

CHAPTER

3

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**Hospital inpatient and  
outpatient services**

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

*(The Commission reiterates its March 2014 recommendation on hospital payment. See text box, pp. 71–72.)*

# Hospital inpatient and outpatient services

## Chapter summary

The 4,700 hospitals paid under the Medicare prospective payment systems and the critical access hospital payment system received \$167 billion for 10.1 million Medicare inpatient admissions and 196 million outpatient services in 2013. In 2012, the program spent \$165 billion for 10.4 million inpatient admissions and 190 million outpatient services. Net payments per beneficiary increased 0.8 percent from 2012 to 2013, reflecting the net effect of a 1.3 percent decline in inpatient payments per beneficiary and a 5.5 percent increase in outpatient payments per beneficiary.

In this chapter, we reiterate our 2014 recommendation of a package of changes to the Medicare hospital payment systems. This package consists of changing inpatient and outpatient payment rates based on our assessment of payment adequacy, aligning payment rates for certain outpatient hospital services with rates paid to physician offices, and creating greater equity in rates paid to acute care hospitals and long-term care hospitals. These changes are designed to improve financial incentives in these systems while maintaining adequate overall payments.

## Assessment of payment adequacy

By law, each year the Commission is required to assess the adequacy of hospital payments and recommend payment updates for hospital inpatient and outpatient services. To evaluate whether aggregate payments are adequate, we

## In this chapter

- Are Medicare payments adequate in 2015?
- How should Medicare payment rates change in 2016?

consider beneficiaries' access to care, changes in the volume of services provided, hospitals' access to capital, quality of care, and the relationship of Medicare's payments to the average cost of caring for Medicare patients. In addition to examining the costs of the average provider, we compare Medicare payments with the costs of relatively efficient hospitals.

Most payment adequacy indicators (including access to care, quality of care, and access to capital) are positive. However, average Medicare margins continue to be negative, and under current law they are expected to decline in 2015. To judge whether payments are adequate, the Commission makes a collective judgment after discussing the individual payment adequacy indicators listed below.

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

- ***Capacity and supply of providers***—Hospitals continue to have excess inpatient capacity in most markets because of several years of declining inpatient volume.
- ***Volume of services***—Medicare outpatient volume has increased rapidly for several years and continued to grow in 2013. In contrast, Medicare inpatient volume has declined, as has commercial-payer inpatient volume. While we have not seen evidence of material increases in Medicare discharges in 2014, some hospitals have reported increased commercial and Medicaid discharges, in part reflecting demand from newly insured individuals. Because the magnitude of the increase is small, excess capacity will continue in most markets.

***Quality of care***—Across all hospitals paid under the inpatient prospective payment system (IPPS), most indicators of quality are improving.

***Providers' access to capital***—Access to capital in the bond and equity markets remained strong for most hospitals. Interest rates paid by most hospitals on their bond offerings continue to be low, and the equity markets continue to see hospitals as profitable investments. However, some hospitals struggling with declining volume have faced downgraded credit ratings.

***Medicare payments and providers' costs***—From 2007 through 2013, overall Medicare payments to IPPS hospitals were 5 percent to 7 percent below allowable Medicare costs, with an industry-wide Medicare margin of –5.4 percent in 2013. We identify a set of relatively efficient hospitals that have historically done well on a set of cost and quality metrics. These relatively efficient hospitals generated a positive overall Medicare margin of about 2 percent in 2013. However, under current law, payments are projected to decline in 2015 because of changes in Medicare

disproportionate share payments, health information technology payments, and other policy changes. These changes may result in lower margins for all hospitals, including the relatively efficient providers.

### **Addressing differences in payment rates across sites of care for outpatient care**

To move toward paying equivalent rates for the same service across different sites of care, in 2014 we recommended adjusting the rates for certain services when they are provided in hospital outpatient departments (HOPDs) so they more closely align with the rates paid in freestanding physician offices. Under current policy, Medicare usually pays more for services in outpatient departments even when those services are also safely performed in physician offices. For example, Medicare paid more than twice as much for a Level II echocardiogram in an outpatient facility (\$492) as it did in a freestanding physician office (\$228). This payment difference creates a financial incentive for hospitals to purchase freestanding physicians' offices and convert them to HOPDs without changing their location or patient mix. For example, if a hospital purchased a cardiologist's practice and redesignated that office as part of the hospital, the echocardiograms in that office would be billed as HOPD echocardiograms rather than physician-office echocardiograms, even if there were no change in the physician providing the service, the location of the physician's office, or the equipment being used. In 2013, the volume of echocardiograms billed as HOPD services increased 7 percent, while those billed as physician-office services declined 8 percent. This type of shift to the higher cost site of care increases program costs and costs for the beneficiary. The Commission's 2014 recommendation would reduce Medicare program spending, reduce beneficiary cost sharing, and create an incentive to improve efficiency by caring for patients in the most efficient site for their condition.

### **Addressing differences in payment rates across sites of care for inpatient care**

Payment rates also differ for similar patients in acute care hospitals and long-term care hospitals (LTCHs). As explained in greater detail in the Commission's March 2014 report to the Congress, LTCHs are currently paid much higher rates than traditional acute care hospitals, even for patients who do not require an LTCH's specialized services. To correct this problem, we recommended in 2014 a new criterion for claims to receive the higher level LTCH payments. Chronically critically ill (CCI) patients would still qualify for the relatively high payment rates for LTCH standard diagnosis related groups (DRGs); in contrast, non-CCI cases at LTCHs would receive IPPS standard DRG payment rates. Equalizing non-CCI base rates would reduce LTCHs' average DRG payment for non-CCI cases from about \$40,000 to \$12,000 (the IPPS average for these types of non-CCI cases).

The reduction in LTCH DRG rates for non-CCI cases would generate savings that would be transferred to acute care hospitals in the form of higher outlier payments for the most costly CCI cases. In the end, the differences in IPPS and LTCH rates would be reduced. The rates paid for services in the two payment systems would be more aligned with patients' needs and less dependent on the payment system under which the provider operates.

### **Recommendation**

Given the consistency between the payment adequacy indicators from last year and the payment adequacy indicators from this year, the Commission stands by its multi-part recommendation package from March 2014. Specifically, we recommend that the Congress direct the Secretary of Health and Human Services to take three actions:

- Adjust payment rates for services provided in HOPDs so that they more closely align with the rates paid in physician offices for selected ambulatory payment classifications.
- Set LTCH base payment rates for non-CCI cases equal to acute care hospital base rates and redistribute the resulting savings to create additional inpatient outlier payments for CCI cases that are treated in IPPS hospitals. The change should be phased in over three years.
- Increase base payment rates for the acute care hospital inpatient and outpatient prospective payment systems in 2016 by 3.25 percent, concurrent with the change to the outpatient payment system discussed above and initiating the change to the long-term care hospital payment system.

This package of changes will improve incentives in the system to care for patients in the most appropriate setting and ensure that funding in the acute care hospital systems is adequate to provide high-quality care for Medicare beneficiaries. This can be accomplished by reducing payment rates for services that can safely be provided in lower cost settings and, concurrently, increasing rates for other hospital services by 3.25 percent so that overall Medicare payments are adequate for efficient providers. ■

**TABLE  
3-1**

**Growth in Medicare inpatient and outpatient spending**

Hospital services	2006	2012	2013	Average annual change 2006-2013	Change 2012-2013
<b>Inpatient services</b>					
Total FFS payments (in billions)	\$110	\$119	\$118	1.3%	-0.9%
Payments per FFS beneficiary	3,084	3,232	3,192	0.8	-1.3
<b>Outpatient services</b>					
Total FFS payments (in billions)	29	46	49	7.8	5.9
Payments per FFS beneficiary	884	1,395	1,471	7.9	5.5
<b>Inpatient and outpatient services</b>					
Total FFS payments (in billions)	139	165	167	2.9	1.0
Payments per FFS beneficiary	3,968	4,627	4,663	2.6	0.8

Note: FFS (fee-for-service). Reported hospital spending includes all hospitals covered by Medicare’s inpatient prospective payment system along with critical access hospitals. Maryland hospitals are excluded. Fiscal year 2013 payments include partial imputation to account for hospitals that typically do not submit their cost reports to CMS before CMS makes the most recent year available to the public. The combined inpatient and outpatient services per capita are based on a weighted average of Part A and Part B beneficiaries.

