare due to ESRD. During the first three months of dialysis, also known as the waiting period, the patient, state Medicaid program, insurer (usually an EGHP), or state renal program is responsible for payment.

In 2005, the Medicare program covered more than 320,000 dialysis patients. About one-quarter of newly diagnosed ESRD patients were entitled to Medicaid benefits and about one-quarter were covered by an EGHP (USRDS 2006). Medicare expenditures for dialysis and dialysis-related drugs totaled \$7.9 billion for both freestanding and hospital-based facilities. Medicare expenditures for composite rate services and dialysis drugs averaged about \$25,000 per patient in 2005.

Medicare changed how it pays for outpatient dialysis services in 2005

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) changed the way Medicare pays for dialysis treatments and dialysis drugs (as described in the text box, p. 130). The law increased the payment rate for dialysis treatments and decreased the payment rate for dialysis drugs.

However, the MMA did not change the two-part structure of the outpatient dialysis payment system. One part is a prospective payment called the composite rate that covers the bundle of services routinely required for dialysis treatment; the other part includes separate payments for certain dialysis drugs, such as erythropoietin, iron, and vitamin D analogs that were not available when Medicare implemented the composite rate. Providers receive the composite rate for each dialysis treatment provided in dialysis facilities (in-center) or in patients' homes.

As intended by policy, the composite rate increased from \$127 per treatment in 2004 to \$142 per treatment in 2005 through an add-on payment. The law funded this add-on payment by shifting some of the "profits" previously associated with payments for dialysis drugs and mandated that these changes occur in a budget-neutral manner. At the same time, the drug payment rate declined from \$93 per treatment to \$82 per treatment between 2004 and 2005.³

Are Medicare payments adequate in 2007?

Most indicators of payment adequacy are positive. Most beneficiaries have good access to care. There was a net increase in the number of dialysis providers in 2005, and the growth in the number of dialysis treatments generally kept pace with the growth in the number of patients. Dialysis drug spending and use grew more slowly between 2004 and 2005 than in previous years because the Congress lowered the payment rate for most dialysis drugs. Quality is improving for some (but not all) measures, and providers' access to capital is good. Between 2003 and 2005, the Medicare margin for composite rate services and dialysis drugs increased from 2.0 percent to 8.4 percent. We project that the Medicare margin will be 4.1 percent in 2007. This estimate incorporates the updates to the composite rate and the add-on payment in 2006 and 2007.

The outpatient dialysis payment system changed in 2005

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) significantly changed the payment method for composite rate services and dialysis drugs. First, the MMA mandated paying providers an add-on payment in addition to the composite rate in 2005. CMS set the add-on payment at 8.7 percent of the composite rate in 2005 and 14.5 percent of the composite rate in 2006. The add-on payment increased in 2006 because CMS updated it by 1.4 percent. The MMA mandated that CMS update the add-on payment based on the growth in drug expenditures beginning in 2006. In addition, in 2006, CMS moved to a payment method based on average sales price (ASP), which lowered the payment rate for dialysis drugs and required CMS to shift more drug profits to the add-on payment.⁴

Second, the MMA lowered the payment rates for most dialysis drugs closer to the prices providers paid. Beginning in 2005, CMS paid dialysis providers their acquisition cost—set at the average acquisition payment—for most (but not all) dialysis drugs.⁶ In 2006, CMS revised this policy by paying ASP plus 6 percent for all dialysis drugs. These changes have resulted in Medicare's drug payment no longer being as profitable as it was before 2005, when the program paid average wholesale price, reasonable cost, or a set (statutory) rate.

Lastly, the MMA and regulations that CMS issued to implement the new law adjusted the composite rate and the add-on payment for case mix and updated the wage index and the definitions used to define labor market areas. ■

The Congress updated the composite rate by 1.6 percent in 2006. The Tax Relief and Health Care Act of 2006 updates the composite rate by 1.6 percent beginning in April 2007. CMS updated the add-on payment by 1.4 percent and 0.5 percent in 2006 and 2007, respectively.

Beneficiaries' access to care

To assess beneficiaries' access to care, we monitor changes in patients' ability to obtain different types of dialysis and examine whether certain beneficiary groups face systematic problems in accessing care.

Access to different types of dialysis

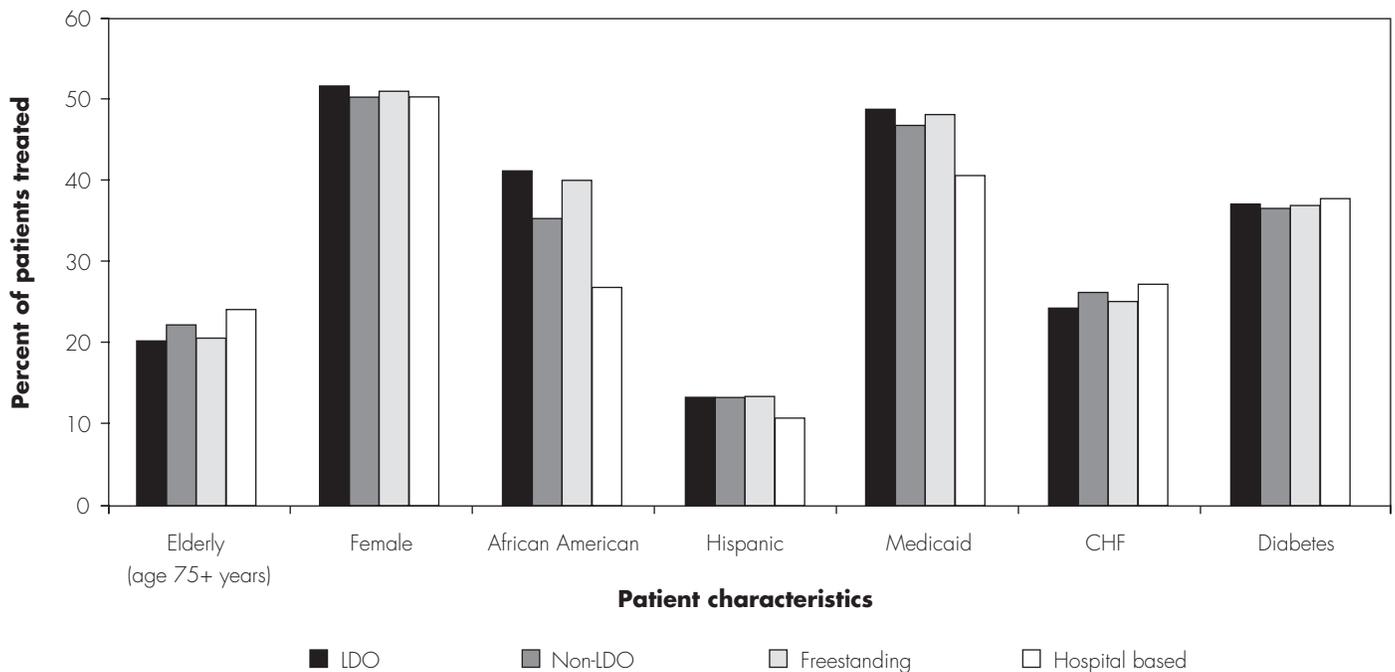
Access to specific types of dialysis—in-center hemodialysis, peritoneal dialysis (usually performed in patients' homes), and home hemodialysis—shows little change over time.⁵ Between 1998 and 2006, at least 97 percent of all facilities offered in-center hemodialysis and 45 percent offered some type of peritoneal dialysis—continuous cycler-assisted peritoneal dialysis or continuous ambulatory peritoneal dialysis. In 2003 and 2006, about 12 percent of facilities offered home hemodialysis (these data are not available before 2003).

Nonetheless, fewer patients overall are receiving dialysis in their homes. Most recent data from the United States

Renal Data System (USRDS) show that, between 1996 and 2004, the number of patients receiving hemodialysis in facilities increased by 6 percent per year; by contrast, the number of patients treated at home (using peritoneal dialysis) declined by 2 percent per year. USRDS reports that the number of in-center hemodialysis patients increased from about 194,000 in 1996 to 307,000 in 2004. By contrast, the number of peritoneal dialysis patients decreased from about 30,000 in 1996 to 26,000 in 2004 (USRDS 2006). Fewer than 2,000 patients undergo hemodialysis in their homes. At the end of this chapter, we discuss some factors that may affect the use of home dialysis, such as a patient's care before dialysis, physicians' characteristics, and Medicare's payment and coverage policies.

Did providers change the mix of patients they treated between 2004 and 2005?

We examined whether providers stopped treating certain types of patients by comparing the demographic and clinical characteristics of beneficiaries they treated in the years before and after the payment method changed. Our analysis included the following provider types: affiliated with the two large national chains, which we refer to as the large dialysis organizations (LDOs); not affiliated with the LDOs; freestanding; and hospital based. As

**FIGURE
2C-1****Characteristics of patients, by type of facility, 2005**

Note: LDO (large dialysis organization), CHF (congestive heart failure).

Source: MedPAC analysis of dialysis claims files, denominator files, and the Renal Management Information System file from CMS.

shown later in this chapter, some of these groups overlap; for example, 70 percent of all freestanding facilities are affiliated with the LDOs.

Figure 2C-1 presents, for each type of provider, the proportion of patients in 2005 who are elderly, female, African American, Hispanic, dually eligible for Medicaid, who have congestive heart failure, and who have diabetes. Across the different provider types, the proportion of patients with these characteristics does not differ by more than 1 percentage point between 2004 and 2005 (data not shown for 2004). This analysis suggests that providers have not changed the mix of patients they cared for in 2004 and 2005, including the LDOs, which account for 60 percent of all facilities.

This analysis also shows that, in 2004 and 2005, freestanding facilities were more likely than hospital-based facilities to treat African Americans and dual eligibles. As mentioned later in the chapter, freestanding facilities account for more than 85 percent of all dialysis facilities.

Do certain beneficiary groups face systematic problems in accessing care?

We updated our analysis to ascertain whether specific groups of patients have systematic problems accessing care. We compared the characteristics of patients treated by facilities that were open in 2004 and 2005, that newly opened in 2005, and that closed in 2004. In 2005, providers' capacity to furnish care improved with a net increase of 79 facilities and 1,104 hemodialysis stations.

Some of our findings are intuitive. Compared with facilities that remained open, facilities that closed in 2004 were more likely to:

- have less capacity (averaging 15 hemodialysis stations vs. 18 hemodialysis stations),
- be hospital based (67 percent vs. 12 percent),
- be nonprofit (65 percent vs. 20 percent), and

**TABLE
2C-1****Number of dialysis facilities is growing and share of for-profit and freestanding dialysis providers is increasing**

	1995	2006	Average annual percent change
Total number of:			
Dialysis facilities	2,721	4,594	5%
Hemodialysis stations	40,578	80,383	6
Mean number of hemodialysis stations	15	17	1
Percent of all facilities:			
Nonchain	N/A	23%	N/A
Affiliated with any chain	N/A	77	N/A
Affiliated with largest two chains	N/A	60	N/A
Hospital based	26%	13	-2
Freestanding	74	87	6
Rural	23	25	6
Urban	77	75	5
For profit	65	79	7
Nonprofit	35	21	<1

Note: N/A (not available). Nonprofit includes facilities designated as either nonprofit or government.

Source: Compiled by MedPAC from the 1995 Facility Survey file from CMS and the 2006 Dialysis Compare database from CMS.

- be less profitable than facilities that remained opened as measured by the Medicare margin (-13.7 percent vs. 3.9 percent).

However, the closed facilities provided a greater share of treatments paid for by Medicare than facilities that remained in business (83 percent vs. 70 percent). This finding may be due to the payment rate of commercial payers, which generally exceeds that of Medicare and Medicaid. Some dialysis providers have informed the Commission that they prefer to be located in areas where employer insurance covers more people.

We also found differences in the mix of patients treated by these provider types. Compared with facilities that opened in 2005, closed facilities treated a greater proportion of African Americans (48 percent vs. 29 percent) and dual eligibles (45 percent vs. 40 percent). By contrast, fewer Hispanics received care in closed facilities than in new facilities (8 percent vs. 17 percent). These findings may be partly linked to facility locations. A greater share of closed facilities were located in the New England and mid-

Atlantic regions, while a greater share of new facilities were located in the south and west—Texas, Florida, and California.

Importantly, these three groups have good access to facilities that remained open in both years. The proportion of African Americans, dual eligibles, and Hispanics treated in facilities that remained open in 2004 and 2005 closely match the share of these groups among all dialysis patients.

We found no substantial differences in the mix of patients by age, sex, or disease severity (measured by the Charlson index and the share of patients with diabetes and congestive heart failure) among the provider types. Closures do not disproportionately affect rural patients; 26 percent of closed facilities were in rural areas, compared with 24 percent of those that stayed open and 22 percent that opened in 2005.

Together, these findings suggest that most beneficiaries do not face systematic problems in obtaining care. Nonetheless, we will continue to monitor beneficiaries'

access to care among different provider types. We are particularly interested in tracking whether certain patient groups, such as African Americans, may be disproportionately affected by facility closures.

What types of providers furnish dialysis care?

An increasing proportion of dialysis providers are freestanding, have more capacity, are owned by publicly traded companies, and operate for profit (Table 2C-1 and Figure 2C-2). These trends in the profit status, size, and consolidation of dialysis providers suggest that the dialysis business is attractive to for-profit entities and that there are efficiencies and economies of scale in providing dialysis care.

Between 1995 and 2006, freestanding facilities increased from 74 percent to 87 percent of all facilities, while for-profit facilities increased from 65 percent to 79 percent of all facilities (Table 2C-1). The absolute number of hospital-based facilities decreased (from 708 to 611) during this time. Most (90 percent) freestanding facilities are for profit; by contrast, most (93 percent) hospital-based facilities are nonprofit (data not shown).

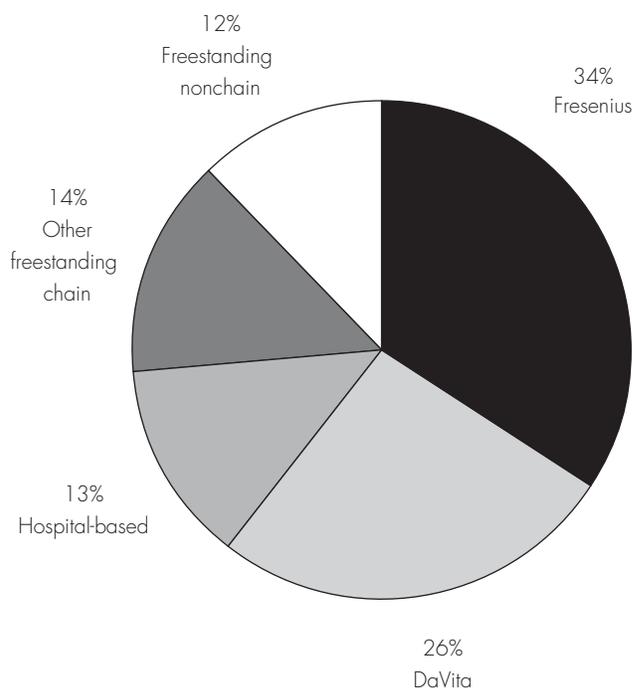
Between 1995 and 2006, dialysis facilities increased the number of hemodialysis stations, a trend consistent with the findings that freestanding facilities have more capacity than hospital-based facilities (18 stations vs. 14 stations, respectively) and chain-affiliated facilities have more capacity than those not affiliated with a chain (18 stations vs. 15 stations, respectively (data not shown)).

The dialysis industry rapidly consolidated over the past decade.⁷ More consolidation occurred in 2005 and 2006, when the four largest chains merged into two chains. Specifically, the merger of the second- and third-largest chains (DaVita and Gambro) became final in October 2005 and the merger of the first- and fourth-largest chains (Fresenius and Renal Care Group) became final in 2006. These two for-profit freestanding providers together account for 60 percent of all facilities and 70 percent of all freestanding facilities (Figure 2C-2). The consolidation resulted in at least one new for-profit chain (Renal Advantage). To merge with Gambro, the Federal Trade Commission required that DaVita divest 70 facilities, which Renal Advantage acquired.

In addition to these three chains, a nonprofit chain operates 4 percent of all facilities. Facilities not owned by these chains are:

FIGURE 2C-2

The dialysis industry is composed primarily of freestanding, for-profit facilities affiliated with a chain



Note: Fresenius and DaVita are the two largest freestanding chains. Total may not sum to 100 percent due to rounding.

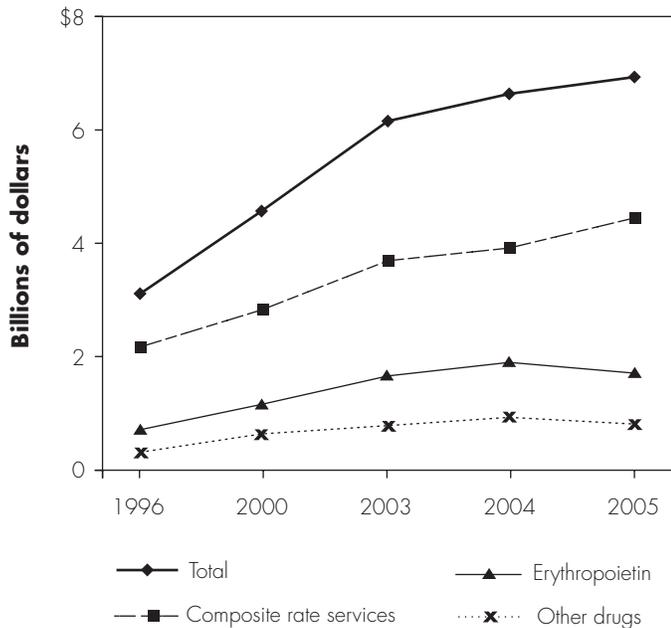
Source: Compiled by MedPAC from the 2006 Dialysis Compare database from CMS.

- 53 percent for profit and 47 percent nonprofit,
- 63 percent freestanding and 37 percent hospital based, and
- 36 percent affiliated with a small chain and 64 percent not affiliated with a chain.

Only the LDOs and the nonprofit chain operate facilities nationally (up to 45 states). The other chains operate in no more than 12 states and most operate in only 1 to 3 states.

Do providers have the capacity to meet patient demand?

Our analysis of the growth in the number of hemodialysis treatments, facilities, and patients suggests that the growth in capacity appears to have kept up with the demand for care during the past decade. Between 1995 and

**FIGURE
2C-3****Medicare's payments to freestanding dialysis facilities have increased steadily**

Note: In 2005, payments for composite rate services include composite rate and add-on payments.

Source: MedPAC analysis of 1996, 2000, and 2003–2005 outpatient dialysis claims from CMS.

2006, the number of dialysis facilities and hemodialysis stations grew at annual rates of 5 percent and 6 percent, respectively, keeping up with the 6 percent per year growth in the number of in-center hemodialysis patients (Table 2C-1, p. 132).

Another indicator that suggests providers are able to meet the demand for care is “same-store growth”—the change in the number of hemodialysis treatments provided in consecutive years by a given provider. Facilities can increase the number of treatments they furnish by treating more patients and by providing more treatments to existing patients.⁸ Our analysis of CMS’s facility surveys shows that between 2003 and 2004, providers increased the total number of hemodialysis treatments they furnished by 4 percent.

Volume of services

Between 1996 and 2005, the growth in the number of in-center hemodialysis treatments generally kept pace with

the growth in the number of dialysis patients. The number of dialysis treatments increased, on average, by 7 percent annually; the number of dialysis patients increased, on average, by about 6 percent annually.

Freestanding facilities treat most dialysis patients and therefore account for nearly 90 percent (\$6.9 billion in 2005) of spending for composite rate services and dialysis drugs (Figure 2C-3). Total payments to freestanding dialysis providers grew more slowly than historical trends would indicate. Aggregate expenditures increased by about 10 percent per year between 1996 and 2004 but then slowed to a 4 percent increase between 2004 and 2005 due to the MMA (Figure 2C-4).

The growth in total payments slowed because drug spending fell. As a result of the MMA’s changes:

- Payments for composite rate services increased by 14 percent between 2004 and 2005, while payments for these services increased 8 percent annually between 1996 and 2004.
- Drug payments to freestanding dialysis providers declined by about 10 percent (from \$2.8 billion to \$2.5 billion) between 2004 and 2005. By contrast, between 1996 and 2004, dialysis drug payments grew by about 15 percent per year, from \$951 million to \$2.8 billion.

The growth in composite rate payments between 2004 and 2005 is due to the add-on payment, mandated by the MMA and implemented by CMS in 2005. The decline in drug payments is also due to the MMA, which lowered the payment rate for most dialysis drugs at this time.

Although payments for dialysis drugs declined between 2004 and 2005, at issue is whether the volume of drugs declined and if the payment change affected patients’ outcomes. To analyze this question, we conducted three analyses.

First, we held the drug payment rate constant and looked at the dollar change in the total volume of services for the top 10 dialysis drugs in 2004. Applying the 2004 payment rate to 2005 volume suggests that erythropoietin volume increased by 2 percent and the volume of the other leading drugs increased by 7 percent in 2005. The volume of only two drugs—iron dextran and calcitriol—declined between 2004 and 2005 because providers replaced them with other drugs that treat the same comorbidities (iron deficiency and bone disease, respectively).

Second, we looked at the number of units of erythropoietin administered per treatment between 2003 and 2005. The units per treatment increased by 7 percent per year between 2003 and 2004 and remained relatively constant between 2004 and 2005 (declining by 0.6 percent). Other researchers have also shown that the mean amount of erythropoietin administered remained relatively flat between 2004 and 2005.⁹

Finally, we used available data on quality that providers report on their Medicare claims to assess whether the change in the drug payment method affected patients' outcomes. We looked at whether the proportion of patients who received adequate dialysis and have their anemia under control declined between 2003 and 2005. Dialysis adequacy, which measures the effectiveness of the dialysis treatment, is not affected by any one dialysis drug. Many factors—including the patient's age, body weight, and length of dialysis treatment—affect dialysis adequacy. Anemia is a common condition among dialysis patients. Researchers have linked higher doses of erythropoietin during the past decade to more patients having their anemia under control. The proportion of patients receiving adequate dialysis (i.e., with a urea reduction ratio greater than 65 percent) remained the same for the three years (94 percent in 2003 and 95 percent in 2004 and 2005). The proportion of patients whose anemia was under control increased from 86 percent in 2003 to 89 percent in 2004 and 90 percent in 2005.

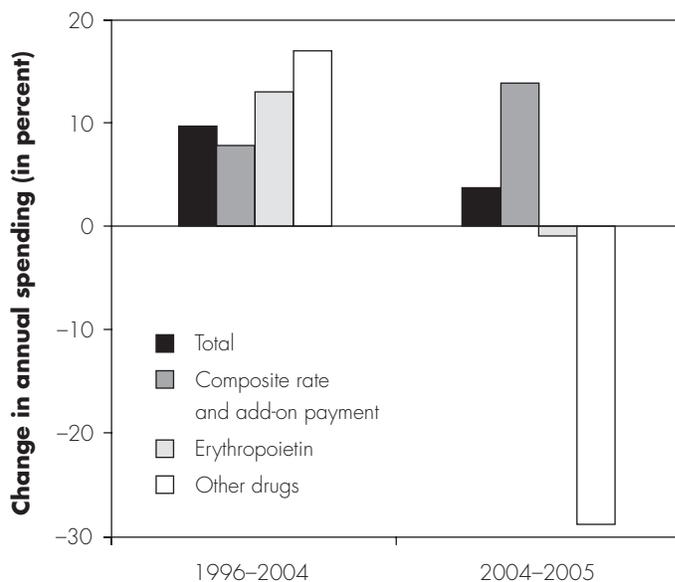
Why did providers increase the volume of dialysis drugs and is all of the growth in volume appropriate?

Use of dialysis drugs has grown for two reasons. First, there are new and effective drugs. Many of them—including erythropoietin and iron supplements—were approved by the Food and Drug Administration in the late 1980s. Since then, the National Kidney Foundation (NKF) has advocated use of certain drugs in its clinical guidelines. The use of many of these medications has enhanced the quality of care furnished to dialysis beneficiaries. For example, the increased use of erythropoietin has reduced the proportion of dialysis patients with anemia, which contributes to morbidity if not treated effectively. Medicare's coverage decisions also affect use of these drugs. For example, CMS decided to cover injections of levocarnitine for patients with ESRD beginning January 1, 2003.¹⁰

Second, paying according to the number of units given to patients means that providers derive greater profits

FIGURE 2C-4

The MMA increased spending for composite rate services and decreased spending for dialysis drugs



Note: MMA (Medicare Prescription Drug, Improvement, and Modernization Act of 2003). The MMA's changes to drug payment rates began on January 1, 2005.

Source: MedPAC analysis of 1996, 2000, and 2003-2005 outpatient dialysis claims from CMS.

from larger doses than from smaller ones (as long as Medicare's payment exceeds their costs). In addition, the profitability of certain dialysis drugs under the old (pre-MMA) payment method gave providers an incentive to use more of them. In 2005, the new drug payment method (i.e., paying facilities the average acquisition payment rate for most drugs) reduced but did not eliminate the profitability of drugs. Medicare's payment rate for the top dialysis drugs exceeded the average transaction price—as measured by the average sales price (ASP)—in 2005.¹¹ CMS calculates ASP based on actual transaction prices submitted quarterly by drug manufacturers. As shown in Table 2C-2 (p. 136), Medicare's payment rate in 2005 (for the leading five dialysis drugs, which accounted for 93 percent of drug spending) was greater than the average transaction price as measured by ASP. For example, Medicare's payment rate for erythropoietin was \$9.76 per 1,000 units in 2005 while the drug's average transaction price was \$8.77 in 2005.

**TABLE
2C-2****AAP exceeded ASP in 2005**

Drug	AAP	ASP
Erythropoietin	\$9.76	\$8.77
Doxercalciferol	2.60	2.07
Iron sucrose	0.37	0.34
Paricalcitol	4.00	3.70
Sodium ferric gluconate complex	4.95	4.47

Note: AAP (average acquisition payment), ASP (average sales price). These five drugs together accounted for 93 percent of drug expenditures for freestanding dialysis facilities in 2005. Beginning in 2005, CMS paid dialysis providers AAP for most dialysis drugs. In 2006, CMS revised this policy by paying ASP plus 6 percent for all dialysis drugs. We calculated ASP values by averaging four quarters of 2005 ASP data obtained from CMS.

Source: MedPAC analysis of 2005 ASP Drug Pricing files from CMS.

Historical trends in the use of erythropoietin demonstrate the concerns about paying for profitable services on a per unit basis. After CMS changed its method of paying for erythropoietin from a relatively fixed payment per dose between 1989 and 1991 to a per unit basis after 1991, per patient use of the drug substantially escalated—8 percent annually between 1991 and 2004 (from 7,100 units per week to 20,100 units per week) (USRDS 2006).¹² Before 1991, providers received \$40 per dose of less than 10,000 units and \$70 per dose of more than 10,000 units. Under the pre-1991 payment method, the average dose of erythropoietin (about 2,700 units per treatment) was much lower than under a per unit basis (Greer et al. 1999). CMS has tried to address the increasing per patient use of erythropoietin through a series of payment policies (as described in the text box).

Some researchers have questioned whether providers could furnish erythropoietin more efficiently and have suggested that appropriate use of intravenous iron could reduce erythropoietin dose requirements. Fishbane analyzed existing clinical trials and estimated that erythropoietin dose could be lowered by 27 percent to 75 percent with appropriate iron management (Fishbane 2006). Pizzi and colleagues estimated a net savings to Medicare of \$257 per patient per month if providers followed the NKF's anemia guideline (Pizzi et al. 2006). Data from the USRDS show some variation in spending for erythropoietin and intravenous iron across the different providers. Per patient per month spending varied from \$449 to \$568 for erythropoietin and from \$88 to \$112 for intravenous

iron across the large for-profit chains and hospital-based facilities (USRDS 2005). Some of this variation may be related to case mix, as measured by patients' characteristics.

As we discuss later in this chapter, broadening the payment bundle and including drugs and other commonly furnished services that providers currently bill separately might create more incentives for providers to furnish these services more efficiently. The Commission is interested in exploring the advantages and disadvantages of Medicare creating a dialysis drug payment bundle as an interim step until CMS bundles both composite rate services, dialysis drugs, laboratory tests, and other services dialysis patients need. Providers might be encouraged to use drugs more efficiently under a dialysis drug bundle than under the current payment method.

Another question is the extent to which patients benefit clinically from the increasing use of erythropoietin and a higher target hematocrit range. Researchers have reached conflicting conclusions. Some researchers have shown that the higher dose and target hematocrit range may be linked to poorer outcomes among some patients. Zhang and colleagues used administrative claims data to examine the association between erythropoietin dose and hematocrit and mortality in nearly 95,000 hemodialysis patients (Zhang et al. 2004). After adjusting for differences in disease severity, they found a significant relationship between increasing erythropoietin dose and mortality.

In a recent clinical trial, a higher target hematocrit value (40.5 percent vs. 33.9 percent) was associated with increased risk of death, myocardial infarction, hospitalization for congestive heart failure, and stroke among patients with chronic kidney disease (who were not on dialysis) (Singh et al. 2006). Improvements in quality of life were similar in both groups of patients. On the basis of these results, the researchers concluded that the use of a high target hemoglobin level provides no benefit for patients or payers. Other small clinical comparative trials have also looked at the effectiveness of maintaining higher hematocrit levels among patients with anemia (Besarab et al. 1998, Parfrey et al. 2005).

By contrast, other researchers have found that the risks of death and hospitalization are inversely associated with patients' hematocrit levels. For example, Ofsthun and colleagues reported that patients with lower hematocrit levels (less than 27 percent) had an adjusted relative risk of death of 2.1 compared with patients with higher

The erythropoietin monitoring payment policy

CMS has developed numerous policies to pay for erythropoietin since it began to cover the drug in 1989. CMS has based its policies on the hematocrit or hemoglobin level that providers report on their erythropoietin claims. Both measures assess a patient's anemia status by determining the percentage of red blood cells in the bloodstream.¹³ Higher hematocrit and hemoglobin values suggest that a patient's anemia is under control.

Initially, CMS used the Food and Drug Administration's (FDA's) recommended hematocrit target range of 30 percent to 33 percent as its cutoff for payment. In 1994, CMS adjusted its payment policy to reflect the FDA labeled indication that increased the upper limit to 36 percent. Between 1991 and 1997, payments for erythropoietin grew from \$246 million to \$735 million.

To address the rapid growth in the use of erythropoietin, CMS implemented a payment policy (the hematocrit management audit policy) in August 1997 that did not pay providers for the last month's dosage of the drug if a patient's hematocrit exceeded 36.5 percent for a three-month average. The agency also eliminated physicians' ability to make exceptions to its hematocrit guidelines. During the next few months, the average patient hematocrit stopped rising, and the average patient dose

of erythropoietin leveled off. CMS increased the upper limit to 37.5 percent in 1998, and average patient doses began to rise again.

Beginning in April 2006, CMS implemented a policy that requires providers to reduce erythropoietin dosage by 25 percent if the hematocrit level exceeds 39 percent. If providers fail to reduce the patient's dose, and there is no documentation to support the higher dose, CMS reduces that month's payment by 25 percent. In addition, CMS does not pay providers for monthly doses that exceed 500,000 units per patient. Typically, monthly doses per patient are less than 500,000 units; CMS data show that in 2004 the patient dose per month averaged about 77,000 units for patients weighing 150 pounds.

Beginning in October 2006, CMS refined the erythropoietin monitoring policy by eliminating the reference to a minimum dose reduction of 25 percent and by requiring providers to indicate whether they reduced the erythropoietin dose in response to the patient's hematocrit level. CMS expects providers to reduce the erythropoietin dose as the hematocrit level approaches 36 percent and to maintain hematocrit levels between 30 percent and 36 percent (CMS 2006). ■

hematocrit levels (between 33 percent and 36 percent) (Ofstun et al. 2003). The authors also reported that both the number of hospitalizations and the length of stay decreased as patients' hematocrit levels increased. Similarly, Wolfe and colleagues reported that standardized mortality ratios were lower for facilities with a larger proportion of patients who had their anemia under control (hematocrit level greater than or equal to 33 percent) (Wolfe et al. 2005).

More research may be needed to assess whether a higher erythropoietin dose and target hematocrit range significantly improve survival in dialysis patients (Cotter et al. 2006). Volkova and Arab concluded that published trials provide little evidence about the relationship between hematocrit level and mortality (Volkova and Arab 2006). A comparative (practical) clinical trial might offer an

opportunity to evaluate the costs and benefits of different strategies for treating anemia in real-world settings (Tunis et al. 2003). The Secretary might consider sponsoring such studies since Medicare is the largest purchaser of erythropoietin in the United States; total spending in 2005 included \$2 billion for dialysis patients and \$1 billion for other patients, primarily cancer patients undergoing chemotherapy treatments. Medicare expenditures for erythroid growth factors (erythropoietin and darbepoetin alpha, which is used primarily by nondialysis patients) account for the highest percentage of Medicare Part B drug spending. A federal government role may be warranted. In a systematic review of published clinical trials (which included a variety of drug classes), researchers showed that industry-sponsored studies were significantly more likely to reach conclusions that were

favorable to the sponsor than non-industry-sponsored studies (Bekelman et al. 2003). Finally, improving the availability of information about the clinical and cost effectiveness of medical services may lead to more efficient use of Medicare's resources.

Quality of dialysis care

CMS data show that the quality of dialysis care improved for some measures (Table 2C-3). Between 2000 and 2004, the proportion of hemodialysis patients receiving adequate dialysis increased. The trend in the adequacy of peritoneal dialysis is mixed. The proportion of patients receiving adequate dialysis increased for one peritoneal dialysis method (continuous ambulatory peritoneal dialysis) and declined for another method (continuous cycler-assisted peritoneal dialysis). Increasing proportions of both hemodialysis and peritoneal dialysis patients have their anemia under control.

We previously showed few differences in dialysis adequacy and anemia status by type of facility (e.g., rural vs. urban; freestanding vs. hospital based) (MedPAC 2005). For each provider type, more than 90 percent of patients received adequate dialysis and more than 87 percent of patients had their anemia under control.

Patients' anemia status is related to the dose of erythropoietin they receive. Some researchers have raised concerns about the increasing use of erythropoietin and higher hematocrit ranges, as discussed in the preceding section.

All hemodialysis patients need a vascular access—the site on the patient's body where blood is removed and returned during dialysis. Vascular access care is a clinical area in which substantial improvements in quality are needed. Use of arteriovenous (AV) fistulas, considered the best type of vascular access, is improving, from 30 percent to 39 percent of hemodialysis patients between 2000 and 2004. Clinical guidelines recommend that at least 40 percent of all hemodialysis patients have an AV fistula. CMS is leading a national quality initiative—Fistula First—to increase the use of fistulas. The current goal is to have fistulas placed in at least half of all new hemodialysis patients and to have a minimum of 66 percent of all patients who continue dialysis using a fistula. CMS aims to improve rates of fistula use to levels seen in Europe and Asia, which average 70 percent and 80 percent, respectively.

Nutritional care is another clinical area that needs substantial improvements. The proportion of dialysis

patients who are malnourished has remained relatively constant during the past decade. Researchers have shown that poor nutritional status increases rates of hospitalization and mortality of dialysis patients. Several factors may affect the nutritional status of patients, including physiological responses to ESRD, the dialysis process itself, presence of anemia, endocrine factors, and inadequate food intake secondary to certain conditions (e.g., anorexia and emotional distress).

Nutritional counseling is included in the bundle of services currently covered by the composite rate. Medicare's current conditions for coverage require that a dietician assess the nutritional and dietetic needs of patients, recommend therapeutic diets, and monitor adherence and response to diets. In CMS's proposal to update the current conditions for coverage, providers would also be required to monitor a nutritional measure—the serum albumin level—on a monthly basis. Providers would also be required to include nutritional status in their quality assessment and performance improvement program.

Augmenting dietary counseling with nutritional therapy might be one way to improve patients' nutritional status. The NKF has developed a clinical guideline for managing nutrition in dialysis patients that includes recommendations for supplementing dialysis patients' diet with nutritional supplements. Medicare does not cover oral nutritional supplements, and coverage policies for the other treatments, such as enteral tube feeding, intradialytic parenteral nutrition, and total parenteral nutrition are restrictive. Anti-kickback provisions in the statute limit the ability of providers to furnish patients with nutritional supplements at no cost or at reduced prices.

The Commission will consider recommending options to improve the nutritional status of dialysis patients in the near future. Our research agenda will include examining different alternatives to encourage the appropriate use of nutritional supplements by dialysis patients. One option is to include nutritional supplements in an expanded dialysis payment bundle that includes commonly furnished services under a single rate. As we discuss later in this chapter, broadening the dialysis payment bundle would modernize this payment system. A bundled approach would encourage providers to operate efficiently, as they retain the difference if Medicare's payment exceeds their costs. Separate payment for nutritional supplements could result in their overuse by providers (if Medicare's payment exceeded providers' costs). We have seen that providers do react to a service's profitability; the pre-MMA drug

**TABLE
2C-3**

Dialysis outcomes continue to improve for some measures

Outcome measure	2000	2001	2002	2003	2004
Percentage of in-center hemodialysis patients:					
Receiving adequate dialysis	91%	92%	92%	94%	95%
With anemia under control	74	76	79	80	83
Dialyzed with an AV fistula	30	31	33	35	39
Not malnourished	80	82	81	81	82
Percent of all peritoneal dialysis patients:					
Receiving adequate CAPD	69	68	71	70	73
Receiving adequate CCPD	62	70	66	65	59
With anemia under control	73	76	80	82	82
Not malnourished	56	61	60	63	62

Note: AV (arteriovenous), CAPD (continuous ambulatory peritoneal dialysis), CCPD (continuous cycler-assisted peritoneal dialysis). Data on dialysis adequacy and use of fistulas represent percent of patients meeting CMS's clinical performance criteria. Patients with anemia under control include those with hemoglobin ≥ 11 g/dL. Not malnourished includes patients with serum albumin ≥ 3.5 /dL.

Source: MedPAC analysis of 2000–2005 Annual Reports for ESRD Clinical Performance Measures Project from CMS.

payment method gave some providers an incentive to overuse certain drugs. Part of this work will consider the financial impact of including nutritional supplements in a broader bundle. We may also explore the legal issues surrounding providers furnishing oral supplements.

Medicare's ESRD disease management demonstration offers an opportunity to assess the effectiveness of providing oral nutritional supplements to enrolled patients. As part of the demonstration, the Fresenius Medical Care Health plan is providing oral protein supplements to enrollees who met the clinical criterion (serum albumin of less than 3.8 g/dL and a physician's order).

In addition to providing nutritional supplements, monitoring nutritional outcomes—such as serum albumin level—for all patients might lead to quality improvements. CMS could require providers to report nutritional outcomes on their dialysis claims. Currently, CMS collects this information for a sample of patients. There is precedent for collecting dialysis outcome information for all patients. CMS requires providers to report two outcomes—dialysis adequacy and anemia status—on their claims. Collecting nutritional information for all patients might give providers more incentive to improve upon the nutritional counseling services they furnish. The availability of information for all patients would enable CMS to calculate and post facility-level nutritional outcomes on its website. Patients could then compare the

quality of nutritional care different facilities furnish. CMS posts facility-level information about dialysis adequacy, anemia status, and survival on its website. Collecting nutritional outcomes for all patients would be especially important if Medicare were to include nutritional supplements in a broader bundle.

Access to capital

Recent financial information and evidence about trends in the increase in dialysis facilities suggest that providers have sufficient access to capital, which they need to improve their equipment and to open new facilities to accommodate the growing number of patients requiring dialysis.

Both small and large for-profit chains appear to have adequate access to capital, as demonstrated by the willingness of private investors to fund their acquisitions. For example:

- The mergers of Fresenius–Renal Care Group and DaVita–Gambro were financed through bonds and bank debt. Fresenius acquired 425 dialysis facilities and paid \$4.5 billion, or \$115,131 per patient. DaVita acquired 565 facilities and paid \$3.05 billion, or \$70,601 per patient.

- In 2006, Fresenius acquired the rights to sell an oral drug used to reduce phosphorus absorption in dialysis patients. Under this agreement, analysts anticipate that Fresenius will pay up to \$150 million over 10 years to Nabi Biopharmaceuticals.
- A private equity investor group funded the acquisition in 2005 of 70 facilities (divested by DaVita due to the merger with Gambro) by a newly created company, Renal Advantage. By 2007, Renal Advantage has grown to 80 facilities and acquired a clinical laboratory (Pack 2007).

Investor analysts note that the sector benefits from recurring revenues from dialysis treatments. But they also have pointed out that dialysis providers face potential pressures from private payers and Medicare. Although about three-quarters of these chains' patients are insured by Medicare as the primary payer, the proportion of revenues from Medicare ranges from 48 percent to about 58 percent. Revenues from commercial payers account for 30 percent to 42 percent of revenues for these chains.

The two largest national chains enjoyed positive ratings from financial analysts in 2006. As expected, the mergers of the four largest chains resulted in a downgrade in the credit ratings. Standard & Poor's analysts lowered Fresenius's and DaVita's ratings because of the increased debt burden the companies incurred to finance the mergers.

Factors other than Medicare's payments may affect access to the capital markets for the largest chains, because each chain operates other lines of business. The largest chains operate clinical laboratories and one of the chains also manufactures dialysis equipment and supplies and provides dialysis services internationally.

Payments and costs for 2007

We assess freestanding providers' costs and the relationship between Medicare's payments and freestanding providers' costs by considering whether current costs approximate what efficient providers are expected to spend on delivering high-quality care. We also consider the accuracy of the data freestanding providers include in their cost reports. We first examine two indicators of the appropriateness of current costs:

- trends in the growth of cost per treatment for composite rate services and dialysis drugs, and

- differences in cost per treatment for composite rate services between audited and unaudited 2001 cost reports for the same facilities.

We then present our calendar year 2007 projection of the Medicare margin for composite rate services and dialysis drugs for freestanding providers. The latest and most complete data available on freestanding providers' costs are from 2005.¹⁴

In modeling 2007 payments, we incorporate policy changes that went into effect between the year of our most recent data, 2005, and our target year, 2007. In 2006 and 2007, CMS paid providers ASP plus 6 percent for all dialysis drugs. The MMA requires that CMS annually increase the add-on payment based on the estimated growth in drug spending from the previous year beginning in 2006. The 2006 add-on payment of 14.5 percent includes an update of 1.4 percent. The 2007 add-on payment of 15.1 percent includes an update of 0.5 percent. Finally, we also incorporated the increase in the composite rate in 2006 (by 1.6 percent) and 2007. For the first quarter of 2007, the composite rate payment remains at the 2006 level. Beginning April 1, 2007, CMS will update the composite rate by 1.6 percent, as mandated by the Tax Relief and Health Care Act of 2006. To ensure that total add-on payments remain constant (required by the MMA), CMS will lower the adjustment to the add-on payment to 14.9 percent (from 15.1 percent) when the composite rate increase takes effect on April 1, 2007.

Appropriateness of current costs

Because the composite rate is set prospectively, providers have an incentive to restrain their costs for composite rate services. In contrast, because Medicare pays for dialysis drugs on a per unit basis, providers have an incentive to negotiate lower drug prices but they have little incentive to restrain drug volume. At issue is whether aggregate dialysis costs provide a reasonable representation of costs that efficient providers would incur in furnishing high-quality care.

Average cost per treatment for composite rate services and dialysis drugs increased between 2003 and 2004 and declined in 2005

We see no clear trend in providers' costs per treatment for composite rate services and dialysis drugs between 2003 and 2005. Overall, total cost per treatment decreased by 1.1 percent per year. Total cost per treatment rose by 3 percent between 2003 and 2004 and fell by 5 percent between 2004 and 2005. These changes primarily stem from the drug cost per treatment rising

between 2003 and 2004 and then falling between 2004 and 2005. The MMA changes to drug payment rates in 2005 slowed the growth in the aggregate volume of drugs providers furnished.

Cost growth varies across freestanding dialysis facilities, indicating that some facilities are able to hold their growth in cost well below others'. For example, between 2003 and 2005, per treatment costs fell annually by 4 percent for facilities in the 25th percentile of cost growth and rose by 3 percent for facilities in the 75th percentile.

This year, we also looked at whether facility-level characteristics and the mix of patients that facilities treat affect their costs. We estimated a cost function (using ordinary least-squares regression) to examine the determinants of costs at the level of the dialysis facility. The dependent variable was the natural log of total Medicare composite rate and dialysis drug costs. Independent variables included:

- facility-level variables such as affiliation with the LDOs, number of hemodialysis stations, total number of dialysis treatments, and location (rural vs. urban areas); and
- patient case-mix variables such as the proportion of each facility's patients who are elderly dual eligibles; the presence of congestive heart failure and diabetes; and the patient's average severity (Charlson) index, inpatient days, and body size measured by body mass index (BMI) and body surface area (BSA).

Providers' costs were significantly associated with economies of scale and location. The LDOs and facilities that had more hemodialysis stations and that provided more dialysis treatments exhibited significant cost savings relative to their counterparts. Facilities in urban areas had higher costs per treatment than rural facilities.