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

**Background**

**Medicare spending on hospitals**

In 2013, Medicare paid acute care hospitals nearly \$118 billion for fee-for-service (FFS) inpatient care and nearly \$49 billion for FFS outpatient care (Table 3-1). Acute inpatient and outpatient services represented 92 percent of Medicare FFS spending on acute care hospitals. From 2012 to 2013, Medicare inpatient spending per FFS beneficiary decreased by 1.3 percent, and outpatient spending per FFS beneficiary grew by 5.5 percent (Table 3-1).<sup>1</sup> The decline in inpatient payments reflects a 4 percent drop in discharges per capita, which was partly offset by increases in case complexity and Medicare payment rates. The increase in outpatient spending reflects a 4 percent increase in service volume and an increase in Medicare payment rates. On a combined basis, total payments per beneficiary increased by 0.8 percent.

**Medicare’s payment systems for inpatient and outpatient services**

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

different units of service and a different set of payment adjustments.

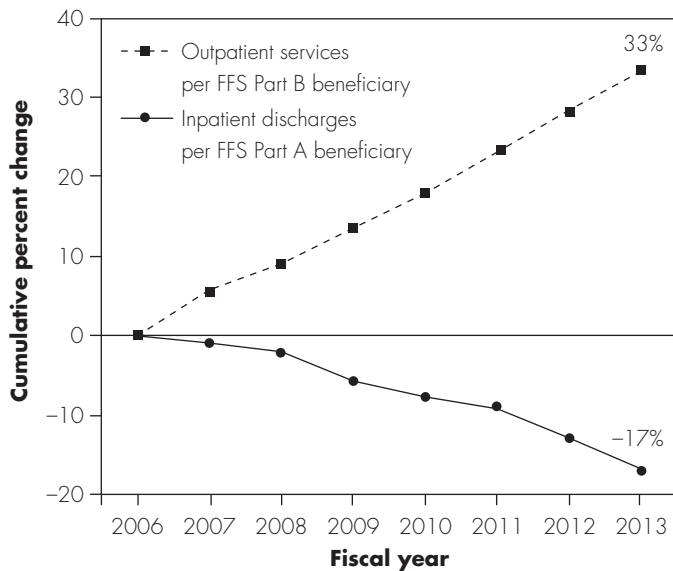
**Acute inpatient prospective payment system**

Medicare’s acute inpatient prospective payment system (IPPS) pays hospitals a predetermined amount for most discharges. The payment rate is the product of a base rate and a relative weight that reflects the expected costliness of cases in a particular clinical category compared with the average of all cases. The labor-related portion of the base payment rate is adjusted by a hospital geographic wage index to account for differences in hospital input prices among market areas. Payment rates are updated annually.

To set inpatient payment rates, CMS uses a clinical categorization system called Medicare severity–diagnosis related groups (MS–DRGs). The MS–DRG system classifies each patient case into 1 of 749 groups, each of which contains cases with similar principal diagnoses, procedures, and severity levels. The severity levels are determined according to whether patients have a complication or comorbidity (CC) associated with the base MS–DRG (the categories are no CC, a nonmajor CC, or a major CC). A more detailed description of the acute IPPS, including payment adjustments, can be found at <http://www.medpac.gov/documents/payment-basics/hospital-acute-inpatient-services-payment-system-14.pdf?sfvrsn=0>.

**FIGURE  
3-1**

**Medicare inpatient discharges per beneficiary declined as outpatient visits per beneficiary increased**



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

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

**Hospital outpatient prospective payment system**

The outpatient prospective payment system (OPPS) pays hospitals a predetermined amount per service. CMS assigns each outpatient service to 1 of approximately 800 ambulatory payment classification (APC) groups. Each APC has a cost-based relative weight, and a conversion factor translates these relative weights into payment amounts. In 2015, CMS implemented comprehensive ambulatory payment classifications (C-APCs) in the OPPS and expanded packaging in some APCs.<sup>2</sup> A more detailed description of the OPPS can be found at <http://www.medpac.gov/documents/payment-basics/outpatient-hospital-services-payment-system.pdf?sfvrsn=0>.

**Are Medicare payments adequate in 2015?**

To judge whether payments in 2015 are adequate, we examine several indicators of payment adequacy. We

consider beneficiaries' access to care, hospitals' access to capital, changes in the quality of care, and the relationship between Medicare's payments to hospitals' costs for both average and relatively efficient hospitals. Most of our payment adequacy indicators for hospitals are positive, but on average, margins on Medicare patients remain negative for most hospitals and slightly positive for relatively efficient providers.

**Beneficiaries' access to care: Access remained good as excess inpatient capacity increased**

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

Medicare beneficiaries' access to hospital services remains good, in part because of excess hospital capacity in most markets. Medicare inpatient discharges declined 4.4 percent per Medicare FFS Part A beneficiary between 2012 and 2013 and fell by a total of about 17 percent from 2006 to 2013 (Figure 3-1). Inpatient volume declined more rapidly in rural hospitals than urban hospitals. Between 2012 and 2013, the total number of rural hospitals' inpatient discharges declined 5.2 percent compared with a 2.3 percent decline in urban hospitals.

From 2012 to 2013, the volume of inpatient services declined approximately 1 percent to 5 percent across all Medicare age groups. Among privately insured individuals under age 65, inpatient discharges per capita declined by 3.5 percent in 2012 and another 2.7 percent in 2013 (Health Care Cost Institute 2014). This trend suggests that inpatient volumes declined for all insured patients through 2013, not just Medicare beneficiaries.

**The growth in outpatient services in part reflects incentives to shift patients to higher cost sites of care**

From 2012 to 2013, the use of outpatient services increased by 3.8 percent per Medicare FFS Part B beneficiary; over the past seven years, the cumulative increase was 33 percent. Roughly one-third of the growth in outpatient volume in 2013 was due to a 10 percent



increase in the number of evaluation and management (E&M) visits billed as outpatient services. This growth in part reflects hospitals purchasing freestanding physician practices and converting them into hospital outpatient departments (HOPDs). As hospitals do so, market share shifts from freestanding physician offices to HOPDs (Table 3-2). From 2012 to 2013, hospital-based E&M visits per beneficiary grew by 9.4 percent compared with 1.1 percent growth in physician-office-based visits. Other categories of services are also shifting to the higher cost site of care, such as echocardiograms and nuclear cardiology. Hospital-based echocardiograms per capita grew by 7.4 percent compared with an 8.0 percent decline in physician-office echocardiograms. Nuclear cardiology grew by 0.4 percent in HOPDs compared with a 12.1 percent decline in physician offices.

We have documented how the billing for these services has shifted from physician offices to higher cost outpatient sites of care in previous reports (Medicare Payment Advisory Commission 2014b, Medicare Payment Advisory Commission 2013b, Medicare Payment Advisory Commission 2012a). Among other effects, the shift in care setting increases Medicare program spending and beneficiary cost-sharing liability because Medicare payment rates for the same or similar services are generally higher in HOPDs than in freestanding offices.

To address the increased spending that results when services shift from freestanding offices to HOPDs, the Commission recommended adjusting OPPS payment rates so that Medicare payment for E&M office visits is equal in freestanding physician offices and HOPDs (Medicare Payment Advisory Commission 2012b). The Commission also recommended adjusting OPPS payment rates for a set of other services so that payment rates are equal or more closely aligned across these two settings (Medicare Payment Advisory Commission 2014c). We use the increase in E&M office visits provided in HOPDs to illustrate the potential savings to Medicare and beneficiaries from aligning payment rates from the OPPS with the rates in the physician fee schedule.

From 2009 to 2013, the volume of E&M office visits provided to Medicare beneficiaries in HOPDs increased at an average annual rate of 9.2 percent, from 20.3 million visits to 28.9 million visits. As more E&M office visits are provided in HOPDs, the higher payment rates in the OPPS relative to the physician fee schedule result in increasingly higher program spending and beneficiary cost sharing. For example, we estimate that the Medicare program spent \$1

**TABLE  
3-2**

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

	Share of ambulatory services performed in HOPDs, 2012	Per beneficiary volume growth, 2012-2013	
		HOPD	Freestanding office
E&M office visits	10.7%	9.4%	1.1%
Echocardiography	34.6	7.4	-8.0
Nuclear cardiology	39.0	0.4	-12.1

Note: E&M (evaluation and management), HOPD (hospital outpatient department). E&M office visits include Current Procedural Terminology codes 99201-99215. Echocardiography includes services in ambulatory payment classification (APC) 0269, APC 0270, and APC 0697. Nuclear cardiology includes services in APC 0377 and APC 0398.

Source: MedPAC analysis of standard analytic claims files from 2012 and 2013.

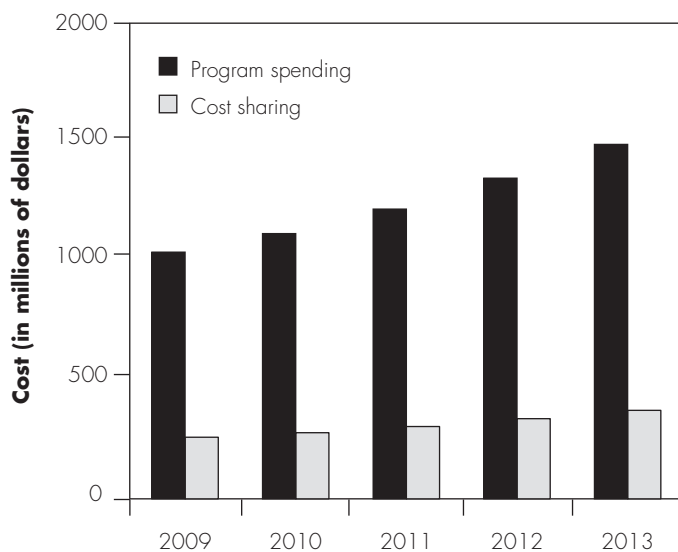
billion more in 2009 and \$1.5 billion more in 2013 than it would have if payment rates for E&M office visits were the same in HOPDs and freestanding offices. Analogously, beneficiaries' cost sharing was \$260 million higher in 2009 and \$370 million higher in 2013 than it would have been because of the higher rates paid in HOPD settings (Figure 3-2, p. 56).<sup>3</sup>

**Part of the decline in discharges and growth in outpatient services is due to increased use of observation services as a substitute for inpatient care**

From 2006 to 2013, the number of outpatient observation stays increased by 28 stays per 1,000 beneficiaries (96 percent increase). In contrast, the number of one-day inpatient stays declined by 7 stays per 1,000 beneficiaries (28 percent decline), and the number of inpatient stays with 2 or more days declined by 45 stays per 1,000 beneficiaries (15 percent decline). Because observation stays increased by 28 per 1,000 beneficiaries and inpatient stays declined by a total of 52 per 1,000 beneficiaries, we conclude that about half (28/52) of the 2013 decline in inpatient stays can be explained by the shift of some cases from inpatient to observation.

**Excess capacity varies by region**

From 2006 to 2013, the national average hospital bed occupancy rate declined from 64 percent to 60 percent,

**FIGURE  
3-2****Additional program spending and beneficiary cost sharing due to paying OPFS rates rather than PFS rates for E&M office visits provided in HOPDs**

Note: OPFS (outpatient prospective payment system), PFS ([Medicare] physician fee schedule), E&M (evaluation and management), HOPD (hospital outpatient department). The E&M office visits we analyzed have Current Procedural Terminology codes 99201 through 99215.

Source: MedPAC analysis of outpatient standard analytic claims files for 2009 through 2013 and payment rates for E&M office visits from the 2014 OPFS and 2014 PFS.

despite a concurrent reduction in the number of beds from 2.8 beds to 2.6 beds per 1,000 residents.<sup>4</sup> The average occupancy rate of all urban hospitals declined by 3.4 percentage points, and the average occupancy rate of all rural hospitals declined by 5.6 percentage points.<sup>5</sup> The greater decline in rural areas suggests rural individuals increasingly bypass rural hospitals and travel to urban hospitals for inpatient care.

Occupancy rates tend to vary across individual markets and be inversely correlated with the number of beds per capita in a market. The 10 metropolitan areas with the lowest number of beds per capita had an average occupancy rate of 60 percent, and the 10 markets with the highest number of beds per capita had an average occupancy rate of 56 percent. For example, in 2012, the market-wide occupancy rate in Seattle (with fewer than 2 beds per 1,000 people) was 67 percent, while the market-wide occupancy rate in Jackson, MS, (with more than 4 beds per 1,000 people) was 57 percent. There were 345 stays and 2,026 inpatient days per 1,000 beneficiaries in the Jackson hospital referral region (HRR) compared with

222 stays and 1,114 days per 1,000 beneficiaries in the Seattle HRR. After adjusting for input prices, Medicare 2012 inpatient hospital spending per FFS beneficiary (standardized for wages and other factors) was \$2,834 in Jackson compared with \$2,043 in Seattle (Centers for Medicare & Medicaid Services 2014). The difference in inpatient volume and spending per capita reflects a combination of regional differences in beneficiary health status and regional differences in physician practice styles.

**Declining occupancy will not significantly affect cost per discharge**

The declining volume of discharges at most hospitals raises the question of whether costs per discharge will increase because volume has declined. The prevailing view in the hospital industry is that the majority of hospital costs are fixed. Consequently, if hospitals engage in efforts to control utilization (such as reducing admissions), they will lose the revenue from the discharges and have higher costs per discharge. Therefore, there may be an expectation that hospital payment updates have to increase when inpatient volumes decline. However, in testing the assertion that most costs are fixed, we found that when inpatient volume falls and occupancy rates decline, hospital costs are higher, but the effect is small—suggesting that only a small share of costs (10 percent to 30 percent) are fixed over a one-year period. Therefore, we do not expect there to be a material increase in costs per discharge associated with the observed declines in inpatient volumes (see online Appendix 3-A, available at <http://www.medpac.gov>, for details).

Because the vast majority of large- and medium-sized hospitals' costs are variable, most hospitals could profitably participate in Medicare Advantage or accountable care organization models if they can reduce inpatient utilization in exchange for part of the savings. For smaller hospitals, however, more costs are fixed, making financial success more difficult as volume declines. Therefore, there may be a need for low-volume adjustments or other policies that we have discussed in the past to assist small isolated hospitals (including some critical access hospitals (CAHs)) that lack economies of scale and are facing declining inpatient volume (Medicare Payment Advisory Commission 2011a).

**As occupancy fell, hospital closures increased slightly**

Overall, 4,760 short-term acute care hospitals submitted a Medicare inpatient claim in 2013, of which approximately

1,329 were CAHs (Flex Monitoring Team 2014). In 2013, 25 acute care hospitals closed and 15 hospitals opened. In addition, our preliminary analysis of hospital closures in 2014 has identified eight closures. Beginning in 2012, hospital closures began to outnumber hospital openings for the first time in over a decade. In light of changes in the practice of medicine, reductions in inpatient discharges, and declining occupancy rates, demand for inpatient services has fallen faster than capacity; therefore, we would expect more closures in the coming years.