A number of patient case-mix variables were significantly associated with facility costs. An increasing proportion of diabetics lowered a facility's costs. Providers' costs are linked to patients' body size: Higher BSA values or low BMI values raised costs. Higher facility costs were also associated with an increasing proportion of the number of days patients were hospitalized. The number of inpatient days may be a proxy for patients' severity of illness. In addition, facilities with a higher total number of inpatient days probably incur, on average, greater costs per treatment because they have to spread their fixed costs across fewer total treatments (Medicare's payment

to the hospital covers the dialysis provided to hospitalized patients).

Hirth et al. (1999) also found that composite rate costs were significantly lower for facilities affiliated with the largest chains. They reported that higher costs were associated with certain dialysis practices (using a synthetic dialysis membrane, not reusing dialyzers, and longer treatments) and with hospital-based facilities. Finally, the researchers reported only two demographic variables associated with costs; an increasing proportion of Hispanic patients decreased costs while an increase in patients' bilirubin levels (an indicator of liver disease) increased costs.

Auditing cost reports lowered average dialysis cost per treatment in 2001 For dialysis providers, MedPAC has looked at the effect of using audited cost reports when examining the appropriateness of current costs. We do so because MedPAC's analysis of costs uses only Medicare-allowable costs. In addition, audited cost reports are available for this sector. In the Balanced Budget Act of 1997, the Congress mandated that the Secretary audit cost reports of dialysis providers once every three years. The Commission's predecessor—the Prospective Payment Assessment Commission (ProPAC)—raised concerns about the reliability of dialysis cost reports and the need to have an accurate measure of the cost of providing dialysis services (ProPAC 1997).

Correcting costs to reflect the findings from these auditing efforts is not new. ProPAC corrected dialysis costs using the findings of the Health Care Financing Administration's (HCFA's) 1988 and 1991 audits (ProPAC 1997, 1993). MedPAC corrected dialysis costs using the findings from HCFA's 1996 audit, and the Government Accountability Office (GAO) adopted this correction in its analysis of dialysis payments and costs (GAO 2004, MedPAC 2003a).

We do not correct the costs of other providers—hospitals, skilled nursing facilities, and home health agencies—because this information is not generally available. There is no statutory requirement that CMS regularly audit the cost reports of other providers who submit cost reports to the agency. CMS rarely audits the cost reports of these other providers for accuracy, and the few audits the agency does conduct tend to focus on variables that are unrelated to our cost analysis. If sufficient audited cost report data were available for these other providers, however, we would assess the effect of the audit and make a similar correction.

**TABLE
2C-4****Medicare margin in 2005 varies
by type of freestanding provider**

Provider type	Percent of spending by freestanding facilities	Medicare margin
All	100%	8.4%
LDOs	72	10.7
Non-LDOs	28	2.6
Urban	83	8.5
Rural	17	7.9

Note: LDO (large dialysis organization).

Source: Compiled by MedPAC from 2001 and 2005 cost reports and 2005 outpatient claims submitted by facilities to CMS.

We used the most recent audited data that are available—2001—to examine the potential effect of CMS’s audit. We compared the cost per treatment calculated from audited and unaudited 2001 cost reports from the same providers.¹⁵ Each cost report includes an indicator giving its status: as submitted, settled without an audit, settled with an audit, reopened. The proportion of 2001 cost reports that CMS settled with an audit has increased from 1 percent to 20 percent since 2003. By contrast, CMS has audited fewer than 1 percent of 2005 cost reports.

For the same facilities, the cost per treatment from their audited cost reports differed from the cost per treatment before CMS audited their reports. The audit primarily affects the cost per treatment for composite rate services, not the drug cost per treatment. For facilities whose cost reports were settled by an audit, the cost per treatment for composite rate services decreased by about \$7 (from \$144.41 to \$136.51). By contrast, their drug cost per treatment did not change. We expected this finding because the audits primarily target those cost fields that can affect the Medicare payments a facility receives. CMS considers the costs reported for dialysis, not drug costs, when determining whether the agency will reimburse providers for bad debt. Looking at the components of composite rate costs—capital, labor, other direct, and administrative—the audit correction is greater for administrative costs than for the other components.

Based on these results, we determine payment margins using the results of the 2001 audit. For facilities with audited cost reports, we calculated the ratio of allowable

costs to reported costs in 2001—94.5 percent for the cost per dialysis treatment. We then apply this correction to the costs of composite rate services for facilities for which CMS has not yet settled their cost reports (about 80 percent of facilities in 2005).

The Medicare margin for freestanding providers

The Commission assesses current payments and costs for dialysis services for freestanding dialysis facilities by comparing Medicare’s payments for composite rate services and dialysis drugs with providers’ Medicare-allowable costs. As mentioned earlier, the latest and most complete data available on freestanding providers’ costs are from 2005.

For 2005, we estimate that the aggregate Medicare margin for composite rate services and injectable drugs is 5.5 percent without the audit correction (data not shown) and 8.4 percent after correcting for the audit (Table 2C-4). Aggregate margins vary based on a facility’s affiliation with the LDOs. This finding stems from differences in the cost per treatment. Our regression analysis indicates that total cost per treatment was 6 percent lower for the LDOs than their counterparts after adjusting for patient case mix and other facility-level characteristics.

Urban facilities have a slightly greater Medicare margin than rural facilities. Although urban facilities have greater costs per treatment than rural facilities (as mentioned earlier), urban facilities have greater payments per treatment than rural facilities. Aggregate margins vary less based on the location because a similar share of the LDOs and the non-LDOs are located in rural areas.

Since 2003, aggregate margins for composite rate services and dialysis drugs have trended upward (from 2 percent in 2003 to 4 percent in 2004). Changes in total payment and cost per treatment can explain this direction. Between 2003 and 2005, the total payment per treatment grew by 4 percent each year because of increasing drug use and the legislated increase in the composite rate by 1.6 percent in 2005. At the same time, the total cost per treatment rose by 3 percent between 2003 and 2004 but fell by 5 percent in 2005.

Based on 2005 payment and cost data, we estimate that the 2007 aggregate margin is 4.1 percent. This estimate reflects the Congress’s update of the composite rate in 2006 (by 1.6 percent) and in 2007. For the first quarter of 2007, the composite rate payment is held at the 2006 level. Beginning April 1, 2007, the Tax Relief and Health Care

Act of 2006 updates the composite rate by 1.6 percent. This estimate also reflects the update of the add-on payment in 2006 and 2007 (by 1.4 percent and 0.5 percent, respectively).

How should Medicare payments change in 2008?

CMS’s market basket index for composite rate services projects that costs will increase by 2.5 percent between 2007 and 2008. This forecast may change because the agency updates it quarterly.

MedPAC’s update framework reflects the expectation that, in the aggregate, providers should be able to reduce the quantity of inputs required to produce a unit of service while maintaining service quality. Prospective payment is designed to promote efficiency and providers should be expected to increase productivity. To estimate productivity increases, MedPAC uses the 10-year moving average of multifactor productivity in the economy as a whole, which is 1.3 percent for 2006.

Update recommendation

On the basis of our review of payment adequacy for outpatient dialysis services and expected cost changes in the coming year, the Commission recommends that the Congress update the composite rate in 2008 by the ESRD market basket index (2.5 percent) less the Commission’s expectation for productivity growth (1.3 percent). This recommendation would update the composite rate by 1.2 percent.

RECOMMENDATION 2 C

The Congress should update the composite rate in calendar year 2008 by the projected rate of increase in the end-stage renal disease market basket index less the Commission’s expectation for productivity growth.

RATIONALE 2 C

Most of our indicators of payment adequacy are positive, including beneficiaries’ access to care, volume of services, quality of care, and access to capital. The Medicare margin has trended upward between 2003 and 2005.

Spending

- Because there is no provision in current law to change the composite rate in 2008, this recommendation will increase federal program spending relative to current law by between \$50 million and \$250 million for calendar year 2008 and less than \$1 billion over five years.

Beneficiary and provider

- This recommendation increases beneficiary cost sharing but would maintain current levels of beneficiary access to dialysis care. No negative effects on beneficiary access to care are anticipated because of the increase in beneficiary cost sharing. This recommendation is not expected to affect providers’ willingness and ability to provide quality care to Medicare beneficiaries.

Note that some dialysis providers help financially needy patients pay for Part B premiums and medigap policies through a fund administered by the American Kidney Fund. In addition, Medicare reimburses dialysis providers for bad debt incurred from furnishing composite rate services.

Modernizing the outpatient dialysis payment system

The Commission has recommended that the Congress broaden the payment bundle to modernize the outpatient dialysis payment system (MedPAC 2003b). Medicare could provide incentives for controlling costs and promoting quality care by broadening the payment bundle to include drugs, laboratory services, and other commonly furnished items that providers currently bill separately and by linking payment to quality.

A bundled rate would create incentives for providers to furnish services more efficiently. For example, a bundled rate would remove the financial incentive for facilities to overuse separately billable drugs under the current payment method. In addition to an expanded bundle, changing the unit of payment to a week or a month might give providers more flexibility in furnishing care and better enable Medicare to include services that patients do not receive during each dialysis treatment.

A bundled rate would also simplify the outpatient dialysis system. The MMA created the add-on payment to the

composite rate from some of the profits that Medicare paid providers under the pre-MMA drug payment method. The MMA requires that CMS update the add-on payment based on the previous year's increase in drug expenditures. Under a bundled rate, it would no longer be necessary for CMS to separately update the add-on payment to the composite rate.

It would be necessary to adjust payment for factors affecting providers' costs under a broader bundle. Otherwise, facilities may be underpaid for treating medically complex patients. Another issue to consider is whether the payment rate should vary by provider type. The Commission has previously recommended that the Congress eliminate differences in paying for composite rate services between hospital-based and freestanding facilities and that the Secretary use the same payment method to pay for all dialysis drugs provided by both facility types (MedPAC 2005).

GAO recently released a study that supported bundling Medicare's payment for composite rate services and dialysis drugs (GAO 2006). As mandated by the MMA, CMS is exploring the creation of a broader payment bundle. The MMA also required that CMS conduct a three-year demonstration to test the design of a bundled ESRD payment method.

The Commission also has recommended pay for performance in the outpatient dialysis setting (MedPAC 2004a). Linking payment to quality would send a strong message to dialysis providers that Medicare values the care beneficiaries receive and encourages investments in quality. Outpatient dialysis care is ready for pay for performance:

- Well-accepted measures are available.
- Systems are in place to collect data.
- Data are available to risk-adjust measures.
- Providers can improve upon measures.

CMS has yet to implement pay for performance for dialysis providers, although the agency included it in the recently implemented ESRD disease management demonstrations (CMS 2005).

A broader bundle might give some providers an incentive to stint on care. The Secretary will need to continue efforts to monitor, report on, and improve the quality of dialysis care in order to promote the delivery of clinically appropriate care. The Secretary should also develop new

measures to monitor the use of services in an expanded bundle. Currently, CMS collects dialysis adequacy and anemia status for all patients. It will be important to develop measures for other aspects of dialysis care, such as nutritional outcomes (as mentioned previously).

The use of home dialysis is declining

Most dialysis patients (91 percent) undergo hemodialysis in a facility three times per week. (We also refer to this method as "conventional" dialysis.) The proportion of all dialysis patients receiving other types of dialysis declined during the past decade. Use of peritoneal dialysis, the most common home method, declined from 14 percent to 8 percent of all dialysis patients between 1990 and 2004 (USRDS 2006). Only 7 percent of the 102,000 new patients chose peritoneal dialysis in 2004, compared with 14 percent of the nearly 50,000 new patients in 1990. No more than 1 percent of new patients chose home hemodialysis in 1990 and 2004. Home hemodialysis patients usually dialyze five to seven times per week either during the day or while they sleep.

There is no "best" dialysis method. Each method—in-center hemodialysis, home hemodialysis, and peritoneal dialysis—offers advantages and disadvantages to patients. Patients dialyzing at home do not have to visit a dialysis facility as often as in-center patients. But home patients must maintain their own dialysis equipment and, after proper training, perform their own treatment alone or with the assistance of a helper.

Optimizing patients' outcomes should be the major driver in the choice of a dialysis method. Ideally, patients should be informed about the tradeoffs and actively participate in choosing a dialysis method.

Advantages of home dialysis

Home dialysis should remain a viable option because it offers several advantages to those patients who are able to dialyze at home. First, home patients are more satisfied with their care than in-center patients. Patients receiving peritoneal dialysis rated their care higher than those receiving hemodialysis. About 85 percent of peritoneal dialysis patients rated their overall care as excellent compared with 56 percent of hemodialysis patients (Rubin et al. 2004). Adjustment for patient age, race, education, health status, marital status, employment status, distance from the dialysis facility, and time since starting dialysis

did not reduce the differences between peritoneal dialysis and hemodialysis patients. After adjusting for these factors, peritoneal dialysis patients were 1.5 times more likely than hemodialysis patients to give an excellent rating (95 percent confidence interval 1.3 to 1.6).

Second, among individuals who prioritize working and traveling, home dialysis may lead to higher health-related quality of life than in-center dialysis. At the end of one year on dialysis, peritoneal dialysis patients reported better quality of life in areas specific to dialysis, such as significantly greater ability to travel and fewer dietary restrictions (Wu et al. 2004). By contrast, hemodialysis patients reported higher levels of sexual functioning than peritoneal dialysis patients.

Third, peritoneal dialysis offers a survival advantage for most patients compared with conventional dialysis during the first two to three years after starting dialysis. USRDS data show that 71 percent of peritoneal dialysis patients are alive two years after they start dialysis, compared with 65 percent of conventional hemodialysis patients. After three years of dialysis, 57 percent of peritoneal dialysis patients are alive compared with 54 percent of conventional hemodialysis patients. After five years, peritoneal dialysis loses its survival advantage. As mentioned earlier, peritoneal dialysis may not be appropriate for all patients. The relative advantage of peritoneal dialysis appears to be lower for patients with diabetes than for those without diabetes.

Lastly, total Medicare payments are on average lower for peritoneal dialysis patients than for hemodialysis patients. For example, among patients older than 75 years, total Medicare payments averaged \$47,000 for peritoneal dialysis patients and \$63,000 for hemodialysis patients (USRDS 2004). Payments for inpatient hospital services and dialysis drugs are substantially lower (by 27 percent and 67 percent, respectively) for peritoneal dialysis patients than for hemodialysis patients. Some of this difference stems from differences in socioeconomic characteristics of the patients. New peritoneal dialysis patients are healthier, achieved higher education levels, are more likely to be working, and had significantly better health-related quality of life than those who started hemodialysis.

Future issues to consider

The Commission's March 2006 report to the Congress discussed some clinical and nonclinical factors that may influence a patient selecting in-center hemodialysis versus

home dialysis. Our review of the literature suggested that patients' other health problems and the care patients receive before dialysis may influence the dialysis method they choose. In addition, we also found studies suggesting that the length of time physicians have practiced and their training may affect their patients' use of home dialysis.¹⁶ Finally, we reviewed Medicare's policies that might affect payment for home dialysis services.

The Commission will continue to monitor the use of home dialysis post-MMA. Preliminary analysis of 2003 through 2005 claims suggests that the number of peritoneal dialysis patients has remained relatively constant (21,051 patients in 2003, 21,669 in 2004, and 21,959 in 2005). We are also interested in exploring the effect of Medicare's payment and coverage policies and nonclinical factors on the use of home dialysis.

One question concerns how Medicare would pay for dialysis services under a bundled payment method. The MMA mandated that CMS conduct a demonstration that would bundle dialysis services, including composite rate services, dialysis drugs, and other services dialysis patients need. A key issue to consider is whether, under a broader payment bundle, Medicare should continue to pay the same rate for all types of dialysis. Currently, CMS pays the same composite rate for the various dialysis methods. The Congress called for the same rate when this payment system was created in 1981 to encourage the use of home dialysis.

Under a broader bundle, the Secretary could set the same rate for all dialysis methods, which would give some incentive for providers to furnish lower cost treatments. In 2003, Medicare's total payment per treatment for peritoneal dialysis patients (composite rate services and drugs) was much lower than the per treatment payment for in-center hemodialysis (about \$160 vs. \$220 per treatment, respectively). Alternatively, the Secretary could set different payment rates for each method based on the resources each method requires.

Pay for performance might be one way to give an incentive to providers who increase the number of home dialysis patients they treat or who care for more home patients than other providers. To link the use of home dialysis to payment, it may be necessary to identify those patients who are not appropriate candidates for home dialysis because of the presence of certain clinical morbidities. Thus, the calculation of the pay-for-performance measure might need to account for such patients.

Another question to explore is the potential benefits and costs of counseling Medicare beneficiaries about the different treatment methods before they require dialysis. Some evidence suggests that early referral to kidney specialists and patient counseling before starting dialysis are determinants of choosing peritoneal dialysis (Lameire and Van Biesen 1999, Little et al. 2001, Stack 2002). Although Medicare covers physician visits for patients with chronic kidney disease (who are not yet on dialysis), some physicians may not inform their patients about all the options for treating ESRD. Only one-quarter of new patients who selected hemodialysis reported that medical professionals informed them about peritoneal dialysis (USRDS 1997).

Currently, Medicare covers counseling about nutritional issues for beneficiaries with chronic kidney disease who have not yet started dialysis. One option is to expand this service to include counseling about the different treatment options (home dialysis, conventional hemodialysis, and transplantation) and other important aspects of dialysis care such as the different types of vascular access interventions.

Of course, pre-ESRD counseling will benefit only those patients whom physicians identify as having chronic

kidney disease. Some research suggests that primary care physicians do not diagnose and refer patients with chronic kidney disease to renal specialists. Only 59 percent of family physicians and 78 percent of general internal medicine physicians fully recognized the signs and symptoms of chronic kidney disease (Boulware et al. 2006). These physicians referred 76 percent to 81 percent of patients with chronic kidney disease to kidney specialists.

Identifying patients at the earliest stage of chronic renal failure and referring them to a renal team may lead to better outcomes. One commercial insurer reported that a program to identify patients with chronic kidney disease and educate them about vascular access interventions improved the use of AV fistulas, the recommended type of access for hemodialysis patients (Glazer et al. 2006). The risk of death was significantly greater among patients referred to a renal team late (less than 4 months before the start of dialysis) than among patients referred early (more than 12 months before the start of dialysis) (Kinchen et al. 2002). Previous MedPAC analysis showed that patients referred to a renal team late had higher inpatient spending in the year before dialysis than early referral patients (MedPAC 2004b). ■

Endnotes

- 1 The two types of dialysis—hemodialysis and peritoneal dialysis—remove wastes and fluids from a patient's bloodstream differently. During hemodialysis, a machine removes wastes from the bloodstream; the procedure is usually performed in a dialysis facility. By contrast, peritoneal dialysis uses the lining of the patient's abdomen as a filter to clear wastes and extra fluid; it is usually performed by patients at home.
- 2 EGHPs are usually the primary payer for 33 months—the 3-month waiting period plus the 30-month coordination period.
- 3 CMS estimated that drug payment amounts would drop by 13 percent between 2004 and 2005 (CMS 2005).
- 4 CMS adjusts the composite rate and add-on payment for age (<18, 18 to 44, 45 to 59, 60 to 69, 70 to 79, ≥80 years) and two body measurement variables—body surface area and body mass index.
- 5 Patients who dialyze at home learn to perform either peritoneal dialysis or home hemodialysis. Facilities provide the necessary equipment and supplies for patients to perform dialysis at home.
- 6 In 2005, Medicare used three different ways to pay for dialysis drugs. (1) For the top 10 dialysis drugs that accounted for the greatest share of payments in 2004, Medicare paid freestanding providers using a method called the average acquisition payment. To calculate this rate, CMS used the acquisition costs the Office of Inspector General collected in a 2003 survey of freestanding providers (OIG 2004). (2) For all other dialysis drugs furnished by freestanding providers, CMS used a different method—ASP. This method uses the prices manufacturers report to the agency each quarter. CMS set the 2005 rates for these drugs at ASP plus 6 percent. (3) Unlike freestanding providers, CMS paid hospitals their reasonable costs for all dialysis drugs except erythropoietin. CMS paid the same average acquisition payment rate for erythropoietin as that of freestanding providers.
- 7 For example, in May 1997, Gambro acquired the 262 facilities of Vivra Renal Care. In November 1997, Total Renal Care acquired the 358 facilities of Renal Treatment Centers. In February 2002, Renal Care Group acquired the 87 facilities of National Nephrology Associates.
- 8 Facilities can increase the number of treatments provided to a given patient by (1) improving patients' compliance in attending their thrice-weekly hemodialysis treatments, and (2) reducing the number of days that patients are hospitalized. CMS pays for three hemodialysis treatments per week.
- 9 USRDS data show that the mean units of erythropoietin administered monthly remained relatively constant between 2004 and 2005 (declining by 0.02 percent) (USRDS 2006).
- 10 Levocarnitine supplements the loss of carnitine, a naturally occurring body substance that helps transport long-chain fatty acids for energy production by the body. Patients on hemodialysis have carnitine deficiencies from dialytic loss, reduced renal synthesis, and reduced dietary intake. Patients must show improvement from the levocarnitine treatment within six months of initiation of treatment for Medicare to continue to pay for it. Applying the 2003 payment rate to 2004 and 2005 volume suggests that the total volume of levocarnitine increased by 29 percent between 2003 and 2005.
- 11 ASP represents the amount drug manufacturers receive for their product. CMS calculates ASP using data submitted quarterly by pharmaceutical manufacturers and is net of rebates and discounts offered to purchasers by the manufacturers. Some prices are excluded from calculation of ASP, including prices paid by the Department of Veterans Affairs and other federal purchasers.
- 12 The Food and Drug Administration approved erythropoietin in 1989. A typical starting dose of erythropoietin is 50 to 100 units per kilogram of body weight. A patient weighing 150 pounds might receive 3,400 to 6,800 units 3 times a week. Physicians titrate the dose based on the patient's response to therapy.
- 13 To convert hemoglobin units to hematocrit units, multiply by 10.
- 14 We do not include hospital-based providers in the margin analysis because cost data for dialysis drugs are missing from the cost reports for most of these providers.
- 15 Audited 2001 cost reports refer to those obtained from CMS in September 2005; 20 percent of these cost reports were settled by an audit. Unaudited 2001 cost reports refer to those obtained from CMS in September 2003; only 1 percent of these cost reports were settled by an audit.
- 16 Mehrotra and others concluded that many training programs do not allocate enough time to ensure appropriate training in providing care for peritoneal dialysis patients. These researchers found that U.S. training programs provided care to significantly fewer patients undergoing dialysis than those in Canada (Mehrotra et al. 2002).

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CHAPTER 3

Post-acute care providers

R E C O M M E N D A T I O N S

Section 3A: Skilled nursing facility services

The Congress should eliminate the update to payment rates for skilled nursing facility services for fiscal year 2008.

COMMISSIONER VOTES: YES 14 • NO 0 • NOT VOTING 0 • ABSENT 3

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Section 3B: Home health services

The Congress should eliminate the update to payment rates for home health care services for calendar year 2008.

COMMISSIONER VOTES: YES 13 • NO 0 • NOT VOTING 1 • ABSENT 3

.....

Section 3C: Inpatient rehabilitation facility services

The Congress should update payment rates for inpatient rehabilitation facility services by 1 percent for fiscal year 2008.

COMMISSIONER VOTES: YES 14 • NO 0 • NOT VOTING 0 • ABSENT 3

.....

Section 3D: Long-term care hospital services

The Secretary should eliminate the update to payment rates for long-term care hospital services for rate year 2008.

COMMISSIONER VOTES: YES 13 • NO 1 • NOT VOTING 0 • ABSENT 3

Post-acute care providers: An overview of issues

Chapter summary

Prospective payment systems (PPSs) for each setting were developed and implemented separately to control growth in spending and encourage more efficient provision of services in each setting. While the PPSs have changed the pattern of service use within each setting, we do not have adequate data to evaluate whether beneficiaries are better or worse off because of the changes. Three barriers undermine the program's ability to know if it is purchasing high-quality care in the least costly post-acute care (PAC) setting consistent with the care needs of the beneficiary. These barriers include:

- ***Inaccurate case-mix measurement***—In three of the four settings, case-mix measures do not accurately reflect the resources used to treat certain types of patients; as a result, the measures do not track differences in the costs of care.
- ***Incomparable data on the quality and outcomes of care***—Without a common instrument for patient assessment, we cannot compare the costs, quality of care, and patient outcomes across PAC settings.

In this chapter

- Barriers to an integrated post-acute care system
- Variation in performance across PAC settings
- Conclusion

- *Lack of evidence-based standards*—Because we have few standards to determine appropriate care, beneficiaries may not receive medically necessary, high-quality care in the least costly PAC setting consistent with their clinical conditions.

The same barriers limit our ability to assess differences in financial performance within each post-acute setting. We do not know if the large variations in financial performance within a setting are the result of differences in the mix of patients treated, their patients' outcomes, or their relative efficiencies.

As a first step in understanding this variation, we examined some of the factors underlying financial performance as measured by unit costs and Medicare margins. We examined each PAC sector separately and then compared our findings across all four settings. Because a provider's performance can vary from year to year, we examined providers with consistent financial performance (measured by unit costs and Medicare margins) since implementation of the PPSs. We found that providers with consistently low unit costs used fewer resources, had higher occupancy rates, and had higher Medicare margins than providers with consistently high costs. Providers with consistently high Medicare margins had much lower unit costs and slower cost growth than providers with consistently low Medicare margins. Before concluding that low-cost providers within a sector are efficient, we need to know if they furnished comparable quality of care and if their patients achieved similar outcomes. Future work will examine these relationships. ■

Medicare covers beneficiaries in four post-acute care (PAC) settings: skilled nursing facilities (SNFs), home health agencies (HHAs), inpatient rehabilitation facilities (IRFs), and long-term care hospitals (LTCHs). Medicare spent about \$42 billion on care in these settings, representing about 13 percent of total Medicare spending in 2005.

Prospective payment systems (PPSs) for each setting were developed and implemented separately to control growth in spending and encourage more efficient provision of services in each setting. Each PPS encourages parsimonious use of resources to produce a day, episode, or discharge. Providers that keep costs below the payment rates, based on average costs, achieve a positive margin, while those with above-average costs do not.

Implementation of the payment systems has changed the patterns of service use within PAC settings. Although the HHA and SNF PPSs initially curbed spending, it has started to rise again. HHAs provided fewer visits per episode and SNFs furnished more therapy. The number of LTCHs and patients treated in them continues to grow. Without adequate data to assess patient outcomes, we cannot evaluate whether beneficiaries are better or worse off because of the changes. In addition, large variations in financial performance exist across providers in each setting, but we lack the information to know whether these differences are due to the mix of patients treated, their patients' outcomes, or their relative efficiencies.

Barriers to an integrated post-acute care system

The Commission previously stated that the individual "silos" of PAC do not function as an integrated system—in which a common patient instrument is used to assess patient care needs and guide placement decisions, payments reflect the resource needs of the patients and not the setting, and outcomes gauge the value of the care furnished. Several barriers inhibit the integration of the current systems and undermine the program's ability to purchase high-quality care in the least costly PAC setting consistent with the care needs of the beneficiary. These barriers include:

- inaccurate case-mix measurement,
- incomparable data on the quality and outcomes of care, and

- the lack of evidence-based standards.

Inaccurate case-mix measurement

In three of the four PAC settings, case-mix measures do not accurately reflect the resources used to treat certain types of patients; as a result, the measures do not track differences in the costs of care.

- The SNF PPS includes strong incentives for facilities to furnish therapy but does not adjust payments for differences in the need for nontherapy ancillary services (e.g., drugs). As a result, the case-mix system encourages providers to admit rehabilitation patients and discourages them from treating beneficiaries who need a high level of medical care. The Commission plans to work on identifying the patient characteristics associated with the need for nontherapy ancillary services that could be used in a payment system.
- The HHA PPS also encourages the provision of therapy services. The dramatic drop in home health care visits and the shift toward rehabilitation care has changed the nature of this product, yet the PPS has not been refined to accurately reflect current practice patterns.
- A recent study of the LTCH PPS found that variations in profitability by case-mix group result from a systematic understatement of the costs for cases that use relatively more ancillary services (RTI 2006). Refining the case-mix weights could correct this bias.

Incomparable quality and outcome data

An overarching limitation in moving toward a more integrated PAC system is the lack of comparable information across settings. The PAC settings do not use a common patient assessment tool to gather information about the functional status, diagnoses, comorbidities, and cognitive status of patients. Medicare requires three of the four settings to use a patient assessment tool, but each setting uses a different one.¹ As a result, the program cannot compare costs, quality of care, and patient outcomes while controlling for differences in the mix of patients treated. In short, the program cannot measure the value it gets from PAC purchases.

Even within a setting, the case-mix, quality, and outcome data that are gathered make it difficult, if not impossible, to compare providers. For example, our ability to assess the quality of care that SNFs provide to beneficiaries is

limited because few quality measures focus specifically on the care provided during a short-term post-acute stay. Though the Commission uses two risk-adjusted measures to evaluate SNF care—the rate of preventable rehospitalizations and the rate of discharges to the community—CMS does not track either measure. And because SNFs do not assess patients at admission or discharge, patient progress during a stay—such as changes in functional status—cannot be directly evaluated. Because LTCHs are not required to use a patient assessment tool, comparable quality and outcome data are limited to what is available on hospital claims.

The Deficit Reduction Act of 2005 (DRA) requires CMS to conduct a demonstration that supports PAC payment reform across settings. CMS has taken steps to respond to the mandate. The demonstration is scheduled to begin in January 2008 and will develop a PAC assessment instrument to be used at hospital discharge and across all PAC settings, and will gather patient assessment and cost information at all PAC settings. A report on that demonstration is not scheduled to be delivered until July 2011. Thus, while CMS envisions an integrated system and has taken a key step toward developing one, it is years away from implementing one.

Lack of evidence-based standards

The lack of evidence-based standards of care (to identify which patients need how much care) results in large variations in practice and costs, with no way to discern the appropriate level of care. Beneficiaries may not receive medically necessary, high-quality care in the least costly PAC setting consistent with their clinical conditions. Although the program has some patient and facility criteria (as indicated in the text box) to match patient care needs to the treatment setting, there is some overlap in the types of patients treated across settings. For example, patients who need wound care or require rehabilitation after hip surgery are treated in various PAC settings, with very different cost implications for the program. This lack of clarity in the products Medicare buys makes it impossible for the program to be a value-based purchaser. PAC providers have a financial incentive to take profitable patients, yet inadequate mechanisms are in place to make sure patients are treated in the most appropriate setting.

The lack of evidence-based standards also means that even within a setting we do not know which treatments are necessary for which types of patients. Guidelines do

not exist for many conditions to delineate how much care is typically needed, when more care is likely to result in better outcomes, and when patients are unlikely to improve with additional treatment. The home health care product is particularly difficult to define in terms of medical necessity and spell of illness.

Implications for financial performance

The barriers that undermine the integration of care across PAC settings—inaccurate case-mix measurement, incomparable quality and outcome information, and lack of evidence-based standards of care—also limit our ability to assess differences in financial performance across providers in the same setting. Without an adequate case-mix adjuster, observed differences in costs could reflect differences in the mix of patients treated rather than efficiency. Differences in costs could also be attributable to variations in the quality of care furnished and the outcomes patients achieve.

The current PPSs are likely to continue to be used for Medicare payments until PAC services are integrated. To counter incentives to stint on services, an important strategy is to base a portion of providers' payments on the quality of care they furnish. Under such an arrangement, updates would establish the level of payments for a PAC setting and pay-for-performance programs would distribute that money to reward providers for their performance.

The Commission developed four principles for Medicare's pay-for-performance programs.

- The program should reward providers based on improving care and exceeding certain benchmarks to have the broadest effect on providers' incentives and thus beneficiaries' care.
- The program should be funded initially by setting aside a small proportion of payments (e.g., 1 percent to 2 percent of payments) to minimize possible disruption to beneficiaries and providers.
- The program should distribute all withheld dollars every year; pay for performance is a way to improve quality of care, not to realize savings.
- The program should have a process to update the measures to reflect changes in quality measurement and practice patterns.

Medicare criteria for admissions to post-acute care settings

Medicare uses a combination of facility- and patient-level policies and criteria to direct beneficiaries to post-acute care settings. These criteria attempt to match patient care needs to the service intensity (and cost) of the setting.

- **Home health agencies:** Patients must require part-time (fewer than eight hours per day) or intermittent (temporary but not indefinite) skilled care (nursing or therapy) and must be homebound (cannot leave home without considerable effort).
- **Skilled nursing facilities:** Patients must require skilled nursing or rehabilitative care in an inpatient setting and have had a recent (within the past 30 days) hospitalization of at least 3 days.
- **Inpatient rehabilitation facilities:** Patients must be able to tolerate (and require) at least three hours of rehabilitation per day; facilities are limited in the mix of conditions they treat to receive inpatient rehabilitation facility payment rates.

- **Long-term care hospitals:** The average length of stay must be at least 25 days. In 2004, the Commission recommended and CMS is considering patient- and facility-level criteria to delineate the types of patients appropriate for this level of care. CMS contracted with the Research Triangle Institute (RTI), which recently made a series of recommendations to develop patient and facility criteria and to improve the consistency in policies between long-term care and acute care hospitals (see text box on RTI's study, p. 228). Long-term care hospitals within hospitals are also limited in the share of patients they can accept from their host hospital. The 25 percent limit is intended to prevent premature transfers from acute hospitals, ensure that the hospitals within hospitals do not function as a kind of step-down unit of the host hospital, and promote treatment decisions that are clinically, not financially, based.

Even with these criteria, there is some overlap in the types of patients treated in different PAC settings. ■

The PAC settings vary in their readiness to pay for performance. Several risk-adjusted quality measures for home health care could be used for pay for performance and the Commission recommended that CMS develop valid risk-adjusted measures of adverse events. CMS is developing a pay-for-performance demonstration that is expected to begin in October 2007. The other settings are further from being ready to implement pay-for-performance programs. In SNFs, risk-adjusted measures that focus on evaluating short-stay patients' abilities to perform activities of daily living have not been developed. Even more problematic is the fact that patients are not assessed at admission and discharge, so measuring improvement is not possible. In IRFs, CMS is developing measures based on the patient assessment used in that setting. As noted before, LTCHs do not report patient assessment information so CMS has little data upon which to develop performance measures.

Variation in performance across PAC settings

Within each PAC setting, provider performance varies considerably and some providers perform consistently better than others. In examining differences in Medicare margins, the Commission reported that size, case mix, location, and type of control explained very little of the variation across HHAs (MedPAC 2005). In all four settings, Medicare margins varied by ownership, raising questions about how good performance can be achieved. In our examination of the variation in financial performance of acute care hospitals, we found that hospitals with consistently positive Medicare margins had shorter stays, higher occupancy rates, lower costs, and lower growth in costs—factors that reflect management decisions and expertise (MedPAC 2006).

**TABLE
3-1**

Many providers with consistently low costs used fewer resources, had higher occupancy rates, and achieved better financial performance in 2004

Providers with consistently:

	Low costs	High costs
Resource use		
HHA visits per episode (in visits)	16.8	20.1
SNF average LOS (in days)	37.4	30.1
IRF average LOS (in days)	10.9	13.3
LTCH average LOS (in days)	26.2	28.6
Occupancy rates		
SNFs	90%	91%
IRFs	72	58
LTCHs	76	57
Medicare margins		
HHAs	32.8%	-5.1%
SNFs	32.4	-12.4
IRFs	32.8	-16.3
LTCHs	21.3	-2.7

Note: HHA (home health agency), SNF (skilled nursing facility), LOS (length of stay), IRF (inpatient rehabilitation facility), LTCH (long-term care hospital). For each type of provider, we defined consistently low (and high) costs as those in the bottom (and top) quartile of the distribution for a set of years. For HHAs and IRFs the years were 2002 through 2004, for SNFs they were 2001 through 2004, and for LTCHs they were 2003 and 2004. Table shows aggregate margins. A margin is calculated as payments minus costs, divided by payments.

Source: MedPAC analysis of HHA, SNF, IRF, and LTCH Medicare cost reports.

As a first step in understanding this variation, we examined some of the cost factors underlying financial performance. Because a single year may not accurately represent a provider's performance, we compared providers with consistently low unit costs with those that had consistently high unit costs, and we compared providers with consistently high and low Medicare margins.² We conducted these analyses for selected years after the PPSs were introduced, examining each PAC sector separately, and then compared our findings across the four settings.³ We separately examined hospital-based and freestanding IRFs, hospital-within-hospital and freestanding LTCHs, and rural and urban SNFs and HHAs; generally, we did not see different patterns across these subgroups.

Providers with consistently low costs used fewer resources, had higher occupancy rates, and had better financial performance

In the study periods, between 12 percent and 16 percent of providers had consistently low unit costs.⁴ One way they achieved their cost position was through their more sparing use of resources within the episode or discharge. HHAs with consistently high costs furnished about 20 percent more visits within their episodes than HHAs with consistently low costs (Table 3-1). IRFs and LTCHs with consistently high costs had longer stays than IRFs and LTCHs with consistently low costs (22 percent longer in the case of IRFs and 9 percent longer in the case of LTCHs).

We found a different result for SNFs: Those with consistently low costs had longer stays. This result reflects the incentives of the payment system, which pays on a per day basis. Longer stays increase a facility's Medicare revenues and may lower unit costs by spreading fixed costs over more days. However, given that many SNFs are part of a nursing facility, the SNF length of stay may not be a good indicator of the entire facility's ability to spread fixed costs.

IRFs and LTCHs with consistently low costs also had considerably higher occupancy rates than IRFs and LTCHs with consistently high costs. Higher occupancies should translate into lower unit costs as their fixed costs (e.g., capital and administration) are spread over more units. Overall, SNFs did not follow this pattern; those with consistently low and high costs had comparable occupancy rates, although rural SNFs with consistently low costs did have higher occupancy rates than rural SNFs with consistently high costs. Unlike IRFs and LTCHs, in which Medicare beneficiaries account for about 70 percent of days, SNFs are often part of a larger nursing facility in which Medicaid patients account for most days. The SNF occupancy rates may give an incomplete picture of a facility's size and ability to spread fixed costs. We did not examine occupancy rates in HHAs since this care is not facility based.

Providers with consistently low costs achieved some of their economies of scale by having higher volume and volume growth than providers with consistently high costs. Higher volume allows facilities to spread their fixed costs over more services, thereby lowering unit costs. However, we do not know if the volume that allowed low-cost facilities to achieve their economies of scale was always appropriate. The lack of standards for PAC services makes it difficult to know if additional units of service

are clinically beneficial or could have been provided in a lower cost setting. As a result, behavior that may lower a provider's costs is not necessarily better for the program.

The differences in 2004 Medicare margins for consistently low-cost and high-cost providers were considerable. Consistently low-cost providers had aggregate margins in the 20 percent to 30 percent range, whereas consistently high-cost providers had aggregate margins that were negative, sometimes quite negative. Because providers with consistently low and high margins are a select group, with about 15 percent of providers in each group, their margins are considerably different from the aggregate margins we reported previously. However, the aggregate margin for the entire cohort for each setting for each year is very similar to that previously published by MedPAC.

Within each PAC setting, providers with consistently better financial performance had lower unit costs and slower growth in costs

Providers with consistently high Medicare margins had considerably lower unit costs in 2004 than providers with consistently low Medicare margins (Table 3-2). Unit costs in 2004 for consistently high-margin providers were one-half to two-thirds of the costs of providers with consistently low margins. For example, in 2004 the episode costs of HHAs with consistently high margins were 59 percent of the episode costs of HHAs with consistently low margins (\$1,219 compared with \$2,081 per episode). As might be expected, we found that consistently high-margin HHAs, IRFs, and LTCHs used fewer resources (visits or days) within an episode or discharge.

We also compared the daily costs of SNFs with consistently high and low margins with the daily costs of competitor SNFs (those located within 15 miles of the reference SNF). We found that SNFs with consistently high margins had daily costs 15 percent lower than their competitors (\$199 compared with \$234 per day (data for competitors not shown)). In contrast, SNFs with consistently low margins had daily costs more than 20 percent higher than their competitors. We did not do this comparison for the other providers; many markets do not have more than one IRF or LTCH, while HHAs have more fluid markets because the care is furnished in the beneficiary's home.

For three of the four PAC settings, unit costs grew more slowly for providers with consistently high margins than

TABLE 3-2

Providers with consistently better financial performance had lower unit costs and slower cost growth

	Providers with consistently:	
	High Medicare margins	Low Medicare margins
Unit costs in 2004		
HHAs per episode	\$1,219	\$2,081
SNFs per day	199	320
IRFs per discharge	7,968	14,417
LTCHs per discharge	26,739	38,956
Average annual cost growth		
HHAs (2002–2004)	1.0%	0.0%
SNFs (2001–2004)	2.5	3.9
IRFs (2002–2004)	1.0	3.0
LTCHs (2003–2004)	-1.0	7.0

Note: HHA (home health agency), SNF (skilled nursing facility), IRF (inpatient rehabilitation facility), LTCH (long-term care hospital). For each type of provider, we defined consistently low (and high) margins as those in the bottom (and top) quartile of the distribution for a set of years. For HHAs and IRFs the years were 2002 through 2004, for SNFs they were 2001 through 2004, and for LTCHs they were 2003 and 2004. The analyses of HHAs and SNFs include only freestanding providers. Table shows median unit costs and annual cost growth.

Source: MedPAC analysis of HHA, SNF, IRF, and LTCH Medicare cost reports.

for those with consistently low margins. For example, between 2002 and 2004 costs per discharge for IRFs with consistently high margins grew annually at one-third the rate of IRFs with consistently low margins. The difference in cost growth between consistently low- and high-margin LTCHs was even larger—a 1 percent decline compared with a 7 percent increase. The differences in cost growth between HHAs with consistently high and low margins were small (1 percent); rural HHAs with consistently high margins had slower cost growth than rural HHAs with consistently low margins.

Conclusion

In recent years, PAC providers with consistently better financial performance generally had lower resource use, lower unit costs, and slower growth in cost. Before concluding that low-cost providers are efficient, we need

to know if they compromised the quality of care they furnished or if they selected certain types of patients. To become a value-based purchaser, Medicare needs to know whether paying more for care buys better patient outcomes. Future work will examine the relationship between financial performance and the quality of care and patient outcomes.

Broad PAC reform that the Commission favors—and the post-acute demonstration mandated by the DRA envisions—has begun but is several years away. In the meantime, services furnished in PAC settings will likely continue to be paid for under the respective PPSs. Within each setting, then, the program must continue to ensure that payments are adequate, while discouraging patient selection and encouraging providers to furnish high-quality services. ■

Endnotes

- 1 SNFs use the Minimum Data Set, HHAs use the Outcome and Assessment Information Set, and IRFs use the IRF–Patient Assessment Instrument. Medicare does not require LTCHs to use a patient assessment tool.
- 2 Consistently low-cost providers were defined as having been in the bottom quartile of the cost distribution for each of the years studied; consistently high-cost providers were in the top quartile of the cost distribution for each year. Providers with consistently high and low margins were defined as having been in the top and bottom quartile, respectively, of Medicare margins for the years of the study.
- 3 Consistent performances were defined across four years for SNFs (2001–2004), three years for HHAs and IRFs (2002–2004), and two years for LTCHs (2003 and 2004). The analyses of HHAs and SNFs included freestanding providers. We excluded IRFs owned by HealthSouth because of questions about the accuracy of their cost reports for the years of the analyses. Costs were standardized for differences in wages, case mix (using the patient classification systems incorporated into each PPS), and, in the case of LTCHs, short-stay outliers. The study’s cohort included 70 percent of IRFs, LTCHs, and freestanding SNFs. The HHA cohort was smaller (51 percent) because we lacked complete volume data to conduct our analyses.
- 4 In each setting’s cohort, the shares of providers with consistently low costs were: 12 percent of HHAs, 14 percent of SNFs, 15 percent of IRFs, and 16 percent of LTCHs.

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SECTION
3 A

Skilled nursing facility services

R E C O M M E N D A T I O N

The Congress should eliminate the update to payment rates for skilled nursing facility services for fiscal year 2008.

COMMISSIONER VOTES: YES 14 • NO 0 • NOT VOTING 0 • ABSENT 3

SECTION 3A

Skilled nursing facility services

Section summary

Our indicators of payment adequacy are generally positive for skilled nursing facilities (SNFs), but two quality measures show decline. Beneficiaries have good access to SNF care, although those who need certain expensive services may experience delays in finding SNF care. The number of facilities providing SNF care to Medicare beneficiaries has remained almost constant—declining by less than 0.1 percent in 2006. Spending and volume of days and stays increased in 2005, with case mix continuing to shift to high-payment rehabilitation case-mix groups. Two outcome measures for Medicare SNF patients show declining quality in recent years: Average facility rates of avoidable rehospitalizations increased and discharges to the community declined. SNFs appear to have good access to capital. Medicare payments more than cover the costs of providing SNF care to Medicare beneficiaries in 2007. ■

In this section

- Are Medicare payments adequate in 2007?
- How should Medicare payments change in 2008?
- Update recommendation

The Congress should eliminate the update to payment rates for skilled nursing facility services for fiscal year 2008.