### **Closed hospitals had low occupancy rates and poor margins**

The hospitals that closed in 2013 had an average occupancy rate of 34 percent in 2013, lower than the 48 percent average occupancy rate of the hospital nearest to the closing hospital.<sup>6</sup> For most of the closed facilities, their low occupancy was associated with poor financial performance. The average 2011 and 2012 all-payer profit margins for these hospitals were -8.7 percent and -3.1 percent, respectively. By contrast, the average all-payer margin across all hospitals in 2012 was 6.5 percent. In addition, the closed hospitals were relatively small, with an average of 64 beds. Some of these facilities closed their inpatient service capacity but maintained their outpatient or emergency services.

The group of 15 hospitals that opened in 2013 included a variety of hospital types, ranging from cancer hospitals, emergency care hospitals, neuromedical hospitals, full-service community hospitals, and limited-service hospitals. As a group, these facilities are relatively small, with an average of 40 beds. Most of these facilities offer emergency, imaging, and surgical services. However, many offer a limited set of services that typically include some combination of orthopedic surgery, cardiac surgery, neurological surgery, maternity services, and oncology services.

In aggregate, the 15 hospital openings and 25 closures in 2013 resulted in a net decrease of approximately 1,000 hospital beds. This decrease represents a 0.1 percent reduction in existing bed capacity. Amercian Hospital Association (AHA) survey data reveal that over a longer period, 2006 to 2012, there was a 2.7 percent reduction in national inpatient bed capacity (American Hospital Association 2014), far less than the reduction in discharges over this period. We expect that bed capacity will continue to decline, reflecting a continued decline in inpatient use.

### **Rural hospital closures**

The 11 rural hospital closures were proportionate to the overall share of hospitals that are rural (44 percent). Among the 11 rural hospitals, 2 were 25 miles or more from the nearest hospital, and 9 were between 10 and 25 miles from the nearest hospital. Six of the rural closures were critical access hospitals. These 6 hospitals were an average of 21 miles from the nearest hospital.

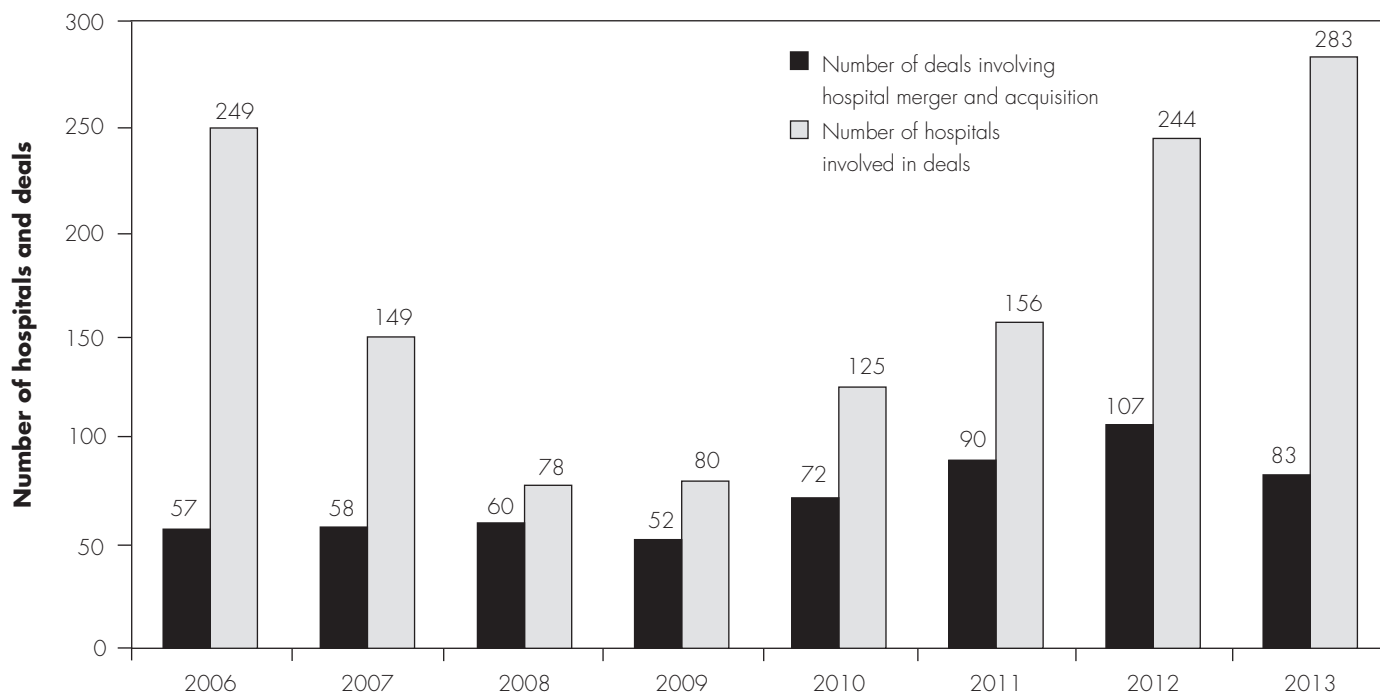
When a CAH closes, the reason is often financial losses due to uncompensated care. Medicare payments are roughly equal to the cost of care at CAHs, and commercially insured patients are generally profitable. But if volumes are low and declining, the profits on commercially insured patients may not be large enough to cover uncompensated care costs. The magnitude of losses on uncompensated care can vary across communities and states. In a September 2014 report about the acute care hospital industry, Deutsche Bank stated that, at the for-profit hospital chains it follows, from July 2013 to July 2014 uninsured discharges declined 50 percent at hospitals in Medicaid-expansion states compared with a 16 percent decline in non-Medicaid-expansion states (Deutsche Bank 2014). Given the declining use of rural hospitals coupled with a desire to maintain access to emergency services in rural areas, it may be time to revisit ways to maintain emergency access in rural areas. Specifically, the special payments made in rural areas could be targeted more at isolated areas with low population density, as discussed in our 2012 report on rural health care (Medicare Payment Advisory Commission 2012a).

### **Hospital industry consolidation increased**

In 2013, 283 individual hospitals were acquired in 83 merger and acquisition transactions (Figure 3-3, p. 58) (Irving Levin Associates Inc. 2014).<sup>7</sup> These acquisitions represent an increase in the number of hospitals acquired from previous years.

Large acquisitions drove much of the deal-making activity in 2013. Tenet's acquisition of Vanguard Health Systems and Community Health Systems's (CHS) acquisition of Health Management Associates resulted in CHS becoming the second largest chain (\$19 billion in revenues) and Tenet the third largest (\$15 billion in revenues). Hospital Corporation of America remains the largest chain (\$33 billion in revenues) and has also acquired hospitals in recent years.

Vertical integration—hospital systems merging with insurers or with other hospital systems that have an

**FIGURE  
3-3****Hospital merger and acquisition activity increased**

Source: MedPAC analysis of 2013 data from Irving Levin Associates Inc.

insurance product—has also continued to increase. For example, in 2014, Baylor Health Care System of northern Texas merged with Scott and White Healthcare of central Texas to form the largest nonprofit health system in Texas, including a health plan originating from Scott and White's side of the deal. In 2013, Pennsylvania's health insurer Highmark Inc. acquired Saint Vincent Health System in Erie; HealthPartners, a nonprofit insurer in Minnesota (with hospitals and clinics of its own), merged with Park Nicollet, a nonprofit physician group practice also with a hospital of its own. Both of these deals vertically integrated regional payers and regional providers to create integrated payer-provider health care systems with a broad geographic base within their markets.