Recommendation 3A

COMMISSIONER VOTES:
YES 14 • NO 0 • NOT VOTING 0 • ABSENT 3

Background

Medicare beneficiaries qualify to receive covered services in a skilled nursing facility (SNF) if they need short-term skilled nursing care or rehabilitation services on a daily basis in an inpatient setting. For a spell of illness, Medicare provides coverage for up to 100 days after a medically necessary hospital stay of at least 3 consecutive days.¹ Covered SNF services include: skilled nursing care; rehabilitation services such as physical therapy (PT), occupational therapy (OT), and speech-language pathology (SLP) services; and other ancillary services such as medications and respiratory therapy. Other ancillary services are often referred to as nontherapy ancillary services to distinguish them from the therapy-related ancillary services for which the SNF prospective payment system (PPS) makes explicit payments. The Medicare program pays separately for some services, such as certain chemotherapy drugs and customized prosthetics and orthotics, which are excluded from the SNF daily rate. Medicare's daily rates under the PPS for SNFs apply to all (routine, ancillary, and capital-related) costs of covered SNF services. Medicare pays 100 percent of the payment rate for the first 20 days of a SNF stay. From day 21 to day 100, beneficiaries are responsible for a copayment of \$124 per day in calendar year 2007.

Beneficiaries who qualify may be admitted for a Part A stay for rehabilitative and recuperative care provided in SNFs that meet Medicare's conditions of participation and

agree to accept Medicare's payment rates. The conditions of participation relate to many aspects of staffing and care delivery in the facility, such as requiring a registered nurse in the facility for 8 consecutive hours per day and licensed nurse coverage 24 hours per day; providing rehabilitative services, such as physical and occupational therapy, as required in patients' plans of care; and providing or arranging for physician services 24 hours a day in case of an emergency.

The most common diagnosis for a SNF admission in 2004 was a major joint and limb reattachment procedure of the lower extremity, typically a hip or knee replacement.² Ten conditions accounted for 38.3 percent of all admissions to SNFs in 2004 (Table 3A-1). Freestanding and hospital-based facilities and nonprofit and for-profit facilities had the same top 10 diagnoses in the same rank order.

Medicare spending on skilled nursing facility services

Between fiscal years 2004 and 2005, Medicare spending for SNF services grew 8 percent to \$18.5 billion (OACT 2006), which is slightly less than the average annual rate of growth of 11 percent per year between fiscal years 2000 and 2005. During this five-year period, however, year-to-year spending growth varied. Temporary payment additions contributed to higher year-to-year growth during the period, while the expiration of some temporary payments contributed to spending declines. For example, from 2000 to 2001 spending grew 18 percent. This large increase

**TABLE
3A-1**

Most common diagnoses among Medicare SNF patients account for more than a third of patients in 2004

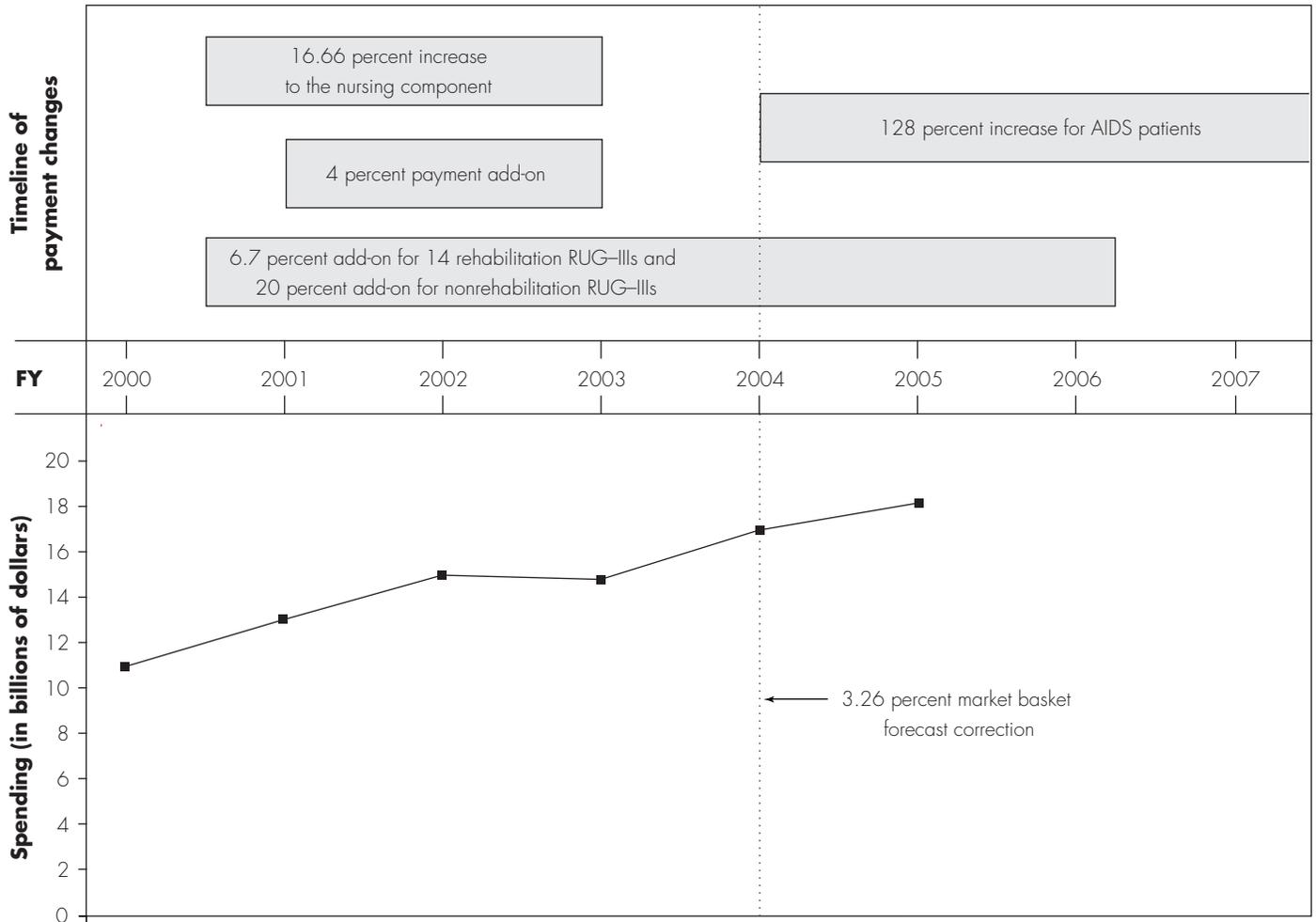
Diagnosis code from hospital stay	Diagnosis	Share of SNF admissions
209	Major joint and limb reattachment of lower extremity	7.1%
127	Heart failure and shock	5.1
089	Simple pneumonia and pleurisy, age >17, with CC	5.1
210	Hip and femur procedures except major joint, age >17, with CC	4.1
014	Intracranial hemorrhage and stroke with infarction	3.4
320	Kidney and urinary tract infections, age >17, with CC	3.1
416	Septicemia, age >17	3.1
296	Nutritional and miscellaneous metabolic disorders, age >17, with CC	2.8
079	Respiratory infections and inflammations, age >17, with CC	2.5
088	Chronic obstructive pulmonary disease	2.0
	Total	38.3

Note: SNF (skilled nursing facility), CC (complication or comorbidity). The diagnosis code from hospital stay is the discharge diagnosis.

Source: MedPAC analysis of DataPRO file from CMS. 2004.

**FIGURE
3A-1**

Year-to-year changes in Medicare payments for skilled nursing facility services reflect temporary payment changes



Note: RUG-III (resource utilization group, version III), FY (fiscal year). Data are program spending by federal fiscal year.

Source: Spending data are from CMS, Office of the Actuary 2006.

coincided with implementation of several temporary payment add-ons in fiscal year 2001 (Figure 3A-1). SNF spending fell nearly 4 percent between 2002 and 2003, coinciding with the expiration of two add-ons at the end of fiscal year 2002. Spending rebounded in 2004, when the base rate increased by the full market basket amount (3 percent) plus another 3.26 percent that year to correct for cumulative market basket forecast error since implementation of the PPS. Volume growth also contributed to spending changes from year to year, but like payment increases, volume growth also varied. Year-to-year growth in total patient days during the period ranged

from a high of 14 percent between 2001 and 2002 to a low of 5 percent between 2003 and 2004.

How does the Medicare SNF payment system work?

Medicare’s PPS for SNF services started with cost reporting periods beginning on July 1, 1998, and was fully phased in by 2001.³ Under the PPS, the daily payment rates for SNFs were set in 1998 to reflect SNF costs in 1995, updated for inflation. The base rates cover routine, ancillary, and capital-related costs and are updated annually based on the projected increase in the SNF

Labor cost and case-mix adjustment

Daily payments to skilled nursing facilities (SNFs) are determined by adjusting the base payment rates for geographic differences in labor costs and case mix. To adjust for labor cost differences, the labor-related portion of the total daily rate—76 percent for fiscal year 2007—is multiplied by the hospital wage index in a SNF's location and the result is added to the nonlabor portion. The daily base rates are adjusted for case mix using the resource utilization group, version III (RUG-III) classification system, which has 53 groups. The groups can be classified into two categories: rehabilitation (patients receiving between 45 and 720 or more minutes of therapy per week) and nonrehabilitation (patients generally receiving less than 45 minutes of therapy per week). Each of the 53 RUG-IIIs has associated nursing and therapy weights to adjust the base payments up or down depending on the resources associated with each type of patient. The nursing base rate is case mix adjusted for all RUG-IIIs. The therapy base rate is case mix adjusted for rehabilitation RUG-IIIs and is a constant amount for nonrehabilitation RUG-IIIs. The payment for items such as room and

board and linens is a fixed amount for all patients regardless of case-mix group.

Patients are assigned to one of the 53 RUG-IIIs based on patient characteristics that are expected to require similar resources. Assignment of a beneficiary to a RUG-III is based on the number of minutes of therapy (physical therapy, occupational therapy, or speech-language pathology services) the patient has used or is expected to use; the need for certain services (e.g., respiratory therapy or specialized feeding); the presence of certain conditions (e.g., pneumonia or dehydration); an index based on the patient's ability to perform independently four activities of daily living (eating, toileting, bed mobility, and transferring); and in some cases, signs of depression. Patients' characteristics and service use are determined by periodic assessments using the SNF patient assessment instrument, known as the Minimum Data Set. (More information about the prospective payment system for SNFs is available at http://www.medpac.gov/publications/other_reports/Sept06_MedPAC_Payment_Basics_SNF.pdf.) ■

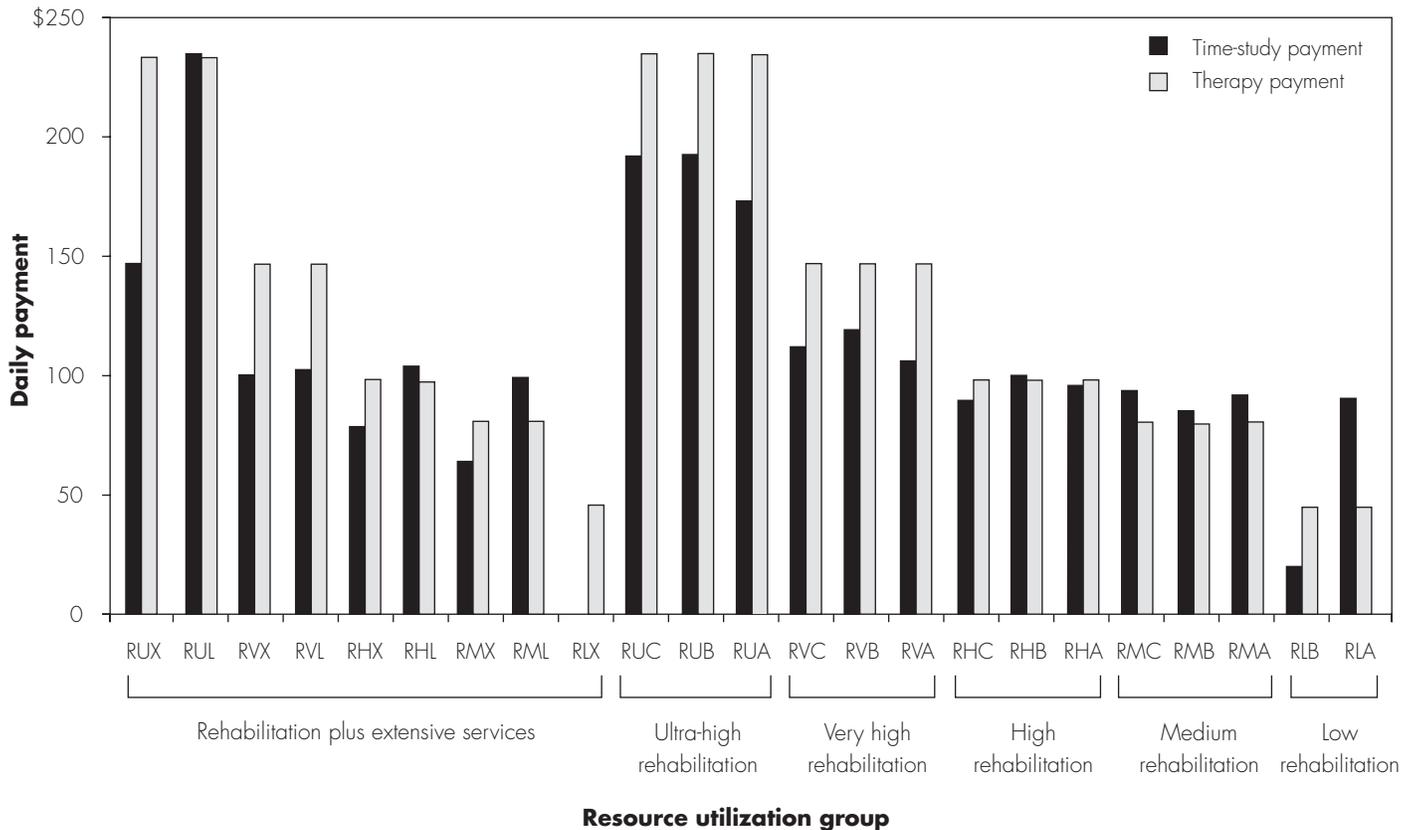
market basket index, a measure of the national average price for the goods and services SNFs purchase to provide care.⁴ The total Medicare daily payment rate for SNF services is the sum of three base rate components, which were computed separately for urban and rural areas per the Balanced Budget Act of 1997 (BBA) that mandated the PPS for SNFs:

- a nursing component, reflecting nontherapy ancillary service costs (explained in more detail later) and the intensity of nursing care that patients are expected to require;
- a therapy component, reflecting the amount of therapy services (physical and occupational therapy and speech-language pathology services) provided or expected to be provided; and
- a component reflecting the costs of room and board, linens, and administrative services.

The BBA required that Medicare's prospective payment bundle for SNFs include payment for nontherapy ancillary services, such as drugs and respiratory therapy. CMS used the total cost of these services to develop the nursing component of the base rates. However, nontherapy ancillary service costs were not used to develop the case-mix system—resource utilization group, version III (RUG-III)—that adjusts payments up or down depending on use of services and patient characteristics (see text box). As a result, the case-mix system distributes payments for nontherapy ancillary service costs in the same manner that it allocates payment for nursing care costs. Because some nontherapy ancillary services (e.g., intensive intravenous (IV) antibiotic therapy, or ventilator care) involve costs that greatly exceed the payments as distributed by nursing component weights, daily payments are too low for patients using these services, while payments for other patients may be too high (GAO 1999, White et al. 2002).

**FIGURE
3A-2**

SNF therapy payments based on time study data would differ from actual 2006 payments for rehabilitation RUG-III



Note: SNF (skilled nursing facility), RUG-III (resource utilization group, version III). A time-study payment could not be calculated for RLX (low rehabilitation and extensive services) because there were no patients from the time study in that case-mix group. For additional description of the RUGs, see http://www.medpac.gov/publications/other_reports/Sept06_MedPAC_Payment_Basics_SNF.pdf.

Source: MedPAC analysis of CMS staff time measurement study data.

The 53-group RUG-III case-mix system went into effect January 1, 2006, replacing the 44-group system that had been used to adjust the base rates since the PPS for SNFs was implemented. CMS added nine payment groups for patients who meet the criteria for both the “extensive services” and “rehabilitation” groups.⁵ Adding these new groups did not directly address the targeting of payment for nontherapy ancillary services. When the PPS was implemented, case-mix weights for the 44-group RUG-III classification systems were calculated using data collected from time studies in volunteer facilities in 6 states in 1990, 1995, and 1997.

CMS did not collect new data to develop the weights for the additional case-mix groups or recalibrate all the

weights of the existing groups for the 53-group RUG-III system. Instead, CMS took different approaches to determining the nursing and therapy weights for the 53-group RUG-III system. To derive the nursing weights, CMS regrouped the time-study observations into the 53 groups and recalibrated all the weights according to salary-weighted minutes of nursing associated with the new groups. For the therapy weights, CMS used the same weights that had been used under the 44-group RUG-III system for the new, as well as the old, groups. For example, the two new “ultra-high rehabilitation plus extensive services” groups and the three remaining “ultra-high rehabilitation” groups have the same therapy weights as the three “ultra-high rehabilitation” groups under the 44-group system, even though—according to the

**TABLE
3A-2****Share of facilities, stays, and payments varies by type of skilled nursing facility**

Type of SNF	Facilities		Medicare-covered stays		Medicare payments	
	2004	2005	2004	2005	2004	2005
Freestanding	91%	92%	85%	87%	92%	93%
Hospital based	9	8	15	13	8	7
Urban	67	67	79	79	81	81
Rural	33	33	21	21	19	19
For profit	67	68	65	66	71	72
Nonprofit	28	28	31	30	25	25
Government	5	5	4	4	3	3

Note: SNF (skilled nursing facility). Totals may not sum to 100 due to rounding.

Source: MedPAC analysis of the Provider of Services and Medicare Provider Analysis and Review files.

time-study data—these groups used different amounts of therapy.

As a result, the therapy weights associated with each rehabilitation RUG-III in the 53-group system differ from what they would have been if based on time-study data (Figure 3A-2). For 15 of the rehabilitation groups, the RUG-III therapy payment is higher than the time-study-based therapy payment; for 8 other rehabilitation groups, payments are lower. Without new data to recalibrate the weights of the new categories, it is unclear whether either of these payments—based on the old or recalibrated weights—reflects the average amount and cost of therapy current SNF patients use. CMS needs to collect more current data and calculate new weights, as the Commission has recommended in previous years.

To recalibrate the RUG-III nursing and therapy case-mix weights used to determine payment rates, CMS is studying nursing facility staff time and collecting data for the first time since the PPS was implemented. It is collecting data on staff time and other facility resources used to provide care from a sample of freestanding and hospital-based nursing facilities that treat Medicare and Medicaid patients. The study is also collecting data on health status, medical conditions, and the service use for both post-acute care and long-term care. Data collection began in volunteer facilities in the spring of 2006 and is expected to be completed in 2007. Recommendations

for modifications to the RUG-III case-mix weights are expected in late 2007 or early 2008 (CMS 2006).

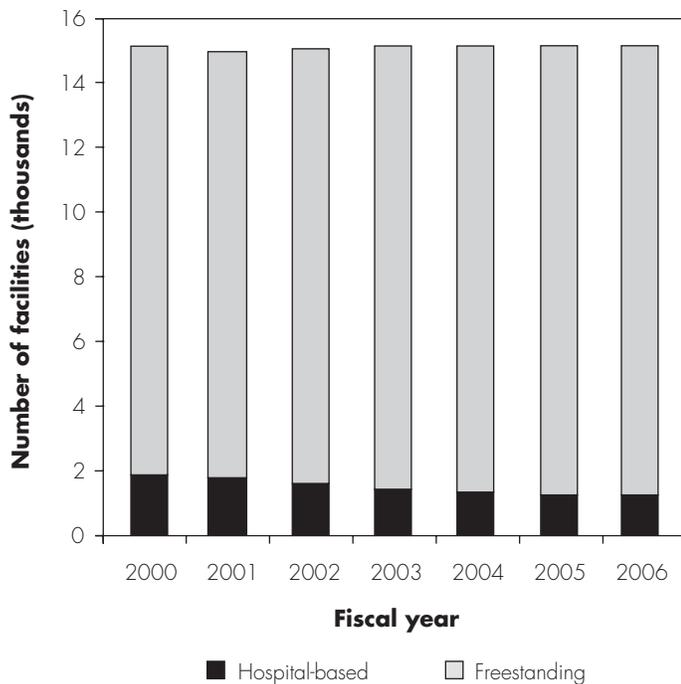
Providers of skilled nursing facility care

SNF services may be provided in freestanding or hospital-based facilities. In 2005, 92 percent of facilities were freestanding and 87 percent of Medicare-covered SNF stays were in freestanding facilities (Table 3A-2). A freestanding SNF is typically part of a nursing home that also provides long-term care, which Medicare does not cover. Patients who are in a freestanding facility for a Medicare-covered SNF stay are typically a small share of the total patient population in a Medicare-participating SNF.

At the median, Medicare-covered SNF days made up 11 percent of total patient days in freestanding facilities in 2005, based on cost report data. Just 10 percent of these SNFs had Medicare shares of 22 percent or more of their total patient days. The remaining patients in freestanding SNFs are non-Medicare skilled nursing care patients or long-term care residents. However, some freestanding facilities have a large Medicare share of patient days. On average, hospital-based SNFs typically serve a large share of Medicare short-stay patients and few long-term care residents, but there are also exceptions to this typical patient mix among hospital-based SNFs as discussed on pp. 178–179.

**FIGURE
3A-3**

The number of Medicare-certified skilled nursing facilities has remained stable, with more freestanding and fewer hospital-based



Source: MedPAC analysis of data from Certification and Survey Provider Enhanced Reporting on CMS's Survey and Certification's Providing Data Quickly system for 2000-2006.

Are Medicare payments adequate in 2007?

Indicators of payment adequacy are generally positive for SNFs. Beneficiaries have good access to SNFs, although those who need certain expensive services may experience delays in finding SNF care. The number of nursing facilities providing SNF care to Medicare beneficiaries remained almost constant in 2006—declining by less than 0.1 percent. Volume increased in 2005 as measured by SNF stays and days. Two outcome measures for Medicare SNF patients show declining quality: Facility rates of avoidable rehospitalizations increased and the discharges to the community declined. SNFs appear to have good access to capital. Medicare payments more than cover their costs of providing SNF care to Medicare beneficiaries in 2007.

Beneficiaries' access to care

Medicare beneficiaries appear to experience little or no delay in accessing SNF services, especially if they need rehabilitation therapies. On the basis of structured interviews in 2004 with 256 hospital discharge planners who oversee the placement of Medicare beneficiaries into post-acute care settings, the Office of Inspector General (OIG) found that 84 percent of discharge planners in their sample could place all Medicare beneficiaries who needed SNF care (OIG 2006). This was a statistically significant increase from the share (73 percent) in 2001 (OIG 2006).

In spite of generally good access to care, beneficiaries with certain complex or special care needs may remain in the hospital setting longer. As the OIG found in earlier studies of access to SNFs, in 2004 some beneficiaries with certain medical conditions or service needs experienced delays that may lengthen their hospital stay (OIG 2001, 2000, 1999). The OIG found that Medicare patients who needed IV antibiotics or expensive drugs, wound care, ventilator care, or dialysis, or who had behavior problems were harder to place. Discharge planners identified the cost of these services as the cause of the delay in placement. Several of these services—IV antibiotics, drugs, and ventilator care—are the nontherapy ancillary services for which the SNF payment system does not explicitly allocate payments according to variation in patients' costs (White et al. 2002).

Supply of providers

The number of SNFs was nearly the same in 2005 as in 2006, continuing a trend of relatively flat growth in overall SNF supply (Figure 3A-3). Since the PPS for SNFs was implemented, the number of hospital-based SNFs declined and the number of freestanding SNFs participating in the program increased. According to CMS data, 186 freestanding SNFs and 31 hospital-based SNFs began participating with the Medicare program in fiscal year 2006.

Volume of services

Between 2004 and 2005, the volume of SNF services increased (Table 3A-3). Admissions increased by 5 percent to about 2.5 million. This increase translates to 70 admissions per 1,000 fee-for-service enrollees in 2005, compared with 67 the year before. The average number of covered days per SNF admission grew just slightly more than admissions in 2005.

**TABLE
3A-3**

The number of Medicare admissions and covered days of SNF care is growing and stays are getting longer

	2002	2003	2004	2005	Change 2004-2005	Average annual change 2002-2005
Admissions (in millions)	2.2	2.4	2.4	2.5	5%	5%
Covered days (in thousands)	54,674	59,416	62,364	65,905	6	6
Average days per admission	24.6	24.9	25.8	25.9	0.4	2

Note: SNF (skilled nursing facility).

Source: SNF calendar year MedPAR data from CMS, Office of Research Development and Information.

Between 2004 and 2005, the number of Medicare SNF days increased at different rates among SNF case-mix groups.⁶ Two categories of RUG-IIIIs, ultra-high rehabilitation and very high rehabilitation, grew as a share of all freestanding Medicare-covered SNF days, while the share of days in all other rehabilitation and nonrehabilitation categories declined. The changes between 2004 and 2005 continue a trend in Medicare beneficiaries becoming even more concentrated in the rehabilitation RUG-IIIIs (Figure 3A-4, p. 174). Among rehabilitation groups, the distribution of patients shifted toward the highest payment rehabilitation groups with the most minutes of therapy. Together, the 3 ultra-high rehabilitation and 3 very high rehabilitation RUG-IIIIs at the top of the 44-group case-mix hierarchy represent about 42 percent of SNF days in 2005, an increase of 14 percentage points from just 3 years earlier. Additional research is necessary to explore the reasons for volume growth and the shift toward higher rehabilitation payment groups. They could be a function of several factors including changes in the site of service from other settings or favorable payment incentives for treating patients in rehabilitation RUG-IIIIs. From available data, we cannot assess whether these shifts toward higher payment groups indicate increased patient needs or whether patients benefit from additional therapy.

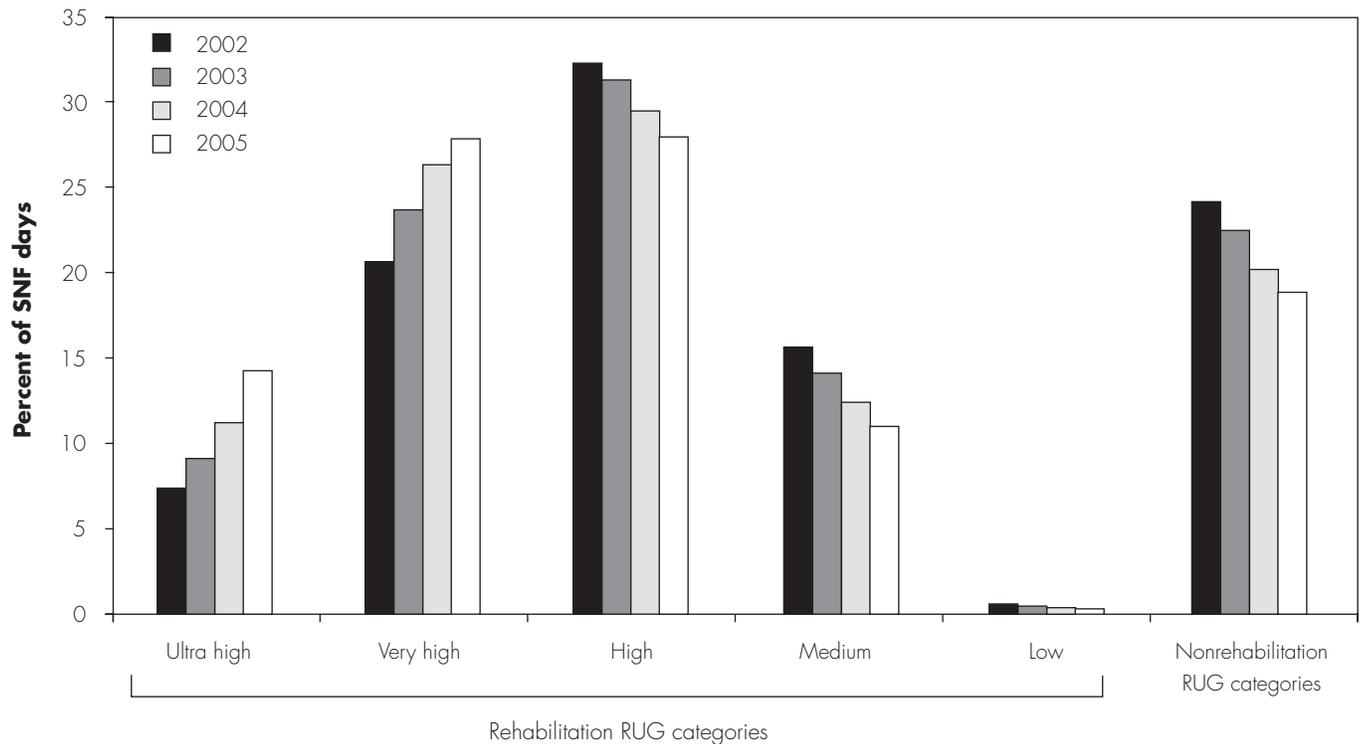
As a result of the shift toward higher rehabilitation case-mix groups, the average therapy case-mix index has increased and the average nursing case-mix index has slightly declined among freestanding SNFs. This means that as Medicare spending on SNF services increases overall, the program is paying for relatively more therapy and relatively less nursing and other items, like drugs,

included in the nursing portion of the base rate. The program still spends more on the nursing portion than on the therapy portion of the base rate, but the share of the program's SNF dollar going to therapy payments is growing.

The increasing use of therapy by a large and growing majority of Medicare SNF patients suggests that the population of SNF patients may be changing and adds still another reason for measuring the value of therapy. The Commission has previously recommended measuring functional status at admission and discharge to assess whether patients' status improves. This is one dimension of the value of care for many patients receiving therapy in a SNF (MedPAC 2006, 2005). However, the program does not currently collect data to enable such an assessment. Given the growth in therapy services in SNFs and payment system incentives to provide therapy, CMS should collect data to assess what the Medicare program and Medicare beneficiaries are getting for this spending, as the Commission has recommended in past reports (MedPAC 2006, 2005). In addition, because therapy services are provided in multiple settings and predicting the need for therapy is difficult, understanding the changes in functional status among SNF patients is a critical step to assessing the value of therapy spending and comparing outcomes across post-acute care settings (MedPAC 2006). The home health and inpatient rehabilitation assessment instruments already collect functional status data on patients at admission and discharge.

Quality of care

Two risk-adjusted measures of quality for short-stay patients in SNFs show that the quality of care for patients

**FIGURE
3A-4****Case mix in freestanding SNFs has shifted toward a greater share of and higher intensity rehabilitation RUG-III's**

Note: SNF (skilled nursing facility), RUG-III's (resource utilization groups, version III). Days are for freestanding skilled nursing facilities with valid cost report data.

Source: MedPAC analysis of freestanding SNF cost reports.

with a Medicare-covered SNF stay declined between 2000 and 2004 (Figure 3A-5).⁷ These measures are facility rates of: (1) potentially avoidable rehospitalization for any of five conditions (congestive heart failure, respiratory infection, urinary tract infection, sepsis, and electrolyte imbalance); and (2) community discharge within 100 days of admission to the SNF.⁸ The mean facility rates of rehospitalization within 100 days of admission increased from 11.8 percent in 2000 to 17.0 percent in 2004. Mean facility rates of community discharge within 100 days fell from 33.8 percent in 2000 to 32.8 percent in 2004. However, the mean rate in 2004 shows an increase over 2003, reversing a three-year trend of falling rates (Donelan-McCall et al. 2006).

We use these measures rather than the currently reported Nursing Home Compare measures (facility rates of delirium, pain, and pressure ulcers) for short-stay SNF patients because the currently reported measures have

a number of limitations, including sample bias and evidence that the measures are not valid (Abt 2005, Donelan-McCall et al. 2006, MedPAC 2006, MedPAC 2005). In addition to overcoming data limitations, rates of discharge to the community and potentially avoidable rehospitalizations capture important outcomes for patients admitted for a Medicare-covered SNF stay. For many SNF patients, a major goal of SNF care is rehabilitation for functional losses after surgery or extensive medical problems. The primary goals of rehabilitative therapy—which over three-quarters of Medicare SNF patients receive—are recovery of function and often discharge to the community (Donelan-McCall et al. 2006). Evidence of case-mix change also suggests that more patients are receiving more therapy. Avoiding unnecessary rehospitalization is important because the primary treatment goal for many SNF patients is stabilization of medical or postsurgical problems following an acute hospitalization (Donelan-McCall et al. 2006). Reducing

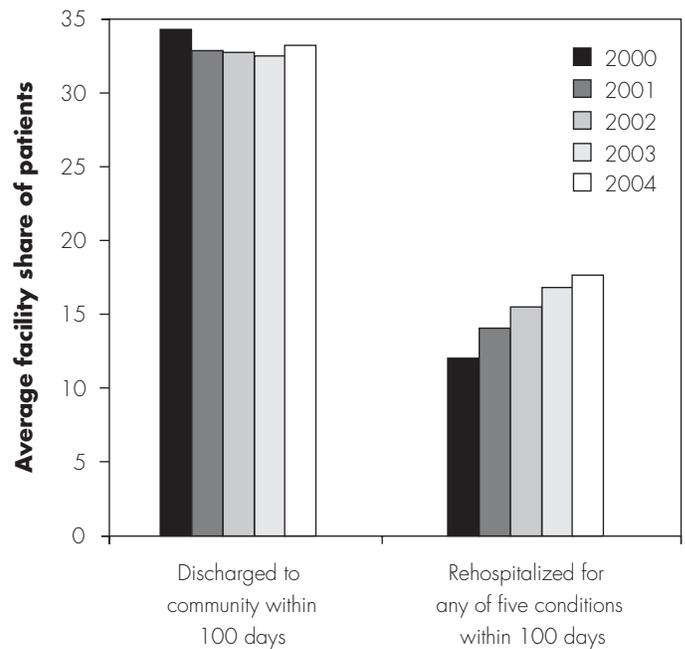
hospitalization for any of the five conditions measured requires the use of preventive measures in the SNF to avoid declining health, the early detection of signs and symptoms of worsening health, and prompt intervention by nursing staff and a physician when needed. Using this measure for reporting may also encourage SNFs not to take patients who are not ready for discharge from the hospital (Donelan-McCall et al. 2006).

When these measures were originally developed for CMS, rates of hospitalization for congestive heart failure, respiratory infection, urinary tract infection, sepsis, and electrolyte imbalance were found to be significantly lower in facilities with higher levels of nurse aides and licensed staff as well as in facilities with higher staff retention, after adjusting for facility case mix (Kramer and Fish 2001). The original study used data from the Medicaid program in states that require detailed data reporting on staffing to explore the relationship between staffing and outcomes. National data on Medicare-participating SNFs' staffing—including nursing costs and staff retention and turnover—are limited, which inhibits analysis of factors that have previously demonstrated a relationship to certain outcomes in SNFs. Given evidence of declining quality of care, collection of more detailed staffing data could answer questions about any relationship between quality and staffing levels, experience, retention, and costs and, in turn, could suggest mechanisms—such as staffing levels or staff training—to improve quality.

The Commission previously recommended collecting nursing cost and staffing information to facilitate the Medicare program's evaluation of the relationship between SNFs' nursing costs, staffing levels, turnover, experience, and quality of care (MedPAC 2004). Currently, SNFs must report total routine costs to CMS on their annual cost reports, but the program does not require separate reporting of nursing staff costs. Because many different kinds of nurses care for patients in SNFs and nursing homes, it would be useful for SNFs to break down the nursing costs by type of nurse (i.e., registered nurses, licensed practical nurses, and nurse aides). In addition, while CMS already collects basic information on nurse staffing in its survey and certification process, more detailed information on staffing by facility (e.g., number of nursing staff by type, including contract nurses, hours worked, and years of experience in the facility) would help evaluate the relationship between staffing, costs, and quality. To capitalize on existing personnel data and to limit reporting burden, CMS could explore using elements

**FIGURE
3A-5**

**Quality of care in SNFs
declined from 2000 to 2004**



Note: SNF (skilled nursing facility). The five conditions include congestive heart failure, respiratory infection, urinary tract infection, sepsis, and electrolyte imbalance. Repeated measures analysis of variance for all outcomes measures demonstrated a statistically significant effect ($p < 0.0001$) of time. In addition, comparisons between 2004 and all other years (e.g., 2004 and 2000, 2004 and 2001) and between consecutive years (e.g., 2000 and 2001, 2001 and 2002) were statistically significant at $p < 0.005$. The exception was community discharge within 100 days between 2002 and 2003. Rates are calculated in each year for all facilities with more than 25 stays.

Source: Donelan-McCall et al. 2006.

in electronic payroll systems to collect detailed staffing data (Kramer 2006).

Access to capital

Because of the relatively small share of nursing facility patient-days that are covered by the Medicare program and the relatively large share covered by Medicaid, SNFs' ability to access capital may be less attributable to Medicare payments than to Medicaid and private payers. (For additional discussion of Medicaid nursing home payment see the text box, p. 176.) However, given the relative generosity of its rates, Medicare is an important source of revenue for providers of SNF care. Industry analysts we spoke with report that increasing the share of Medicare patients in a facility is one strategy for improving overall financial performance and that, for some of the larger chains, Medicare patients make up a large and growing share of total patients.

Medicaid payment effects on nursing facility margins

As in other sectors, the Commission considers the Medicare margin, rather than total facility margin, to guide its update recommendation for skilled nursing facilities (SNFs). Industry representatives contend that the total margin, including Medicaid payments and costs, provides a more accurate picture of nursing facilities' financial situation than the Medicare margin. On average, Medicare payments accounted for 21 percent of revenues to freestanding SNFs in 2005. However, although they represent a small share of total patients in a facility, on average, Medicare payments are important to the financial bottom line for skilled nursing facilities. In a study of total facility margins, the Government Accountability Office (GAO) found that Medicaid's share of patients in a facility influenced the overall margin: The higher the share of Medicaid patient days in a facility, the lower its total margins (GAO 2002).

If we were to consider total, rather than Medicare, margins in the Commission's payment adequacy analysis we would have to address two questions (1) whether Medicaid payment rates are adequate, and (2) whether Medicare should explicitly pay more than the cost of providing care for Medicare beneficiaries to subsidize lower payments from other payers. Evidence on the adequacy of Medicaid payments is limited and likely varies by state. One study found that after the repeal of the Boren amendment in 1998, which gave states greater latitude to set nursing home payment rates and was expected to lead to rate cuts by some, aggregate inflation-adjusted Medicaid payment rates rose steadily (Grabowski et al. 2004). This study also found that the baseline rates, as well as the growth in rates varied by state. A GAO study of 19 states' Medicaid nursing home rates found that in the period

1998 through 2004, nursing home payment rates were largely unaffected by the repeal of the Boren amendment, although a few states cut or froze nursing home rates (GAO 2003).⁹ Both studies noted that nursing home payment rates could be affected by future state fiscal pressure. However, in its annual report on Medicaid budgets for state fiscal years 2006 and 2007, the Kaiser Commission on Medicaid and the Uninsured reported that state revenues continued to recover, "easing the imperative to implement major cost-containment measures" (Smith et al. 2006). One significant change that could affect nursing facilities noted in the report was that "a growing number of states are taking actions to balance their long-term care delivery systems by reducing reliance on institutional care and increase home and community based service options."

Regardless of the level of Medicaid payments, paying nursing facilities higher Medicare payments to compensate for any inadequacies in Medicaid payments would be inefficient and imprudent for the Medicare program. If Medicare were to pay still higher rates to subsidize low Medicaid payments, facilities with low Medicare shares and high Medicaid shares—presumably the facilities that need revenues the most—would receive the least if subsidies were provided in the form of higher Medicare payments. Given variation by state in the level and method of nursing homes' payments, a Medicare subsidy for Medicaid payment rates also raises the issue of how to equitably subsidize varying state Medicaid payments. In addition, states might be encouraged to reduce Medicaid payments, further increasing pressure to raise Medicare spending. ■

The large for-profit SNF providers appear to have good access to capital. The biggest concern related to Medicare payments for SNFs in the past year was the effect the RUG-III refinement would have on facilities' profitability and, in turn, the effect that would have on their ability to attract investors. According to analysts and industry reports, providers have successfully navigated the payment

system refinements and are reporting increased profits over the previous year, largely due to increasing Medicare volume and case mix (Stifel Nicolaus 2006). We do not have specific information about access to capital for different categories of SNFs, such as how access differs for nonprofits versus for profits.

For large companies that access capital through private equity markets, industry analysts we interviewed believe the SNF sector may now have the best access to capital of the past 10 years. In general, they said that the risk of investing in this sector has declined and investors are finding this sector attractive. This is a function of several factors, including more discipline among providers, who were highly leveraged at the time the PPS for SNFs was implemented, resulting in several highly publicized bankruptcies in the late 1990s. Analysts said that providers have emerged from that period with much better cash flow positions. Among other factors they cited that make nursing facilities attractive to investors are:

- stability in the reimbursement environment, including RUG refinement and improving state fiscal situations, which mitigates the threat of Medicaid cuts (see text box);
- SNFs being well positioned to benefit from Medicare's efforts to rationalize the provision of post-acute care because they are the lowest cost institutional setting;
- increasing demand for short-stay SNF care as a result of the aging of the population; and,
- the interest of real estate investors in the nursing facility properties.

Although information on access to capital for publicly traded nursing home chains is relatively accessible through financial reports, information about transactions of the smaller chains and nonprofit facilities' access to capital is more difficult to obtain. To examine access to capital for smaller providers, we spoke with an analyst at a commercial lender who said that smaller providers in the SNF sector also have good access to capital because of the perception of a generally stable reimbursement environment. For smaller providers, capital is available but gets more expensive as the size of the operator and geographic area served get smaller because the investment appears riskier. Banks generally look more favorably on facilities with higher Medicare and private pay shares of days because Medicaid is considered less desirable from a reimbursement perspective, but this varies by state. In addition to commercial banks, specialized finance companies have emerged since the BBA to provide capital to long-term care providers. These entities are another source of capital for SNFs.

An overall picture of access to capital for SNFs also comes from the National Investment Center (NIC), a nonprofit

that provides information about business strategy and capital formation for the senior living industry. NIC reported that key financial and operational indicators showed continued strength in seniors' housing, including SNFs. It reported that loan volumes for all sectors it tracks, including SNFs, were highest in the second quarter of 2006 than at any time since it began collecting data in 1999 (NIC 2006a). Loan performance has also been strong. The NIC noted caution moving forward because of interest rates, obsolescence of physical plants, and labor but also reported this year that it is a good time to be a borrower in senior care and housing (NIC 2006b).

Still another source of capital for nursing facilities is the federal government, which facilitates access to capital through a program operated by the Department of Housing and Urban Development (HUD). HUD's Section 232/223(f) program insures mortgages through HUD-approved lenders for construction and rehabilitation of nursing facilities and assisted living facilities. In fiscal year 2005, the programs insured new loans for nursing facilities totaling \$821 million for 128 facilities (HUD 2005).

Payments and costs for 2007

The Medicare margin for freestanding SNFs has fluctuated over the past five years. It fell from 17.6 percent in 2001 to 10.8 percent in 2003, the year following the elimination of two temporary payment add-ons. Margins rose again to 13.7 percent in 2004 and then dipped slightly in 2005 to 12.9 percent (Table 3A-4, p. 178). We estimate that the Medicare margin for freestanding SNFs in 2007 will be 11 percent.

As we have seen in earlier years, the distribution of margins in 2005 shows wide variation in performance among freestanding SNFs as well as variation by groups. One-quarter of all freestanding SNFs had margins at or below 4.7 percent, but half of all facilities had Medicare margins of at least 15.5 percent, and one-quarter of SNFs had margins of nearly 25 percent or more. We also continue to see differences in margin distributions by type of facility, with half the for-profit facilities reporting Medicare margins of 18 percent or more, while half the nonprofit SNFs have margins of 9 percent or less.

When modeling 2007 payments and costs with 2005 data, we incorporate policy changes that went into effect in 2006 and 2007. We also take into account payment changes, other than the planned update, scheduled to be in effect in

**TABLE
3A-4****Freestanding skilled nursing facility Medicare margins**

Type of SNF	2001	2002	2003	2004	2005
All	17.6%	17.4%	10.8%	13.7%	12.9%
Urban	17.4	16.8	10.0	13.0	12.3
Rural	18.4	20.0	14.1	16.5	15.4
For profit	20.0	20.1	14.0	16.7	15.5
Nonprofit	10.2	8.9	1.3	4.0	4.5
Government	4.5	3.1	-6.8	-3.6	-5.4

Note: SNF (skilled nursing facility). Margins are calculated as payments minus costs, divided by payments for each group; margins are based on Medicare-allowable costs.

Source: MedPAC analysis of freestanding SNF cost reports, August 2006 file.