### **Access to capital and hospital employment remain steady**

#### **Bond and equity markets**

Overall, hospitals maintained reasonable access to capital markets in 2013 and 2014. Through the end of 2013, hospital tax-exempt municipal bond offerings amounted to \$18 billion including refinancing, down from \$27 billion in 2012 and \$23 billion in 2011. However, this reduction in

bond offerings could reflect recent reductions in demand for inpatient services. After increasing from 2012 to 2013, the average interest rate for a double-A tax-exempt 30-year nonprofit hospital bond declined from 5.1 percent in November 2013 to 3.6 percent in October 2014. Most of Moody's hospital bond ratings (319) remained unchanged; however, some hospitals have faced downgrades of their credit ratings. Moody's cites the decline in hospitals' volumes as one reason why the number of downgrades (37) exceeded upgrades (27) in 2013 (Moody's Investors Service 2014a).

The share prices of publicly traded hospitals increased substantially in 2014, indicating that the capital markets continue to see hospitals as a profitable investment. For example, the three largest publicly traded hospital companies all had their share prices increase by 17 percent to 53 percent in 2014. Two factors have contributed to the share price growth: strong pricing power, as recently reported by the Healthcare Cost Institute (HCCI), and reduced uncompensated care costs as insurance coverage has expanded (Business Wire 2014b, Business Wire 2014c, Deutsche Bank 2014, Health Care Cost Institute 2014).



## Construction spending

The value of hospital construction projects in 2013 remained high, with an increased focus on outpatient facilities. In 2013, the total value of hospital construction was approximately \$26 billion, down from approximately \$28 billion in 2012 (Census Bureau 2014). The decline in construction spending in the last two years may reflect the growth of excess inpatient capacity. The 2014 Construction & Design Survey by Modern Healthcare indicated that the majority of hospital construction has shifted away from inpatient- and toward outpatient-based projects, such as building or renovating medical office buildings, urgent care centers, or emergency departments. Therefore, while inpatient capital spending is declining, outpatient capital spending remains strong. The overall level of capital spending was 1.2 times depreciation in 2013, which suggests capital spending may have been sufficient to replace aging facilities and add some outpatient capacity (Moody's Investors Service 2014b).

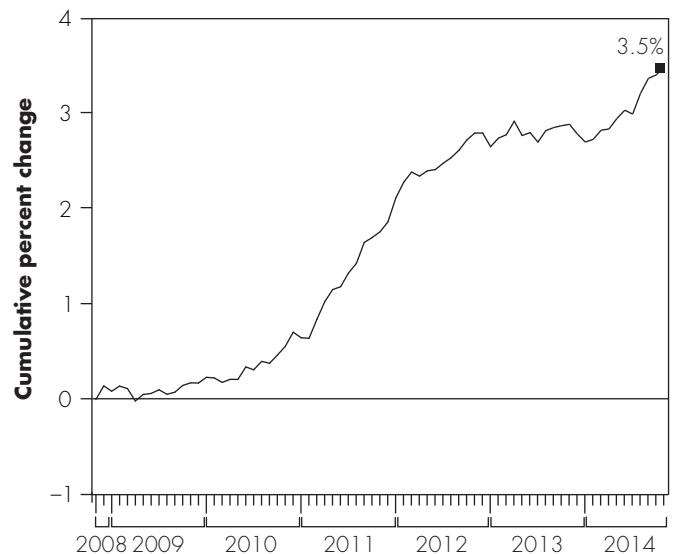
## Hospital employment

Over the past six years, hospital employment grew by 3.5 percent, outpacing the 2.5 percent employment growth in the rest of the economy (Figure 3-4). But in the last 12 months, hospital employment growth was relatively flat (0.6 percent) compared with 2 percent private sector employment growth.

We observed, based on data from a separate Bureau of Labor Statistics (BLS) survey that best corresponds to the six-year period described in Figure 3-4, that hospitals hired individuals in computer-related occupations and reduced the number of individuals in lower skilled occupations. Occupations that experienced the largest increase in hospital employment from 2008 to 2013 were computer and science occupations (26 percent), business and financial operations occupations (15 percent), physician assistants (15 percent), pharmacists (15 percent), and clinical health care occupations (6 percent). Occupations that experienced a decline in hospital employment during the same period included licensed practical nurses and licensed vocational nurses (-31 percent), food service staff (-7 percent), and administrative staff (-5 percent). While the number of licensed practical nurses and licensed vocational nurses employed by hospitals declined by 51,000 (-31 percent), the number of registered nurses increased by 94,000 (6 percent) (Bureau of Labor Statistics 2014a).

**FIGURE 3-4**

**Hospital employment growth, November 2008 to November 2014**



Source: Bureau of Labor Statistics.

In addition, hospitals are increasingly reporting that they employ physicians. Data from the AHA annual survey show a 115 percent increase in physicians employed under a salary model (which excluded physicians who act as contractors for the hospital) from 2007 to 2012.

## Access to hospital care is good despite closures and the forthcoming increase in demand for care

Medicare beneficiaries will continue to have access to hospital inpatient and outpatient services despite recent closures and estimated future increases in demand for inpatient services by the newly insured. Although hospital closures have exceeded openings in recent years and hospitals have shed inpatient bed capacity, there is evidence that hospital systems are replacing unneeded inpatient capacity with outpatient capacity. While coverage expansion (resulting from the Patient Protection and Affordable Care Act's state-level health insurance exchanges and Medicaid expansion) will partly offset the general decline in inpatient demand, we still expect excess capacity to grow. We estimate that coverage expansion will result in new admissions equal to roughly 2 percent of current volume.<sup>8</sup> To date, reports from hospitals suggest growth in inpatient use was modest in 2014. Over the next few years, we expect the effect of the coverage

expansion will be offset by the continued trend toward lower inpatient use, which has reduced occupancy by more than 2 percent in recent years. Therefore, in the near term, inpatient capacity should be sufficient to serve Medicare beneficiaries and the newly insured.

### **Quality of care: Overall, indicators show improvement**

To assess trends in aggregate quality of care across all IPPS hospitals, we use mortality rates and patient safety indicators (PSIs) that are developed and maintained by the Agency for Healthcare Research and Quality (AHRQ). Our analysis of these measures from 2010 through 2013 shows generally positive trends in quality. We observed statistically significant improvements in 7 of 10 mortality rate measures, which include in-hospital and 30-day postdischarge mortality for 5 prevalent clinical conditions.<sup>9</sup> We also found statistically significant improvements (declines) between 2010 and 2013 in three of the eight AHRQ PSIs that we analyzed.<sup>10</sup> Four other PSI rates also showed declines, but not large enough to reach statistical significance, in part because of the very rare frequency of the adverse patient safety events that the PSI measures are designed to detect.

### **Readmission rates declining**

The Congress enacted a Medicare hospital readmissions reduction program in 2010, and since that time the program has been expanding to cover more conditions. In fiscal year 2015, hospitals will be penalized if they have above-average readmission rates (from a prior three-year period) in one of five clinical conditions (heart failure, acute myocardial infarction, hip or knee replacement, chronic obstructive pulmonary disease, or pneumonia). The penalty is capped at 3 percent of base inpatient payments. Commission analysis has found some small declines in risk-adjusted readmission rates since public reporting began in 2009 and hospitals became aware of the hospital readmission reduction program (Medicare Payment Advisory Commission 2013b). Analysis from CMS also shows a decline in all-cause 30-day readmission rates between 2011 and 2013, from an average of 19 percent to below 18 percent by the start of 2013 (Council of Economic Advisers 2013). The readmission reduction payment policy and other efforts, such as the Partnership for Patients, have encouraged hospitals to look beyond their walls to improve care coordination with providers outside of the hospital and reduce readmissions (Naylor et al. 2012).