2008. This year's assessment of SNF payment adequacy occurs in the context of several changes to the payment system that were effective in 2006. These payment policy changes are:

- a full market basket update of 3.1 percent for fiscal year 2006;
- RUG-III refinement;
- the expiration of two temporary payment add-ons—the 6.7 percent add-on for the 14 rehabilitation RUG-IIIs and the 20 percent add-on for the 12 extensive care, special care, and clinically complex RUG-IIIs; and
- a provision in the Deficit Reduction Act of 2005 that reduces bad debt payment for Medicare beneficiaries from 100 percent to 70 percent; bad debt for dually eligible beneficiaries will still be reimbursed at 100 percent.

We also consider cost growth in recent years when modeling future costs. Cost growth (unadjusted for case mix) for all freestanding SNFs accelerated from 2004 to 2005 (Figure 3A-6). Some of this change may be due to shifts toward higher rehabilitation RUGs. Average ancillary cost growth has been greater than routine cost growth, which is consistent with shifting case mix toward higher payment therapy case-mix groups. Cost growth between 2002 and 2005 has shown different trends in for-profit and nonprofit facilities, with the average rate of

growth declining in nonprofit SNFs but increasing in for-profit facilities.

The aggregate margin for hospital-based SNFs was -85 percent in 2005. Interpreting the negative aggregate Medicare margin for hospital-based SNFs is problematic because there is no conclusive evidence on the reason for the difference in average costs between hospital-based and freestanding SNFs. Allocation of overhead from the hospital may also account for a share of hospital-based SNFs' higher costs. Hospital-based SNFs may have higher cost structures or different practice patterns than freestanding nursing homes and may serve different patients. Underlying all of these potential explanations is uncertainty about whether higher costs of hospital-based SNFs result in clinical benefits or better quality. Comparison of quality across settings is confounded by poor case-mix measures and the potential for unobserved differences in patient characteristics in freestanding and hospital-based SNFs.

On average, hospital-based SNFs tend to serve largely Medicare beneficiaries and have a lower share of rehabilitation patients than freestanding SNFs. They also have shorter lengths of stay in the SNF and are more likely to use additional Medicare-covered post-acute care than patients in freestanding SNFs (Liu and Black 2003). These differences suggest that hospital-based SNFs may treat patients at an earlier stage in their post-acute care and may, in some cases, substitute for the end of an acute care stay rather than a freestanding SNF stay. More information about the entire episode of acute and post-acute care is

needed to appreciate the implications of differences in efficiency between episodes that include a stay in hospital-based and those that include freestanding SNFs.

Despite these general trends, the mix of patients at hospital-based SNFs is not uniform. On site visits with 15 hospital-based SNFs in 6 markets, we learned that those that have remained open described different ways of operating with respect to their SNF patient population:

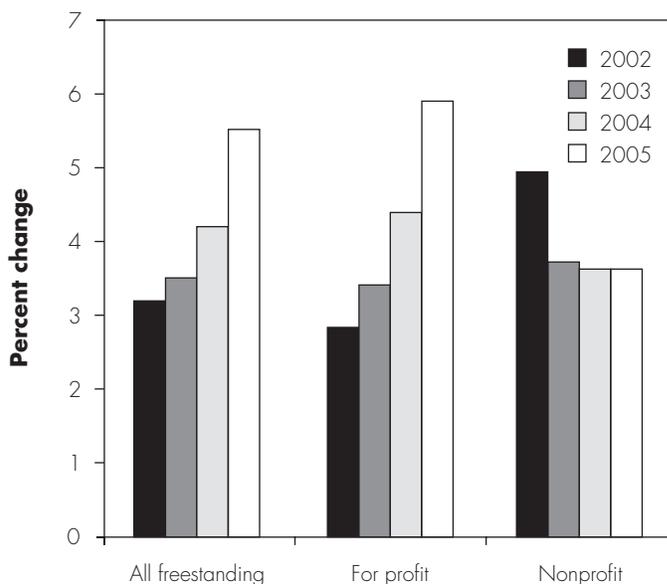
- selecting mostly Medicare patients who need rehabilitation services and are likely to be discharged home,
- selecting medically complex Medicare patients to shorten their hospital length of stay (LOS), and
- providing care to a small number of Medicare patients and a large number of long-term care residents. This model is similar to the general patient population in freestanding SNFs. Additional details on the site visits will be available from Liu and Jones (forthcoming).

These different approaches suggest that hospital-based SNFs select patients depending on how their SNF fits into the broader context of the hospitals' primary functions as acute care providers. On site visits, hospital officials said that they keep their hospital-based SNFs open in order to transfer some patients to the on-site SNF and thereby lower their inpatient LOS. The hospitals said they could not have transferred patients to freestanding SNFs as quickly. In some cases, hospitals said that other post-acute care providers did not have the ability or willingness to accept patients the hospital wanted to discharge.

Representatives from all of the hospitals on our site visits reported that certain types of patients are more difficult to place with post-acute care providers because of nursing care needs or costs of certain services that are not adequately reimbursed by the Medicare SNF per diem payment. In some cases, these patients may stay in the hospital longer. The representatives told us that Medicare payments for patients who receive rehabilitation services (physical, occupational, or speech-language pathology) make these patients very attractive. On the other hand, they consistently reported that Medicare payments are too low for patients who require intense skilled nursing care or a large amount of certain nontherapy ancillary services (e.g., IV medications, or ventilator care). The results from these site visits support previous findings that under the SNF

FIGURE 3A-6

Growth in freestanding SNFs' costs per day is accelerating, but nonprofits show slowing growth



Note: SNF (skilled nursing facility). Costs per day are unadjusted for case mix.

Source: MedPAC analysis of freestanding SNF cost reports, August 2006 file.

PPS, rehabilitation patients are financially attractive, while certain medically complex patients are not.

Because medically complex patients are treated in all types of SNFs, the payment system should be improved to better account for these patients' costs regardless of the type of facility that treats them. Creating different base rates for hospital-based and freestanding SNFs moves payment policy further in the direction of payment based on facility type. This is counter to the Commission's broad goal of a payment system that bases payment on patient needs and characteristics regardless of the setting (see Chapter 3) and looks across episodes of care rather than within a single stop on the continuum of care. CMS is beginning to examine assessment tools and payments across post-acute settings. Other payment policy changes, such as improving the accuracy of the case-mix system or paying for quality, are consistent with the Commission's goal to pay for necessary, quality care delivered efficiently regardless of the setting.

How should Medicare payments change in 2008?

Indicators of payment adequacy suggest continued access to SNF care, but quality is a concern. The overall supply of providers remained stable in 2006, registering a small decline overall. SNF volume increased and more patients are categorized into higher payment therapy case-mix groups. Two measures of the quality of care for Medicare SNF patients suggest a trend of declining quality between 2000 and 2004. Analysis of SNFs' Medicare payments and costs found that payments will more than cover SNFs' costs of caring for Medicare patients in 2007.

Although evidence suggests that SNFs can more than accommodate the cost of caring for Medicare beneficiaries in 2008 without an increase in the base rate, the case-mix system appears to inadequately adjust for the costs of different types of patients. Specifically, the system creates incentives to select profitable rehabilitation patients and avoid unprofitable, medically complex patients. SNFs that care for more patients with expensive nonrehabilitation therapy needs may not be able to operate as profitably under the PPS for SNFs as those that care for a higher proportion of patients with short-term rehabilitation needs. A system that creates profitable and unprofitable patients needs to be better refined. The Commission will continue to explore ways to modify the case-mix system to better account for the costs of all types of SNF patients, thereby reducing incentives to avoid certain types of patients.

Given the decline in average facility quality scores in the midst of double-digit aggregate Medicare margins, increasing payments to all SNFs will not necessarily improve quality. Increasing the base rate for all SNFs is too blunt a mechanism to encourage quality improvement because facilities would receive payment regardless of their quality and therefore have no incentive to invest in efforts that improve quality. We will continue to investigate

the level of and trends in facility quality scores. We are disaggregating below the national average to see whether, for example, certain facilities have different quality levels and trends over time and whether those are related to facility characteristics.

Update recommendation

SNFs should be able to accommodate cost changes in 2008 with the Medicare margin they have in 2007.

RECOMMENDATION 3A

The Congress should eliminate the update to payment rates for skilled nursing facility services for fiscal year 2008.

RATIONALE 3A

The evidence indicates that Medicare beneficiaries continue to have access to SNF services. Under policies in current law for 2007 and 2008, we project the Medicare margin for freestanding SNFs will be 11 percent in fiscal year 2007. SNF payments appear more than adequate to accommodate cost growth; thus, no update is needed.

IMPLICATIONS 3A

Spending

- This recommendation reduces Medicare spending relative to current law by \$250 million to \$750 million for fiscal year 2008 and by \$1 billion to \$5 billion over five years.

Beneficiary and provider

- No adverse impact on beneficiary access is expected. This recommendation is not expected to affect providers' willingness and ability to provide care to Medicare beneficiaries. ■

Endnotes

- 1 A new spell of illness begins once a beneficiary has not had a hospital or SNF stay for 60 consecutive days.
- 2 These are diagnosis codes recorded at discharge from the hospital.
- 3 With approval from CMS, certain Medicare-certified hospitals—typically small, rural hospitals and critical access hospitals—may also provide skilled nursing services in the same hospital beds they use to provide acute care services. These are called swing bed hospitals. We do not include an analysis of swing beds in this report. On July 1, 2002, Medicare began paying swing bed hospitals that are not critical access hospitals according to the SNF PPS for SNF services. Critical access hospitals continue to be paid for care in their swing beds based on their costs.
- 4 The annual payment update was market basket minus 1 percentage point in fiscal years 2000 and 2001, and it was market basket minus 0.5 percentage point in fiscal years 2002 and 2003. In fiscal year 2004 and beyond, the updates to the base rate have been the full market basket amount. In 2004, SNFs also received a 3.26 percent increase to correct for cumulative market basket forecast error since implementation of the PPS.
- 5 Under the 44-group system, patients who qualified for both of these categories based on clinical characteristics would be paid the highest daily rate for which they qualified. Under the 53-group system, patients who qualify for both groups are paid under 1 of the 9 new categories, which are now the highest paid groups.
- 6 The case-mix system during both of these years was the 44-group RUG–III system. The 53-group system did not go into effect until January 1, 2006.
- 7 For more extensive discussion of the quality measures discussed in this section and a description of how they were developed and calculated, see the contractor report prepared for MedPAC by researchers at the University of Colorado Health Sciences Center available at http://www.medpac.gov/publications/contractor_reports/Sep06_SNF_CONTRACTOR.pdf.
- 8 These five conditions are not necessarily the conditions for which the patient was originally hospitalized or was treated in the SNF.
- 9 According to the GAO report: “Four of these states—Illinois, Massachusetts, Michigan, and Texas—cut the per diem rates paid to all nursing homes at some point, and in 2 of these states, the rate reduction was for less than 1 year. Two other states—Connecticut and Oregon—also froze nursing home per diem rates for a portion of this period” (GAO 2003).

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SECTION
3 B

Home health services

R E C O M M E N D A T I O N

The Congress should eliminate the update to payment rates for home health care services for calendar year 2008.

COMMISSIONER VOTES: YES 13 • NO 0 • NOT VOTING 1 • ABSENT 3

SECTION 3B

Home health services

Section summary

Our indicators for home health services are positive. Access to care continues to be satisfactory, with more than 99 percent of beneficiaries living in an area served by a home health agency (HHA) in 2006. The number of beneficiaries using HHAs increased from 2.7 million in 2004 to 2.9 million in 2005. The number of HHAs participating in Medicare increased by 6.5 percent in 2006, with growth in the number of HHAs varying among regions. Quality measures also show an improvement. Our projection of the 2007 margin for freestanding agencies is 16.8 percent. Between 2004 and 2005 average cost per episode grew at a rate of 0.7 percent.

The data on access, quality, volume, and financial performance suggest that most agencies should be able to accommodate cost increases in 2008 without an increase in base payments. ■

In this section

- What is home health care and the home health payment system?
- Are Medicare payments adequate in 2007?
- How should Medicare payments change in 2008?
- Update recommendation
- Additional comments

The Congress should eliminate the update to payment rates for home health care services for calendar year 2008.

Recommendation 3B

COMMISSIONER VOTES:
YES 13 • NO 0 • NOT VOTING 1 • ABSENT 3

What is home health care and the home health payment system?

Medicare home health care consists of skilled nursing, physical therapy, occupational therapy, speech-language pathology, aide service, and medical social work that beneficiaries receive in their homes. To be eligible for Medicare's home health benefit, beneficiaries must need part-time (fewer than eight hours per day) or intermittent (temporary but not indefinite) skilled care to treat their illness or injury and must be unable to leave their homes without considerable effort. Medicare does not require beneficiaries to pay copayments or a deductible for home health services.

Medicare pays for home health service in 60-day units called episodes, which begin when patients are admitted to home health care. Most patients complete their course of care and are discharged before 60 days have passed. If they do not complete their care within 60 days, another episode will start and Medicare will pay for it, without a break in care.

Agencies receive one payment per episode for home health services. Medicare adjusts this payment based on measures of patients' clinical and functional severity, the use of certain health services preceding the home health episode, and the use of therapy during the episode. Payment also is adjusted for differences in local wages with the prefloor, prereclassification hospital wage index.¹ Medicare makes additional adjustments to some episodes under special circumstances:

- A low utilization payment adjustment (LUPA) requires a payment per visit if a patient receives four or fewer visits during an episode.
- An outlier payment can offset some of the excess cost of an episode if the imputed cost for the visits furnished exceeds Medicare's payments by a certain threshold. The per visit rates computed for the LUPA payments are used to calculate the costs of an episode.
- A significant change in condition adjustment can increase—or potentially decrease—the payment for days remaining in the episode after a major, unexpected change in the patient's health.
- A partial episode payment requires the initiating agency to split the payment for a patient who transfers from one agency to another during an episode.²

In the early 1990s, both the number of users and the amount of service they used grew rapidly. At the same time, the home health benefit increasingly began to resemble long-term care and to look less like the medical services of Medicare's other post-acute care benefits (MedPAC 2005b).

The growth in the early 1990s prompted concerns about the medical necessity of some of the services that were provided. Medicare responded with stricter enforcement of integrity standards and refinements to eligibility standards. In addition, the Balanced Budget Act of 1997 required the creation of a prospective payment system (PPS) to replace the cost-based payment system in the mid-1990s. After these changes, beneficiaries received fewer visits, and skilled nursing and therapy accounted for a larger share of services. The number of beneficiaries using home health services fell by about 1 million, and one-third of agencies providing services left the program. Spending decreased by about half. In the current decade, the trends have changed direction. The total number of beneficiaries using the benefit grew for the first time in several years between 2001 and 2002 and has continued to grow. Spending is also projected to grow at an average annual rate of 5.7 percent from 2006 to 2016 (Office of the Actuary 2006).

Assessing these historical trends is difficult because the service lacks clear, practical guidelines for identifying those whose characteristics suggest they would benefit from receiving the service and what services they ought to receive. Suggesting that more home health service is better and less is worse oversimplifies the case (MedPAC 2005a). Home health agencies (HHAs), like other post-acute providers, serve patients with both long-term and short-term needs. The Commission's goal for post-acute care is to move away from payments based on site of care and to base decisions about where beneficiaries receive post-acute care on patient characteristics and resource needs.

Are Medicare payments adequate in 2007?

Our indicators for home health are positive. The number of beneficiaries using HHAs increased by 0.2 million from 2004 to 2005 (from 2.7 million to 2.9 million). Almost all beneficiaries have good access to care; more than 99 percent lived in an area served by a HHA in 2006. Growth in volume of HHAs participating in Medicare varied

**TABLE
3B-1**

Trends in the provision of home health care

	2002	2003	2004	2005	Average annual percent change 2002-2005	Percent change 2004-2005
Supply of agencies	7,041	7,320	7,776	8,284	5.6%	6.5%
Beneficiaries (in millions)	2.4	2.6	2.7	2.9	5.6	6.1
Number of episodes* (in millions)	3.9	4.2	4.5	4.9	8.1	9.0
Average case mix	1.18	1.20	1.22	1.23	1.4	0.8
Average visits per episode	21.4	21.1	20.9	20.8	-0.9	-0.5
Average days in stay**						
1 episode	30.0	30.6	31.1	31.4	1.5	1.0
2 or more episodes	173.6	175.2	178.0	181.1	1.4	1.7

Note: *Includes low utilization payment adjustment episodes.

**Our previous calculations of average lengths of stay (LOS) for all episodes were biased by an error in data reporting. We addressed the data error this year by imputing the number of times LOS equals exactly 60.

Source: MedPAC analysis of home health Standard Analytic File.

among regions in 2006, with an overall increase of 6.5 percent. Quality measures also have shown improvement.

Beneficiaries' access to care

In this section we ask two questions:

- Do communities have providers?
- Do beneficiaries obtain care?

Most communities have more than one HHA. In the 12 months preceding June 2006, 99 percent of all Medicare beneficiaries lived in an area served by at least one HHA; 97 percent of beneficiaries lived in an area served by two or more HHAs. These numbers suggest that no substantially populated areas of the country lack HHAs. These percentages vary little from state to state, though rural states tend to have more areas served by only one HHA or not served by an HHA in the past 12 months.

Our geographic measure of access is based on data collected and maintained as part of CMS's Home Health Compare database as of October 2006. The service areas listed in the database are postal ZIP codes where an agency provided service 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.³ On the other hand, this definition may underestimate

access if HHAs are willing to serve certain ZIPs but did not receive any requests from those areas in the preceding 12 months.

Data from a 2004 survey of fee-for-service beneficiaries provide some information about whether beneficiaries can obtain home health care. Nearly 90 percent of the beneficiaries who responded to the Consumer Assessment of Healthcare Providers and Systems[®] for Medicare fee-for-service (CAHPS-FFS) about their home health experiences in 2004 reported that they had little or no difficulty accessing home health services when they sought them.⁴ While updated CAHPS-FFS data are not available for home health services in 2005, the other indicators of beneficiary access, such as number of HHAs and participating beneficiaries, suggest that the factors affecting access to home health services have not deteriorated since the last survey. The older CAHPS-FFS data are useful because they explore two areas the Home Health Compare data did not address—trends for beneficiaries who had access problems and the access experience of rural and urban beneficiaries:

- Beneficiaries who had significant access problems were more than proportionally represented among the beneficiaries who had access difficulties in other areas of health care, including prescription drugs, doctors, and specialists. This pattern might indicate

that the significant problems some beneficiaries faced in accessing home health care are not unique to home health care but are symptomatic of more general access difficulties. Ensuring adequate access to quality care is important, but systemic access problems cannot be addressed efficiently by adjusting home health payments.

- CAHPS–FFS also allows us to compare rural and urban beneficiaries’ experiences. As was the case in 2003, rural beneficiaries in 2004 reported better access to care than their urban counterparts: 82 percent of rural beneficiaries had no problem with access, compared with 77 percent of urban beneficiaries.⁵

A review of beneficiary access in 2004 by the Office of Inspector General (OIG) suggests that access to care remains adequate (OIG 2006). The OIG reported that 79 percent of hospital discharge planners had no difficulty placing beneficiaries; those with the most common conditions requiring home health services did not experience access problems. The OIG did not report the impact on the length of the stay in the hospital for beneficiaries who were difficult to place in home health care. However, the OIG found that patients who needed drug therapies or rehabilitation or who were clinically complex were more difficult for discharge planners to place. Some of these findings suggest the need for system refinements.

The finding on rehabilitation, however, is inconsistent with an incentive in the home health PPS that substantially increases payments for therapy cases; it is also inconsistent with other audits by the OIG that have suggested an overuse of therapy.⁶ The OIG reviewed claims that just met the threshold for higher payments based on therapy service provision for three different agencies in 2005 (OIG 2005a, 2005b, 2005c). At two agencies, the therapy provided failed a record review for medical necessity of services (64 of 74 claims failed in one case; 19 of 40 claims failed in the other case). In the third case, all 100 claims sampled met the test for medical necessity.

Changes in the volume of services

We considered three measures of volume: the number of beneficiaries using home health care, the number of episodes provided, and the amount of care beneficiaries received. Table 3B-1 shows increases in the number of users and episodes since 2002.

- Nearly 2.9 million beneficiaries used home health care in 2005—a 6.1 percent increase from 2004. This growth rate is higher than the 1.6 percent growth in the number of Medicare beneficiaries.
- Over the same period, the number of episodes rose from 4.5 million to 4.9 million (about 9 percent).
- Case mix has not changed significantly over the period, rising by less than 1 percent to 1.23 in 2005.

To capture the total care beneficiaries receive, we measure the intensity and duration of each stay. Between 2004 and 2005, the intensity of care provided over the 60-day episode fell slightly, though the average length of stay increased slightly. The number of visits within an episode, the intensity indicator, has been about 21 since 2002. We look at both indicators of volume because caring for patients at home requires home care agencies to monitor and support beneficiaries over a period of time with periodic, in-person visits.

Table 3B-1 shows that in 2005 the average duration of home health stays that are one episode long was about 31.4 days, a 1 percent increase from 2004. Seventy-six percent of all stays have one episode, but some beneficiaries use several consecutive episodes of home health care. For stays with 2 or more episodes, the average length of stay in 2005 was about 181 days, or three episodes long. This is also a small increase from 2004.

The average number of episodes per beneficiary in 2005 shows that, even after adjusting for the larger number of beneficiaries, more users required a second episode of home health care. The average number of episodes per beneficiary in 2005 was 1.7, while in 2002 the average was 1.6.

Since 2002, rural beneficiaries have used more episodes per beneficiary than urban users; this trend has persisted as the number of episodes per beneficiary in both categories has increased. Between 2002 and 2005, rural episodes per beneficiary increased from 1.5 to 1.7, and urban use increased from 1.4 to 1.5. However, the ratio of rural to urban episodes per beneficiary has been nearly constant over the four years, which suggests that rural add-on payments made in 2002 and 2004 did not increase the average number of episodes rural beneficiaries used relative to their urban counterparts.

**TABLE
3B-2****Share of patients achieving positive outcomes continues to increase**

Measure	2003	2004	2005	2006
Improvement in:				
Walking	34%	36%	38%	40%
Getting out of bed	49	51	52	52
Bathing	57	60	61	63
Managing oral medications	35	38	39	41
Patients have less pain	57	59	61	62
Any hospital admission	28	28	28	28
Any unplanned ER use	21	21	21	21

Note: ER (emergency room).

Source: MedPAC analysis of CMS Home Health Compare data.

Changes in quality

Medicare uses the Outcome and Assessment Information Set (OASIS) to measure patients' clinical severity and functional limitations at the beginning and end of an episode of home health care. It allows HHAs to track their patients' outcomes and to change their use of resources, care planning, and other processes to improve service. CMS also uses OASIS to produce reports for agencies and publishes OASIS-based quality information to guide consumers to choose high-quality providers.

The quality measures in Table 3B-2 are the items from OASIS that Medicare reports to the public. The first five rows represent the patients who improved as a percentage of the total number who were admitted with some level of limitation for each time period; increases in these percentages indicate improving or stable quality. The final two rows represent the percentage of patients who used the hospital or the emergency room (ER) while under the care of a HHA. For these measures, lower scores suggest better care. The rate of hospital admission or unplanned ER use has not changed in the last four years.

These quality indicators are risk adjusted to account for patients' diagnoses, comorbidities, and functional limitations. Thus, the improvements over time should measure small increases in the quality of care from HHAs rather than changes in patient characteristics. There have been small annual gains in quality in several categories but no decreases in the rate at which beneficiaries are hospitalized or have to visit the ER.

Medicare's payment systems need to change to encourage quality care, and in 2005 the Commission recommended that Medicare introduce a pay-for-performance program into the home health payment system. Medicare already uses nonfinancial incentives and other tools for improving quality, but generally the current payment system fails to financially reward plans or providers who improve quality. We developed the following criteria for pay-for-performance measures:

- Measures must be evidence based, broadly understood, and accepted.
- Most providers and plans must be able to improve on the measures; otherwise, only a few beneficiaries may receive improved care.
- Incentives should not discourage providers from taking higher risk or more complex patients.
- Information to measure the quality of a plan or provider should be collected in a standardized format without excessively burdening the parties involved.

Along with our recommendation to start pay for performance in home health care, the Commission also recommended that process measures be developed. In 2006, we convened an expert panel as a step toward adding process measures to the home health set. The panel collected data on best practices in fall prevention and wound care and gauged the expert consensus on the link between these processes of care and improved patient outcomes. These practices could be developed into good quality measures that satisfy the Commission's criteria. MedPAC will issue a report in June 2007 that addresses the design of a pay-for-performance program for home health care.

Changes in the supply of agencies

It is difficult to determine how changes in the number of providers can affect beneficiaries. On the one hand, a decrease in the number of agencies may be the result of mergers or consolidations that does not reflect a decrease in the capacity available to serve beneficiaries. On the other hand, it is difficult to gauge how new agencies affect local capacity, as some of them may be small and have small staffs or limited services.

Over the past 10 years, the number of HHAs in the Medicare program has risen, fallen, and risen again. Under the earlier cost-based payment system, hundreds of agencies entered the Medicare program. At the peak in

1997, almost 11,000 agencies had Medicare certification. The trend switched under the interim payment system of cost limits, which began in 1997. Between 1997 and 2000, about 3,000 agencies left the program.

There were 7,041 agencies in 2002; since then, the number has increased by about 5.6 percent a year. In 2005, there were 8,284 agencies in the program, and in 2006 there were 8,802. This growth represents a 6.3 percent increase (compared with only about a 1.5 percent increase in the size of the beneficiary population) and a 25 percent increase in the total number of agencies since 2002.

Both the entry and exit of providers drive trends in net growth. The variation in this net growth among states is significant, with some states seeing little or no change and others experiencing significant increases or decreases in the number of agencies. California and Texas, two of the six states with the highest net growth over the last four years, accounted for 67 percent of the gain in agencies. These states grew by an average of 272 providers per state; 25 states or territories experienced growth of 1 to 31 agencies, an average growth of 9 agencies; and 18 states experienced an average decline of about 5 agencies.

The growth or decrease relative to the state's overall stock of HHAs also varies. Each category of growth indicated in Table 3B-3 includes both large and small states, except the category with the highest growth, which is dominated by large states. Because of this variation, even states in the categories that experienced a smaller absolute change may have seen a significant change relative to the number of providers. For example, Montana lost 13 agencies, which equals a decline of about 25 percent. In contrast, Minnesota saw a decline of 14 agencies, a decrease of about 6 percent because it has more providers. Trends in beneficiary growth, volume, and episode growth per beneficiary also varied for the states in each category. These variations suggest that there is not always a direct relationship between changes in the beneficiary population and changes in the number of HHAs and that care must be exercised in assessing the implication of the change in agencies for beneficiaries and the Medicare program. Consistent with the national trends in volume, the episode per beneficiary growth is positive for each of the four categories. For example, the category of states with a decrease in agencies had an average annual increase of 4.4 percent in the number of episodes per beneficiary from 2002 through 2005.⁷ In fact all categories of states averaged a net increase in the number of episodes per beneficiary. Finally, it is worth noting that in the case

**TABLE
3B-3**

Change in home health agencies varies among states, 2002-2006

	Number of states	Average change
Decrease	18	-5.4
No change	4	0.0
Increase		
Between 1 and 31 agencies	25	9.0
More than 90 agencies	6	272.0

Source: CMS provider certification data.

of Montana a decline in the number of agencies is coupled with a 1 percent annual decline in episodes per beneficiary. Minnesota had a 3 percent increase in episodes per beneficiary.

This analysis of change looks solely at the net change in agencies and does not assess how the supply is changing relative to factors that drive demand. The growth noted in Table 3B-3 may be due to changes in demographics or beneficiary service needs. Further analysis is necessary to understand how the increases in HHAs are related to these factors and the extent to which the number of agencies affects utilization and access.

HHAs vary significantly in their patient capacity, so the number of providers, or the change in the number of providers, in an area may not be an accurate measure of the capacity available to beneficiaries. For example, HHAs in the lowest quintile of volume delivered fewer than 140 episodes, while some of the largest agencies provide more than 1,100 episodes a year. Also, because home health care is not facility based, agencies have the flexibility to adjust their service areas and staffing as local conditions change. Even the number of employees is not a capacity measure because many HHAs use contracted therapists, aides, and nurses to meet their patients' needs.

The growth in the number of providers underscores that Medicare's rules for certifying new agencies are critical for safeguarding the interests of beneficiaries and the Medicare program. A range of factors, such as state regulation, variation in the practice of medicine, and regional differences in reimbursement, could be creating the differences. MedPAC plans to look at the trends and

**TABLE
3B-4**

Margins for freestanding home health agencies

	2004	2005	Percent of agencies (2005)
All	16.0%	16.7%	100%
Geography			
Urban	15.9	16.5	62
Rural	11.8	13.7	12
Mixed	17.0	17.7	25
Type of control			
Nonprofit	12.4	13.3	16
For profit	18.1	18.2	77
Government	8.1	10.7	7
Volume quintile			
First	13.1	16.3	20
Second	10.5	12.0	20
Third	12.9	12.5	20
Fourth	15.9	17.2	20
Fifth	17.5	17.9	20

Note: Analysis includes 4,049 agencies for 2004 and 4,535 agencies for 2005.

Source: MedPAC analysis of 2004–2005 Cost Report files.

Medicare’s conditions of participation to better understand the implications for Medicare of the recent growth in the number of agencies.

Home health agencies’ access to capital

Few HHAs access capital through publicly traded shares or public debt. Access to capital for the overwhelming majority of HHAs appears to be largely determined by size: Most agencies are too small for commercial capital markets. HHAs are not as capital intensive as other providers because they do not require extensive physical infrastructure. Investor analyses of the leading publicly traded companies are unreliable indicators of the general industry for two reasons. First, Medicare home health care has a small share of the entire home care market that investors analyze, which includes nonskilled Medicaid and private duty nursing, nurse staffing services, home infusion, and home oxygen services. Second, publicly traded companies are a small portion of the total number of agencies in the industry.

Though financial data for the industry overall are limited, the data on entry into the market by new HHAs can provide some insight. In 2006, about 722 new HHAs entered the program. More than 95 percent of them are for-profit agencies. The growth rate in 2006, 6.5 percent, exceeds the average growth in HHAs of 5.6 percent from 2002 through 2005. The continued growth in 2006 suggests that the industry has adequate access to capital for expansion and that the payment freeze implemented for 2006 did not substantially diminish the industry’s outlook.

Payments and costs for 2007

In addressing payment adequacy, the Commission also considers the relationship between Medicare payments and costs in 2007. Our model of HHA margins is based on data from about 4,500 freestanding HHAs.

Hospital-based agencies are not included in our estimate of the aggregate margin for home health care. In 2005, the aggregate margin for hospital-based agencies was –1.5 percent, lower than the 16.7 percent for freestanding agencies. Previous research suggests that this discrepancy is not attributable to factors that would cause the margins of efficient providers to differ. For example, a review of 2001 data found that hospital-based providers were similar to freestanding ones in several respects, such as case mix, average reimbursement per agency, volume of patients, and average number of visits (MedPAC 2004). These similarities, along with the fact that hospital-based and freestanding providers deliver care in the same setting—the beneficiary’s home—suggest that differences in financial performance are due to other factors. The higher costs of hospital providers may reflect the allocation of overhead from the hospital or other differences in cost structure.

In modeling 2007 payments and costs, we incorporate policy changes that went into effect between the year of our most recent data (2005) and the year of margin projection (2006) as well as those changes scheduled to be in effect in 2007. These include:

- **No market basket update for 2006.** The Deficit Reduction Act (DRA) kept the 2006 base payment at the 2005 level.
- **The 5 percent rural add-on for services provided to beneficiaries living outside metropolitan areas in 2006.** The DRA restored the 5 percent rural add-on that expired in April 2005. Like earlier add-ons, the

DRA add-on increased payments to HHAs that served rural beneficiaries in calendar year 2006.

- **Implementation of new wage areas in 2007.** The home health PPS will complete the transition to the new labor areas and wage indexes developed after the 2000 U.S. census, already in use by the inpatient PPS. In 2006, the wage index was based on a blend of the previous system and the new system. According to CMS, the new wage areas will result in a slight decrease in payments for HHAs in urban areas and a modest increase in payments in rural areas.
- **Quality reporting.** The DRA requires that HHAs report quality measures to Medicare to receive the full market basket update; HHAs that do not report will have 2 percentage points deducted from their update. It is anticipated that few, if any, HHAs will be subject to the reduction. The data HHAs will be submitting to meet the requirement will come from the current OASIS instrument, which HHAs are already required to complete under the Medicare conditions of participation. Because no new information is being collected, the DRA measure will not provide new quality information for measuring provider performance.

The aggregate margin in 2005 for freestanding HHAs was 16.7 percent (Table 3B-4). The distribution of margins in 2005 was similar to that in previous years; about 20 percent of HHAs reported negative margins, the margin was 2.3 percent at the 25th percentile, the median agency margin was 15.0 percent, and the margin was 27.3 percent at the 75th percentile. HHA margins for 2007 are projected to equal 16.8 percent.

The aggregate cost of providing an episode of home health care has increased very little over the past several years. Between 2004 and 2005, the reported average cost per episode grew by about 0.7 percent. Because the average cost per episode is rising more slowly than the price of inputs—the market basket grew about 3 percent per year from 2002 to 2005—and the average number of visits has remained about the same, the average cost per visit appears to have decreased. Agencies might be reducing the length of visits, reducing overhead costs, or making other changes that reduce the cost of visits.

How should Medicare payments change in 2008?

The evidence suggests that payments for home health care are adequate to provide access to quality care.

Update recommendation

RECOMMENDATION 3B

The Congress should eliminate the update to payment rates for home health care services for calendar year 2008.

RATIONALE 3B

Our evidence suggests that there is adequate access to quality home health care for beneficiaries. The number of agencies in the program continues to rise, the number of beneficiaries using the benefit continues to increase, and the margins indicate that HHAs' payments exceed their costs. For most measures, quality continues to improve. These factors suggest that most agencies should be able to accommodate cost increases over the coming year without an increase in base payments.

IMPLICATIONS 3B

Spending

- This recommendation decreases federal program spending relative to current law by between \$200 million and \$600 million in one year and between \$1 billion and \$5 billion over five years.

Beneficiary and provider

- No adverse impacts are expected. This recommendation is not expected to affect providers' ability to provide care to Medicare beneficiaries.

Additional comments

We have noted in several past reports that the change in incentives facing HHAs after the PPS began in 2000 may have changed the relationship between case mix and costs upon which the system was built. The Commission has noted several findings that suggest the need for refinements to the home health PPS:

- The current home health product includes fewer visits and a higher proportion of therapy than it did when the system was created.
- The variation in minutes of service within case-mix groups suggests that care within case-mix groups is not homogenous.
- When we explored the correlations of agency characteristics (e.g., size and type of control) and agency margins, we found no evidence of any

substantial, strong relationships. However, we found that agencies' average case mix had a small but statistically significant relationship with HHA margins. Ideally, agencies' case mix and margin would be unrelated because on average the case-mix adjustment would accurately match payments to costs.

These findings suggest that the home health PPS needs to be improved to provide appropriate incentives to providers and ensure that the system reflects the current mix of services beneficiaries use. ■

Endnotes

- 1 The wage index adjusts Medicare payments to reflect the local variation in labor costs. The home health prospective payment system (PPS) uses the hospital wage index values derived from hospital cost reports. Some hospitals, either through an administrative reclassification process or through an exception for urban areas with low wage index values, can be assigned a wage index from another area. The wage index for the home health PPS does not follow these exceptions and is referred to as the pefloor, prereclassified hospital wage index.
- 2 Partial episode payments are also made when a patient is readmitted to the same agency for a different condition within 60 days of the admission date of the previous episode.
- 3 An area is considered to be served if only one beneficiary received care.
- 4 Of all beneficiaries surveyed in 2004, 8.8 percent indicated that they needed home health care.
- 5 The percentages cited here include only beneficiaries who had no difficulty with access, and as a result are lower than the CAHPS–FFS measure cited earlier.
- 6 The home health PPS increases payment for beneficiaries who need 10 or more therapy visits. These increases range from about \$600 to \$2,640 per episode.
- 7 The episode per beneficiary calculations are for a different period, 2002 through 2005, because claims data for 2006 are not yet available.

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SECTION
3 C

**Inpatient rehabilitation
facility services**

R E C O M M E N D A T I O N

The Congress should update payment rates for inpatient rehabilitation facility services by 1 percent for fiscal year 2008.

COMMISSIONER VOTES: YES 14 • NO 0 • NOT VOTING 0 • ABSENT 3

SECTION 3C

Inpatient rehabilitation facility services

Section summary

In this section, we present information on providers of intensive rehabilitation services—such as physical, occupational, and speech therapy—in an inpatient setting. Beneficiaries generally must be able to tolerate and benefit from three hours of therapy per day to be eligible for treatment in a rehabilitation hospital or unit, also called an inpatient rehabilitation facility (IRF). Medicare, the principal payer for IRF services, accounts for about 70 percent of discharges. Medicare payments to IRFs were \$6.4 billion in 2005.

After the cost-based payment system ended and the per case prospective payment system (PPS) began in 2002, the number of facilities, volume of cases, and payments grew while costs per case declined. In 2004, CMS modified the 75 percent rule, which required that 75 percent of IRF admissions have one or more conditions from a specified list. Enforcement of this modified policy is the main reason the volume of patients admitted to IRFs declined in 2005 and 2006.

In this section

- What is inpatient rehabilitation facility care and where is it provided?
- Are Medicare payments adequate in 2007?
- How should Medicare payments change in 2008?
- Update recommendation

We have a mix of data for examining payment adequacy. Some data are available through 2005, the first full year of the transition to the revised 75 percent rule. Patient assessment data provide a preliminary picture of 2006, the second year of the phase-in of the revised rule.

Supply of facilities—The supply of IRFs increased after implementation of the PPS at 1.6 percent per year from 2002 to 2004, but it remained stable in 2005 (increasing by 4 facilities to a total of 1,231). Rural IRFs, however, have had a different trend: Their number increased rapidly under PPS, consistent with the rural adjustment of about 20 percent included in the PPS payment. From 2002 to 2004, the number of rural IRFs increased by more than 4 percent per year and then grew at almost double that rate from 2004 to 2005. For-profit IRFs also have had a different growth trend. The number of for-profit IRFs grew at a faster pace than the number of nonprofit IRFs after implementation of the PPS, with even faster growth from 2004 to 2005 when for-profit IRFs grew at 3.7 percent per year compared with –1 percent for nonprofit IRFs.

Volume of services and beneficiaries' access to care—The number of IRF cases increased rapidly after introduction of the PPS (by 6 percent from 2002 to 2004), but the number of cases decreased (by 10 percent from 2004 to 2005) as the 75 percent rule started to be phased in. Medicare spending increased at almost 16 percent per year from 2002 to 2004 and decreased by 3 percent from 2004 to 2005. The patients still treated by IRFs in 2005 were more complex than those who shifted to alternative settings. From 2004 to 2005, IRFs experienced a 6 percent increase in case-mix index (CMI). These changes are consistent with the first year of the revised 75 percent rule and IRFs admitting more cases compliant with it. Noncompliant cases have much lower relative weights (0.93) than compliant cases (1.34) (eRehabData[®] 2006). We have no direct measures of beneficiaries' access to care, but an indirect measure of access, the number of beneficiaries who used IRFs, increased by almost 7 percent annually from 2002 to 2004 and then decreased by 9 percent from 2004 to 2005. If patients who

need intensive rehabilitation are getting it and achieving good outcomes somewhere else, the drop in volume may not be an access issue.

Quality—Between 2004 and 2006, quality indicators for all IRF patients and for those who were discharged home improved slightly. Our quality indicator for IRFs is the number of points gained on a scale of patients' ability to function between admission and discharge. All patients improved from 22.9 points gained in 2004 to 23.4 points in 2006, an improvement of about 2 percent. Patients discharged home improved their scores from 25.9 points gained in 2004 to 26.9 points in 2006, an improvement of almost 4 percent over the same years.

Access to capital— Hospital-based units represent more than 80 percent of IRFs. They access capital through their parent institutions, which have good access as we discuss in Chapter 2A. Freestanding IRFs also appear to have access to capital; a new chain of freestanding IRFs has raised capital from private equity firms.

Payments and costs—With the introduction of the IRF PPS in 2002, payments per case rose rapidly and growth in costs per case remained low in both 2002 and 2003. Implementation of the revised 75 percent rule resulted in the growth in costs per case accelerating between 2004 and 2005 at 10.1 percent as CMI increased and the volume of cases declined. The increase in the CMI and consequent increase in costs are primarily due to a decrease in the volume of less intensive cases in IRFs.

We estimate that the aggregate Medicare margin for 2005 is 13.0 percent. The IRFs at the 25th percentile have a margin of -4 percent and those at the 75th percentile have a margin of 22 percent in 2005. For-profit IRFs have a margin twice that of nonprofits. We estimate that margins in 2007 will be 2.7 percent, largely because of the effect of the 75 percent rule. If we vary our assumptions about growth in per case costs in response to the 75 percent rule, the margin will range between 0.5 percent and 5.5 percent.

Our recommendation strikes a balance between two considerations. On the one hand, the 75 percent rule is dramatic in its effect on volume and in the consequences if IRFs do not meet it. On the other hand, in the past IRFs benefited from poor enforcement of the rule and the industry has not yet restructured costs to reflect the changes in volume. If IRFs are able to control their costs to compensate for the drop in volume, their 2007 margins could be as high as 5.5 percent, which would allow them to accommodate growth in cost with a 1 percent update. Therefore, we recommend that the Congress update payment rates for IRFs for 2008 by 1 percent. ■

Recommendation 3C

COMMISSIONER VOTES:

YES 14 • NO 0 • NOT VOTING 0 • ABSENT 3

The Congress should update payment rates for inpatient rehabilitation facility services by 1 percent for fiscal year 2008.

What is inpatient rehabilitation facility care and where is it provided?

After an illness, injury, or surgery, some patients receive intensive rehabilitation services—such as physical, occupational, or speech therapy—in an inpatient setting. Relatively few Medicare beneficiaries use intensive rehabilitation therapy because they generally must be able to tolerate and benefit from three hours of therapy per day to be eligible for treatment in an inpatient rehabilitation facility (IRF). IRFs may be freestanding hospitals or specialized, hospital-based units.

Medicare, the principal payer for IRF services, accounts for about 70 percent of discharges. About 410,000 beneficiaries received care in IRFs in 2005 (Figure 3C-1), with Medicare paying \$6.4 billion (Table 3C-1, p. 206).

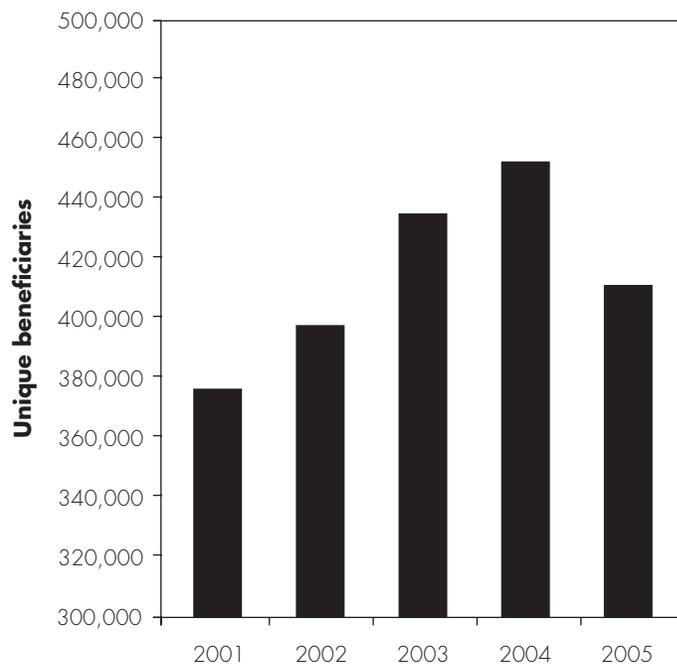
The most common rehabilitation conditions for Medicare beneficiaries for 2004 to 2006 are shown in Table 3C-2, p. 206. The revised 75 percent rule (discussed in the text box, p. 208) already has affected the distribution of IRF diagnoses as well as the volume of cases. The most frequent rehabilitation diagnosis changed from major joint replacement in 2004 to stroke in 2006. In 2004, stroke patients made up almost 17 percent of IRF cases; by 2006, they made up about 20 percent, although the absolute number of stroke patients declined. In contrast, in 2004 major joint replacement patients made up almost 25 percent of IRF cases; by 2006, these patients made up about 18 percent. In 1996, major joint replacements made up about one-fourth of IRF cases (MedPAC 1998).

To qualify as an IRF for Medicare payment, facilities must meet the Medicare conditions of participation for acute care hospitals. They also must meet the following conditions:

- have a preadmission screening process to determine that each prospective patient is likely to benefit significantly from an intensive inpatient rehabilitation program;
- use a coordinated multidisciplinary team approach that includes rehabilitation nurses, physical and occupational therapists, and speech-language pathologists;
- have a full-time director of rehabilitation, with training or experience in rehabilitating patients; and

FIGURE 3C-1

Beneficiaries using IRFs under PPS



Note: IRF (inpatient rehabilitation facility), PPS (prospective payment system).

Source: MedPAC analysis of MedPAR data from CMS.

- have no fewer than 75 percent of all patients admitted for each year with 1 or more of 13 conditions, such as stroke or burns (see the text box, pp. 208–209, that describes the phase-in schedule).

Fiscal intermediary behavior and local coverage determinations also affect IRFs. We plan to examine these issues in the future.

Beginning in January 2002, IRFs have been paid prospective per case rates based primarily on patient characteristics, the facility's wage index, and facility characteristics. Before that, IRFs were paid under the Tax Equity and Fiscal Responsibility Act of 1982, on the basis of their average costs per discharge, up to an annually adjusted facility-specific limit. As of 2004, these facilities are paid entirely at prospective payment system (PPS) rates on a per discharge basis (more information on the IRF PPS is available at http://www.medpac.gov/publications/other_reports/Sept06_MedPAC_Payment_Basics_IRF.pdf).

**TABLE
3C-1****The trend in volume of IRF cases reversed between 2004 and 2005**

	2002	2003	2004	2005	Annual change 2002-2004	Change 2004-2005
Number of cases	439,631	478,723	496,695	449,321	6.4%	-9.5%
Medicare spending (in billions)	\$4.9	\$6.2	\$6.6	\$6.4	15.5	-3.0
Payment per case	\$11,152	\$12,952	\$13,275	\$14,248	9.1	7.3
Average length of stay (in days)	13.3	12.8	12.7	13.1	-2.4	3.6

Note: IRF (inpatient rehabilitation facility).

Source: MedPAC analysis of MedPAR data from CMS.

Are Medicare payments adequate in 2007?

We examine the following factors in determining the adequacy of Medicare payments to IRFs:

- supply of facilities
- volume of services and beneficiaries' access to care
- quality
- access to capital
- payments and costs

Our indicators of adequacy are mixed. The number of IRFs increased after implementation of the PPS and then remained stable from 2004 to 2005, although the numbers of rural and freestanding IRFs both continued to grow. After the PPS began in 2002, the volume of cases and Medicare spending grew rapidly. From 2004 to 2005, the number of cases and spending dropped as IRFs responded to the revised 75 percent rule. We have no direct indicators of beneficiaries' access to care. Quality indicators for all IRF patients and patients discharged home improved slightly from 2004 to 2006. IRFs appear to have access to capital: Hospital-based units have access through their parent institutions and freestanding IRFs are able to raise capital from private lenders.

The aggregate Medicare margin for 2005 is estimated to be 13.0 percent. Because of changes in payment policies, increases in costs, and responses to the 75 percent rule, the estimated margin for 2007 is 2.7 percent.

Changes in supply of providers

The supply of IRFs increased after implementation of the PPS at 1.6 percent per year from 2002 to 2004 but remained stable during the next year, increasing by 4 facilities to a total of 1,231 (Table 3C-3). Rural IRFs, however, have a different trend: Their number increased rapidly under the PPS, consistent with the rural adjustment of about 20 percent included in the PPS payment. From 2002 to 2004, the number of rural IRFs increased by more than 4 percent per year and then grew at almost double that rate (about 7 percent) from 2004 to 2005. Another factor

**TABLE
3C-2****Most common types of cases in inpatient rehabilitation facilities**

Type of case	2004	2005	2006
Stroke	16.6%	19.0%	20.3%
Major joint replacement	24.6	21.3	18.4
Hip fracture	13.1	15.0	16.0
Burns	11.8	10.4	10.2
Neurological	5.1	6.0	6.7
Brain injury	4.0	5.1	5.8
Other orthopedic	5.2	5.1	5.0
Spinal cord injury	4.4	4.4	4.6
Cardiac	5.2	4.2	4.0
Other	10.0	9.5	9.0

Note: Figures are the share of cases for that condition for each year. Other includes conditions such as major medical trauma, amputations, and pain syndrome.

Source: MedPAC analysis of Inpatient Rehabilitation Facility-Patient Assessment Instrument data from CMS for 2004, 2005, and January 1 through June 30, 2006.

**TABLE
3C-3**

Number of IRFs remained stable from 2004 to 2005

Type of IRF	TEFRA		PPS				Annual change 2002-2004	Change 2004-2005
	2000	2001	2002	2003	2004	2005		
All IRFs	1,117	1,157	1,188	1,211	1,227	1,231	1.6%	0.3%
Urban	950	971	988	1,001	1,009	1,000	1.1	-0.9
Rural	167	186	200	210	218	231	4.4	6.7
Freestanding	195	214	215	215	217	217	0.5	0.0
Hospital based	922	943	973	996	1,010	1,014	1.9	0.4
Nonprofit	731	733	755	765	772	765	1.1	-0.9
For profit	240	271	277	290	294	305	3.0	3.7
Government	146	153	156	156	161	161	1.6	0.0

Note: IRF (inpatient rehabilitation facility), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system).

Source: MedPAC analysis of Provider of Service files from CMS.

contributing to this growth is the ability of critical access hospitals to open IRF units as of October 2004.

For-profit IRFs also have a different growth trend. The number of for-profit IRFs grew at a faster pace than nonprofit IRFs after implementation of the PPS. For-profit IRFs grew at 3 percent per year from 2002 to 2004 and at 3.7 percent per year from 2004 to 2005. During the same periods, nonprofit IRFs grew at 1.1 percent and decreased 0.9 percent per year, respectively.

Changes in volume of services and access to care

After rapid increases in the number of cases and in Medicare spending from 2002 to 2004, the number of IRF discharges decreased from 2004 to 2005 (Table 3C-1). IRF cases increased 6.4 percent per year from 2002 to 2004 but decreased by 9.5 percent between 2004 and 2005, the first year of the modified 75 percent rule. Medicare spending increased at almost 16 percent per year from 2002 to 2004 but decreased 3 percent from 2004 to 2005.

From 2002 to 2004, the average length of stay declined, consistent with implementation of a new per discharge PPS that included financial incentives to shorten the length of stay. From 2004 to 2005, the average stay increased 3.6 percent, from 12.7 days to 13.1 days. The increase is consistent with the increased average complexity of patients IRFs treated in 2005.

The patients who continued treatment in IRFs were more complex than those who shifted to alternative settings. From 2004 to 2005, IRFs experienced a 6 percent increase in case-mix index (CMI). These changes in CMI are consistent with the first full year of the modified 75 percent rule, with IRFs admitting more cases compliant with the rule. Noncompliant cases have much lower relative weights (0.93) than compliant cases (1.34) (eRehabData® 2006). IRFs have the incentive to admit more challenging patients who have diagnoses included in the revised 75 percent rule, some of whom might not have been admitted in the past.

We have no direct measures of beneficiaries' access to care. The decrease in IRF discharges is difficult to interpret, because we do not know where beneficiaries who needed intensive rehabilitation received services (e.g., from skilled nursing facilities, long-term care hospitals, home health agencies, or outpatient providers). We also do not know outcomes from that care, especially because these alternative settings—except home health—do not measure functional status at admission and discharge. If patients who need intensive rehabilitation are getting it and achieving good outcomes somewhere else, the drop in volume may not be an access issue.

The number of beneficiaries using IRFs provides an indirect measure of access: This number increased almost 7 percent from 2002 to 2004 but dropped 9 percent

The revised 75 percent rule for inpatient rehabilitation facilities

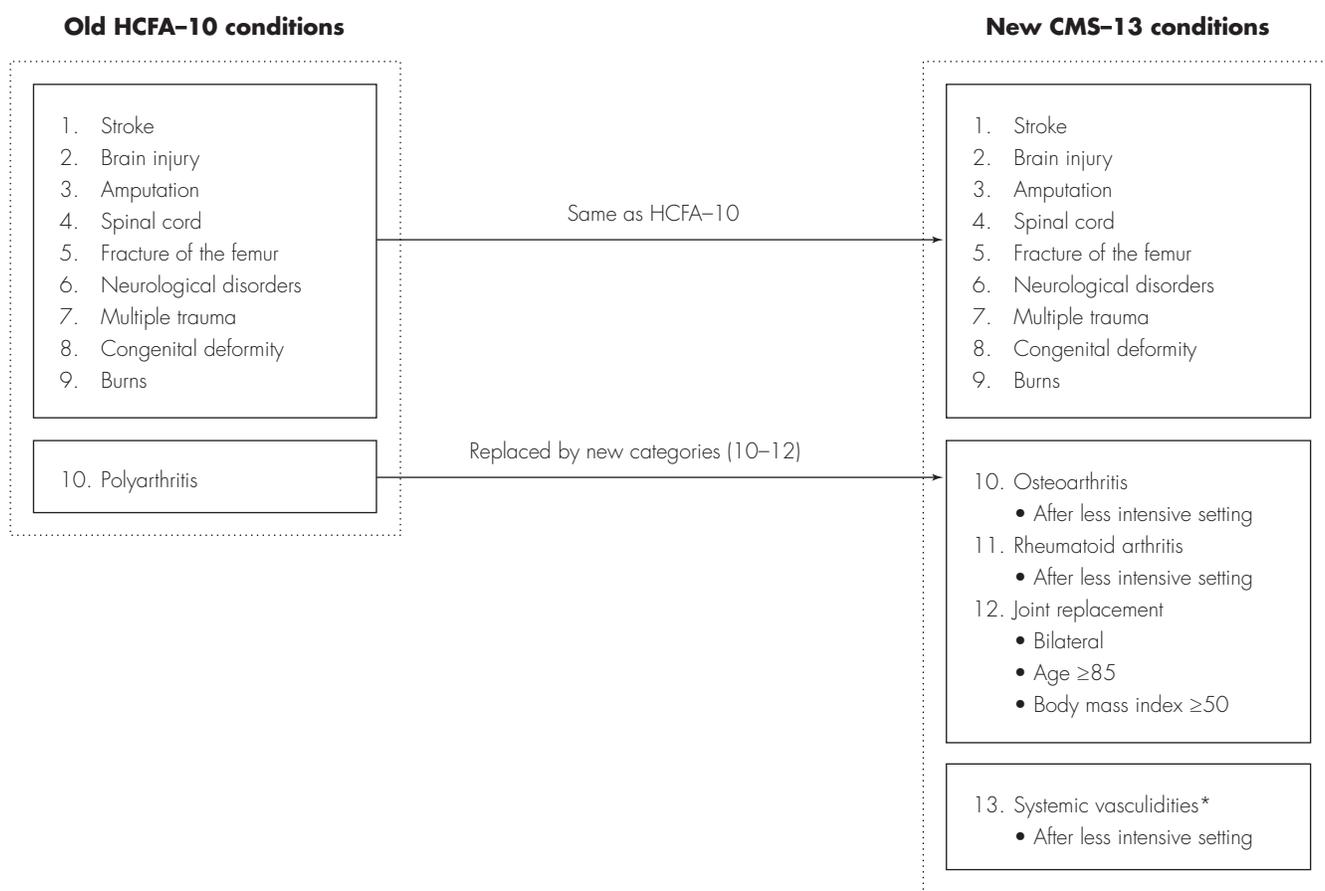
The intent of the so-called “75 percent rule” is to ensure that inpatient rehabilitation facilities (IRFs) provide intensive rehabilitation to unique types of patients. For 20 years, from 1984 to 2004, the same diagnoses were included in the 75 percent rule and were known as the Health Care Financing Administration–10 (Figure 3C-2).¹ In 2002, CMS discovered that fiscal intermediaries were using inconsistent methods to enforce the 75 percent rule. As a result, CMS suspended enforcement of the rule until the agency could examine it and determine whether the regulation should be modified.

In 2004, CMS redefined arthritis conditions allowed to be treated in IRFs (CMS 2004), which had the effect of removing the largest single category of IRF admissions (major joint replacements) from the 75 percent rule and substituting three more precise conditions. This change contributed to the reduction in the volume of patients admitted to IRFs between 2004 and 2005 and to the increase in the complexity of patients, as many joint replacement patients are less complex than other IRF patients.

(continued next page)

**FIGURE
3C-2**

Change in the inpatient rehabilitation facility criteria



Note: HCFA-10 (Health Care Financing Administration-10).

*Systemic vasculidities are relatively rare inflammations of the arteries, frequently autoimmune, that involve a variety of systems, including joints.

The revised 75 percent rule for inpatient rehabilitation facilities (continued)

CMS created a four-year transition period for compliance with the revised 75 percent rule. The Deficit Reduction Act of 2005 added a year to the transition. The policy is:

- 50 percent of the IRF's total patient population must meet the revised regulations in cost reporting years beginning in or after July 2004 through June 2005,
- 60 percent in cost reporting years beginning in or after July 2005 through June 2007, and
- 65 percent in cost reporting years beginning in or after July 2007 through June 2008.²
- For cost reporting periods beginning in or after July 2008, the threshold returns to 75 percent.

The Commission commented on CMS's rulemaking for the revised 75 percent rule and recommended that the agency convene an expert panel of clinicians to reach consensus on diagnoses to include in the revised 75 percent rule as well as appropriate clinical criteria for

patients with those diagnoses. We also suggested that CMS publicly report the panel's results.

The revised rule is controversial. Even though a 75 percent rule has been in place since 1984, CMS has not consistently enforced it, as noted earlier. CMS concluded that most joint replacement patients did not need the intensive rehabilitation services the IRFs provided and that they could receive rehabilitation services from alternative providers, such as acute hospitals, skilled nursing facilities, long-term care hospitals, outpatient rehabilitation providers, and home health agencies.

The revised 75 percent rule is also controversial because it clarifies that a large category of admissions is not appropriate for IRF care. IRFs that do not comply with the revised rule will be declassified and will receive acute inpatient prospective payment system (PPS) rates for all cases, which generally are much lower than IRF PPS rates.³ (A more detailed discussion of the revised 75 percent rule is provided in Chapter 4D of MedPAC's March 2006 report.) ■

between 2004 and 2005 (Figure 3C-1, p. 205). Despite this drop, 3 percent more beneficiaries used IRFs in 2005 than in 2002.

At the same time, there are indications that access to intensive rehabilitation care has become more limited for beneficiaries in some market areas and less limited in others. For example, we found 10 cities where the only IRF closed between 2004 and 2006. These cities vary in population from 5,000 to 227,000. At the same time, new IRFs have opened in cities that previously had none. IRFs do not exist in every market area of the nation, so it is difficult to interpret the effect of closings on access for the same reasons we described earlier.

Changes in quality of care

Our indicators of quality of care provided by IRFs show slight improvement from 2004 to 2006. To assess changes, we use a measure commonly tracked by the industry—the difference between discharge and admission scores for the commonly used Functional Independence Measure

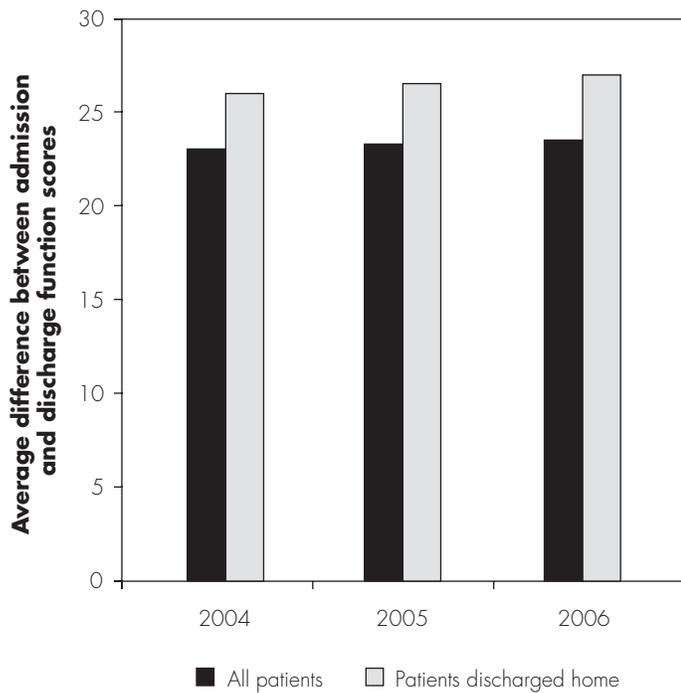
(FIM™), incorporated in the IRF–Patient Assessment Instrument (IRF–PAI). The 18-item FIM™ measures level of ability in physical and cognitive functioning and burden of care for patients' caregivers (Deutsch et al. 2005). Scores for each item range from 1 (complete dependence) to 7 (independence). To compare quality on a national basis, we use the difference in the total score at discharge versus admission for Medicare patients in two ways (Figure 3C-3, p. 210). We compare differences for:

- all Medicare patients treated in an IRF, and
- Medicare patients discharged home from an IRF.⁴

The actual differences in functioning scores are less important than whether the items remain stable, increase (indicating improvement), or decrease (indicating deterioration). Between 2004 and 2006, the quality indicators for all IRF patients and for those who were discharged home improved slightly. All patients increased their functioning between admission and discharge from 22.9 in 2004 to 23.4 in 2006, an improvement of

**FIGURE
3C-3**

IRF patients' improvement in function has increased slightly



Note: IRF (inpatient rehabilitation facility). Our quality indicator is the number of points gained on a scale of patients' ability to function between admission and discharge.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS.

2 percent. Patients discharged home increased functioning between admission and discharge from 25.9 in 2004 to 26.9 in 2006, an improvement of almost 4 percent over the same years.

We use a summary score for comparing functional improvement. In the future, the Commission and CMS might want to investigate whether using more detail to compare admission and discharge function scores would provide more information about quality of care. For example, comparing scores by case-mix group might be another useful way to examine the quality of IRF care.

CMS has begun a process to develop outcomes measures from the IRF patient assessment instruments and identify other critical factors influencing functional outcomes. A forthcoming report will:

- review the literature,
- consider the appropriateness of existing measures,

- assess the completeness of voluntary IRF–PAI items,
- report results from a pilot test of items in nine IRFs,
- model risk adjustment for measures, and
- recommend next steps.

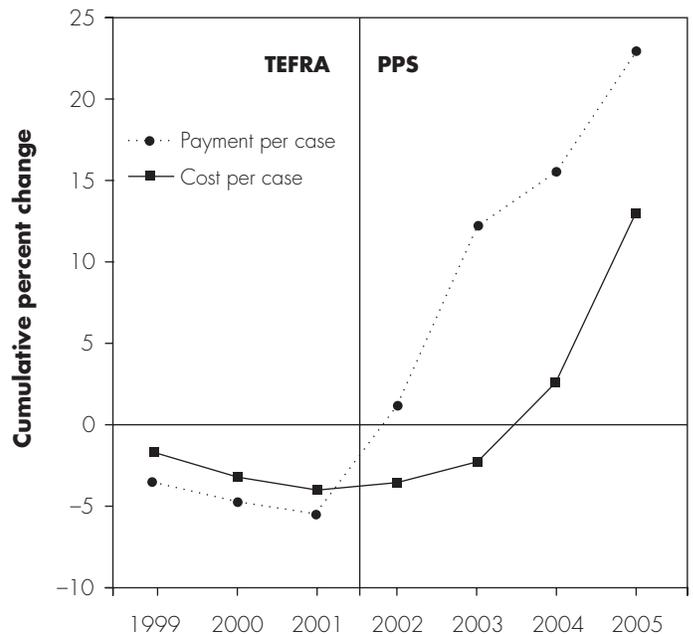
CMS is continuing to collect data, supported by clinical evidence, known to be predictive of outcomes and resource utilization through a demonstration of a common patient assessment instrument to be used after hospital discharge and across post-acute care settings at admission and discharge. The Congress mandated this demonstration in the Deficit Reduction Act of 2005.

Inpatient rehabilitation facilities' access to capital

IRFs appear to have adequate access to capital. Four out of five IRFs are hospital-based units, which access capital through their parent institution. Because acute care hospitals generally have good access to capital, we expect

**FIGURE
3C-4**

Per case payments for IRFs have risen faster than costs, post-PPS



Note: IRF (inpatient rehabilitation facility), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system). Data are from consistent two-year cohorts of IRFs.

Source: MedPAC analysis of Medicare cost report data from CMS.

**TABLE
3C-4**

IRFs' Medicare margins, by type

Type of IRF	TEFRA				PPS			
	1998	1999	2000	2001	2002	2003	2004	2005*
All IRFs	2.8%	1.1%	1.3%	1.5%	11.0%	17.8%	16.2%	13.0%
Urban	2.9	1.2	1.3	1.5	11.5	18.6	16.8	13.5
Rural	2.4	0.8	0.9	1.1	4.7	10.0	10.5	8.4
Freestanding	3.3	1.2	1.2	1.5	18.5	23.0	24.3	20.9
Hospital based	2.6	1.1	1.3	1.4	6.1	14.9	12.0	8.5
Nonprofit	2.8	1.2	1.5	1.6	6.5	14.3	12.4	9.6
For profit	3.1	1.0	0.9	1.3	19.1	24.5	24.5	20.0
Government	2.5	0.8	1.3	1.6	2.5	10.8	9.0	5.0

Note: IRF (inpatient rehabilitation facility), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system).
*2005 data include imputed margins for one-third of IRFs.

Source: MedPAC analysis of Medicare cost report data from CMS.

that their IRF units do as well. (Hospitals' access to capital is discussed in Chapter 2A.)

Capital appears to be available for stand-alone IRFs as well. For example, a relatively new company obtained \$40 million in private equity funding and announced plans to build 36 IRFs throughout the western states over the next five years, starting in cities that have no IRFs (*New Mexico Business Weekly* 2004). This company currently has six IRFs open and plans to open four more by the fall of 2007 (Ernest Health 2006).

Payments and costs

The last component of our update framework examines changes in payments and costs. We also calculate an aggregate Medicare margin for IRFs.

With the introduction of the IRF PPS in 2002, payments per case rose rapidly and growth in cost per case remained low in both 2002 and 2003 (Figure 3C-4). With implementation of the revised 75 percent rule, growth in costs per case accelerated between 2004 and 2005 at 10.1 percent as CMI increased and the volume of cases declined. The increase in CMI and consequent increase in costs are primarily due to a decrease in the volume of less intensive cases in IRFs.

In calculating margins for the IRF sector, we use cost reports for both hospital-based and freestanding facilities, in contrast to the skilled nursing facility, home health, and dialysis sectors. Hospital-based IRFs make up more than 80 percent of facilities and two-thirds of IRF cases. Last year, we examined costs for hospital-based and freestanding IRFs and found that they had very similar total costs per case; we saw no evidence that allocation of overhead resulted in cost differences.

Medicare margins for 1998 through 2005

Because of changes in the cost reporting software, CMS permitted IRFs with cost report periods starting January 2005 to delay submitting their cost reports. Therefore, we are missing about one-third of IRF cost reports for our analysis. To remedy the problem of missing reports, we extrapolated changes in costs and payments from 2004 to 2005 by sorting IRFs into different groups and applying the changes for IRFs in the group that had cost reports to those without reports.

From 2002 (the beginning of the IRF PPS) to 2003, aggregate Medicare margins increased rapidly, from 11 percent to almost 18 percent, and then declined slightly to 16.2 percent in 2004 (Table 3C-4). All groups had rapid increases in margins from 2002 to 2003, although hospital-based IRFs and nonprofit IRFs had the biggest increases.

We estimate that aggregate Medicare margins for 2005 are 13.0 percent, which represents a 3.2 percentage point decrease from 2004. The IRFs at the 25th percentile have a margin of -4 percent and those at the 75th percentile have a margin of 22 percent in 2005. For-profit IRFs have twice the margin of nonprofits. Freestanding IRFs and for-profit IRFs have margins of more than 20 percent in 2004. The margin for hospital-based IRFs declined from 12 percent to 8.5 percent between 2004 and 2005.

Medicare margins for 2007

To project the Medicare margin for 2007, the policy year, we incorporate policy changes that went into effect between the year of our most recent data (2005) and 2007 as well as policies scheduled to be in effect in 2008, which allows us to consider whether current payments will be adequate under all applicable provisions of current law. The policies include:

- for fiscal year 2006, a market basket update of 3.6 percent, a 1.8 percent increase due to change in the outlier policy, and a 1.9 percent decrease in payments to account for coding improvement (as estimated by CMS), for a net increase of 3.4 percent (CMS 2005);
- for fiscal year 2007, a market basket update of 3.3 percent, a decrease in payments to account for coding improvement of 2.6 percent (as estimated by CMS), for a net increase of 0.7 percent (CMS 2006); and
- for 2006 to 2008, the effect of the 75 percent rule.

The policy with the biggest impact on the projected margin over this period is the phase-in of the revised 75 percent rule, which in 2008 will require that 65 percent of cases in IRFs comply with the rule (the text box describes our methods for accounting for the rule's effect on margins). Taking account of these assumptions about the continuing drop in volume of cases and the decreased ability of IRFs to benefit from economies of scale, the aggregate Medicare margin is projected to drop from 13.0 percent in 2005 to 2.7 percent in 2007, largely because of the effect of the enforcement of the modified 75 percent rule. If we vary our cost growth assumptions, the margin ranges between 0.5 percent and 5.5 percent.

How should Medicare payments change in 2008?

For IRFs, the mandated update to payments is the market basket. CMS's latest forecast of the market basket for 2008 is 3.1 percent. The following is our recommendation for an update to IRF payments in 2008.

Update recommendation

IRFs should be able to accommodate cost changes in fiscal year 2008 with an update to payment rates of 1 percent.

RECOMMENDATION 3C

The Congress should update payment rates for inpatient rehabilitation facility services by 1 percent for fiscal year 2008.

RATIONALE 3C

The evidence from the indicators we have examined suggests a mixed picture. There is little growth in this sector; the volume of cases and spending have dropped. At the same time, the number of rural IRFs has increased rapidly, IRFs have access to capital, and private equity firms continue to invest in this industry.

Our recommendation strikes a balance between two considerations. On the one hand, the 75 percent rule is dramatic in both its effect on volume and the consequences if IRFs do not meet it. On the other hand, the IRF industry has benefited in the past from poor enforcement of the rule and IRFs have not restructured costs to reflect the changes in volume. If IRFs are able to control their costs to compensate for the drop in volume, their 2007 margins could be as high as 5.5 percent, which would allow them to accommodate cost growth with a 1 percent update.

IMPLICATIONS 3C

Spending

- This recommendation decreases federal program spending relative to current law by between \$50 million and \$250 million in one year and by less than \$1 billion over five years.

Beneficiary and provider

- This recommendation is not expected to affect providers' ability to provide care to Medicare beneficiaries. ■

Modeling the impact of the revised 75 percent rule

Medicare margins for inpatient rehabilitation facilities (IRFs) are expected to drop as IRFs reduce the number of patients they treat to comply with the revised 75 percent rule. IRFs have a strong incentive to comply because otherwise they will be paid under the acute inpatient prospective payment system (PPS) for all Medicare cases rather than under the IRF PPS. Acute inpatient rates generally are less than IRF PPS rates.

As discussed previously, based on our analysis of cost reports, IRFs reduced the number of Medicare cases they treated by 8.6 percent from 2004 to 2005. (This reduction is consistent with the estimate we used to project margins for 2006.) Cost reports and claims can produce different results; cost report data are based on the provider's fiscal year, and claims are based on the federal fiscal year. As a result of our analysis, we assume that facilities will need to lower patient volume by an additional 20 percent to comply with the 65 percent standard in 2008, even if additional patients with qualifying conditions are admitted. This drop is consistent with the trends we have seen. Although IRFs have strong incentives, they have more difficulty than other sectors in replacing lost patients because replacement patients must comply with both the 75 percent rule and the three-hour rule (patients generally

must be able to tolerate and benefit from three hours of therapy per day).

We expect costs per case to rise in 2008 as IRFs spread total costs over fewer patients. Although the cases that comply with the revised 75 percent rule have a much higher case-mix index and thus are costlier than cases not on the list of specified diagnoses, they also generate higher payments. We expect payments to generally match the higher costs that result from the higher case-mix index. However, IRFs will have to spread overhead costs among fewer cases and may not be able to completely adjust their costs for direct patient care to reflect the reduced volume. Having fewer patients may result in IRFs being less able to benefit from economies of scale.

Based on our assumptions that volume of cases will drop an additional 20 percent and that IRFs will be able to eliminate all patient care costs for those cases but will be unable to eliminate all overhead costs for them, the net result is that we estimate the Medicare margin will drop from 13.0 percent in 2005 to 2.7 percent in 2007. If we make different assumptions about volume of cases and costs, the estimated Medicare margin could range from 0.5 percent to 5.5 percent. ■

Endnotes

- 1 The Health Care Financing Administration administered Medicare and was the predecessor to CMS.
- 2 Facilities establish their own cost reporting periods that are similar to their fiscal years.
- 3 Declassified IRFs that are units in critical access hospitals are paid 101 percent of their costs.
- 4 CMS changed the instructions for assessing functioning at discharge, effective April 1, 2004. Before this date, patients' scores reflected their lowest functioning in the three days before discharge. Afterward, patients' scores reflected functioning at discharge. Our comparisons are for April 1 through December 31, 2004; January 1 through December 31, 2005; and January 1 through June 30, 2006.

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SECTION
3D

**Long-term care
hospital services**

R E C O M M E N D A T I O N

The Secretary should eliminate the update to payment rates for long-term care hospital services for rate year 2008.

COMMISSIONER VOTES: YES 13 • NO 1 • NOT VOTING 0 • ABSENT 3

SECTION 3D

Long-term care hospital services

Section summary

In this section, we present information on providers of long-term care hospital (LTCH) services. LTCHs provide care to patients with clinically complex problems, such as multiple acute or chronic conditions, who need hospital-level care for relatively extended periods. Medicare is the predominant payer for LTCH services and accounts for more than 70 percent of LTCH discharges. Spending for LTCHs was \$4.5 billion in 2005, a 22 percent increase over 2004.

Supply of facilities—The total number of LTCHs increased 10 percent between 2004 and 2005, the same annual rate of increase as between 2001 and 2004. The number of LTCH hospitals within hospitals (HWHs) was still growing rapidly in 2005: They increased at almost double the rate of freestanding facilities from 2004 to 2005 (over 12 percent vs. about 6 percent). However, CMS data for 2006 indicate that the growth rate for LTCHs has slowed relative to previous years.

Volume of services and beneficiaries' access to care—Under the prospective payment system (PPS), the number of LTCH cases grew at

In this section

- What is long-term care hospital care and where is it provided?
- MedPAC recommends facility- and patient-level criteria to better define long-term care hospitals
- Are Medicare payments adequate in 2007?
- How should Medicare payments change in 2008?
- Update recommendation

the same rate as the number of LTCHs. Medicare spending grew even faster due to increases in payments from higher reported case mix. The number of cases increased 10 percent annually from 2003 to 2005 and Medicare spending grew at almost triple that pace—about 29 percent annually—during the same period. Although we have no direct indicators of beneficiaries’ access to LTCHs, continued rapid growth in the volume of services suggests continued access to LTCH care for Medicare beneficiaries. In addition, the number of unique beneficiaries using LTCHs increased about 10 percent annually under the PPS, which suggests increased access to care.

Quality—The evidence on quality is mixed. On the positive side, risk-adjusted rates of death in the LTCH, death within 30 days of discharge, and 1 of 4 patient safety indicators showed improvement between 2004 and 2005. On the negative side, more patients were readmitted to acute care hospitals in 2005 than in 2004 and patients experienced more decubitus ulcers, infections, and pulmonary embolisms or deep vein thromboses. These negative quality indicators are worrisome. We want to see quality improve in all sectors, but especially when the number of patients treated in those facilities is increasing rapidly.

Access to capital—Rapid expansion of both for-profit and nonprofit LTCHs demonstrates good access to capital for this sector. Private equity firms invested more than \$3 billion in the LTCH industry from 2004 to 2006.

Payments and costs—The Medicare margin for 2005 was almost 12 percent. CMS has made a number of policy changes that reduce payments for LTCHs. These payment policy changes include a zero update for 2007, recalibrating relative weights in 2006 and 2007 to reduce payments, and a new way of reimbursing LTCHs for patients with a shorter than normal stay that lowered payments. The margin is estimated to be between 0.1 percent and 1.9 percent in 2007. This range is based on different hypotheses about HWHs’ behavior in response to the 25 percent rule (this rule provides less payment for certain patients these facilities admit from their host hospitals).

If HWHs do not change their behavior, the Medicare margin is estimated to be 0.1 percent. If they change behavior to avoid payment reductions, the margin is estimated to be 1.9 percent. There are a number of ways HWHs can change behavior to minimize the effect of the rule—for example, admitting more patients who were high-cost outliers in the acute care hospital (who are not subject to the rule), recruiting more patients from hospitals other than their host hospitals, and organizing as freestanding LTCHs.

The Commission is concerned about growth in LTCHs, especially because new LTCHs often locate in market areas where others already exist rather than in areas with none. LTCHs have shown themselves to be very responsive to changes in payments and should be able to accommodate cost changes in 2008. These findings, as well as the other factors the Commission considers—which are almost all positive—lead us to propose that the Secretary should eliminate the update to payment rates for LTCH services for 2008. We recommend to the Secretary rather than to the Congress because the Secretary has the authority to update payment rates for LTCHs. In recommending a zero update we believe it is important for the Secretary, in conjunction with industry representatives, to establish patient and facility criteria to better define these facilities and the patients appropriate for them. ■

The Secretary should eliminate the update to payment rates for long-term care hospital services for rate year 2008.

Recommendation 3D

COMMISSIONER VOTES:
YES 13 • NO 1 • NOT VOTING 0 • ABSENT 3

What is long-term care hospital care and where is it provided?

Patients with clinically complex problems, such as multiple acute or chronic conditions, may need hospital-level care for relatively extended periods. Some are treated in long-term care hospitals (LTCHs). To qualify as a LTCH for Medicare payment, a facility must meet Medicare's conditions of participation for acute care hospitals and have an average length of stay greater than 25 days for its Medicare patients. The hospital-level care and relatively long stay make these facilities expensive.

In 2005, 119,000 beneficiaries had about 134,000 admissions to LTCHs. Medicare spending for that care was \$4.5 billion (Table 3D-1). CMS estimates that Medicare spending for LTCHs will be \$5.3 billion in 2007 and will reach more than \$6 billion in 2011 (CMS 2006b).

Since October 2002, Medicare has paid LTCHs prospective per discharge rates based primarily on the patient's diagnosis and the facility's wage index.¹ Before that, LTCHs were paid under the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) on the basis of their average costs per discharge, subject to an annually adjusted limit calculated for each facility. The prospective payment system (PPS) pays differently for patients who are high-cost outliers or have lengths of stay shorter than average. CMS changed the so-called short-stay outlier policy in 2006.² (This policy is discussed in detail in the text box on payment for short-stay outliers, p. 226.)

LTCHs specialize in providing care to patients with a wide variety of complex conditions, such as respiratory

problems and skin ulcers. The top 15 diagnoses make up more than 60 percent of all discharges from these facilities in 2005 (Table 3D-2, p. 224). Six of the top 15 long-term care diagnosis related groups (LTC-DRGs) are respiratory conditions. LTCH cases are widely dispersed; only one case-mix group has more than 5 percent of cases in 2005.

LTCHs are not distributed evenly in the nation, as shown in the map in Figure 3D-1 (p. 225). These facilities are clustered in certain states—for example, Louisiana, Massachusetts, Michigan, Ohio, and Texas. LTCHs that entered the Medicare program starting in October 2003 frequently have located in markets where LTCHs already existed instead of opening in new markets. This is somewhat surprising because these facilities are supposed to be serving unusually sick patients and one would expect these patients to be rare. The clustering of LTCHs and the location of new facilities thus raises questions about the role these facilities play.

LTCHs can be either freestanding facilities or located within hospitals, in which case they are called hospitals within hospitals (HWHs). CMS has established several policies directed at ensuring that HWHs and satellite facilities operate independently from their host hospitals. One policy requires that a HWH or satellite facility be independent and not subject to influence by the host hospital or related organization. A second policy called the 25 percent rule pays less for certain patients a HWH admits from its host hospital (the text box on the 25 percent rule, p. 234, describes this policy). CMS describes several purposes for the policy. One purpose is to protect calculation of the inpatient PPS relative weights from distortions that may result from transfers of acute hospital

**TABLE
3D-1**

Long-term care hospitals' volume and spending increased rapidly under PPS

	TEFRA			PPS			Average annual change 2003-2005
	2001	2002	Change 2001-2002	2003	2004	2005	
Number of cases	85,229	98,896	16.0%	110,396	121,955	134,003	10.2%
Medicare spending (in billions)	\$1.9	\$2.2	15.8	\$2.7	\$3.7	\$4.5	29.1
Payment per case	\$22,009	\$22,486	2.2	\$24,758	\$30,059	\$33,658	16.6
Length of stay (in days)	31.3	30.7	-1.9	28.8	28.5	28.2	-1.0

Note: PPS (prospective payment system), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982).

Source: MedPAC analysis of MedPAR data from CMS.

**TABLE
3D-2****The top 15 LTC-DRGs made up more than 60 percent
of cases in long-term care hospitals in 2005**

LTC-DRG	Description	Discharges	Percentage
475	Respiratory system diagnosis with ventilator support	15,699	11.7%
271	Skin ulcers	6,470	4.8
87	Pulmonary edema and respiratory failure	5,900	4.4
79	Respiratory infections and inflammation	5,813	4.3
88	Chronic obstructive pulmonary disease	5,366	4.0
249	Aftercare, musculoskeletal system, and connective tissue	5,339	4.0
89	Simple pneumonia	5,206	3.9
12	Degenerative system disorders	5,138	3.8
466	Aftercare, without history of malignancy	4,976	3.7
462	Rehabilitation	4,832	3.6
416	Septicemia	4,678	3.5
127	Chronic heart failure	4,023	3.0
263	Skin graft and/or debridement for skin ulcer	3,946	2.9
316	Renal failure	2,558	1.9
430	Psychoses	2,398	1.8
	Top 15 LTC-DRGs	82,342	61.4
	Total	134,003	100.0

Note: LTC-DRG (long-term care diagnosis related group). LTC-DRGs are the case-mix system for these facilities.

Source: MedPAC analysis of MEDPAR data from CMS.

patients to HWHs. A second purpose is to ensure that HWHs do not function as virtual units of host hospitals by allowing an acute care hospital to benefit from both shorter patient stays and LTCH payments. Commissioners believe that facility and patient criteria for LTCHs would provide the best approach to ensuring that appropriate patients are treated in these facilities. While LTCHs seem to have value for very sick patients, they are too expensive to be used for patients who could be treated in less intensive settings.

MedPAC recommends facility- and patient-level criteria to better define long-term care hospitals

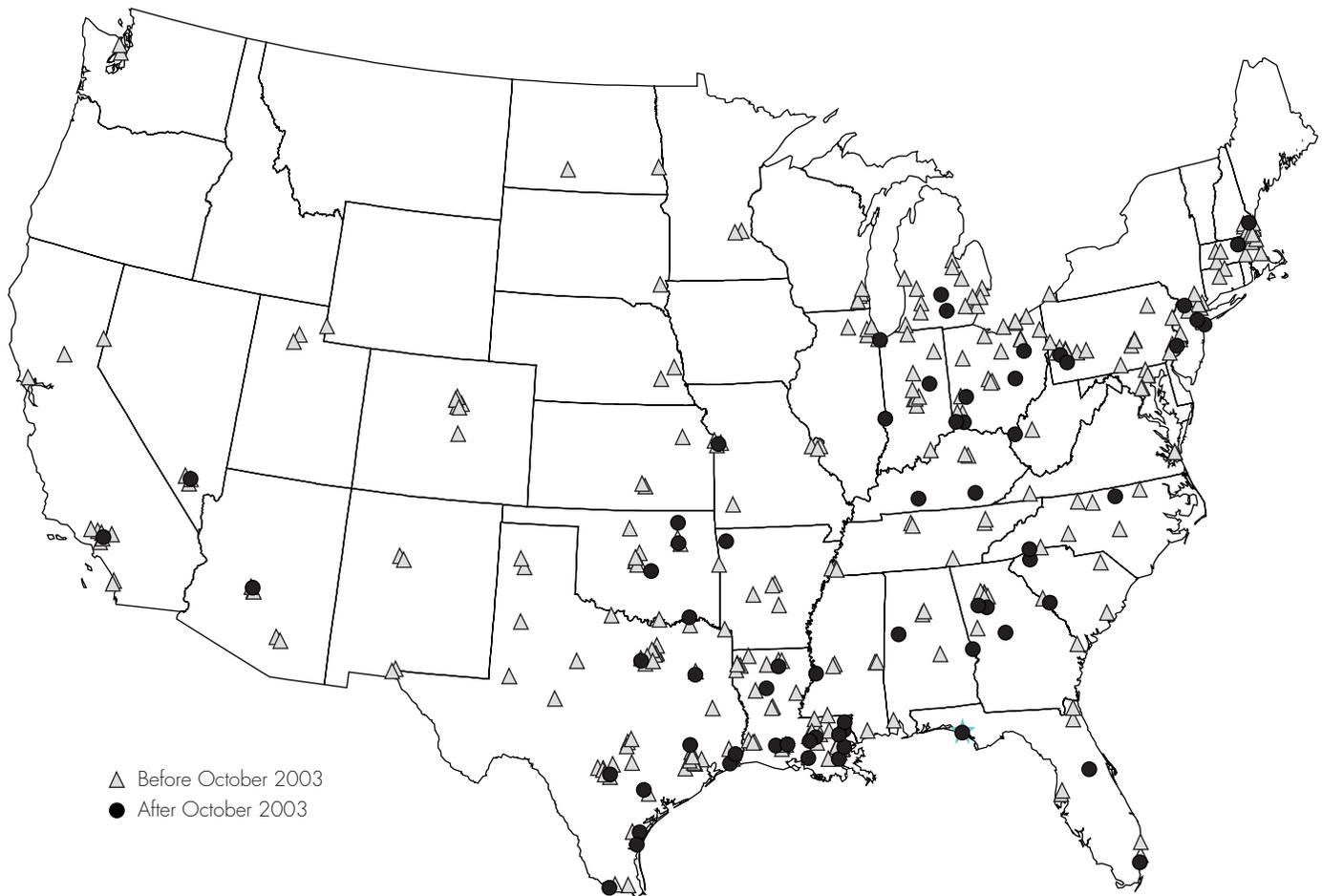
The Commission has called for criteria to differentiate LTCHs from other post-acute care settings. We believe facility and patient criteria are the best approach for targeting LTCH care to appropriate patients. Arbitrary rules may not achieve this end.

In response to the Commission's concerns about rapid growth in the number of LTCHs and questions about the role these facilities play, MedPAC conducted qualitative and quantitative research on these facilities (MedPAC 2004). Quantitatively we found that patients using LTCHs cost Medicare more than similar patients using alternative settings. The cost differences narrowed considerably if LTCH care was targeted to patients who were most likely to need this level of care. This study used data from before the PPS.

We also found that patients similar to those treated in LTCHs were most frequently treated in acute care hospitals or skilled nursing facilities (SNFs). A consequence of the growth of LTCHs may be that as LTCHs enter a market, other post-acute providers reduce their capacity to treat medically complex patients who generally are not profitable for them. In areas where LTCHs do not exist, alternative settings may be equipped and staffed to admit some patients with extensive medical needs because there is no other place for these patients to be treated. This is likely to be particularly the case

**FIGURE
3D-1**

New long-term care hospitals are often entering in areas with existing ones



Source: MedPAC analysis of Provider of Service file from CMS.

for SNFs, which have incentives in the payment system to avoid medically complex patients (see Chapter 3A). It is also credible to argue that LTCHs have located in some communities expressly because there are no other post-acute alternatives willing and able to treat medically complex patients.

We recommended defining LTCHs by facility and patient criteria to ensure patients admitted to these facilities are medically complex and have a good chance of improvement (MedPAC 2004). Patient-level criteria would identify specific clinical characteristics and treatments required by patients cared for in LTCHs. Facility-level criteria would delineate features of the care provided in LTCHs. We also recommended that quality improvement

organizations (QIOs) review LTCH admissions for medical necessity and monitor whether facilities comply with the criteria. Results of a QIO medical record review, which found that 29 percent of 1,400 randomly selected LTCH Medicare admissions in 2004 did not need that level of care, underscore the value of implementing criteria for LTCHs. A more recent QIO study found that 5.9 percent of cases were not medically necessary (CMS 2006b).

Driven by MedPAC's recommendations, two industry associations have developed and proposed criteria for LTCHs. One set of criteria was designed to be used in screening patients to determine whether they are appropriate for admission to a LTCH (NALTH 2006). These criteria are clinical and have been validated by

Payments change for short-stay outliers in long-term care hospitals

A short-stay outlier (SSO) is a patient with a shorter-than-average length of stay. In the long-term care hospital (LTCH) payment system, lower payments are triggered for patients with a length of stay equal to or less than five-sixths of the geometric mean length of stay for the patient's long-term care diagnosis related group (LTC-DRG).³ CMS's changes for SSOs will reduce Medicare payments to LTCHs by an estimated 3.7 percent.