### **Hospital value-based purchasing program payment reduction increases in 2015**

The Congress mandated a value-based purchasing (VBP) program for IPPS hospitals beginning in fiscal year 2013. Under the program, CMS reduced all IPPS hospitals' base operating DRG payment amounts by 1.5 percent in 2015 to create a pool of funds from which the performance-based VBP incentive payments will be distributed. This pool of funds will increase to a 2 percent pool by 2016. As required by law, the hospital VBP program is budget neutral; that is, the pool of withheld payments must be redistributed back to hospitals based on their performance on the VBP program's quality measures. The Commission has strongly supported CMS's changes in the program over the past two years to increase the number and weight of outcome measures in the calculation of each hospital's total performance score while reducing the number and weight of clinical process measures.

### **Hospital-Acquired Condition Reduction Program implemented in 2015**

In 2010, the Congress enacted a Hospital-Acquired Condition (HAC) Reduction Program that will take effect in fiscal year 2015: Medicare will reduce IPPS base rates by 1 percent for all hospitals whose performance on a set of HAC measures defined by CMS ranks in the lowest performing quartile nationally. This program is not budget neutral. The 2015 penalty is based on performance data from 2011 to 2013, meaning the hospitals had an incentive to improve HAC performance before 2015. AHRQ reports that hospitals reduced their level of HACs by 17 percent from 2010 to 2013 (Agency for Healthcare Research and Quality 2014).

The Commission has expressed concern that the current statutory design of the HAC Reduction Program penalizes 25 percent of hospitals every year, even if all hospitals significantly reduce HAC rates (Medicare Payment Advisory Commission 2013a). As the Commission discussed when commenting on the current readmission penalty program, it would be more effective to use a fixed performance target for the HAC reduction program. A fixed target would create an incentive for all hospitals to decrease HACs to at least the benchmark rate to avoid the payment penalty.

### **Medicare payments and providers' costs**

In assessing payment adequacy, the Commission also considers the estimated relationship between Medicare payments for, and hospitals' costs of, providing care to

**TABLE  
3-3**

**Cost growth close to input price inflation since 2010**

Cost measure	Annual cost growth				Average annual cost growth 2010-2013
	2010	2011	2012	2013	
Inpatient costs per discharge	1.9%	2.2%	3.2%	3.2%	2.6%
Outpatient costs per service	0.1 *	2.7	3.2	1.2	1.8
Weighted average of services	1.5	2.3	3.1	2.6	2.4
Input price inflation	2.0	2.6	2.1	1.9	2.2

Note: Cost growth numbers are not adjusted for reported changes in case mix. Analysis excludes critical access hospitals and Maryland hospitals. The weighted average is based on services provided to Medicare patients in hospitals, including costs for inpatient, outpatient, skilled nursing facility, inpatient rehabilitation, and home health services.

\*Outpatient cost growth was 1.7 percent if we adjusted for complexity of services provided. Input price inflation reflects a weighted average of changes in the hospital operating and capital market basket indexes. The weighted average of services reflects a dollar weighting of cost growth for inpatient and outpatient services.

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

Medicare patients. We assess the adequacy of Medicare payments for the hospital as a whole (across all Medicare services), and thus our primary indicator of the relationship between payments and costs is the overall Medicare margin. This margin includes all payments and Medicare-allowable costs attributable to Medicare patients for the six largest covered hospital services plus graduate medical education payments and costs.<sup>11</sup>

We report the overall Medicare margin across service lines because no hospital service is a purely independent business. For example, we find that operating a skilled nursing facility (SNF) improves the profitability of acute inpatient care services because an in-hospital SNF allows hospitals to safely discharge patients sooner from their acute care beds, thus reducing the cost of the inpatient stay. In addition, the precise allocation of overhead and administrative costs among services presents many challenges. By combining data for all major covered services, we can estimate Medicare margins without the influence of how overhead costs are allocated and how individual service types affect each other’s profitability.

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

**Medicare payment changes**

Growth in Medicare hospital payments per discharge under the IPPS depends primarily on three factors: (1) annual

updates to base payment rates, (2) changes in reported case mix, and (3) policy changes that are not implemented in a budget-neutral manner. In 2013, the average payment per case grew by 4.6 percent (before accounting for the sequester). This increase resulted from a 2.7 percent increase in base payment rates through the update and a 2 percent increase in case mix—the largest increase since 2009, after implementation of the MS-DRGs in 2008.<sup>12</sup> Implementation of the sequester adjustment reduced all Medicare claim payment amounts by 2 percent for roughly one-half of the fiscal year starting April 1, 2013.<sup>13</sup>

The additional temporary payments hospitals have received for health information technology (HIT) also significantly increased total Medicare payments. Between 2011 and 2013, Medicare HIT payments rose from \$0.8 billion to \$3 billion, accounting for almost 2 percent of total Medicare FFS revenues in 2013.<sup>14</sup>

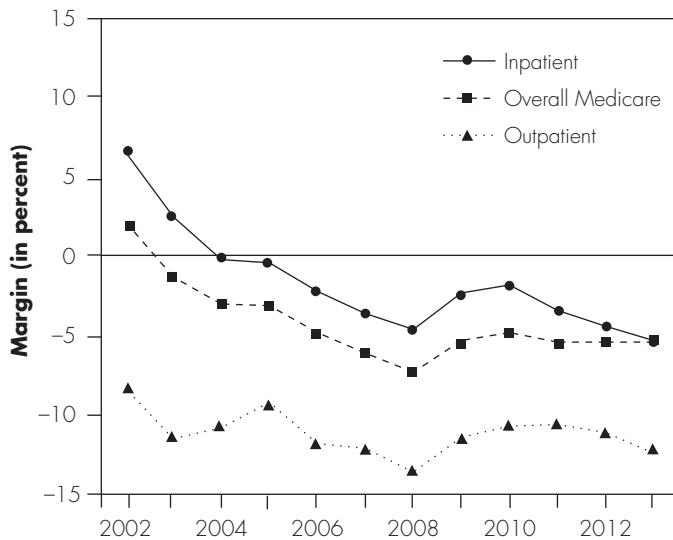
**Rate of cost growth remains close to rate of input price inflation**

From 2010 through 2013, hospitals’ Medicare inpatient and outpatient costs per case grew an average of 2.4 percent, only about 0.2 percent faster than input price inflation (the hospital market basket index) (Table 3-3). This growth is much slower than experienced through most of the 2000s, when costs increased faster than input price inflation by 1 percentage point or more.

The lower cost growth from 2010 through 2013 was partly due to lower input price inflation facing hospitals, reflecting lower economy-wide inflation for goods and services and slower wage growth. Compensation

**FIGURE  
3-5**

**Hospital Medicare margins:  
Inpatient, outpatient, and overall**



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

Source: MedPAC analysis of Medicare cost reports from CMS.

costs for hospital workers, for example, grew by less than 2 percent in each year from 2010 through 2013, far slower than in prior years. In addition, increases in hospital compensation costs have tended to be less than compensation in the rest of the economy since 2011 (Bureau of Labor Statistics 2014b).

Lower cost growth, however, was not uniform across hospital types. Rural hospitals had much higher cost growth than urban hospitals; from 2009 through 2013, inpatient costs per case increased an average of 3.9 percent in rural hospitals compared with 2.6 percent in urban hospitals. Smaller rural hospitals, those under 50 beds, and sole community hospitals saw even higher average cost increases, 4.6 percent, over the same period. Some of the higher cost growth in rural hospitals could be because of higher revenues associated with the low-volume adjustment, which provided rural hospitals with

higher payments; these payments may have eased the financial pressure on some of these hospitals, resulting in higher cost growth. In addition, total inpatient volume in rural hospitals declined more than urban hospitals, which also may have contributed to higher cost growth because of reduced economies of scale. Urban hospitals with the fewest total discharges also saw much higher cost growth, averaging 4.5 percent from 2009 to 2013, compared with the highest volume urban hospitals, for which cost growth averaged 2.4 percent. Hospitals with lower levels of uncompensated care also had higher average cost growth.