Before July 2006, Medicare paid LTCHs the least of: 120 percent of the cost of the case, 120 percent of the LTC-DRG specific per diem amount multiplied by the patient's length of stay, or the full LTC-DRG payment. Beginning July 2006, CMS added another alternative for payment and changed an existing alternative to pay less for these cases. For an SSO patient, Medicare pays LTCHs the least of:

- 100 percent of the cost of the case,

- 120 percent of the LTC-DRG specific per diem amount multiplied by the patient's length of stay,
- the full LTC-DRG payment, or
- a blend of the inpatient prospective payment system amount for the DRG and 120 percent of the per diem payment amount.

For the new alternative, the blended payments, the LTCH per diem payment amount makes up more of the amount as the patient's length of stay comes closer to the geometric mean length of stay for the LTC-DRG. For example, if the geometric mean for LTC-DRG 14 is 25 days, payment for an SSO patient staying 20 days would be composed of a greater share of the LTCH payment than for a patient staying 16 days. Generally, for the same DRG, the LTCH payment is greater than the payment under the inpatient prospective payment system. ■

the QIO in Massachusetts (Masspro 2006). The second proposed set includes criteria such as required staffing levels, a high level of patients in specific LTC-DRGs, and an unspecified uniform screening tool to determine medical necessity for LTCH admission (Altman 2006).

CMS contracted with the Research Triangle Institute (RTI) to study the feasibility of implementing our recommendations on criteria for LTCHs. In a recently released study, RTI reports findings from its site visits and data analyses. RTI also recommends steps to better define LTCHs and their patients and to identify patients who are better suited to other settings (RTI 2006). RTI's recommendations are similar to MedPAC's recommendations (see text box on the RTI study, p. 228.)

As discussed previously, the Commission sees criteria as the best way to target LTCH care to patients who need it. Implementation of criteria is urgent. Other approaches that are administratively less complex but more arbitrary increase the risk for unintended consequences. The Commission urgently suggests that CMS implement our criteria as soon as possible.

Are Medicare payments adequate in 2007?

We examine the following factors in determining the adequacy of Medicare payments to LTCHs:

- supply of facilities
- volume of services and access to care
- quality
- access to capital
- payments and costs

Our indicators of adequacy are positive. LTCHs have entered the Medicare program at a rapid rate and publicly announced plans to open more LTCHs, suggesting that payment rates are attractive. The expanding supply of LTCHs has resulted in increases in the volume of discharges and in the number of beneficiaries using these facilities: We see even more rapid increases in Medicare spending. Although we have no direct evidence on

**TABLE
3D-3**

Most types of LTCHs are growing under PPS

Type of LTCH	TEFRA		PPS			Average annual change 2001-2004	Change 2003-2004	Change 2004-2005
	2001	2002	2003	2004	2005			
All	269	286	317	353	388	9.5%	11.4%	9.9%
Urban	249	266	291	322	355	8.9	10.7	10.2
Rural	20	20	26	31	33	15.7	19.2	6.5
Freestanding	133	132	137	140	149	1.7	2.2	6.4
Hospital within hospital	136	154	180	213	239	16.1	18.3	12.2
Nonprofit	82	85	100	117	129	12.6	17.0	10.3
For profit	152	168	187	207	230	10.8	10.7	11.1
Government	35	33	30	29	29	-6.1	-3.3	0.0

Note: LTCH (long-term care hospital), PPS (prospective payment system), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982).

Source: MedPAC analysis of Provider of Service files from CMS.

beneficiaries' access to LTCH care, the increased use of this type of care suggests that beneficiaries do have access. The rapid increase in supply also suggests that LTCHs have access to capital. Aggregate Medicare margins for 2005 are almost 12 percent for all LTCHs. Because of changes in payment policies and increases in costs, the estimated margin for 2007 ranges from 0.1 percent to 1.9 percent.

Change in supply of facilities

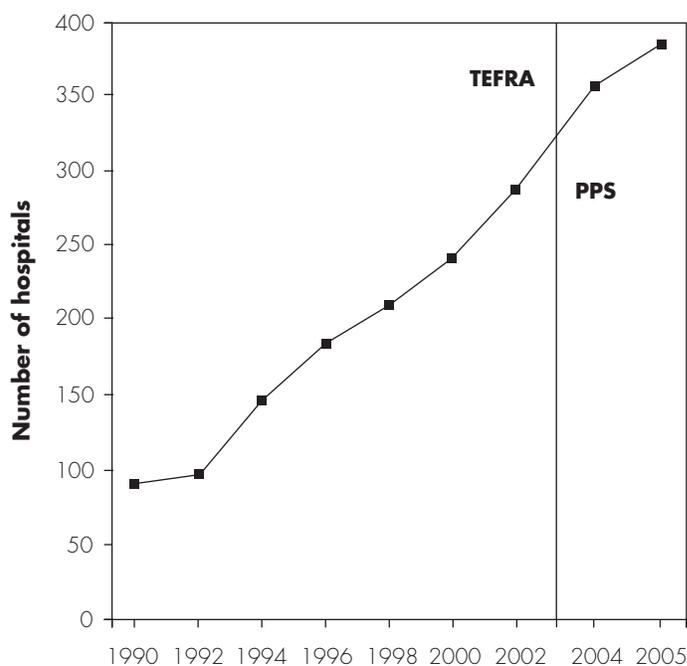
The number of LTCHs participating in the Medicare program has increased substantially. We examine growth of LTCHs over time, focusing on the changes before and after the PPS.

From 1990 to 2005, the number of LTCHs more than quadrupled from 90 to 388 (Figure 3D-2). The number of LTCHs continued to grow in 2005 at about the same pace as annual growth from 2001 to 2004, increasing another 9.9 percent from 2004 to 2005 (Table 3D-3). Thirty-six LTCHs entered the Medicare program between 2003 and 2004 and 35 entered between 2004 and 2005.

During the first three years of the PPS, HWHs have grown at the fastest pace of any group of hospitals—16.1 percent annually from 2001 to 2004, compared with an average of 1.7 percent for freestanding facilities (Table 3D-3). However, the mix has changed somewhat in the

**FIGURE
3D-2**

The number of long-term care hospitals continues rapid growth



Note: TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system).

Source: MedPAC analysis of Provider of Service file from CMS.

Research Triangle Institute major findings and recommendations

CMS contracted with the Research Triangle Institute (RTI) to assess the feasibility of adopting the Commission's recommendations to define long-term care hospitals (LTCHs) by facility and patient criteria. We saw criteria as the best way to ensure patients admitted to these facilities are medically complex and have a good chance of improvement. RTI's recommendations are much the same as ours (RTI 2006).

RTI's study has a number of major findings, many of which are similar to our findings from an earlier study (MedPAC 2004). RTI's study followed implementation of the LTCH prospective payment system (PPS) while our study used data from before implementation of the PPS. RTI found that:

- Living in a state where many LTCHs are available was the most important predictor of whether a beneficiary was admitted to an LTCH; having a severity level of 3 or 4 was the next most important factor predicting LTCH admission.
- LTCHs may be substituting for some of the later days of care typically provided in an acute hospital. RTI plans to investigate this issue further in the next phase of its research. Inpatient rehabilitation facilities appear to be substitutes for LTCHs, but skilled nursing facilities (SNFs) and home health care appear to be complements, which means SNF and home health care, when used, generally follow an LTCH stay.

- LTCHs appear to be costing Medicare more for most patients. Based on descriptive statistics, care in these facilities makes up 37 percent to 68 percent of the total episode payments (all Medicare spending for acute and post-acute care in a 180-day episode of care).

RTI's study examined important issues that MedPAC has not yet studied and found distortions in the LTCH PPS. The major findings for the study are:

- The base rate, which predates the most recent changes to the payment system, overpays LTCHs by almost 17 percent, based on 2004 cost reports.
- Among most common long-term care diagnosis related groups, average margins range from -0.1 percent to 27.7 percent; median margins range from 6.1 percent to 22.3 percent.
- Profitability is concentrated in the respiratory-related cases, including ventilator support, pulmonary edema, chronic obstructive pulmonary disease, and pneumonia.
- Bias in the relative weights causes systematic understatement of payments for cases using relatively more ancillary services and overpayment for cases using relatively fewer ancillary services.

last year. From 2004 to 2005, HWHs grew 12.2 percent after increasing 18.3 percent between 2003 and 2004. Freestanding LTCHs grew at 2.2 percent between 2003 and 2004 but increased 6.4 percent between 2004 and 2005.

Policymakers expected the 25 percent rule to slow down the entry of HWHs into the Medicare program. CMS finalized the rule in August 2004, and it has been phased in since 2005 (see text box on the 25 percent rule, p. 234). Although the rate of increase for HWHs slowed from 18.3 percent between 2003 and 2004 to 12.2 percent between

2004 and 2005, it remained extremely high in 2005. The impact of the 25 percent rule on the growth of facilities is unclear. For example, in 2006, the state of New Jersey approved 18 LTCHs to add to the 9 LTCHs that already exist but we cannot say with certainty that they will all be built (Washburn 2006). In addition, the pace of growth for freestanding LTCHs reportedly continues to increase (Irving Levin Associates 2006). However, CMS data for 2006 indicate that the growth rate for LTCHs has slowed relative to that in previous years.

Research Triangle Institute major findings and recommendations (continued)

The results of the study led RTI to recommend ways to better define LTCHs. Both MedPAC and RTI recommended that LTCHs:

- be restricted to admitting medically complex patients who have a good chance of improving;
- have staffing requirements to ensure appropriate staff are available for treating medically complex cases;
- have interdisciplinary teams, staff with expertise or specialized training, a higher level of nurse staffing, and one physician in charge of each case;
- have daily physician on-site review of each case; and
- continue to be required to have an average length of stay of greater than 25 days for Medicare patients.

We also recommended that quality improvement organizations (QIOs) review LTCH admissions for medical necessity and monitor whether facilities comply with the criteria. RTI recommends that CMS clarify QIO roles in overseeing the appropriateness of LTCH admissions.

One difference between MedPAC's and RTI's recommendations has to do with one of the ways we

suggested medically complex patients should be defined. We suggested that LTCHs have a high percentage of patients (for example, 85 percent) who demonstrate a high level of severity. RTI's recommendation goes further and recommends that CMS develop a list of criteria to measure medical severity for hospital admissions and establish a technical advisory group to recommend a small set of criteria and recommend measurement levels. All these recommendations are similar to the Commission's recommendation for admission criteria that include patients' specific clinical characteristics and need for specific treatments; this recommendation encompasses our suggestion for a standard patient assessment instrument.

RTI's recommendations also include measures that would make the LTCHs more similar to acute care hospitals. For example, they recommend that CMS:

- allow LTCHs to open certified distinct-part units for psychiatric or rehabilitation patients and restrict them to one unit per type, and
- apply transfer rules to cases discharged from LTCHs to other post-acute care settings.

Finally, RTI recommends that CMS take administrative action to better identify hospitals within hospitals and satellites. ■

Change in volume of services and access to care

Under the PPS, the number of LTCH cases grew with the supply of facilities and Medicare spending grew even faster (Table 3D-1, p. 223). The number of cases increased 10.2 percent annually from 2003 to 2005 and Medicare spending grew at triple that pace—29.1 percent annually—during the same period. This faster increase in spending reflects a real increase in case mix, improvement in coding, and increases in payment rates such as market basket updates. Spending grew at the fastest pace from 2003 to 2004, at 37 percent. CMS estimates that Medicare spending for LTCHs will be \$5.3 billion in 2007, a 17.8 percent increase over 2005 (CMS 2006b).

We have no direct indicators of beneficiaries' access, but assessment of access is difficult in any case because there are no criteria for LTCH patients and it is not clear whether the patients treated in LTCHs are appropriate for that level of care. Continued rapid growth in the volume of LTCH services and beneficiaries' use of them suggest access to LTCH care for Medicare beneficiaries has increased under the PPS. The number of beneficiaries using LTCHs has continued to increase since implementation of the PPS, at 10 percent annually. During the same period, the supply of LTCHs and the number of cases treated in LTCHs both increased 10 percent.

**TABLE
3D-4****LTCHs' readmissions are rising**

	2004	2005	Percentage change 2004-2005
Death in LTCH	12.8%	12.3%	-4%
Death within 30 days of LTCH discharge	22.8	22.6	-1
Readmission to acute care hospital	11.5	11.9	3

Note: LTCH (long-term care hospital). Rates for 2004 and 2005 are adjusted to reflect 2001 case mix.

Source: MedPAC analysis of MedPAR data from CMS.

Changes in quality of care

We use four types of measures of quality for LTCHs that can be calculated from routinely collected administrative data: death in the LTCH, death within 30 days of discharge from the LTCH, readmissions to acute care hospitals, and selected Agency for Healthcare Research and Quality (AHRQ) patient safety indicators (PSIs) that measure adverse events. We use the universe of LTCH patients, not a sample. The evidence based on these measures is mixed. On the positive side, risk-adjusted rates of death in the LTCH and within 30 days of discharge decreased between 2004 and 2005. On the negative side, risk-adjusted readmissions to acute care hospitals and three of four PSIs increased between 2004 and 2005. The other PSI improved. The negative quality indicators are worrisome. We want to see quality improve in all sectors, but especially when a rapidly increasing number of patients are treated in those facilities.

Death in the facility, death within 30 days of discharge, and readmission to the acute care hospital are generally used as gross indicators of quality. The risk-adjusted share of patients who died in the LTCH and who died within 30 days of discharge decreased between 2004 and 2005, by 4 percent and 1 percent, respectively (Table 3D-4). However, the share of LTCH patients readmitted to the acute care hospital increased 3 percent from 2004 to 2005. We focus on examining trends in these indicators, rather than levels, because levels can reflect both planned and unplanned incidents as well as coding practices.

Last year, we investigated whether the AHRQ PSIs developed for acute care hospitals might be useful to assess patient safety for LTCHs. AHRQ has 25 hospital-

level PSIs to identify potentially preventable adverse events resulting from acute hospital care. We used LTCH claims for 2003, 2004, and 2005 to calculate these PSIs. Four of them had results that appeared to be appropriate based on the number of cases and face validity—decubitus ulcers, infection due to medical care, postoperative pulmonary embolism (PE) or deep vein thrombosis (DVT), and postoperative sepsis. Patients in LTCHs frequently have lengthy stays and may be more likely to develop decubitus ulcers than patients in some other settings. Six of the 10 most frequent LTCH diagnoses are respiratory related, so postoperative PE and DVT appear to be risks for these patients.

We used all LTCH claims to identify patients with the four PSIs. We excluded patients from the analysis who had any diagnosis before transfer to the LTCH that would trigger the PSIs. Therefore, changes in rates are not the result of LTCHs admitting more patients who had these conditions in the acute hospital. They are also risk adjusted so these indicators should not reflect a changing patient population over time. Changes in the PSI risk-adjusted rates per 1,000 LTCH patients are shown in Table 3D-5. These rates suggest that safety for LTCH patients under PPS payment has deteriorated. The rates for three of the four PSIs increased from 2004 to 2005 although the rate for one PSI, postoperative sepsis, declined. Nevertheless, we need to be cautious about interpreting the PSIs; they were not developed for LTCHs.

AHRQ is testing validity for selected PSIs in collaboration with volunteer acute care hospitals (AHRQ 2006). That test of PSIs should be completed in 2007 (Farquhar 2006).

Additional measures of quality for LTCHs are needed. The PSIs, available from routinely collected administrative data, can be calculated for overall safety in LTCHs. Because the incidence of these problems is low, they may not be suitable for measuring quality for individual hospitals. Additional measures of quality at the hospital-specific level, probably not available from administrative data, could come from the industry. One association and a large chain report independent efforts to develop quality indicators and are in the process of collecting data. If the data for these indicators were available, CMS might use them to monitor LTCH care. For example, both organizations plan to measure rates of weaning from ventilators, pneumonia contracted while on a ventilator, decubitus ulcers acquired in the LTCH, bloodstream infections, falls, and use of restraints. However, the specific measures for these indicators differ widely between the two organizations.

**TABLE
3D-5**

Three of four patient safety indicators for long-term care hospitals worsened from 2004 to 2005

Patient safety indicator	Risk-adjusted rates per 1,000 eligible discharges			Percentage change 2004-2005	Observed adverse events 2005	Total number of patients 2005
	2003	2004	2005			
Decubitus ulcer	228.6	148.3	152.2	2.6%	16,601	104,027
Infection due to medical care	19.4	27.9	31.6	13.3	3,835	117,765
Postoperative PE or DVT	53.5	54.3	55.9	2.9	872	15,526
Postoperative sepsis	125.3	164.0	160.6	-2.1	1,535	9,012

Note: PE (pulmonary embolism), DVT (deep vein thrombosis).

Source: MedPAC analysis of MedPAR data from CMS.

Long-term care hospitals' access to capital

Since the LTCH PPS was implemented, continued rapid expansion of for-profit and nonprofit LTCHs demonstrates good access to capital for this sector. For-profit LTCHs increased by 11.1 percent between 2004 and 2005; nonprofits increased 10.3 percent during the same period (Table 3D-3, p. 227).

More than 60 percent of LTCHs are for profits and more than 60 percent of those are owned by two chains: Kindred Healthcare and Select Medical. For-profit chains can access capital through the equity market as well as by borrowing. Private equity firms have invested in the LTCH industry. For example, Welsh, Carson, Anderson, and Stowe spent \$2.3 billion in 2005 acquiring Select Medical and taking it private (Nathanson 2005). TA Associates, another private equity firm, purchased Triumph HealthCare, an owner of six LTCHs in 2004; in 2005, Triumph purchased a chain of 13 LTCHs, making it the third largest chain (TA Associates 2005, 2004). Private equity investment in the industry suggests that LTCHs have access to capital.

Payments and costs

To assess the adequacy of Medicare payment, we examine payments and costs. We also calculate an aggregate Medicare margin for LTCHs.

Evidence from cost reports suggests that the growth in cost per case slowed in 2003, the first year of the PPS, by about 1 percent (Figure 3D-3, p. 232). This decrease may have occurred in response to providers' uncertainty about the effect of the new payment system. After the first year of the PPS, payments increased rapidly, by 6 percent in 2003, by 12.6 percent in 2004, and by 9.4 percent in 2005.

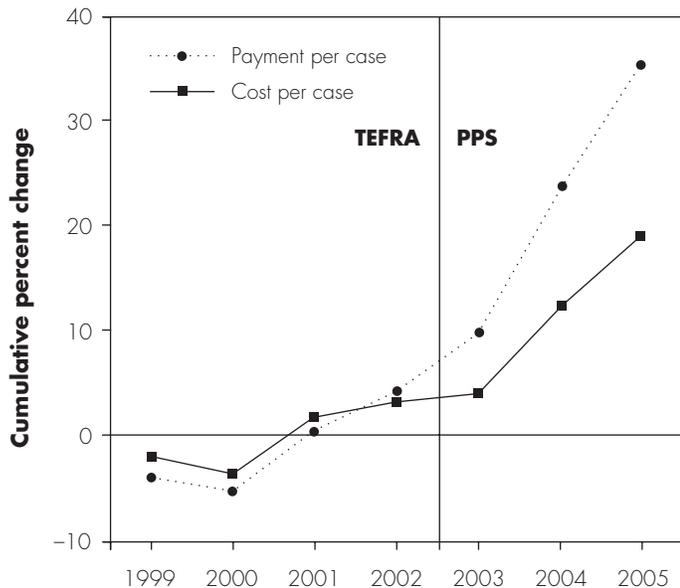
Costs per case in the second and third years of the PPS (2004 and 2005) appear to track closely with the increase in payments. Costs per case increased 8.4 percent in 2004 when payments per case increased 12.6 percent; costs per case increased 6 percent in 2005 when payments per case increased 9.4 percent. This parallel trend suggests that LTCHs may be very responsive to any changes in payments and that their costs per case may change when payments per case change. It is also important to bear in mind that LTCHs have a large amount of discretion about which patients to admit to these facilities. On site visits, LTCH representatives told us that they frequently visit acute care hospitals to assess potential patients.

Much of the growth in payments was due to an increase in the reported case mix of patients. A CMS study found that the observed case-mix index (CMI) increase between 2003 and 2004 was 6.75 percent (CMS 2006b). This study suggested that the real CMI increase contributed about one-third of the CMI change. Most of the change represented improvements in documentation and coding rather than increases in patients' severity of illness. Unlike previous years when LTCHs received market basket updates, for 2007 CMS gave LTCHs a zero update to correct for coding changes.

The Medicare margin is the difference between Medicare payments and costs, as a percentage of Medicare payments. Conceptually, this margin represents the percentage of revenue the providers keep. LTCHs' Medicare margins under TEFRA were generally less than zero or zero (Table 3D-6, p. 233). The TEFRA margins are consistent with the payment system, which linked payments to costs. After CMS implemented the PPS in 2003, margins rose rapidly for all groups of LTCHs. The

**FIGURE
3D-3**

LTCHs' payments are rising faster than their costs since the PPS



Note: LTCH (long-term care hospital), PPS (prospective payment system), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982). Data are from consistent two-year cohorts of LTCHs.

Source: MedPAC analysis of cost reports from CMS.

Medicare margin for LTCHs based on 2005 cost reports is almost 12 percent.

HWHs and for-profit LTCHs have higher margins than freestanding and nonprofit LTCHs. Government-owned LTCHs are few in number, have few Medicare patients, and operate under different budget and economic constraints than other LTCHs.

A number of payment policy changes affect our estimate of the 2007 Medicare margin. In general, the changes for 2006 increased Medicare's payments for LTCHs; the changes for 2007 decreased payments. The changes for 2006 include:

- a full market basket update and an increase resulting from changes in the outlier threshold for an estimated total increase of 5.7 percent (CMS 2005b); and
- an adjustment of an estimated -4.2 percent to payment that results from changes to the case-mix groups and relative weights, implemented in a non-budget-neutral manner (CMS 2005a).

The changes for 2007 are:

- a market basket increase of 3.4 percent offset by an adjustment for coding improvement, for a net zero update (CMS 2006b);
- a change in the short-stay outlier policy, which we estimate to change payments by -3.7 percent (discussed in the text box on the short-stay outlier policy, p. 226);
- an adjustment of an estimated -1.3 percent that results from changes to the case-mix groups and relative weights, implemented in a non-budget-neutral manner (CMS 2006a); and
- lower payments due to the 25 percent rule for HWHs (we estimate -1.9 percent) (discussed in the text box on the 25 percent rule, p. 234).

Using policies discussed previously and 2008 policy, we estimate LTCHs' aggregate Medicare margin to be between 0.1 percent and 1.9 percent in 2007. This range is based on different hypotheses about HWHs' behavior in response to the 25 percent rule. If HWHs do not change their behavior, the Medicare margin is estimated to be 0.1 percent. If they change behavior to avoid payment reductions, the margin is estimated to be 1.9 percent. There are a number of ways HWHs could change behavior to minimize the effect of the rule—for example, admitting more patients who were high-cost outliers in the acute care hospital and not subject to the rule, recruiting more patients from hospitals other than their host hospitals, and organizing as freestanding LTCHs. Furthermore, CMS may not have the tools to enforce the 25 percent rule at this time, especially because identifying HWHs is challenging.

How should Medicare payments change in 2008?

For LTCHs, there is no mandated update to payments. The Secretary has the discretion to update payments for LTCHs.

LTCHs have continued to enter the Medicare program rapidly through 2005, suggesting that payment rates are attractive. Frequently, LTCHs entering the program locate in market areas where there already are LTCHs, raising questions about whether there are sufficient numbers of very sick patients to justify increasing supply. The increasing supply of LTCHs has resulted in increases in

**TABLE
3D-6**

All types of LTCHs' Medicare margins increased under PPS

Type of LTCH	TEFRA					PPS		
	1998	1999	2000	2001	2002	2003	2004	2005
All LTCHs	0.2%	-1.6%	-1.7%	-1.6%	0.4%	5.3%	8.9%	11.8%
Freestanding*	-0.7	-1.7	-1.3	-1.2	0.0	5.4	7.9	10.9
Hospital within hospital*	1.7	-1.6	-2.1	-2.1	-0.5	5.1	9.7	12.8
Urban*	0.6	-1.6	-1.6	-1.6	-0.2	5.4	9.0	11.8
Rural*	-18.8	-5.7	-3.4	-3.2	-3.1	1.3	5.1	12.5
Nonprofit	-0.8	-1.1	-2.5	-1.5	0.2	2.1	6.4	9.3
For profit	2.5	-1.0	-1.0	-1.5	-0.2	6.4	10.1	13.1
Government	-19.1	-15.7	-8.0	-4.8	-3.0	0.5	-4.9	-1.5

Note: LTCH (long-term care hospital), PPS (prospective payment system), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982).
*These numbers have been updated since the printed version of this report was published.

Source: MedPAC analysis of cost report data from CMS.

volume of discharges and Medicare spending. Although we have no direct indicators of beneficiaries' access to LTCHs, the rise in the number of LTCHs and more beneficiaries using these facilities suggest their increased access to care. The increase in LTCHs and private equity firms' investment in the industry suggest that LTCHs have access to capital. Medicare margins are almost 12 percent in 2005 and are estimated to be between 0 percent and 2 percent in 2007, depending on HWHs' response to the 25 percent rule. Therefore, we conclude that payments to LTCHs are adequate.

Update recommendation

LTCHs should be able to accommodate cost changes in rate year 2008 with the Medicare margin they have in 2007; therefore, we recommend:

RECOMMENDATION 3D

The Secretary should eliminate the update to payment rates for long-term care hospital services for rate year 2008.

RATIONALE 3D

It is important to keep payments to LTCHs tightly controlled in an attempt to keep growth in line in this sector, especially because LTCHs frequently locate in markets where LTCHs already exist. Tightly controlled

payments will also put pressure on the LTCH industry and CMS to implement facility and patient criteria to better define these facilities and appropriate patients, as we have recommended. The number of LTCHs, discharges, and spending has grown rapidly under the PPS. The Commission concluded that medically complex patients who have a good chance of recovery are appropriately treated in these facilities. In addition, since there currently are no criteria for LTCH patients, we cannot be sure that patients treated in these facilities are actually appropriate. LTCHs have demonstrated that they are able to respond quickly to changes in payment policy. Moreover, these facilities have a large amount of discretion over which patients they admit.

IMPLICATIONS 3D

Spending

- This recommendation decreases federal program spending relative to current law by between \$50 million and \$250 million in one year and by less than \$1 billion over five years.

Beneficiary and provider

- This recommendation is not expected to affect providers' ability to provide care to Medicare beneficiaries. ■

The rule for long-term care hospitals within hospitals limits admissions from host hospitals

The so-called 25 percent rule affects long-term care hospitals within hospitals (HWHs) and satellites. This rule provides less payment for certain patients who are admitted from the host hospital to the HWH each year.

The policy is being phased in over three years and will be fully implemented by fiscal year 2008, the year for which we are recommending an update. The HWHs will be paid long-term care hospital (LTCH) prospective payment system (PPS) rates for patients admitted from the host acute care hospital when those patients are within the applicable threshold (25 percent or 50 percent). The threshold is the maximum share of cases HWHs can admit from their host hospital. Patients from the host hospital who are outliers under the acute hospital PPS before their transfer to the HWH do not count toward the threshold since they are not subject to the rule. For patients admitted from the host hospital above the applicable threshold, the LTCH will be paid the lesser of the LTCH PPS rate or an amount equivalent to the acute hospital PPS rate.

The threshold was 75 percent for fiscal year 2006. It is 50 percent for fiscal year 2007 and will be 25 percent for

fiscal year 2008. For example, in 2007, if a HWH admits 60 percent of its cases from its host hospital that are not high-cost outliers in the hospital, the HWH will be paid the inpatient PPS rate (if it is lower than the LTCH rate) for the 10 percent of cases that exceed the threshold.⁴

There are some permanent exceptions to the 25 percent rule. For rural HWHs, the applicable threshold is 50 percent per year. When a HWH is the only LTCH in an urban area or is located in a hospital that dominates (has one-quarter or more of all acute care cases) for a city, it also has a threshold of 50 percent of cases.

We estimate that this policy will reduce all Medicare payments to LTCHs by 1.9 percent if behavior does not change, because the program will pay lower rates when the HWH admits too many patients from the host hospital. However, the impact of this policy may be reduced by HWHs changing their behavior. This policy creates incentives for HWHs to admit more patients who were high-cost outliers in their host hospital, find patients at other acute hospitals, or organize as freestanding facilities. In addition, it is not clear that CMS currently has the tools necessary to enforce this rule. ■

Endnotes

- 1 LTCHs began receiving payments under the new prospective payment system (PPS) at the beginning of their 2003 cost reporting periods. During a five-year transition period, they are paid a blend of the PPS rate and their updated facility-specific rate. For example, in the first year of the PPS, payments were made up of 20 percent PPS rates and 80 percent facility-specific rates; in the second year, payments were made up of 40 percent PPS rates and 60 percent facility-specific rates. For cost reporting years in or after June 2006, all LTCHs are paid entirely at PPS rates.
- 2 For more detail on the PPS for LTCHs, see http://www.medpac.gov/publications/other_reports/Sept06_MedPAC_Payment_Basics_LTCH.pdf.
- 3 A geometric mean is derived by multiplying all numbers in a set and raising that product to the exponent of one divided by the number of cases in the set.
- 4 During the year, the HWH will be paid the LTCH rate. During retrospective settlement at the end of a HWH's cost report year, if the HWH is determined to be overpaid, CMS will collect the overpayment from future payments.

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CHAPTER 4

**Update on Medicare
private plans**

Update on Medicare private plans

Chapter summary

Private plans participate in Medicare through the Medicare Advantage (MA) program and as sponsors of prescription drug plans. In the past couple of years, plan participation in MA has grown substantially, with significant growth in enrollment. In delivering Medicare's outpatient prescription drug benefit, sponsoring organizations (both MA and stand-alone prescription drug plans) are offering a wide variety of plans and have many enrollees.

The Commission supports the private plan option offered through the MA program. Medicare beneficiaries should be able to choose between the fee-for-service (FFS) Medicare program and the alternative delivery systems that private plans can provide, so long as the choice is financially neutral to the program. The Commission's past recommendations about MA plans emphasize financial neutrality between payment rates in the FFS program and the MA program. However, our analyses of MA payments and plan participation show that benchmarks and program payments in MA are well above 100 percent of FFS levels. Specifically, in 2006, MA program payments

In this chapter

- Medicare Advantage benchmarks and payments compared with average Medicare fee-for-service spending
- Plan enrollment in 2006
- Plan availability and benefits for 2007
- Growth in plans designed for specific populations
- Policy issues related to Medicare's private plans: Past recommendations for Medicare Advantage policy
- Part D plan offerings for 2007
- Previous recommendations applicable to Part D policy

were 112 percent of FFS expenditure levels, and benchmarks were at 116 percent of FFS, a slight increase over earlier estimates, due primarily to growth in private fee-for-service (PFFS) plans.

The share of program payments used to fund extra benefits and reduced premiums varies by plan type. The highest level of extra benefits and reduced premiums in 2006 was among HMO plans; the lowest was among preferred provider organizations and PFFS plans.

Enrollment in MA grew substantially in 2006, with PFFS accounting for nearly half the growth. Medicare private plan penetration (the percent of beneficiaries enrolled in private plans of any type) reached 17 percent in 2006, approaching the historical high of 18 percent in 1999. All beneficiaries have access to at least one MA plan in 2007. Access to plans with no Part C (MA) premium for the coverage of Medicare Part A and Part B services, no premium for any additional services the plan may cover (e.g., dental or vision care not covered by Medicare), and no Part D premium increased in 2007, with 86 percent of Medicare beneficiaries residing in an area where at least one MA plan offered such coverage. About 31 percent of Medicare beneficiaries have access to an MA plan that eliminates or reduces their Part B premium obligation, with 16 percent of beneficiaries having access to a plan that covers the entire standard Part B premium (\$93.50 per month in 2007).

Our analysis of Part D plan offerings for 2007 shows that more plans entered the market for 2007 than in 2006. The defined standard benefit structure and enhanced benefits (basic plus supplemental coverage) make up bigger shares of stand-alone prescription drug plans (PDPs) for 2007; plans with the same average value as the standard benefit but with alternative benefit designs (called actuarially equivalent basic benefits) make up a smaller share of PDPs. Coverage in the gap is more common than last year, usually in the form of generic drug coverage only.

The range of Part D premiums for basic benefits narrowed over the two years. The average premium offered by basic plans is lower but the average for enhanced plans is higher (both these averages are unweighted). If enrollees remain in the same plan for 2007, the premium (calculated across PDPs and Medicare Advantage–Prescription Drug plans) would be about \$25 per month in 2007 compared with \$23 in 2006 (these averages are weighted for enrollment).

The Medicare law called for weighting Part D plan bids for 2007 with plans' 2006 enrollment when calculating the national average bid (called enrollment weighting). Because enrollees tended to choose plans with lower premiums, enrollment weighting would have led to a lower government subsidy, which would mean lower Medicare program payments and higher enrollee premiums. CMS chose not to use enrollment weighting fully, which increases program payments, lowers enrollee premiums, and raises Medicare's Part D subsidies over those called for by law.

The Medicare law also calls for enrollment weighting in the formula for calculating each region's low-income premium subsidy amount for 2007. CMS also chose not to do this. Enrollment weighting would have led to fewer premium-free plans available for recipients of low-income subsidies (LIS), which meant that large numbers of LIS enrollees may have had to change plans or pay more to stay in the same plan. Using unweighted premiums avoids disruption but increases payments to plans from the program.

For both actions, CMS is using its general demonstration authority to transition to enrollment weighting over time. According to CMS's Office of the Actuary (OACT), the demonstrations will raise Medicare spending in 2007 by \$1 billion relative to current law—\$0.6 billion for higher program payments that limit the increase in enrollee premiums and \$0.4 billion for the transition in setting LIS premium thresholds. OACT also estimates that the LIS premium threshold demonstration will reduce the number of LIS beneficiaries who must switch plans or pay a partial premium from 3.3 million (46 percent) to 0.5 million (7 percent). ■

Medicare Advantage benchmarks and payments compared with average Medicare fee-for-service spending

The Commission supports private plans in the Medicare program. Medicare beneficiaries should be able to have a choice between the fee-for-service (FFS) Medicare program and the alternative delivery systems that private plans can provide. Private plans have the flexibility to use care management techniques that FFS Medicare does not allow, and—if paid appropriately—they have greater incentive to innovate. The Commission supports financial neutrality between payment rates for the FFS program and the Medicare Advantage (MA) program. Financial neutrality means that the Medicare program should pay the same amount, adjusting for the risk status of each beneficiary, regardless of which Medicare option a beneficiary chooses. Our analysis of plan benchmarks and MA payment levels in relation to Medicare FFS expenditure levels shows that benchmarks and MA program payments continue to be well above FFS levels.

In June 2006, MedPAC released an issue brief, *Medicare Advantage Benchmarks and Payments Compared with Average Medicare Fee-for-Service Spending*, which found that program payments to MA plans in 2006 were 111 percent of spending on similar beneficiaries in Medicare's traditional FFS program. The issue brief also noted that MA benchmark levels were 115 percent of FFS expenditure levels. In this section, we update the earlier analysis using new enrollment data for 2006, and we refine it to present information by plan type and by geographic groupings. The new analysis shows similar results, with benchmarks at 116 percent of FFS rates and MA payments at 112 percent of FFS rates (Table 4-1, p. 244). Information about the methodology used is in the text box on p. 245.

The benchmark is a bidding target under the bidding system for MA plans that began in 2006. If a plan bid is below the benchmark, enrollees receive extra benefits or reduced out-of-pocket costs; for bids over the benchmark, enrollees pay a premium equal to the amount by which the bid exceeds the benchmark. The local MA benchmarks are based on the county-level payment rates used to pay MA plans before 2006. Those payment rates were at least as high as per capita FFS Medicare spending in each county, with some counties having rates significantly higher than FFS as a result of specific statutory changes, as explained on p. 245. Under the provisions

of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA), from one year to the next, county benchmarks are updated in one of three ways—using whichever method results in the highest increased benchmark. Generally, the local benchmarks would be updated by the national growth rate in per capita Medicare spending. If the national growth rate is less than 2 percent, benchmarks are increased by 2 percent. The third possibility (if a higher benchmark is the result) is to set the benchmark of a given county at an amount equal to the FFS expenditure level for the county.¹ For purposes of implementing the latter provision, CMS is required to determine FFS rates for each county at least every three years. The county FFS rates used for our analysis are the 2007 county rates (deflated to 2006 levels) published by CMS, which form the basis of payment for counties where benchmarks are based on FFS rates.²

If a local plan is operating in multiple counties, the benchmark for the plan is the average of county benchmarks, weighted by the enrollment the plan expects from each county. The benchmarks of regional preferred provider organization (PPO) plans are computed differently. A statutory component (as it is termed in the law) is the primary determinant of regional benchmarks. It is the average of all the local county benchmarks in the region, weighted by the Medicare population in each county. The other component of the regional benchmarks that determines the final regional benchmark is the enrollment-weighted average of the regional PPO bids. The bid component of the final benchmark for each region is given a weight equal to the national level of MA penetration (the percent of Medicare beneficiaries enrolled in MA across the nation).

The detailed analysis of the benchmark and payment data presented here provides a clear understanding of what is happening in the MA program, bringing to light certain information that is not evident when dealing only with aggregate numbers. For example, the analysis of payments by different geographic classifications shows the extent to which the history of statutory payment changes has influenced the current landscape of the program. We specifically discuss the case of Puerto Rico, but other noteworthy geographic differences in benchmark and payment levels reflect statutory changes—the differences between floor and nonfloor counties and the differences between rural and urban counties. In the latter case, because MA enrollment is so heavily concentrated in urban areas, aggregate figures do not show the effect of the relatively higher benchmarks and higher payment rates

**TABLE
4-1****Medicare Advantage benchmarks and payments are higher than average Medicare fee-for-service spending**

	Enrollment as of July 2006 (in thousands)	Benchmark relative to FFS expenditures	Payments for MA enrollees relative to FFS expenditures
All MA plans with bids			
Including Puerto Rico	6,877	116%	112%
Excluding Puerto Rico	6,585	115	111
Floor status of counties			
Nonfloor	3,394	111	106
Large urban floor	2,683	121	117
Other floor	800	134	128
Urban/rural status			
Urban	6,244	116	112
Rural	633	121	117
Plan type			
HMO	5,195	115	110
Local PPO	285	120	117
Regional PPO	82	112	110
PFFS	774	122	119
SNP			
Including Puerto Rico	541	123	118
Excluding Puerto Rico	391	115	111
Beneficiary eligibility			
All in service areas	5,948	116	112
Employer groups only	929	116	114

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.

Source: MedPAC analysis of data from CMS on plan bids, enrollment, benchmarks, and fee-for-service expenditures.

for rural areas, where benchmarks are 121 percent of FFS compared with the urban benchmarks of 116 percent of FFS (which is the same as the overall benchmark level of 116 percent of all plans combined). However, rural enrollment is growing at a far faster rate than urban enrollment, and therefore aggregate numbers may change as a reflection of the changing geographic composition of MA enrollment.

Similarly, the analysis by plan type highlights major differences in benchmark levels, payments, and rebate dollars across plan types. Health maintenance organizations (HMOs), the plan type with the majority of enrollment, have so large a share of the total enrollment that by itself this category virtually determines the aggregate figure of benchmarks at 116 percent of FFS.

The overall figure masks the significant variation between HMOs (with benchmarks at 115 percent of FFS) and plans with looser networks (PPOs, with benchmarks at 120 percent for local PPOs) or non-network plans (private fee-for-service (PFFS), with benchmarks at 122 percent). However, unlike the situation with regard to rural versus urban enrollment, the rapid, large growth in enrollment in PFFS plans has already affected the results of our analysis. The detailed information by plan type also shows that about 15 percent of MA enrollment is in employer group plans, a segment of the MA market we will look at more closely in the future.

The overall results reported in the June issue brief included data for Puerto Rico. For the updated analysis,

A note on the methodology for the benchmark and payment analysis

As discussed in the June 2006 issue brief regarding benchmarks and payment rates, the methodology used in this analysis is an improvement over that used for past analyses. In 2004, a similar MedPAC analysis did not consider the relative health status of enrollees in Medicare plans. Because enrollees were healthier than average, the 2004 estimate of Medicare Advantage (MA) program payments in relation to fee-for-service expenditures (computed as 107 percent) understated the difference. In 2004, a portion of program payments was risk adjusted, but we had no information to calculate the differences in health status between plan enrollees and Medicare beneficiaries not enrolled in plans.

CMS now publishes an estimate of the relative health status of plan enrollees, enabling us to consider health status when comparing benchmarks and MA payment

rates with FFS expenditures. The CMS risk adjustment system applied to 75 percent of each enrollee's payment in 2006; 25 percent was adjusted solely by demographic and geographic factors. In 2007, 100 percent of the payment is adjusted by health status factors. However, a hold-harmless adjustment increased the benchmark rates in 2006 by the amount CMS expected payments to decrease because of risk adjustment due to the better average health status of plan enrollees. The data presented here include the effect of this hold-harmless provision. This hold-harmless adjustment is scheduled to decline over time because of the Deficit Reduction Act of 2005, but in 2006 the provision raised the benchmarks significantly. The impact of the decline in the hold-harmless effect on payments starting in 2007 cannot be estimated because payments depend strongly on future plan bids and the mix of enrollees that plans attract. ■

we examined some of the data with and without results for plans in Puerto Rico, where the MA market has some unusual characteristics. Benchmarks are 150 percent of FFS expenditure levels, and a very high proportion of beneficiaries are enrolled in special needs plans (SNPs) in Puerto Rico—150,000 beneficiaries, about one-quarter of all SNP enrollees in 2006.³ Excluding Puerto Rico from the overall statistics in the updated analysis results in benchmarks being 115 percent rather than 116 percent of FFS and puts MA payments at 111 percent rather than 112 percent of FFS. Overall SNP benchmarks, without Puerto Rico, were 115 percent rather than 123 percent; SNP program payment levels would have been at 111 percent rather than 118 percent of FFS if Puerto Rico had been excluded (Table 4-1). Excluding Puerto Rico does not affect values for plan types other than SNPs.

With regard to the updated overall results of benchmarks at 116 percent and payments at 112 percent of FFS, the slight increases between the updated analysis and the June 2006 analysis are primarily due to the enrollment growth among MA PFFS plans. The earlier analysis was based on enrollment as of December 2005, when enrollment in PFFS plans stood at 209,000, compared with the July 2006 PFFS enrollment of 774,000 used for the update. Overall enrollment grew from about 5.5 million in December

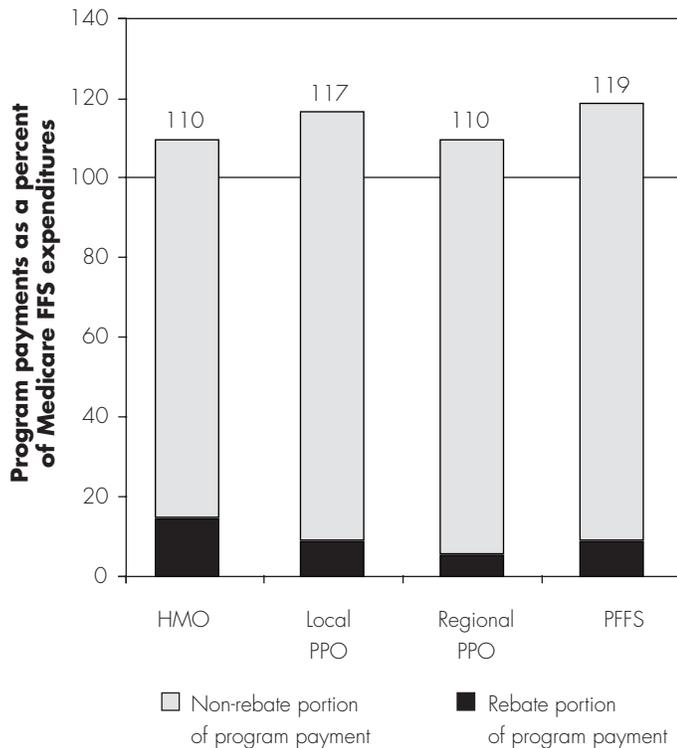
2005 to nearly 7 million in July 2006, with PFFS plans accounting for about 46 percent of the growth.⁴

Benchmark differences by area and by type of plan

The updated analysis provides information on how the benchmarks vary by area and by type of plan. One source of the variation by area reflects statutory provisions that introduced minimum county payment rates, or floors, intended to attract or retain Medicare health plans in counties paid at a floor rate.⁵ Floor rates as such are no longer a basis of plan payment, but what were historically floor counties generally continue to have higher payment rates than nonfloor counties in relation to FFS expenditure levels. The counties that had been floor counties have very high relative benchmark levels compared with other geographic areas—121 percent of FFS for the “large urban floor” and 134 percent, the highest benchmark level, for the “other floor.” The latter floor was established in the Balanced Budget Act of 1997 (BBA). The “large urban floor” was enacted into law three years after the BBA floor was introduced and applies to counties within large metropolitan statistical areas. What we label as the “other floor” is often referred to as the rural floor because it applied mainly to rural counties and was intended to bring coordinated care plans (HMOs or PPOs) to rural areas.

**FIGURE
4-1**

Program payments exceed FFS expenditures but vary by plan type



Note: FFS (fee-for-service), PPO (preferred provider organization), PFFS (private fee-for-service). Rebate is the amount of program payments used to finance extra benefits or reduced out-of-pocket costs for enrollees.

Source: MedPAC based on bid and fee-for-service expenditure data from CMS.

What has transpired instead is that PFFS plans, which are not coordinated care plans, have become the predominant option in rural areas.

While we present the analysis by plan type, it has a geographic element because different plan types tend to be offered in different geographic areas. Except for regional PPOs, separate benchmarks are not established for each type of plan. Benchmarks for plans other than regional PPOs are established for each county and apply to each local (nonregional) plan type operating in the county. The analysis by plan type is a different way of examining the geographic distribution of enrollment with respect to benchmarks and payments. Looking at the data in this manner, among plan types, PFFS plans have the highest benchmark levels (other than SNPs, when Puerto Rico is included in the SNP data), reflecting their concentration in floor counties. Nearly 40 percent of PFFS enrollment came from rural counties in 2006. PFFS plans also draw

substantial enrollment from the “large urban floor” counties. Only 13 percent of PFFS enrollment in 2006 was from nonfloor counties.

HMOs and local PPOs are more likely to be offered in urban than in rural areas. The benchmark level of HMOs, at 115 percent of FFS, is therefore similar to the urban area benchmark level of 116 percent. The benchmark level for regional PPOs is the lowest among plan types because regional plans cannot select which counties to include in their service area (i.e., they cannot choose to operate only in urban counties or only in rural counties) and because of the population-based formula used to determine regional benchmarks.⁶

Among the categories analyzed, the benchmarks for nonfloor counties are closest to FFS levels, at 111 percent. These counties are primarily urban areas, where the floor provision does not apply and payment rates are more likely to be based on Medicare FFS expenditures.

Payments and payment differences by area and by type of plan

The updated data show payments made to MA plans based on bids, by area and type of plan, and overall (Table 4-1, p. 244). All geographic areas and all plan types have program payments that exceed FFS expenditure levels. Among payment categories, the “other floor” counties have the highest program payments in relation to FFS, at 128 percent. Among plan types, PFFS plans, with enrollment concentrated in floor counties, have the highest program payments relative to FFS expenditures—at 119 percent. Local PPOs also have high program payments in relation to FFS, which is likely a reflection of less aggressive bidding on the part of such plans (reflecting the looser network structure and coverage of out-of-network care). The nonfloor counties have the lowest program payments in relation to FFS, at 106 percent. The nonfloor areas are likely to be those that historically had Medicare plans that offered rich benefit packages to enrollees.

By statute, if a plan bids below the benchmark, a portion of the Medicare payments that plans receive is used to fund extra benefits for enrollees or reduced Part B, C, or D premiums. When a bid is below the benchmark, 25 percent of the difference between the bid and the benchmark is retained in the Trust Funds, and 75 percent of the difference—referred to as the “rebate” amount—is paid to the plan to provide extra benefits and reduced premiums. Most plans are bidding below benchmark levels (and thereby can offer richer benefit packages), which explains

why program payments are at 112 percent of FFS overall while benchmarks are at 116 percent of FFS.

CMS calculates plan payments and enrollee premiums in the following manner. First, a plan submits a bid, which is the MA plan's statement of its revenue needs for providing the Medicare Part A and Part B benefit package to the population that it expects to enroll. CMS compares the bid to the appropriate benchmark amount for the plan, with the benchmark being the maximum possible plan payment from the Medicare program. When a plan bid is at or above the benchmark, there is no rebate amount, and the program payment would be the benchmark. The amount by which the bid exceeds the benchmark is a premium a beneficiary must pay to enroll in the plan. If a bid is below the benchmark, plans receive Medicare program dollars to finance the traditional Medicare Part A and Part B benefit package, as well as program dollars—the rebate amounts—that pay for extra benefits and reduced premiums.⁷

For each type of plan shown in Table 4-1 (p. 244), program payments include rebate dollars. Using the PFFS plans as an example, benchmarks are at 122 percent of Medicare FFS expenditure levels and program payments are 119 percent of FFS. For the PFFS plans, the portion of Medicare program payments that represents the cost of providing the Medicare Part A and Part B benefit, on average, is about 110 percent of expenditure levels in traditional Medicare FFS. Therefore, for PFFS plans, there is a 12 percentage point difference between average benchmarks (at 122 percent of FFS) and the plans' average bids for the Medicare Part A and Part B benefit. Of the 12 percentage point difference between the bid and the benchmark, one-quarter (averaging 3 percent of FFS expenditures) is retained in the Trust Funds, and three-quarters (averaging 9 percent of FFS expenditures) is added to the plans' bids to determine the total Medicare program payments to the plans. Thus, for PFFS plans, the Medicare program pays the bid for Part A and Part B services—at 110 percent of FFS expenditure levels—plus the rebate amount that averages 9 percent of FFS expenditures. The total amount of Medicare program payments to PFFS plans averages 119 percent of FFS expenditure levels (Table 4-1, p. 244, and Figure 4-1).

The highest bid-to-benchmark difference among types of plans is for HMOs. Overall, HMO benchmarks are at 115 percent of FFS and payments are at 110 percent of FFS, meaning that, on average, the Trust Funds retain 5 percentage points of the amount by which the benchmarks

exceed FFS (representing 25 percent of the difference between the benchmark and the bid). This also means that, on average, HMO bids include rebates (75 percent of the difference between the bids and benchmarks, for bids below the benchmark) valued at about 15 percent of FFS payment rates (Figure 4-1). A similar situation occurs with SNP plans, as they are predominantly HMO-model plans.

In some counties in south Florida, the difference between bids and benchmarks is such that actual MA payment rates are below Medicare FFS rates. That is, bids are low enough in relation to the benchmarks that 25 percent of the difference between bids and benchmarks is sufficient to bring MA payment levels below Medicare FFS levels. South Florida, with more than 90 percent of enrollees in HMO plans, is the only part of the country where this situation has arisen. PPOs (both local and regional) and PFFS plans are more likely to have bids closer to benchmark levels—and therefore have fewer rebate dollars and a smaller amount of funds retained by the Trust Funds.

Employer group plans

To date, we have not looked specifically at employer group plans (the last category of Table 4-1, p. 244), but we intend to look more closely at this category in the future. These plans are overwhelmingly HMOs. Their bids may be higher than other types of HMO plans because they do not necessarily compete to attract individual (non-group-sponsored) Medicare beneficiaries. While such plans have lower marketing and member acquisition costs than plans offered in the individual Medicare market, the enrollees of these plans may have relatively higher utilization of health care. Medicare Current Beneficiary Survey data show that beneficiaries in FFS Medicare with employer-sponsored coverage historically have had relatively high rates of utilization, and this may also be true for these types of enrollees in MA plans (MedPAC 2006a).

Plan enrollment in 2006

From December 2005 to July 2006, enrollment in MA plans and similar types of plans grew by nearly 20 percent, or 1.2 million enrollees (Table 4-2, p. 248). This number includes enrollment in MA-only and Medicare Advantage–Prescription Drug plans (MA–PDs) as well as enrollment in non-MA plans other than Part D plans, such as cost plans (cost-reimbursed HMOs and health care prepayment plans) and certain demonstration plans.

**TABLE
4-2**

Private plan enrollment increased between 2005 and 2006, with the fastest growth in rural areas

	Private plan enrollment (in millions)		Change	Private plan penetration July 2006
	December 2005	July 2006		
Total	6.2	7.4	20%	17%
Rural	0.5	0.8	77	7
Urban	5.8	6.7	16	20

Note: Amounts may not sum to total due to rounding. Penetration is the percent of the total Medicare population (or the total Medicare population in a given area) enrolled in a plan. Data are for Medicare Advantage plans as well as other plan types, such as cost-reimbursed plans.

Source: MedPAC analysis of enrollment data from CMS and Census Bureau classification of counties.

As of July 2006, 7.4 million beneficiaries were enrolled in private plans, comprising 17 percent of all Medicare beneficiaries. This level of penetration (the proportion of the population enrolled in plans) is close to the historic high of 18 percent attained in 1999 (a penetration figure that includes enrollment in risk-based plans for 1999 as well as nonrisk plans such as cost-reimbursed plans).⁸

PFFS plans accounted for about 46 percent of total enrollment growth, adding 565,000 new enrollees between December 2005 and July 2006. PFFS enrollment in December 2005 stood at 209,000. At 270 percent, the rate of growth among PFFS plans was significantly higher than in other types of plans. Growth in enrollment in local HMOs and PPOs together was a more modest 11 percent, or about 600,000 enrollees, which is about equal to the absolute number of new enrollees in PFFS. Enrollment in other types of plans that operated in 2005, such as cost-reimbursed plans, declined by about 7 percent.

Enrollment growth was very strong in rural areas, but enrollment patterns still differ between urban and rural areas. Plan enrollment growth between 2005 and 2006 was about 77 percent in rural areas and about 16 percent in urban areas. In 2006, about 20 percent of Medicare beneficiaries in urban counties and about 7 percent of rural beneficiaries were enrolled in private plans. Rural enrollees were more likely to be in PFFS plans (nearly 40 percent of them in 2006, compared with only about 7 percent of urban enrollees). About 52 percent

of the growth in rural enrollment was due to increased enrollment in PFFS plans, with rural enrollees accounting for 39 percent of the total enrollment of PFFS plans (nearly 304,000 enrollees). There were nearly 17,000 rural enrollees of regional PPO plans in July of 2006, representing 20 percent of the enrollment in such plans. Among HMO plans, 4 percent of enrollees (214,000) resided in rural counties. SNPs had rural enrollment of 71,000, or 13 percent of their total enrollment. Among local PPO plans, about 10 percent of enrollment was drawn from rural counties (nearly 28,000).⁹

Plan availability and benefits for 2007

Private plan alternatives to the FFS Medicare program are now available to all Medicare beneficiaries, a very slight change from 2006 when 99.6 percent of beneficiaries had access to a private plan, and a significant increase from 84 percent in 2005 (Table 4-3). Increased availability is mainly the result of continued growth in PFFS plans in the MA program. In 2007, 82 percent of Medicare beneficiaries have a local HMO or PPO plan operating in their county of residence, up from 80 percent in 2006 and 67 percent in 2005. PFFS plan availability increased substantially in 2007 to virtually 100 percent of beneficiaries, up from 80 percent in 2006 and 45 percent in 2005.

Overall access to local HMOs and PPOs or regional PPOs (the coordinated care plans) increased to 99 percent of beneficiaries in 2007, up from 98 percent in 2006. Access to regional PPOs was unchanged, although the regions that had plans in 2006 tend to have more plans in 2007.

**TABLE
4-3**

Availability of MA plans has grown

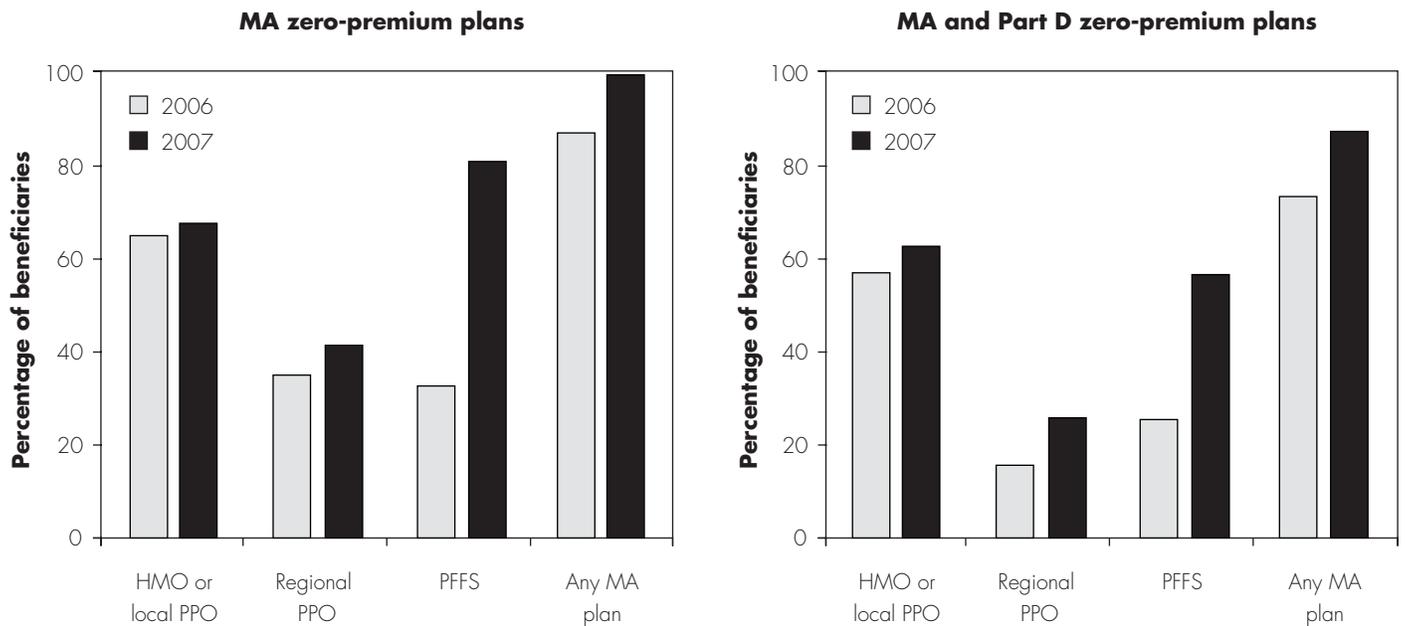
	2005	2006	2007
Any MA plan	84%	100%	100%
CCP	67	98	99
HMO or local PPO	67	80	82
Regional PPO	N/A	87	87
PFFS	45	80	100
MSA	N/A	N/A	78

Note: MA (Medicare Advantage), CCP (coordinated care plan), PPO (preferred provider organization), PFFS (private fee-for-service), MSA (medical savings account), N/A (not available).

Source: MedPAC analysis of plan finder data from CMS.

**FIGURE
4-2**

Availability of zero-premium plans has grown



Note: MA (Medicare Advantage), PPO (preferred provider organization), PFFS (private fee-for-service). Enrollees of MA zero-premium plans pay only the Medicare Part B premium. Some plans offer reductions of the Part B premium as a plan benefit also. MA plans have a separate premium for Part D coverage, which can also be reduced to zero.

Source: MedPAC analysis of bid and plan finder data from CMS.

Beneficiaries have many more plan options in 2007 than in the past. Excluding employer-only plans and SNPs, each county has an average of 20 MA plan options (i.e., 20 benefit package options) in 2007, compared with 12 in 2006 and 5 in 2005.

Zero-premium and Part B premium reduction plans

Across all plan types, in 2007 there is increased availability of benefit packages with no plan premiums—the “zero-premium” plans with no premium payments other than the Medicare Part B premium (Figure 4-2). More beneficiaries than in 2006 have access to zero-premium MA plans—plans with no Part C (MA) premium for the coverage of Medicare Part A and Part B services and no premium for any additional services the plan may cover (e.g., dental or vision care not covered by Medicare). In 2007, almost all Medicare beneficiaries (99 percent) have access to such plans. More beneficiaries can obtain an MA plan with Part D drug coverage (an MA–PD plan)

for which the enrollee pays no premium for either the drug coverage or the coverage of Medicare Part A and Part B services. In 2007, 86 percent of Medicare beneficiaries have access to at least one MA–PD plan with no premium (beyond the Medicare Part B premium) for the combined coverage (and no premium for any non-Medicare-covered benefits included in the benefit package), compared with 73 percent in 2006. Particularly noteworthy is the increased availability of PFFS plans offering such coverage. In 2006, 25 percent of beneficiaries had access to a PFFS plan with no plan premium for Part C and Part D coverage—a figure that grew to 55 percent in 2007.

In most cases, enrollees of MA plans continue paying their Medicare Part B premium, but some MA plans use rebate dollars to reduce or eliminate their enrollees’ Part B premium obligation. In 2007, 31 percent of Medicare beneficiaries have access to an MA plan that reduces or eliminates their Part B premium; 16 percent of beneficiaries have access to a plan that eliminates the entire standard Part B premium (\$93.50 per month

in 2007). In the latter group, 9 percent of beneficiaries reside in a county where the only plan option that offers a full reduction of the Part B premium is a PFFS plan; a little more than 1 percent of beneficiaries can obtain this kind of coverage only through a local HMO or PPO; and 6 percent of the population can enroll in a full Part B premium reduction plan offered by PFFS plans as well as local HMOs or local PPOs in their county.

High-deductible plans with medical savings accounts

In 2007, the first high-deductible plans linked to medical savings accounts (MSAs) were introduced as MA options, with plans available in 38 states and the District of Columbia. The MSA plans differ from other MA plans in many ways, including their enrollment and payment rules.

As with similar plans available in the commercial marketplace, the Medicare MSA plans consist of health plans with a high deductible and catastrophic coverage, combined with savings accounts in which funds are deposited on behalf of the enrollee. In the case of the Medicare MSA, the only permissible source of funds for the enrollee deposit is the payment from Medicare. The deposit, a uniform amount for each plan enrollee, is an annual payment made to the beneficiary's account at the beginning of the year. The enrollee's deposit amount is the difference between the MSA plan premium (the equivalent of an MA bid) and the plan benchmark (if the amount is below the benchmark).¹⁰ Unlike other MA plans that have bids below the benchmark, for which 25 percent of the bid-to-benchmark difference is retained in the Trust Funds, MSA plans are not subject to this retention requirement (reflecting the statutory provision applicable to MSAs). Unlike the payments of other MA plans, the bid-based payments of MSA plans are also not subject to geographic adjustment. That is, the payment reflects the expected geographic mix by county that was the basis of the MSA premium, rather than being based on the county of residence of the plan enrollees (reflecting the statutory provision whereby payments are adjusted only for the demographic and risk factors of the individual enrollees).

The deductible level is also the catastrophic cap, as required by the statute. The statutory provision specifies a maximum deductible (an indexed amount, which is \$9,500 for 2007), but no minimum is specified. The MSA plans cover Medicare Part A and Part B benefits only (and no additional benefits, except through optional

supplemental packages).¹¹ MSA plans are not permitted to offer MA-PD plans, but enrollees may elect a stand-alone prescription drug plan (PDP). Beneficiaries pay the full Medicare-allowable costs for care until they reach the deductible (i.e., the catastrophic cap), and the plan pays for all Medicare-covered care above the catastrophic cap. Beneficiaries can use their MSA account funds to pay for the cost of care before they reach the deductible, though any use of the funds for qualified medical expenses is tax-exempt (e.g., the funds can be used to purchase long-term care insurance).

The available MSA plans in 38 states and the District of Columbia have deductibles between \$2,500 and \$4,500 for 2007. Deposits to the savings account range from \$1,000 to \$1,725 per year. Beneficiaries in New York and Pennsylvania can join a demonstration plan that is a variation of the MSA model. The available benefit packages in the demonstration have deductibles between \$2,500 and \$4,000. Deposits to the savings account range from \$1,422 to \$1,558 per year. Unlike the standard MSA plan design, the demonstration has separate deductibles and catastrophic caps, with catastrophic caps between \$2,500 and \$4,800. Unlike the standard design, the demonstration plans pay for some care below the deductible (preventive care, for example), and enrollees have cost sharing for expenditures between the deductible level and the catastrophic cap. Including both the standard MSA plans and the demonstration plan, 77 percent of beneficiaries will have access to an MSA plan in 2007. Both the demonstration plan and the standard plans have Medicare MSA products for employer group enrollees available throughout the United States.

We intend to monitor the status of MSA plans and are concerned about the different treatment, under the statute, of these types of MA plans with respect to the provision that requires that 25 percent of the bid-to-benchmark difference be retained in the Trust Funds.

Growth in plans designed for specific populations

MA organizations can design plans targeted to specific populations, and enrollment in such plans can be limited to Medicare beneficiaries who meet certain criteria. Until the end of 2008 SNPs limit their enrollment to beneficiaries with special needs. MA organizations can

**TABLE
4-4****The number of special needs plans and access to such plans have grown substantially**

Type of SNP	2006			2007	
	Number of plans	Percent of beneficiaries with access	Enrollment (in thousands)	Number of plans	Percent of beneficiaries with access
All	276	59%	530	424	76%
Dual eligibles	226	57	440	271	67
Institutional	37	26	20	81	48
Chronic condition	13	9	70	72	38

Note: SNP (special needs plan).

Source: MedPAC analysis of bid and enrollment data from CMS.

also arrange with employers or unions to offer retiree coverage through plans with enrollment limited to the retirees and dependents eligible for coverage under such arrangements.¹²

The number of SNPs has grown rapidly since their inception in 2004, when there were just 11 SNPs. The number had grown to 125 in 2005 and more than doubled to 276 in 2006. For 2007, there are 424 SNPs (Table 4-4). The most numerous plans are for dual eligibles, making up 271 of the plans, up from 226 in 2006. The next most common plans are for the institutionalized, increasing from 37 plans in 2006 to 81 plans in 2007. The least common type of SNP is also the fastest growing: Chronic condition SNPs grew from 13 plans in 2006 to 72 plans in 2007.

The increase in the number of SNPs raises the percentage of Medicare beneficiaries who have an opportunity to enroll in a SNP. In 2007, 76 percent of Medicare beneficiaries live in a county where a SNP is operating, versus 59 percent in 2006. The percentages of beneficiaries with access to different types of SNPs for 2007 are: 67 percent for dual-eligible SNPs, 48 percent for institutional SNPs, and 38 percent for chronic condition SNPs.

In 2006, about 440,000 beneficiaries were enrolled in dual-eligible SNPs, 70,000 were enrolled in chronic condition SNPs (69,000 were in one plan in Puerto Rico), and 20,000 were enrolled in institutional SNPs.

In 2006, about 1 million beneficiaries were enrolled in employer- or union-sponsored group MA plans not available to the general Medicare population. The number

of group-only plans appears to have grown substantially, especially PFFS and MSA varieties (though to date the enrollment in group-only products has been concentrated in HMO plans, which had about 90 percent of such enrollment in July 2006). Group-only plans are available in all counties for 2007; in 2006, they were available in fewer than two-thirds of counties. As noted previously, we intend to look more closely at these plans in the future.

Policy issues related to Medicare's private plans: Past recommendations for Medicare Advantage policy

In this section, we briefly review the Commission's past recommendations with respect to MA policy, focusing on recommendations the Commission made in the June 2005 report to the Congress, as shown in the text box (p. 252). As we noted previously, the Commission will continue examining MA policy issues; in particular, we will look at PFFS plans, SNPs, employer group plans, and MSA plans.

The Commission supports private plans in the Medicare program. Medicare beneficiaries should be able to choose between the FFS Medicare program and the alternative delivery systems that private plans can provide. Private plans have the flexibility to use care management techniques that FFS Medicare does not encourage, and they have greater incentive to innovate.

The Commission supports financial neutrality between payment rates for the FFS program and private plans. Financial neutrality means that the Medicare program

Medicare Advantage recommendations from the June 2005 report to the Congress

Medicare Advantage (MA) recommendations from MedPAC's June 2005 report to the Congress are summarized below:

- The Commission recommended that the Congress eliminate the \$10 billion stabilization fund for regional preferred provider organizations (PPOs). Authorization of the fund was one of several provisions intended to promote the development of regional PPOs. The fund was available in 2007 but was not used. The Tax Relief and Health Care Act of 2006 reduced the fund to \$3.5 billion and made funds unavailable until the year 2012.
- The Commission recommended that the Congress clarify that regional plans should submit bids that are standardized for the region's MA-eligible population. Regional PPOs can have an advantage over local plans as a result of the MA bidding process. Because of the different method used to determine benchmarks for regional PPOs in relation to the method used for other plans, and because of the bidding approach used for regional plans, there can be distortions in competition between regional and local plans.
- The Commission recommended that the Congress remove the effect of payments for indirect medical education from the MA plan benchmarks. MA rates set at 100 percent of fee-for-service (FFS) include medical education payments, but at the same time Medicare makes separate indirect medical education payments to hospitals treating MA enrollees.
- The Commission recommended that the Congress set the benchmarks that CMS uses to evaluate Medicare Advantage plan bids at 100 percent of FFS costs. The Commission has consistently supported the concept of financial neutrality between payment rates for the FFS program and private plans. However, financial neutrality can be achieved gradually to minimize the impact on beneficiaries.
- The Commission believes that pay-for-performance should apply in MA to reward plans that provide higher quality care. The Commission recommended that the Congress redirect the amounts retained in the Trust Funds for bids below the benchmarks to a fund that would redistribute the savings back to MA plans based on quality measures.
- The Commission recommended that the Secretary calculate clinical measures for the FFS program that would permit CMS to compare the FFS program to MA plans. The Commission believes that more can be done to facilitate beneficiary choice and decision making by enabling a direct comparison between the quality of care in private plans and quality in the FFS system.

One recommendation became a provision of the Deficit Reduction Act, which specifies in statute the time line for phasing out the hold-harmless policy that offsets the impact of risk adjustment on aggregate plan payments through 2010. ■

should pay the same amount, adjusting for the risk status of each beneficiary, regardless of which Medicare option a beneficiary chooses. Additionally, the Commission supports pay for performance as a feature of health plan payments. We have found that organizations are more likely to be efficient when they face financial pressure. The Medicare program needs to exert consistent financial pressure on both the FFS and MA programs, coupled with meaningful quality measurement and pay-for-performance programs, to maximize the value it receives for the dollars it is spending.

The Commission recognizes that changing MA plan payment rates too quickly to achieve financial neutrality may cause disruptions for beneficiaries and may have unintended consequences. The timing of the transition to a plan payment system that is financially neutral needs to take into account the effect on beneficiaries. Financial neutrality may also take the form of having plan benchmarks set at 100 percent of FFS, on average, across geographic areas. Benchmarks could be higher in areas that have trouble attracting plans and lower in areas where

plans are able to bid below the benchmarks. On average, across all geographic areas, MA payment rates would be at 100 percent of FFS.

With respect to pay for performance in MA, in our March 2004 report, the Commission concluded that Medicare should introduce pay-for-performance incentives to provide high-quality care in the MA program because MA meets all the Commission's criteria for successful implementation (MedPAC 2004b). CMS collects standardized, credible performance measures on all MA plans. Every year, plans collect data on specific clinical process measures and data that reflect members' satisfaction with the plan's service provision, though not all plans report on all measures; for example, PPOs and PFFS plans are exempted from reporting on measures that involve obtaining data from medical records. Together, these data show a widely accepted, broad cross section of plan quality. Most of the process measures in these data sets do not require risk adjustment, and CMS has developed risk adjusters for the satisfaction measures. Plans have developed various strategies to improve their scores on these measures by working with providers in their networks. The Commission has argued that, by including all private plans in a pay-for-performance program, CMS would maintain a level playing field between plan types and simultaneously reward those plans that invest in improving quality.

Part D plan offerings for 2007

For 2007, the second year of operations for Part D, Medicare's outpatient prescription drug benefit, we find that:

- More plans entered the market for 2007 than in 2006. Sponsors are offering about 30 percent more stand-alone PDPs and 25 percent more MA-PDs.
- Sponsors are offering larger proportions of PDPs with the defined standard benefit structure or enhanced benefits (basic plus supplemental coverage) for 2007 and a smaller proportion of benefits with the same average value as the standard benefit but with alternative benefit designs (called actuarially equivalent benefits). The larger share of defined standard plans probably reflects competition for enrollees who receive Part D's low-income subsidy (LIS) as well as for other beneficiaries who are most

interested in low premiums when they select a plan. The larger share of enhanced plans may reflect CMS's efforts to encourage sponsors to offer more plans with coverage in the gap—drug spending between the defined standard benefit's initial coverage limit and its out-of-pocket spending limit in which the enrollee must pay 100 percent coinsurance. A larger proportion of MA-PDs are also offering enhanced benefits in 2007 than in 2006.

- More PDPs include some benefits in the coverage gap (28 percent in 2007, compared with 15 percent in 2006), but nearly all cover only generic drugs. Among MA-PDs, 32 percent provide benefits in the coverage gap, up from 28 percent in 2006.
- Part D basic plans with premiums at the higher end of the distribution in 2006 tended to lower their bids for 2007, while those with the lowest bids tended to raise them. The average premium offered by basic plans—not weighted by enrollment—is lower. However, the average (unweighted) premium for plans offering enhanced coverage is higher. Among the plans we analyzed, if enrollees in Part D remain in the same plan for 2007, the average enrollee with coverage through either a PDP or an MA-PD will pay about \$25 per month in 2007 compared with \$23 in 2006.

Like the MA program, private plans deliver Part D benefits and compete for enrollees on the basis of premiums, benefit design, drug formularies, pharmacy networks, and quality of services. Organizations that offer Part D plans bear insurance risk for some of their members' benefit spending. Plan sponsors submit bids to CMS to provide Part D benefits. CMS calculates the national average of bids for basic benefits and then Medicare pays plans the same capitated amount per enrollee based on a percentage of the national average, adjusted for the risk of the individual enrollee.¹³ Plans may also receive payments from Medicare to cover the premiums and cost sharing of members who qualify to receive Part D's LIS and to cover individual reinsurance subsidies for enrollees who have very high spending for drugs.¹⁴

Before the start of Part D, policymakers were concerned that few private organizations would be willing to offer stand-alone drug coverage—a product largely unseen in insurance markets. Instead, there was considerable market entry.

Another uncertainty was whether Medicare beneficiaries would enroll in the voluntary program. As of October 2006, CMS estimates that of 43.1 million beneficiaries,

**TABLE
4-5****Defined standard benefit parameters increase over time**

	2006	2007
Deductible	\$250.00	\$265.00
Initial coverage limit	2,250.00	2,400.00
True out-of-pocket spending limit	3,600.00	3,850.00
Total covered drug spending at true out-of-pocket limit	5,100.00	5,451.25
Minimum cost sharing above the true out-of-pocket limit:		
Copay for generic/preferred multi-source drug prescription	2.00	2.15
Copay for other prescription drugs	5.00	5.35

Source: CMS, Office of the Actuary. 2006. *Medicare Part D benefit parameters for standard benefit: Annual adjustments for 2007* (May 22).

23.1 million (nearly 54 percent) actively enrolled or were automatically enrolled in Part D plans, including 16.9 million in PDPs and 6.2 million in MA-PDs (CMS 2006a). Another 6.8 million have primary coverage through employer-sponsored health plans that receive Medicare's retiree drug subsidy.¹⁵ About 3.5 million Medicare beneficiaries have drug coverage through TRICARE and the Federal Employees Health Benefits program, and another 5.4 million have drug coverage whose value is equal to or greater than that of Part D (called creditable coverage) through other sources. CMS estimates that more than 90 percent of Medicare beneficiaries have Part D coverage or creditable coverage, compared with about 75 percent before the program started (CBO 2002). Enrollment was highly concentrated among plans offered by a small number of parent organizations.

Under the law, Part D's defined standard coverage has benefit parameters that increase over time at the same growth rate as in the program's per capita drug spending. The defined standard benefits for 2006 and 2007 are shown in Table 4-5.¹⁶

Stand-alone drug plans

Part D drew even more PDPs into the field for 2007 than it did in 2006. Plan sponsors offer 1,866 PDPs in 2007 compared with 1,429 in 2006—about 30 percent more (Table 4-6). Seventeen organizations offer at least one PDP in each region, totaling 80 percent of all stand-alone plans. In 2006, 10 organizations operated in all PDP regions, offering 62 percent of all PDPs. (Numbers of plans exclude employer-only plans and plans offered in U.S. territories.) New PDPs for 2007 emerged in every region of the country, and the median number of plans offered in each region rose from 43 in 2006 to 55.

Organizations may offer a defined standard benefit or, within certain constraints, one that is actuarially equivalent to it (i.e., has the same average dollar value of insured benefit spending). Both types are considered basic benefits. Many actuarially equivalent plans charge no deductible and use tiered copayments equivalent in value to more than 25 percent coinsurance up to the initial coverage limit.

In 2006, PDPs with actuarially equivalent benefits were the most popular, drawing 61 percent of total PDP enrollment. Fifty-six percent of PDP enrollees chose plans with no deductible. However, premium considerations also strongly affected enrollment. Beneficiaries who received Part D's LIS made up more than half of all PDP enrollees in 2006. Most of them pay no premium for Part D so long as they enroll in plans with premiums below or near LIS thresholds set for each region. Since plans with the defined standard benefit structure tend to have lower premiums and most LIS recipients were automatically assigned to qualifying plans, defined standard plans won 22 percent of all PDP enrollees. LIS enrollees in defined standard plans pay nominal copays rather than the benefit's deductible, 25 percent coinsurance, and coverage gap.

Once a sponsor offers at least one basic benefit package in a region, it may also offer an enhanced plan—one that includes basic and supplemental benefits.¹⁷ For 2007, sponsors are offering more benefit designs of all types. However, defined standard benefits and enhanced benefits make up larger proportions of PDPs in 2007 (counts unweighted by enrollment) than they did in 2006 (12 percent and 48 percent, respectively, compared with 9 percent and 43 percent in 2006). Actuarially equivalent benefit designs make up a smaller proportion of plans. The larger share of defined standard plans likely reflects

**TABLE
4-6**

Characteristics of PDPs

	2006				2007		
	Plans		Enrollees ^a		Plans		Weighted by July 2006 enrollment ^b
	Number	Percent	Number (in millions)	Percent	Number	Percent	
Total	1,429	100%	15.5	100%	1,866	100%	100%
Type of organization							
National ^c	886	62	8.3	54	1,507	80	87
Near-national ^d	339	24	4.0	26	159	8	2
Other	204	14	3.1	20	200	11	11
Type of benefit							
Defined standard	132	9	3.4	22	219	12	19
Actuarially equivalent ^e	689	48	9.5	61	760	41	59
Enhanced	608	43	2.6	17	887	48	22
Type of deductible							
Zero	834	58	8.7	56	1,127	60	60
Reduced	112	8	0.3	2	157	8	4
Defined standard	483	34	6.5	42	582	31	36

Note: PDP (prescription drug plan). The PDPs and enrollment described here exclude employer-only plans and plans offered in U.S. territories. Sums of percentages may not add to totals due to rounding.

^a Number of enrollees as of July 2006.

^b Nearly 97 percent of July 2006 enrollees were in 2006 plans that could be matched to 2007 plans. Note that some beneficiaries will choose to enroll in a different plan for 2007.

^c Reflects total numbers of plans for organizations with at least one PDP in all 34 PDP regions.

^d Totals for organizations offering 30 or more PDPs across the country, but without one in each PDP region.

^e Benefits labeled actuarially equivalent to Part D's standard benefit include what CMS calls "actuarially equivalent standard" and "basic alternative" benefits.

Source: MedPAC analysis of CMS landscape, bid, and enrollment data.

considerable competition for LIS enrollees and other beneficiaries who look for low premiums when they select a plan. The larger share of enhanced plans may reflect the fact that, for 2007, CMS tried to encourage sponsors to include more plans with coverage in the gap.

More PDPs include some benefits in the coverage gap for 2007 than for 2006. However, nearly all cover only generic drugs in the gap—27 percent offer generics only while 1 percent of plans offer generics and brand name drugs (Table 4-7, p. 256). Among those plans that provide coverage for brand name drugs, most limit the benefit to preferred drugs. In 2006, one organization offered 31 of the 33 PDPs (under the name Humana Complete) with generic and brand name drug benefits in the coverage gap. For 2007, however, that sponsor changed the benefits to include only generic drugs in the gap after reportedly drawing more enrollees than expected with relatively high

drug spending into its enhanced benefit in 2006 (Rapaport 2006).

In 2006, 94 percent of PDP enrollees were in plans that offered no additional benefits in the coverage gap; 55 percent were LIS enrollees. As most LIS enrollees do not face a coverage gap, the number of beneficiaries who face 100 percent coinsurance is considerably smaller than 94 percent. In addition, many enrollees were unlikely to exceed the initial coverage limit for drug spending: Estimates suggest that 3 million to 4 million individuals, or between 25 percent and 40 percent of plan enrollees who did not receive LIS (also known as extra help), had spending in the coverage gap in 2006 (Cubanski and Neuman 2006, PricewaterhouseCoopers 2006). Those numbers made up between 13 percent and 18 percent of all 23.1 million Part D enrollees in 2006. If Part D enrollees remain in the same plan for 2007, 91 percent will be in

**TABLE
4-7**

Benefits in the coverage gap among PDPs

	2006						2007			
	Enrollees									
	Plans		Total		With LIS		Plans		Enrollees ^a	
	Number	Percent	Number (in millions)	Percent	Number (in millions)	Percent of total	Number	Percent	Percent of total	LIS percent of total
Total	1,429	100%	15.48	100%	8.02	52%	1,866	100%	100%	51%
Drugs covered in the gap										
Generic only	187	13	0.44	3	0.05	10	511	27	8	10
Generic and brand name ^b	33	2	0.47	3	0.03	6	27	1	0 ^c	2
None	1,209	85	14.56	94	7.95	55	1,328	71	91	55

Note: PDP (prescription drug plan), LIS (low-income subsidy). LIS enrollees receive extra help to cover some or all premiums and cost sharing. Their benefit effectively has no gap in coverage. The PDPs and enrollment described here exclude employer-only plans and plans offered in U.S. territories. Gap coverage refers to benefits provided within the range of beneficiary drug spending above the standard benefit's initial coverage limit and below its out-of-pocket threshold. Part D's defined standard benefit requires the enrollee to pay 100 percent coinsurance in this coverage gap. Number of total enrollees and number of enrollees with LIS are not available for 2007. Sums of percentages may not add to totals due to rounding.

^a Percentages of enrollees for plans offered in 2007 reflect enrollment levels of those plans as of July 1, 2006. New plan entrants have no enrollment. Nearly 97 percent of July 2006 enrollees were in 2006 plans that could be matched to 2007 plans. Note that some beneficiaries will choose to enroll in a different plan for 2007.

^b Not all brand name drugs are necessarily covered. Most plans cover preferred brand name drugs in the coverage gap and only two plans cover all branded drugs on the plans' formulary.

^c Less than 0.5 percent.

Source: MedPAC analysis of CMS landscape, bid, and enrollment data.

plans without gap coverage. Of that 91 percent, 55 percent would be LIS enrollees who receive some or all coverage in the gap.

When organizations prepared their bids for 2006, many plan sponsors had little information from which to estimate the drug-spending profile of their future enrollees. As a result, there was a broad range of premiums for both basic and enhanced benefits. Some enhanced benefits cost less than \$20 per month in certain regions, while a handful of basic plans cost more than \$75 per month. However, PDP enrollment was concentrated in plans with lower premiums because LIS enrollees were automatically assigned to lower cost plans and other beneficiaries selected plans with lower premiums. For these reasons, in 2006, the average enrollee in a PDP with basic benefits paid about \$24 per month, even though the average premium offered by PDPs was about \$33 (Table 4-8). Similarly, the average enrollee in an enhanced PDP paid about \$35 per month in 2006, even though the

average premium for enhanced benefits offered by PDPs was \$43.

The unweighted distribution of plan premiums for basic benefits is tighter for 2007 than it was in 2006. In other words, plans with premiums at the higher end of the distribution last year tended to lower their bids for 2007, while those with the lowest bids tended to raise them. As a result, the average premium offered by PDPs for basic benefits is lower: \$29 per month in 2007 compared with \$33 in 2006. But the average PDP enrollee who remains in the same basic-benefit plan for 2007 as in 2006 will pay a premium of about \$25 per month compared with about \$24 in 2006.

Premiums for PDPs with enhanced coverage tend to be higher in 2007—an average of \$46 per month compared with \$43 in 2006. A few enhanced PDPs that were very popular in 2006 increased their premiums by considerably more. PDP enrollees with enhanced coverage who remain in the same plan will pay an average of about \$42 per month in 2007 compared with about \$35 in 2006.

**TABLE
4-8**

Average Part D premiums

	2006		2007	
	Unweighted plan offers	Weighted by 2006 enrollment	Unweighted plan offers	Weighted by 2006 enrollment*
All plans				
Basic coverage	\$29.01	\$23.49	\$25.86	\$24.84
Enhanced coverage	27.80	20.64	29.16	24.45
Any coverage	28.38	22.61	27.85	24.70
PDPs				
Basic coverage	33.11	24.16	28.79	25.30
Enhanced coverage	43.27	35.34	45.66	42.34
Any coverage	37.43	26.03	36.81	29.04
MA-PDs**				
Basic coverage	21.88	16.84	18.79	16.55
Enhanced coverage	16.47	10.42	17.14	7.31
Any coverage	18.43	12.08	17.24	8.78

Note: PDP (prescription drug plan), MA-PD (Medicare Advantage-Prescription Drug [plan]). The PDPs and enrollment described here exclude employer-only plans and plans offered in U.S. territories. The MA-PDs and enrollment described here exclude employer-only plans, plans offered in U.S. territories, 1876 cost plans, special needs plans, demonstrations, and Part B-only plans.

* Values for plans offered in 2007 reflect enrollment levels of those plans as of July 1, 2006. New plan entrants have no enrollment. Nearly 97 percent of July 2006 PDP enrollees and about 81 percent of MA-PD enrollees were in 2006 plans that could be matched to 2007 plans. Note that some beneficiaries will choose to enroll in a different plan for 2007.

** MA-PD premiums reflect rebate dollars (75 percent of the difference between a plan's payment benchmark and its bid for providing Part A and Part B services) that were used to offset Part D premium costs.

Source: MedPAC analysis of CMS landscape, bid, and enrollment data.

Medicare Advantage drug plans

Similar to stand-alone plans, there were more MA-PDs for 2007 than for 2006. Sponsors are offering 1,622 MA-PDs around the country, compared with 1,303 the year before (about 25 percent more). Beneficiaries in MA-PDs elect to have their broader package of health care services (e.g., hospital and physician care) provided by the MA plan.¹⁸

Offerings through MA-PDs differ systematically from PDPs. For example, the law allows MA-PDs to use 75 percent of the difference between an MA plan's benchmark payment and its bid for providing Part A and Part B services (called rebate dollars) to supplement its package of benefits, including any Part D coverage it offers, or to lower its premiums. As a result, a larger share of MA-PDs than PDPs offer enhanced benefits. In 2006, 64 percent of MA-PDs offered enhanced benefits, and those plans attracted 74 percent of MA-PD enrollees (Table 4-9, p.

258). For 2007, 75 percent of MA-PDs include enhanced benefits. If MA-PD enrollees do not change plans, enhanced plans will have even greater enrollment in 2007 than in 2006.

MA-PDs are more likely than PDPs to provide some additional benefits in the coverage gap, although mostly for generics. In 2006, 28 percent of MA-PDs included some gap coverage—23 percent with generics only and 5 percent with generic and brand name drug coverage (Table 4-10, p. 259). Those plans accounted for 28 percent of MA-PD enrollment. Among MA-PD enrollees with no gap coverage, 15 percent were LIS enrollees.¹⁹ For 2007, 33 percent of MA-PDs provide some gap coverage (28 percent generics only and 5 percent generic and brands) and, if enrollees remain in the same plan as in 2006, about 34 percent of them will have some benefits in the coverage gap.

**TABLE
4-9**
Characteristics of MA-PDs

	2006				2007		
	Plans		Enrollees ^a		Plans		Weighted by July 2006 enrollment ^b (in percent)
	Number	Percent	Number (in millions)	Percent	Number	Percent	
Total	1,303	100%	5.0	100%	1,622	100%	100%
Type of organization							
Local HMO	856	66	4.1	82	947	58	82
Local PPO	275	21	0.2	4	274	17	5
PFFS	124	10	0.6	12	367	23	12
Regional PPO	48	4	0.1	1	34	2	2
Type of benefit							
Defined standard	96	7	0.1	3	84	5	1
Actuarially equivalent ^c	376	29	1.1	23	321	20	15
Enhanced	831	64	3.7	74	1,217	75	84
Type of deductible							
Zero	1,045	80	4.5	90	1,461	90	95
Reduced	41	3	0.1	2	38	2	1
Defined standard	217	17	0.4	8	123	8	4

Note: MA-PD (Medicare Advantage-Prescription Drug [plan]), PPO (preferred provider organization), PFFS (private fee-for-service). The MA-PDs and enrollment described here exclude employer-only plans, plans offered in U.S. territories, 1876 cost plans, special needs plans, demonstrations, and Part B-only plans. Sums of percentages may not add to totals due to rounding.

^a Number of enrollees as of July 2006.

^b About 81 percent of July 2006 enrollees were in 2006 plans that could be matched to 2007 plans. New plan entrants have no enrollment. Note that some beneficiaries will choose to enroll in a different plan for 2007.

^c Benefits labeled actuarially equivalent to Part D's standard benefit include what CMS calls "actuarially equivalent standard" and "basic alternative" benefits.

Source: MedPAC analysis of CMS landscape, bid, and enrollment data.