**Trend in the overall Medicare margin**

We define Medicare margins as Medicare payments minus the allowable costs of treating Medicare patients, divided by Medicare payments. In analyzing hospital margins, we compute margins with and without CAHs, the 1,300 rural hospitals whose payments are based on their incurred costs. We also exclude hospitals in Maryland, which are excluded from the IPPS and paid under a state-wide all-payer prospective payment system. The overall Medicare margin trended downward from 2002 through 2008 (Figure 3-5).<sup>15</sup> However, from 2008 to 2010, the overall Medicare margin went up, from -7.3 percent to -4.8 percent, largely because of increases in reported case mix—the result of documentation and coding changes hospitals made with the introduction of MS-DRGs in 2008—and lower cost growth as a result of the downturn in the economy (Medicare Payment Advisory Commission 2013b). In 2011 and 2012, the Medicare margin declined to -5.4 percent as CMS started to recover past coding-related overpayments. In 2013, the Medicare margin held at -5.4 percent. The overall Medicare margin is dominated by inpatient and outpatient services, which account for 92 percent of hospitals' Medicare revenues. Despite declines in inpatient and outpatient margins in 2013, the overall margin remained relatively steady because of offsetting increases in payments for health information technology.

**2013 Medicare margins by hospital type**

We further examined overall aggregate Medicare margins by hospital type. In 2013, rural PPS hospitals had a 0.2 percent overall Medicare margin, which was more than 6 percentage points higher than the -5.9 percent margin for urban hospitals (Table 3-4). Smaller rural hospitals saw the greatest improvement in their overall Medicare margins. Between 2010 and 2013, rural hospitals in the bottom quintile of inpatient volume saw their overall margins increase from -2.4 percent to 13.3 percent (not



**TABLE  
3-4****Overall Medicare margins by hospital type**

Hospital group	2008	2009	2010	2011	2012	2013
All hospitals (excluding CAHs)	-7.3%	-5.3%	-4.8%	-5.4%	-5.4%	-5.4%
Urban	-7.4	-5.5	-5.1	-5.7	-5.9	-5.9
Rural						
Excluding CAHs	-5.8	-4.2	-2.8	-2.4	-1.4	0.2
Including CAHs	-3.9	-2.7	-1.7	-1.2	0.2	1.2
Nonprofit	-8.5	-6.7	-6.2	-6.8	-7.1	-6.9
For profit	-2.6	0.0	0.2	0.2	1.5	1.2
Government*	N/A	N/A	N/A	N/A	N/A	N/A
Major teaching	-2.3	-1.0	-0.7	-2.0	-2.8	-3.6
Other teaching	-7.5	-5.2	-4.8	-5.1	-5.1	-5.0
Nonteaching	-10.3	-8.2	-7.6	-7.8	-7.4	-6.9

Note: CAH (critical access hospital), N/A (not applicable). Data are for all hospitals covered by the Medicare acute inpatient prospective payment system in 2010 and for CAHs where indicated. A margin is calculated as payments minus costs, divided by payments; margins are based on Medicare-allowable costs. "Overall Medicare margin" covers acute inpatient, outpatient, hospital-based skilled nursing facility (including swing beds), home health, and inpatient psychiatric and rehabilitation services, plus graduate medical education and health information technology payments. The rural margins are shown with and without 1,300 CAHs that are paid 101 percent of costs for inpatient and outpatient services. The margins without CAHs illustrate the profitability of rural inpatient prospective payment system hospitals; the rural margins with CAHs give a fuller picture of rural hospital profitability.

\*Government-owned providers operate in a different context from other providers, so their margins are not necessarily comparable.

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

shown in Table 3-4). This increase is because many of these hospitals received a combination of low-volume and health information technology payments. Health technology payments will be declining from 2013 to 2016, and the low-volume adjustment is substantially reduced in 2015 unless the Congress extends the temporary low-volume adjustment provisions, which it has done in the past.

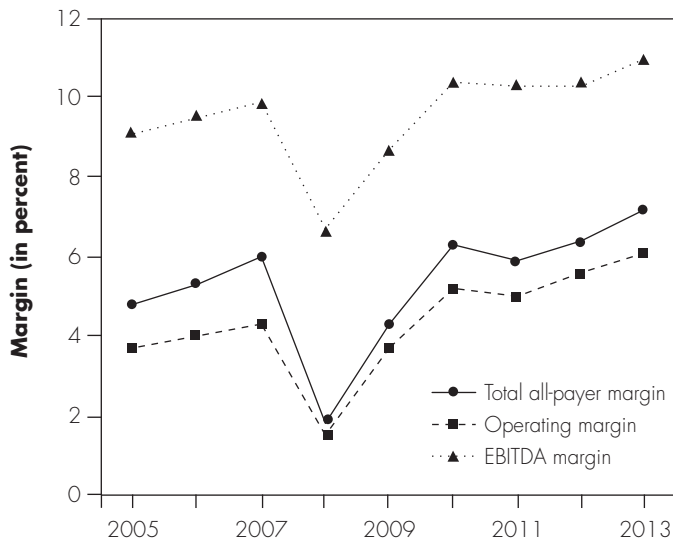
In 2013, the overall Medicare margin for major teaching hospitals (e.g., hospitals with a high resident-to-bed ratio) was -3.6 percent. Major teaching hospitals have higher overall Medicare margins than the average IPPS hospital, in large part because of the extra payments they receive through the indirect medical education (IME) and disproportionate share hospital (DSH) adjustments. The difference in the overall Medicare margin between teaching and nonteaching hospitals has narrowed over the past decade. Past Commission analysis has shown that the IME and DSH adjustments have provided payments that substantially exceed the estimated effects that teaching and providing service to low-income patients have on hospitals' average costs per discharge. In June 2010,

the Commission recommended using teaching hospital payments as incentives to train physicians in the skill sets needed by future Medicare beneficiaries (Medicare Payment Advisory Commission 2010a). Nonteaching hospitals, most of which are in urban areas, have lower overall Medicare margins than the average hospital (-6.9 percent in 2013).

In 2013, for-profit hospitals had positive overall Medicare margins (1.2 percent), well above the -6.9 percent overall Medicare margin for nonprofit hospitals. In aggregate, for-profit hospitals had higher inpatient margins (5.5 percentage points higher) and higher outpatient margins (11.2 percentage points higher) than nonprofits. Our analysis of data in recent years shows that most of the differential in margins can be explained by lower inpatient and outpatient costs at for-profit hospitals. A detailed analysis of 2009 outpatient services indicates that for-profit hospitals' outpatient margins also benefit somewhat from a more favorable service mix and from being less likely to incur outpatient teaching costs (Medicare Payment Advisory Commission 2014c).

**FIGURE  
3-6**

**Hospitals' financial performance  
has rebounded strongly after  
poor performance in 2008**



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

Source: MedPAC analysis of Medicare hospital cost reports.

**Total (all-payer) profitability reached a 20-year high in 2013**

Hospitals' total (all-payer) profit margins are an indicator of how much financial pressure hospitals are under to control costs. In 2013, total margins for hospitals increased to 7.2 percent, the highest level recorded since the first year of the IPPS more than 20 years ago (Figure 3-6). The growth in these margins was caused by average payment rates rising slightly faster than average cost growth, which was in the 2 percent to 3 percent range during this period. While Medicaid and Medicare payment rate increases have been modest in recent years, all-payer average price increases have exceeded cost growth because of strong increases in private-payer prices. HCCI and BLS report that payment rates from private insurers have grown at an average of 5 percent to 6 percent annually from 2011 through 2013 (Bureau of Labor Statistics 2013, Health Care Cost Institute 2014, Health Care Cost Institute 2012).