As with PDPs, MA-PD enrollment for 2006 was concentrated among plans with lower premiums. In addition, many MA-PD plan sponsors used rebate dollars to reduce the Part D portion of their plan premium to zero. Among MA-PD enrollees with basic benefits (26 percent of all MA-PD enrollees), about one-third paid no additional premium for drug coverage in 2006. Three-quarters of MA-PD enrollees had enhanced benefits in 2006, and nearly two-thirds of them paid no additional premium for drug coverage (data not shown). This reflects the fact noted earlier about Medicare beneficiaries' widespread access to MA plans that charge no premium for Part D coverage.

MA-PD premiums in 2007 are similar to those in 2006 (Table 4-8, p. 257). Plan sponsors tended to lower their premiums for basic benefits and raised them slightly for enhanced coverage. Among plans offering basic benefits, the average (unweighted) premium offered by MA-PDs is \$19 per month in 2007, compared with \$22 in 2006. However, if MA-PD enrollees with basic benefits remain in the same plan for 2007, the average enrollee will pay about the same as last year—\$17 per month. MA-PDs with enhanced coverage are charging a slightly higher (unweighted) average premium of about \$17 per month in 2007. If MA-PD enrollees with enhanced benefits remain in the same plan for 2007, the average enrollee will pay less: about \$7 per month compared with approximately \$10 in 2006.

**TABLE
4-10**

Benefits in the coverage gap among MA-PDs

	2006						2007			
	Enrollees									
	Plans		Total		With LIS		Plans		Enrollees*	
	Number	Percent	Number (in millions)	Percent	Number (in millions)	Percent of total	Number	Percent	Percent of total	LIS percent of total
Total	1,303	100%	5.02	100%	0.75	15%	1,622	100%	100%	16%
Drugs covered in the gap										
Generic only	300	23	1.21	24	0.18	15	448	28	25	13
Generic and brand name**	60	5	0.19	4	0.03	14	78	5	9	17
None	943	72	3.62	72	0.55	15	1,096	68	66	16

Note: MA-PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income subsidy). LIS enrollees receive extra help to cover some or all premiums and cost sharing. Their benefit effectively has no gap in coverage. Gap coverage refers to benefits provided within the range of beneficiary drug spending above the standard benefit’s initial coverage limit and below its out-of-pocket threshold. Part D’s defined standard benefit requires the enrollee to pay 100 percent coinsurance in this coverage gap. The MA-PDs and enrollment described here exclude employer-only plans, plans offered in U.S. territories, 1876 cost plans, special needs plans, demonstrations, and Part B-only plans. Sums of percentages may not add to totals due to rounding.

* Percentages of enrollees for plans offered in 2007 reflect enrollment levels of those plans as of July 1, 2006. About 81 percent of July 2006 enrollees were in 2006 plans that could be matched to 2007 plans. Note that some beneficiaries will choose to enroll in a different plan for 2007.

** Not all brand name drugs are necessarily covered. Most plans cover preferred brand name drugs in the coverage gap and only a few plans cover all branded drugs on the plans’ formulary.

Source: MedPAC analysis of CMS landscape, bid, and enrollment data.

Previous recommendations applicable to Part D policy

The Commission has made two recommendations recently that address current concerns about Part D.

Demonstrations for setting 2007 plan payments, enrollee premiums, and low-income premium subsidies

Before the start of Part D, CMS had no information to estimate what shares of enrollment individual PDPs might obtain. That situation led to higher Part D subsidies for 2006 than the 74.5 percent of program costs prescribed by law. When calculating the national average bid for Part D services, CMS weighted all PDP bids equally. (The bids of MA-PDs were weighted by prior-year enrollment in MA plans.) This approach created a higher national average bid and thus raised Medicare’s subsidy. One investment research firm estimated in April 2006 that the federal subsidy for Part D was 78 percent (BernsteinResearch 2006).

Under current law, plan enrollment for 2006 should have affected Part D for 2007 in two ways:

- CMS should have weighted bids for services in 2007 by each plan’s 2006 enrollment level when calculating the national average bid. This national average affects how much Medicare pays Part D plans each month and how much enrollees must pay as a monthly premium. Because 2006 Part D enrollment was concentrated among plans with lower premiums, the move to enrollment weighting for 2007 would have led to a lower national average bid, lower Medicare program payments, and higher enrollee premiums. Using unweighted bids for 2007 increases program payments, lowers enrollee premiums, and raises Medicare’s Part D subsidies above 74.5 percent of program costs.
- Current law also calls for taking 2006 plan enrollment into account when CMS calculates each region’s low-income premium subsidy amount for 2007. Following

current law for 2007 would have reduced the low-income premium thresholds, and thus a sizable number of plans that qualified to receive automatically assigned beneficiaries in 2006 would have had 2007 premiums higher than the new low-income premium subsidy amounts (Stahlman 2006). As a result, potentially large numbers of LIS enrollees would have had their coverage disrupted: Those automatically assigned to plans in 2006 would have had to switch to a plan with a premium below the new LIS threshold or begin paying the portion of their premium above the LIS premium subsidy to stay in the same plan. Given that LIS enrollees made up 60 percent or more of the total enrollment in certain PDPs, this change would have strong financial implications for plan sponsors. Using unweighted premiums keeps LIS thresholds high and avoids disruption but increases federal LIS payments to plans and allows more plans to keep their automatically assigned enrollees.

Rather than using the formula specified in the law that created Part D, CMS is using its general demonstration authority to transition to enrollment weighting over time for both of these forms of payments (direct program payments and LIS premium subsidy amounts). These are two separate demonstration programs.

- In August 2006, the agency announced that it is transitioning to an enrollment-weighted national average bid (CMS 2006b). For 2007, 80 percent of the national average is based on the 2006 (unweighted) approach, while 20 percent is based on an enrollment-weighted average.
- In June 2006, CMS announced that for 2007 it will use the same methodology as in 2006 to calculate LIS premium thresholds: weighting PDP premiums equally (i.e., unweighted) (CMS 2006c). The agency is also using a policy in which LIS beneficiaries may stay in their 2006 plan without paying a portion of the premium so long as its 2007 premium does not exceed the 2007 LIS premium threshold by a minimal amount (\$2 per month). Plans that have premiums less than \$2 above the LIS premium thresholds will not have new LIS beneficiaries automatically assigned to them.

Significant pros and cons are associated with these two categories of payment changes. On the one hand, among all beneficiaries, fewer Part D enrollees will find it necessary to switch to plans with lower premiums. Likewise, the policy means less disruption of coverage

among LIS enrollees, since fewer will need to switch to plans with premiums below the LIS amounts. According to CMS's Office of the Actuary (OACT), the LIS premium threshold demonstration will reduce the number of LIS beneficiaries who must switch plans or pay a partial premium from 3.3 million (46 percent) to 0.5 million (7 percent). A CMS official estimated that 247,000 LIS beneficiaries were reassigned to new PDP sponsors because of premium increases (CMS 2006a). As we discussed in our June 2004 report to the Congress, transitioning enrollment from one plan to another involves many complexities (MedPAC 2004a). Ensuring that such transitions are as seamless as possible is important so that beneficiaries have minimal problems arising from changes in pharmacy networks and formulary systems. Phasing in enrollment weighting gives CMS and plans time to further develop information systems and better prepare for issues that arise when beneficiaries switch plans.

On the other hand, one could question the appropriateness of CMS using its demonstration authority on such a broad scale (see text box). These demonstrations increase program spending to deal with a particular policy problem. CMS's demonstration authority is intended for smaller scale projects that help decision makers learn about innovations in financing and delivering Medicare services.

Moreover, the policy increases program spending at a time when Medicare already faces serious problems with cost control and long-term financing. OACT estimates that the demonstrations will raise Medicare spending in 2007 by \$1 billion relative to current law—\$0.6 billion for higher plan payments that limit the increase in enrollee premiums and \$0.4 billion for the transition in setting LIS premium thresholds. OACT notes that Medicare spending in 2008 and future years will also be higher than under current law because of the demonstrations but likely lower than the 2007 amount in each subsequent year.²⁰ However, the magnitude of higher spending depends on how CMS decides to phase in the move to enrollment weighting.

Arguably, the demonstrations also run counter to an underlying philosophy of Part D: Beneficiaries' enrollment choices should drive the competitive outcome among plans. Under the demonstrations, plans that would otherwise have had higher 2007 premiums or premiums above the new LIS thresholds will probably retain many of their enrollees. This could mean that some sponsoring organizations with higher premium plans remain in the Part D market longer than they would have in the absence of the demonstrations.

Past recommendation on CMS demonstrations

This is not the first time the Commission has expressed concern about CMS's use of its demonstration authority. Last year, the Commission looked at a demonstration that paid oncologists for surveying cancer patients about their quality of life while undergoing treatment (MedPAC 2006b). Payment included the 20 percent coinsurance paid by beneficiaries. Many physicians reported that the payments ensured that they continued to provide care to Medicare beneficiaries in the midst of other major changes to their reimbursement for physician-administered drugs. At the same time, physicians

reported that they did not believe the demonstration would improve quality or provide useful research results. The payments made it difficult to evaluate the effect of Medicare payment changes. Within that context, the Commission recommended that the Secretary should use his demonstration authority to test innovations in the delivery and quality of health care. Demonstrations should not be used as a mechanism to increase payments. (See pp. 23–28 of MedPAC's January 2006 report, *Effects of Medicare Payment Changes on Oncology Services* (available on our website) for a discussion of the Commission's previous recommendation.) ■

Supporters contend that the demonstrations' costs should be considered within the context of lower than expected spending for the Part D program. Federal costs for Part D in 2006 were about \$30 billion, \$13 billion lower than estimates made earlier in the year (Associated Press 2006). Medicare actuaries gave nearly equal credit for the lower spending to competition among sponsoring organizations and to Part D enrollment that was lower than expected. Even so, the decision to phase in enrollment weighting under the two CMS demonstrations means that Medicare program spending for Part D will be at least \$1 billion higher than it would have been under current law.

One could also argue that CMS's approach to setting payments and low-income premium subsidies for 2007 simply postpones transition issues that will arise as CMS lowers Medicare's subsidy of Part D benefits to the 74.5 percent of program costs called for under current law. As CMS begins the process of evaluating Part D bids for 2008 and calculating program payments and premiums, a situation similar to that for 2007 is likely to arise: Using full enrollment weighting would lead to lower program payments, increases in Part D premiums, and lower LIS premium thresholds. Policymakers' decisions about how to phase in enrollment weighting will have important ramifications for beneficiaries, the industry structure of Part D providers, and federal program spending.

When announcing both demonstrations, CMS cited authority under 42 U.S. Code, sec. 1395b-1(a)(1)(A), which is made applicable to Part D in sec. 1860D-42(b) of the Medicare Prescription Drug, Improvement, and

Modernization Act of 2003. That broad language allows demonstrations and experiments that change payment methods or permit payment for services not typically covered by Medicare to improve program economy, efficiency, or effectiveness.

CMS plans to evaluate the demonstrations in early 2007. Officials suggest that the evaluation will likely consist of a simulation exercise to determine what would have happened had premiums been set at the levels required under current law. The agency may also look at financial implications and effects on plan choice for those LIS beneficiaries who enrolled in plans with fully subsidized premiums in 2006 but whose plans have 2007 premiums above LIS benchmark levels.

Prescription drug data needs

In the course of administering Part D and paying plans, CMS is collecting a comprehensive set of data. Plan sponsors submit detailed bid information to CMS that describes benefit designs, formularies, and bid amounts. In addition, sponsors submit prescription drug claims to CMS at least monthly, including the drug dispensed and the amounts paid by the patient, third-party payers, and the plan. Also included are identifiers for the beneficiary, the plan, the prescribing provider, and the pharmacy that dispensed the product. Through beneficiary identifiers, drug claims can be linked with Medicare claims for Part A and Part B services. Part D sponsors must submit data on pharmacy discounts, aggregate pharmaceutical manufacturer rebates, generic dispensing rates, prior

Past recommendation on providing access to Part D data

The Commission recommended that the Secretary should have a process in place for timely delivery of Part D data to congressional support agencies to enable them to report to the Congress on

the drug benefit's impact on cost, quality, and access. (See p. 14 of MedPAC's June 2005 report to the Congress for a discussion of the Commission's earlier recommendation on Part D data.) ■

authorizations, nonformulary exceptions, appeals, coordination of benefits for out-of-pocket determinations, call-center operations, grievances, and levels of enrollment and disenrollment. CMS is also collecting satisfaction survey data.

Under the law, CMS has clear authority to collect Part D claims and other data for purposes of making payments. Until recently, however, the agency was less clear about whether it had authority to use Part D data for purposes such as public reporting of aggregate program statistics, overseeing individual plans, supporting legislative proposals, conducting demonstration projects and internal research studies, and evaluating the Part D program overall. It has also been unclear whether CMS has legal authority to provide claims and other Part D data to federal agencies such as the Food and Drug Administration, to congressional support agencies, and to private researchers. These types of organizations routinely use claims data for Medicare Part A and Part B. Indeed, it is unprecedented to block the Secretary from making Medicare data available.

A number of organizations argue that using Part D data for purposes other than payment and sharing data with other entities is extremely important. CMS needs Part D data for program evaluation, reporting, and conducting research. Congressional support agencies must report to the Congress about the effects of Medicare payment policies on cost, quality, and access (see text box). Data on Part D are necessary for analyzing program performance and making policy recommendations. Detailed data on quality measures would help researchers evaluate the performance of individual plans and providers, which

could help Part D consumers make more informed choices. Other federal agencies need Part D data to carry out postmarketing surveillance of drug safety and efficacy, to help monitor the prevalence and treatment of specific conditions, and to support research on clinical outcomes and the effectiveness of covered drugs. Federal and private researchers could make significant contributions to public health and health services research by analyzing linked files of Part A, Part B, and Part D claims.

In October 2006, CMS issued a proposed regulation to resolve statutory ambiguity and explain how the agency would use Part D claims data for purposes other than payment (CMS 2006d). That proposal would rely on CMS's authority to add terms to its contracts with plans to allow the agency to use data collected to support payment purposes for other research, analysis, reporting, and public health functions. This interpretation would also allow CMS to share Part D data with federal agencies and researchers under the same safeguards that exist for the release of other Medicare data.

If this regulation goes forward, it will address concerns of executive agencies such as the Food and Drug Administration, congressional support agencies, and private researchers about gaining access to Part D claims information. The proposed rule is similar but not identical to language introduced in September 2006 within bill S.3897 that would explicitly grant authority—indeed assign responsibility—to CMS for sharing prescription drug data with other government agencies, congressional support agencies, and private researchers. ■

Endnotes

- 1 While a particular county may have its benchmark set at FFS rates, the hold-harmless provision related to risk adjustment that we discuss in this chapter and the way indirect medical education payments are made affect the benchmarks and the relationship between MA payments and FFS expenditure levels.
- 2 The rates used are therefore the best estimates possible as of the date of CMS's publication of MA rates for 2007. Medicare administrative costs are a component of these rates, which take into account payments that involve a lag in determining the total level of program payments (e.g., cost report settlements). The rates may underestimate the cost of Medicare services that beneficiaries receive because some beneficiaries receive care from Department of Veterans Affairs' facilities that Medicare would otherwise cover (MedPAC 2005, p. 78).
- 3 SNPs can limit their enrollment to Medicare beneficiaries with special needs, including Medicare beneficiaries with Medicaid eligibility, the institutionalized, and beneficiaries with certain chronic conditions or disabilities. The statutory authority for plans to limit enrollment to beneficiaries with special needs expires at the end of 2008.
- 4 The enrollment data shown in Table 4-1 are for plans participating in the bidding process and exclude, for example, non-MA plans such as cost-reimbursed plans. Enrollment data shown later in this chapter are for all types of plans.
- 5 The Balanced Budget Act of 1997 (BBA) provision established a minimum payment rate of \$367 for each county of the United States for 1998, which represented a doubling of the pre-BBA payment rates in some counties. Subsequent legislation increased the floor to \$475 and added another floor, which was a minimum payment rate for 2001 of \$525 in counties within a metropolitan statistical area where the population of the area was greater than 250,000. The year-to-year increase in each of these floor payment rates was set at the national rate of growth of Medicare expenditures, while other counties grew at minimum growth rates established in the statute. Many counties changed to floor status over the years because the floor rate was the highest possible rate.
- 6 The benchmarks for regional PPOs includes a "statutory" component, which is the population-weighted average of local MA benchmarks for each county in the region, and a bid component, which is an enrollment-weighted average of the bids of regional plans for the region (MedPAC 2005, p. 75). For 2006, the net effect of the bid component (with some bids over the benchmark but with most below it) was to reduce regional benchmarks by 1 percent in relation to what they would have been had the benchmarks been computed solely on the basis of the statutory component.
- 7 In the case of regional plans, half of the retained amount of 25 percent is available for the regional plan stabilization fund. For plans that choose to offer a reduced Part B premium financed by rebate dollars, the plan payment does not include rebate dollars destined for that use. Instead, the government retains the funds needed to reduce Part B premiums for enrollees of such plans.
- 8 Counting only risk-based enrollment in plans covering Medicare Part A and Part B benefits, the penetration levels for 1999 and July 2006 are the same, at 16 percent of the Medicare population. For example, in Table III.A3 of the 2006 *Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds*, the 1999 penetration figure for what is referred to as Part C can be computed as 15.8 percent. As indicated in a footnote to the table, the 1999 Trustees Report enrollment figure for Part C includes only beneficiaries enrolled in Medicare+Choice plans (the risk-based precursors of MA plans).
- 9 We classified counties as rural based on whether they were in metropolitan statistical areas, using the definition of such areas before the June 2003 change that introduced micropolitan statistical areas and otherwise reclassified some counties (as explained by the U.S. Census Bureau at <http://www.census.gov/population/www/estimates/metrodef.htm>). Therefore, the numbers presented here on rural enrollment, access, and penetration may differ from those of other sources.
- 10 An MSA plan has no premium unless its proposed premium (the equivalent of its bid) exceeds the benchmark. In such a case, no funds are available for deposit in an enrollee's account. For 2006, the MSAs and demonstration MSA plans all have deposit contributions. It is unlikely that a plan sponsor would offer a product in which there was no deposit and the enrollee would have to pay a plan premium.
- 11 That is, for MSA plans rebate dollars cannot be used to finance extra benefits not covered by Medicare. However, an MSA plan may offer optional supplemental benefits, which are benefits—such as dental or vision care—that an enrollee may elect to purchase from the plan for a premium. Such packages are financed entirely by member premiums. An MSA plan's optional supplemental package cannot include a reduction in cost sharing, which is an option available to other types of MA plans.

- 12 The MMA also permitted direct MA contracting between CMS and an employer, union, or trust, in which the employer or other entity operates an MA contract. In 2007, one such contract is operating as a PFFS plan and offering its enrollees a partial reduction of the Medicare Part B premium.
- 13 More detail about Part D payments and how Medicare subsidizes Part D is available at: http://www.medpac.gov/publications/other_reports/Sept06_MedPAC_Payment_Basics_PartD.pdf.
- 14 Medicare subsidizes 80 percent of an individual's drug spending above the defined standard benefit's out-of-pocket threshold; enrollees pay 5 percent cost sharing and their plan covers the remaining 15 percent. Individual reinsurance acts as a form of risk adjustment by providing greater federal subsidies for the highest cost enrollees. In addition, Medicare establishes symmetric risk corridors separately for each plan to limit its overall losses or profits. Under risk corridors, Medicare limits a plan's potential losses (or gains) by financing some of the higher-than-expected costs (or recouping excessive profits). These corridors are scheduled to widen, meaning that plans should bear more insurance risk over time.
- 15 Medicare provides a tax-free subsidy to employers for 28 percent of each eligible individual's drug costs that fall within a specified range of spending.
- 16 The term "true out-of-pocket" refers to a feature of Part D in which fewer federal subsidy dollars are directed toward enrollees who have supplemental coverage. Only certain types of spending on behalf of the beneficiary count toward the catastrophic threshold: the beneficiary's out-of-pocket spending, that of a family member or official charity, supplemental drug coverage provided through qualifying state pharmacy assistance programs or Part D's low-income subsidies, and supplemental drug coverage paid for with MA rebate dollars under CMS's demonstration authority.
- 17 Enhanced plans have a higher average benefit value than basic plans. Their supplemental benefits need not include benefits within the coverage gap; in fact, relatively few enhanced plans provide gap coverage. For 2006, the most common type of enhancement was to eliminate the plan's deductible.
- 18 Numbers of plans exclude employer-only plans, plans offered in U.S. territories, 1876 cost plans, SNPs, demonstration plans, and Part B-only plans.
- 19 MA-PDs have substantially fewer LIS enrollees than PDPs, because most LIS enrollees were dual eligibles in FFS Medicare before the start of Part D rather than in MA plans. CMS automatically assigned most dual eligibles to PDPs unless they were already enrolled in an MA plan.
- 20 The federal cost would be lower because plan bids for 2007 were more compressed than they were for 2006. In other words, plans with premiums at the low end of the distribution in 2006 tended to raise their bids for 2007, while those with higher premiums in 2006 tended to lower their bids for 2007. With a more compressed distribution of bids, the unweighted average is closer to the enrollment-weighted average.

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A P P E N D I X

A

**Commissioners' voting
on recommendations**



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

Section 2A: Hospital inpatient and outpatient services

2A-1 The Congress should increase payment rates for the acute inpatient and outpatient prospective payment systems in 2008 by the projected rate of increase in the hospital market basket index, concurrent with implementation of a quality incentive payment program.

Yes: Behroozi, Bertko, Burke, Castellanos, Crosson, DeParle, Durenberger, Hackbarth, Holtz-Eakin, Kane, Muller, Reischauer, Scanlon, Wolter

Absent: Borman, Hansen, Milstein

2A-2 Concurrent with implementation of severity adjustment to Medicare's diagnosis related group payments, the Congress should reduce the indirect medical education adjustment in fiscal year 2008 by 1 percentage point to 4.5 percent per 10 percent increment in the resident-to-bed ratio. The funds obtained from reducing the indirect medical education adjustment should be used to fund a quality incentive payment system.

Yes: Behroozi, Bertko, Castellanos, Crosson, DeParle, Durenberger, Hackbarth, Holtz-Eakin, Kane, Muller, Reischauer, Scanlon, Wolter

No: Burke

Absent: Borman, Hansen, Milstein

2A-3 The Secretary should improve the form and accompanying instructions for collecting data on uncompensated care in the Medicare cost report and require hospitals to report using the revised form as soon as possible.

Yes: Behroozi, Bertko, Burke, Castellanos, Crosson, DeParle, Durenberger, Hackbarth, Holtz-Eakin, Kane, Muller, Reischauer, Scanlon, Wolter

Absent: Borman, Hansen, Milstein

Section 2B: Physician services

The Congress should update payments for physician services in 2008 by the projected change in input prices less the Commission's expectation for productivity growth.

Yes: Behroozi, Bertko, Burke, Castellanos, Crosson, DeParle, Durenberger, Hackbarth, Holtz-Eakin, Kane, Muller, Reischauer, Scanlon, Wolter

Absent: Borman, Hansen, Milstein

Section 2C: Outpatient dialysis services

The Congress should update the composite rate in calendar year 2008 by the projected rate of increase in the end-stage renal disease market basket index less the Commission's expectation for productivity growth.

Yes: Behroozi, Bertko, Burke, Castellanos, Crosson, DeParle, Durenberger, Hackbarth, Holtz-Eakin, Kane, Muller, Reischauer, Scanlon, Wolter

Absent: Borman, Hansen, Milstein

Chapter 3: Post-acute care providers

Section 3A: Skilled nursing facility services

The Congress should eliminate the update to payment rates for skilled nursing facility services for fiscal year 2008.

Yes: Behroozi, Bertko, Burke, Castellanos, Crosson, DeParle, Durenberger, Hackbarth, Holtz-Eakin, Kane, Muller, Reischauer, Scanlon, Wolter

Absent: Borman, Hansen, Milstein

Section 3B: Home health services

The Congress should eliminate the update to payment rates for home health care services for calendar year 2008.

Yes: Bertko, Burke, Castellanos, Crosson, DeParle, Durenberger, Hackbarth, Holtz-Eakin, Kane, Muller, Reischauer, Scanlon, Wolter

Not voting: Behroozi

Absent: Borman, Hansen, Milstein

Section 3C: Inpatient rehabilitation facility services

The Congress should update payment rates for inpatient rehabilitation facility services by 1 percent for fiscal year 2008.

Yes: Behroozi, Bertko, Burke, Castellanos, Crosson, DeParle, Durenberger, Hackbarth, Holtz-Eakin, Kane, Muller, Reischauer, Scanlon, Wolter

Absent: Borman, Hansen, Milstein

Section 3D: Long-term care hospital services

The Secretary should eliminate the update to payment rates for long-term care hospital services for rate year 2008.

Yes: Behroozi, Bertko, Burke, Castellanos, Crosson, Durenberger, Hackbarth, Holtz-Eakin, Kane, Muller, Reischauer, Scanlon, Wolter

No: DeParle

Absent: Borman, Hansen, Milstein

Chapter 4: Update on Medicare private plans

No recommendations

Acronyms

Acronyms

AAP	average acquisition payment	FFS	fee-for-service
AARP	American Association of Retired Persons (formerly)	FIM™	Functional Independence Measure™
ACGME	Accreditation Council for Graduate Medical Education	FY	fiscal year
AHA	American Hospital Association	GAO	Government Accountability Office
AHRQ	Agency for Healthcare Research and Quality	GDP	gross domestic product
AICD	automatic implantable cardioverter defibrillator	GI	gastrointestinal
AMA	American Medical Association	GME	graduate medical education
APC	ambulatory payment classification	GP	general practitioner
APR-DRG	all patient refined diagnosis related group	GPCI	geographic practice cost index
AQA	Ambulatory Care Quality Alliance (formerly)	HCFA	Health Care Financing Administration
ASP	average sales price	HCFA-10	Health Care Financing Administration-10
AV	arteriovenous	HCPCS	Healthcare Common Procedure Coding System
BBA	Balanced Budget Act of 1997	HHA	home health agency
BLS	Bureau of Labor Statistics	HI	Hospital Insurance (Medicare Part A)
BMI	body mass index	HMO	health maintenance organization
BSA	body surface area	HRET	Health Research and Educational Trust
CAD	coronary artery disease	HSA	health savings account
CAHPS	Consumer Assessment of Healthcare Providers and Systems®	HSC	Center for Studying Health System Change
CAHPS-FFS	Consumer Assessment of Healthcare Providers and Systems® for Medicare fee-for-service	HUD	Department of Housing and Urban Development
CAPD	continuous ambulatory peritoneal dialysis	HWH	hospital within hospital
CAT	computer adaptive technology	IME	indirect medical education
CBO	Congressional Budget Office	IOM	Institute of Medicine
CC	complication or comorbidity	IRF	inpatient rehabilitation facility
CCP	coordinated care plan	IRF-PAI	Inpatient Rehabilitation Facility-Patient Assessment Instrument
CCPD	continuous cycler-assisted peritoneal dialysis	IT	information technology
CHF	congestive heart failure	IV	intravenous
CMI	case-mix index	LDO	large dialysis organization
CMS	Centers for Medicare & Medicaid Services	LIS	low-income subsidy
COPD	chronic obstructive pulmonary disease	LOS	length of stay
CT	computed tomography	LTC-DRG	long-term care diagnosis related group
DRA	Deficit Reduction Act	LTCH	long-term care hospital
DRG	diagnosis related group	LUPA	low utilization payment adjustment
DSH	disproportionate share	MA	Medicare Advantage
DVT	deep vein thrombosis	MACIE	Medicare Ambulatory Care Indicators for the Elderly
EGHP	employer group health plan	MAGI	modified adjusted gross income
ER	emergency room	MA-PD	Medicare Advantage-Prescription Drug [plan]
ESRD	end-stage renal disease	MCBS	Medicare Current Beneficiary Survey
FDA	Food and Drug Administration	MedPAC	Medicare Payment Advisory Commission
		MedPAR	Medicare Provider Analysis and Review [file]
		MEI	Medicare Economic Index

MMA	Medicare Prescription Drug, Improvement, and Modernization Act of 2003	PPO	preferred provider organization
MRA	magnetic resonance angiography	PPS	prospective payment system
MRI	magnetic resonance imaging	ProPAC	Prospective Payment Assessment Commission
MSA	medical savings account	PSI	patient safety indicator
N/A	not available	PT	physical therapy
NAMCS	National Ambulatory Medical Care Survey	QALY	quality-adjusted life year
NCQA	National Committee for Quality Assurance	QIO	quality improvement organization
NIC	National Investment Center	RBRVS	resource-based Relative Value Scale
NICE	National Institute for Clinical Excellence (United Kingdom)	RTI	Research Triangle Institute
NKF	National Kidney Foundation	RUC	Relative Value Scale Update Committee
NORC	National Opinion Research Center (formerly)	RUG-III	resource utilization group, version III
OACT	Office of the Actuary	RVU	relative value unit
OASIS	Outcome and Assessment Information Set	SCHIP	State Children's Health Insurance Program
OECD	Organisation for Economic Co-operation and Development	SCOD	specified covered outpatient drugs
OIG	Office of Inspector General	SGR	sustainable growth rate
OT	occupational therapy	SLP	speech-language pathology
P4P	pay for performance	SMI	Supplementary Medical Insurance
PAC	post-acute care	SNF	skilled nursing facility
PDP	prescription drug plan	SNP	special needs plan
PE	pulmonary embolism	SSI	Supplemental Security Income
PFFS	private fee-for-service	SSO	short-stay outlier
PLI	professional liability insurance	TBS	Targeted Beneficiary Survey
POS	point-of-service (plan)	TEFRA	Tax Equity and Fiscal Responsibility Act of 1982
		UPIN	Unique Physician Identification Number
		USRDS	United States Renal Data System

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Commission members

Glenn M. Hackbarth, J.D., chairman

Bend, OR

Robert D. Reischauer, Ph.D., vice chairman

The Urban Institute

Washington, DC

Term expires April 2007

**John M. Bertko, F.S.A.,
M.A.A.A.**

Humana Inc.

Louisville, KY

**Sheila P. Burke, M.P.A.,
R.N., F.A.A.N.**

Smithsonian Institution

Washington, DC

Francis J. Crosson, M.D.

The Permanente Federation, LLC

Oakland, CA

Arnold Milstein, M.D., M.P.H.

Pacific Business Group on Health

San Francisco, CA

Ralph W. Muller, M.A.

University of Pennsylvania

Health System

Philadelphia, PA

William J. Scanlon, Ph.D.

Health policy consultant

Oak Hill, VA

Term expires April 2008

Nancy-Ann DeParle, J.D.

CCMP Capital Advisors, LLC

Chevy Chase, MD

David F. Durenberger, J.D.

National Institute of Health Policy

University of St. Thomas

Minneapolis, MN

**Jennie Chin Hansen, R.N.,
M.S.N., F.A.A.N.**

AARP

San Francisco, CA

Nancy M. Kane, D.B.A.

Harvard School of Public Health

Boston, MA

Nicholas Wolter, M.D.

Billings Clinic

Billings, MT

Term expires April 2009

Mitra Behroozi, J.D.

1199SEIU Benefit and Pension Funds

New York, NY

Karen R. Borman, M.D.

University of Mississippi

Medical Center

Jackson, MS

Ronald D. Castellanos, M.D.

Southwest Florida

Urologic Associates

Ft. Myers, FL

Glenn M. Hackbarth, J.D.

Douglas Holtz-Eakin, Ph.D.

John McCain 2008

The Exploratory Committee

Arlington, VA

Robert D. Reischauer, Ph.D.

Commissioners' biographies

Mitra Behroozi, J.D., is the executive director of 1199SEIU Benefit and Pension Funds. Ms. Behroozi oversees eight major benefit and pension funds for health care workers. Collectively, the funds are among the largest in the nation. Previously, Ms. Behroozi was a partner with Levy, Ratner & Behroozi, PC, representing New York City unions in collective bargaining negotiations and proceedings. While at the law firm, she also served as union counsel to Taft-Hartley benefit and pension funds. Ms. Behroozi has a law degree from New York University and an undergraduate degree in sociology from Brown University.

John M. Bertko, F.S.A., M.A.A.A., is vice president and chief actuary for Humana Inc., where he manages the corporate actuarial group and directs the coordination of work by actuaries in Humana's major business units, including public programs, commercial, individual, and TRICARE. Mr. Bertko has extensive experience with risk adjustment and has served in several public policy advisory roles, including prescription drug benefit design. He served the American Academy of Actuaries as a board member from 1994 to 1996 and as vice president for the health practice area from 1995 to 1996. He was a member of the Actuarial Board for Counseling and Discipline from 1996 through 2002. Mr. Bertko is a fellow of the Society of Actuaries and a member of the American Academy of Actuaries. He has a B.S. in mathematics from Case Western Reserve University.

Karen R. Borman, M.D., is a professor of surgery and vice-chair for surgical education at the University of Mississippi Medical Center. She is a member of the American College of Surgeons' General Surgery Coding & Reimbursement Committee and is on the board of directors of the American Board of Surgery. Dr. Borman was a member of the executive committee and vice-chair of the American Medical Association's Current Procedural Terminology editorial panel. Dr. Borman frequently works with the Centers for Medicare & Medicaid Services on issues related to physician payment. She also has served in various positions at the American Association of Endocrine Surgeons, the Association for Academic Surgery, the Association of Program Directors in Surgery, and the Association for Surgical Education. Dr. Borman earned her medical degree from Tulane University. Her undergraduate degree in chemistry is from the Georgia Institute of Technology.

Sheila P. Burke, M.P.A., R.N., F.A.A.N., is the Smithsonian Institution's deputy secretary and chief operating officer. Before joining the Smithsonian, she was executive dean and lecturer in public policy at the John F. Kennedy School of Government, Harvard University, Cambridge. From 1986 to 1996, Ms. Burke was chief of staff for former Senate Majority Leader Bob Dole and was elected secretary of the Senate in 1995. She currently serves as the chair of the board of the Kaiser Family Foundation and is a member of the Kaiser Commission on Medicaid and the Uninsured, the American Board of Internal Medicine Foundation, WellPoint Health Networks, Chubb Insurance, and the University of San Francisco. She is a member of the National Academy of Public Administration and the Institute of Medicine (IOM) and chairs the IOM Committee on the Restructuring of the Food and Drug Administration. She is currently an adjunct lecturer in public policy at Harvard, a fellow of the Wiener Center, and an adjunct faculty member at Georgetown University. She has chaired the National Academy of Social Insurance's project on Restructuring Medicare for the Long-Term. Ms. Burke holds a B.S. in nursing from the University of San Francisco and an M.P.A. from Harvard University.

Ronald D. Castellanos, M.D., has practiced urology for more than 30 years. For the past four years Dr. Castellanos has been a member, and for the last year the chair, of the Practicing Physicians Advisory Council on issues related to physician payment. Dr. Castellanos was president of the Florida Urologic Society and has worked with several other organizations on health policy, including the American Urologic Association and the American Lithotripsy Society. Dr. Castellanos earned his medical degree from Hahnemann Medical College. His undergraduate degree is from Pennsylvania State University.

Francis J. Crosson, M.D., is executive director of the Permanente Federation of medical groups that make up the physician component of Kaiser Permanente. He also cochairs the Kaiser Permanente Partnership Group, the organization's management committee. He joined Kaiser Permanente in 1977. In 1988 he was appointed associate executive director of the Permanente Medical Group and served in that position until his current appointment. He also has experience with prescription drug arrangements

and has led efforts on comprehensive public report cards on clinical quality, management of a drug formulary, and adoption of a state-of-the-art electronic medical record. He serves on the Board of the California Medical Association Foundation and the Advisory Board of the Mayo Health Policy Institute. Dr. Crosson received his undergraduate degree in political science from Georgetown University and his M.D. degree from Georgetown's School of Medicine.

Nancy-Ann DeParle, J.D., is managing director of CCMP Capital Advisors, LLC, and adjunct professor of health care systems at the Wharton School of the University of Pennsylvania. From 1997 to 2000, she served as administrator of the Health Care Financing Administration (HCFA), which is now the Centers for Medicare & Medicaid Services. Before joining HCFA, Ms. DeParle was associate director for health and personnel at the White House Office of Management and Budget. From 1987 to 1989 she served as the Tennessee Commissioner of Human Services. She has also worked as a lawyer in private practice in Nashville, TN, and Washington, DC. She is a trustee of the Robert Wood Johnson Foundation and a board member of Cerner Corporation, DaVita, Boston Scientific, Triad Hospitals, and the National Quality Forum. Ms. DeParle received a B.A. degree from the University of Tennessee; B.A. and M.A. degrees from Oxford University, where she was a Rhodes Scholar; and a J.D. degree from Harvard Law School.

David F. Durenberger, J.D., is president of Policy Insight, LLC; senior health policy fellow at the University of St. Thomas in Minneapolis, MN; and chairman of the National Institute of Health Policy. He is also president of the Medical Technology Leadership Forum, a member of the Kaiser Foundation Commission on Medicaid and the Uninsured, the Board of the National Committee for Quality Assurance, and the National Commission for Quality Long Term Care. From 1978 to 1995, he served as the senior U.S. Senator from Minnesota, as a member of the Senate Finance Committee, and chairman of its health subcommittee. He was a member of the Senate Environment Committee; Government Affairs Committee; and the committee now known as the Health, Education, Labor, and Pensions Committee. He chaired the Senate Select Committee on Intelligence. Senator Durenberger is a graduate of St. John's University, received his J.D. degree from the University of Minnesota, and served as an officer in the U.S. Army.

Glenn M. Hackbarth, J.D., chairman of the Commission, lives in Bend, OR. He has experience as a health care executive, government official, and policy analyst. He was chief executive officer and one of the founders of Harvard Vanguard Medical Associates, a multispecialty group practice in Boston that serves as a major teaching affiliate of Harvard Medical School. Mr. Hackbarth previously served as senior vice president of Harvard Community Health Plan. From 1981 to 1988, he held positions at the U.S. Department of Health and Human Services, including deputy administrator of the Health Care Financing Administration. Mr. Hackbarth received his B.A. from Pennsylvania State University and his M.A. and J.D. from Duke University.

Jennie Chin Hansen, R.N., M.S.N., F.A.A.N., of San Francisco, is president-elect of AARP; a senior fellow at the University of California, San Francisco, chairing the Integrated Nurse Leadership Project; and a part-time nursing faculty member at San Francisco State University. Ms. Hansen was executive director of On Lok Senior Health Services, the prototype for the Program of All-Inclusive Care for the Elderly (PACE). She has practiced nursing in both urban and rural settings and taught in undergraduate programs. She currently serves in leadership roles with the AARP Foundation, Agency of Health Care Research and Quality Effective Healthcare Stakeholders group, Lumetra (California's Quality Improvement Organization), the Advisory Board of the Institute for the Future of Aging Services, the Robert Wood Johnson Executive Nurse Fellows Program, and the California HealthCare Foundation Health Care Fellows Program. She was a delegate to the 2005 White House Conference on Aging. Ms. Hansen received her B.S. from Boston College and her M.S.N. from the University of California, San Francisco.

Douglas Holtz-Eakin, Ph.D., is the economic policy chair of the John McCain 2008 Exploratory Committee. Previously, he was the director of the Maurice R. Greenberg Center for Geoeconomic Studies at the Council on Foreign Relations, where he held the Paul A. Volcker Chair in International Economics. He has served as the director of the Congressional Budget Office (CBO) and was the chief economist for the President's Council of Economic Advisors. He also represented CBO on the Federal Accounting Standards Advisory Board. Before joining the federal government Dr. Holtz-Eakin taught at Syracuse University's Maxwell School, where he chaired its Department of Economics and was associate director

of the Center for Policy Research. Dr. Holtz-Eakin has a Ph.D. in economics from Princeton University and a B.A. in economics and mathematics from Denison University.

Nancy M. Kane, D.B.A., is professor of management in the Department of Health Policy and Management at the Harvard School of Public Health. Dr. Kane directs the Masters in Healthcare Management Program, an executive leadership program for mid-career physicians leading health care organizations. She has taught health care accounting, payment systems, financial analysis, and competitive strategy. Her research interests include measuring hospital financial performance, quantifying community benefits and the value of tax exemption, the competitive structure and performance of hospital and insurance industries, and nonprofit hospital governance. Professor Kane consults with federal and state agencies involved in health system design, oversight, and payment. She is an outside director of the Urban Medical Group, a nonprofit physician group practice providing care to frail elderly in institutional and home settings. Prior to obtaining her business training, she practiced as a hospital-based physical therapist. Dr. Kane earned her Masters and Doctoral Degrees in Business Administration from Harvard Business School.

Arnold Milstein, M.D., M.P.H., is medical director of the Pacific Business Group on Health (PBGH) and U.S. health care thought leader at Mercer Human Resource Consulting. PBGH is the largest employer health care purchasing coalition in the U.S. Dr. Milstein focuses on health care purchasing strategy, clinical performance measurement, and the psychology of clinical performance improvement. He cofounded both the Leapfrog Group and the Consumer-Purchaser Disclosure Project, and heads performance measurement activities for both initiatives. Previously a Rosenthal Lecturer at the Institute of Medicine, the *New England Journal of Medicine* described Dr. Milstein as a “pioneer” in efforts to advance quality of care. In 2004 and 2005, World-at-Work, the largest global organization of human resource managers, awarded him its highest annual award and the National Business Group on Health recognized him for innovation and implementation success in health care cost reduction and quality gains. He is an associate clinical professor at the University of California at San Francisco. Dr. Milstein has a B.A. in economics from Harvard, an M.P.H. in health services planning from the University of California at Berkeley, and an M.D. degree from Tufts University.

Ralph W. Muller, M.A., is chief executive officer of the University of Pennsylvania Health System, one of the largest academic health systems in the country. Most recently he served as managing director of Stockamp & Associates, a hospital consulting firm, and as a visiting fellow at the King’s Fund in London. From 1985 to 2001, he was president and chief executive officer of the University of Chicago Hospitals and Health Systems (UCHHS). Before joining the hospital, he held senior positions with the Commonwealth of Massachusetts, including deputy commissioner of the Department of Public Welfare. Mr. Muller is past chairman of the Association of American Medical Colleges, past chairman of the Council of Teaching Hospitals and Health Systems, and past vice chairman of the University Health System Consortium. He is past chairman of the National Opinion Research Center, a social service research organization, and serves on the board of the National Committee for Quality Assurance. Mr. Muller received his B.A. in economics from Syracuse University and his M.A. in government from Harvard University.

Robert D. Reischauer, Ph.D., is vice chairman of the Commission and president of The Urban Institute. Previously, he was a senior fellow with the Brookings Institution, and from 1989 to 1995 he was the director of the Congressional Budget Office. Dr. Reischauer currently serves on the boards of the Academy of Political Sciences, the Center on Budget and Policy Priorities, and the Committee for a Responsible Federal Budget. He also is a member of the Institute of Medicine, the National Academy of Public Administration, and Harvard Corporation. Dr. Reischauer received his A.B. degree from Harvard College and his M.I.A. and Ph.D. from Columbia University.

William J. Scanlon, Ph.D., is a senior policy advisor with Health Policy R&D. He is a consultant to the National Health Policy Forum and is a research professor with the Institute for Health Care Research and Policy at Georgetown University. Dr. Scanlon is a member of the National Committee on Vital and Health Statistics, the National Commission for Quality Long-Term Care, and the White House Conference on Aging Advisory Committee. Before his current positions, Dr. Scanlon was the managing director of health care issues at the U.S. Government Accountability Office. Previously, he was codirector of the Center for Health Policy Studies and an associate professor in the Department of Family Medicine

at Georgetown University and was a principal research associate in health policy at the Urban Institute. Dr. Scanlon has a Ph.D. in economics from the University of Wisconsin-Madison.

Nicholas Wolter, M.D., is a pulmonary and critical care physician who serves as chief executive officer for Billings Clinic in Billings, MT. Billings Clinic is a regional, not-for-profit medical foundation consisting of a multispecialty group practice, tertiary hospital, critical access hospital affiliates, health maintenance organization, research division, and long-term care facility serving a

vast rural area in the northern Rockies. Dr. Wolter began his Billings Clinic practice in 1982 and served as medical director of the hospital's intensive care unit from 1987 to 1993. He began his leadership role with the successful merger of the clinic and hospital in 1993. Dr. Wolter is a diplomate of the American Board of Internal Medicine and serves on the boards of many regional and national health care organizations. He has a B.A. degree from Carleton College, an M.A. degree from the University of Michigan, and an M.D. degree from the University of Michigan Medical School.

Commission staff

Mark E. Miller, Ph.D.
Executive director

Sarah Thomas, M.S.
Deputy director

Analytic staff

Jack Ashby, M.H.A.

Cristina Boccuti, M.P.P.

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Rachel Schmidt, Ph.D.

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Jeffrey Stensland, Ph.D.

Ariel Winter, M.P.P.

Daniel Zabinski, Ph.D.

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Sarah Friedman

Megan Moore

*Special assistant to the
executive director*

Annissa McDonald

Administrative staff

Reda H. Broadnax, B.S.,
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Wylene Carlyle

Diane E. Ellison

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Jason McMahon

Cynthia Wilson

Staff consultants

Carol Carter, Ph.D.

Dana K. Kelley, M.P.A.

Julian Pettengill

Carlos Zarabozo, A.B.