While annual cost growth has remained at 3 percent or less in recent years, it may start to increase in response

to hospitals' strong total all-payer margin (Figure 3-6). In addition, cash flow, as measured by earnings before interest, taxes, depreciation, and amortization (EBITDA), increased from 10.3 percent in 2012 to 11.0 percent in 2013, indicating hospitals maintained a relatively strong cash flow. It is unclear whether cost growth will remain at current levels or rebound to levels above input price inflation because of strong all-payer profits. In the past, the Commission has shown that the hospital industry's level of cost growth has been responsive to changes in all-payer profitability (Medicare Payment Advisory Commission 2012b).

**Profit margins and financial pressure to constrain costs vary by hospital**

In aggregate, profit margins are at record highs. However, profit margins vary widely across hospitals. Some hospitals have strong profits on non-Medicare services and investments and are under relatively little pressure to constrain their costs. Other hospitals, with losses on non-Medicare services, face overall losses (and possibly closure) if they do not constrain costs and generate profits on Medicare patients. To determine the effect of financial pressure on costs, we grouped hospitals into three levels of financial pressure from private payers: high, medium, and low, based on their median non-Medicare profit margins and other factors from 2008 to 2012. For these years, the hospitals under high pressure had non-Medicare profits of less than 1 percent, while the low-pressure hospitals had non-Medicare margins of more than 5 percent. We found that hospitals under high pressure from 2008 to 2012 ended up with lower standardized Medicare costs per discharge in 2013 than hospitals under low levels of financial pressure during the same five-year period. For more details on our analytic methods, see our earlier analysis of payment adequacy (Medicare Payment Advisory Commission 2011b).

Key findings from our analysis of financial pressure on hospitals are:

- **High pressure = low cost.** The 25 percent of hospitals under the most financial pressure had median standardized Medicare costs per case that were roughly 9 percent lower than the national median for all 2,744 IPPS hospitals with available data. Because of their lower Medicare costs, hospitals under pressure generated a median overall Medicare profit margin of 4 percent, which is 9 percentage points above the national median.

- **Low pressure = high cost.** The 59 percent of hospitals that were under a low level of financial pressure had median standardized Medicare costs per case that were 3 percent above the national median. Because of higher costs, they generated a median Medicare profit margin of –9 percent, which is almost 4 percentage points below the national median.
- **For-profit hospitals have different incentives.** For-profit hospitals tended to keep their median standardized Medicare costs per case at the national median even when they were under little financial pressure. This finding suggests that if both types of hospitals receive high payment rates from private payers, the higher revenues tend to result in higher costs in nonprofit hospitals, whereas in for-profit hospitals, a larger share of the revenue is retained as operating profit for shareholders.

A key question is what hospitals under little financial pressure will do with the relatively high profits earned in recent years. One possibility is that we will see a return to the high rates of cost growth seen a decade ago. Another possibility is that nonprofit hospitals may direct their profits toward acquisitions of physician practices, other hospitals, and even insurers. For example, we see continued evidence that physician practices are being acquired by hospitals and that hospitals are using some of their cash flow to purchase other hospitals (Irving Levin Associates Inc. 2014). For-profit systems have returned profits to shareholders in recent years through share buybacks and special dividends.

### Relatively efficient hospitals

The goal of our analysis of relatively efficient hospitals is to examine payment adequacy for the group of hospitals that perform relatively well on both cost and quality metrics while serving a broad spectrum of patients. The variables we use to identify relatively efficient hospitals are hospital-level mortality rates (AHRQ Inpatient Quality Indicators), readmission rates (3M<sup>TM</sup> potentially preventable readmissions), and standardized inpatient Medicare costs per case. Our assessment of efficiency is not in absolute terms but, rather, relative to other IPPS hospitals. For details on the methodology, see our March 2011 report (Medicare Payment Advisory Commission 2011b).

**Categorizing hospitals as relatively efficient** We assigned hospitals to the relatively efficient group or the control group according to each hospital’s performance relative to the national median on a set of risk-adjusted cost and

quality metrics for the period 2010 to 2012.<sup>16</sup> We then examined the performance of the two hospital groups in fiscal year 2013.

Hospitals were identified as relatively efficient if they met four criteria in each year from 2010 to 2012:

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

The objective was to identify hospitals that consistently performed at an above-average level on at least one measure (cost or quality) and that always performed reasonably well on all measures. The rationale for this methodology is discussed in detail in our March 2010 report (Medicare Payment Advisory Commission 2010b). In addition to examining claims-based outcomes, we examined each hospital’s performance on the Hospital Consumer Assessment of Healthcare Provider and Systems<sup>®</sup> (H-CAHPS<sup>®</sup>) survey. We required that, to be in the set of efficient providers, providers must receive an overall rating of 9 or 10 (on a 10-point scale) from at least 60 percent of the hospital’s Medicare beneficiaries.<sup>17</sup>

The most recent commissioner discussion regarding the efficient provider analyses raised several questions about the existing methods for defining efficient providers and generated new ideas for consideration. The Commission staff will be undertaking a reexamination of the efficient provider analyses.

**Examining performance of relatively efficient and other hospitals from 2010 to 2012** Of the 2,112 hospitals that met our screening criteria, 268 (13 percent) were found to be relatively efficient during the 2010 to 2012 period. This set of relatively efficient providers consisted of a diverse array of hospitals, including large teaching hospitals and smaller rural hospitals. CAHs were excluded from the analysis because they are not paid under the IPPS and have different cost accounting rules.

We examined the performance of relatively efficient hospitals on three measures from 2010 to 2012 by reporting the group’s median performance divided by the

**TABLE  
3-5**

**Performance of relatively efficient hospitals**

Relative performance measure	Type of hospital	
	Relatively efficient during 2010-2012	Other hospitals
Number of hospitals	268	1,846
Share of hospitals	13%	87%
<b>Historical performance, 2010-2012 (percent of national median)</b>		
Risk-adjusted:		
Composite 30-day mortality (AHRQ)	82%	102%
Readmission rates (3M™)	94	101
Standardized Medicare costs per discharge	91	102
<b>Performance metrics, 2013 (percent of national median)</b>		
Risk-adjusted:		
Composite 30-day mortality (AHRQ)	84%	102%
Composite 30-day readmission (CMS)	97	101
Standardized Medicare costs per discharge	90	102
Median:		
Overall Medicare margin, 2013	2%	-6%
Non-Medicare margin, 2013	8	8
Total (all-payer) margin, 2013	6	5

Note: AHRQ (Agency for Healthcare Research and Quality). Relative measures are the median for the group as a percentage of the median of all hospitals. Per case costs are standardized for area wage rates, case-mix severity, prevalence of outlier and transfer cases, interest expense, low-income shares, and teaching intensity. Composite mortality was computed using the AHRQ methodology to compute risk-adjusted mortality for six conditions (acute myocardial infarction, congestive heart failure, pneumonia, gastrointestinal hemorrhage, stroke, and hip fracture). We then weighted the scores for each type of discharge by the share of discharges in that particular hospital. We removed hospitals with low Medicaid patient loads (the bottom 10 percent of hospitals) and hospitals in markets with high service use (top 10 percent of hospitals) because of concerns that socioeconomic conditions and aggressive treatment patterns can influence unit costs and outcomes.

Source: MedPAC analysis of impact file, Medicare Provider Analysis and Review file, Medicare hospital cost reports, and CMS hospital compare data.

median for the set of hospitals in our analysis (Table 3-5). The median relative risk-adjusted 30-day mortality rate among efficient hospitals from 2010 through 2012 was 82 percent of the national median, meaning that the 30-day mortality rate for the efficient group was 18 percent below (that is, better than) the national median. The median readmission rate for the efficient group was 6 percent below the national median. The standardized Medicare cost per discharge for the efficient group was 9 percent lower than the national median. These relatively efficient hospitals are spread across the country and have a diverse set of characteristics, but they are more likely to be larger nonprofit hospitals because those hospitals tend to have better performance on the quality metrics we analyzed. For a more complete description of the methodology and other characteristics of relatively efficient providers, see our March 2011 report (Medicare Payment Advisory Commission 2011b).

**Historically strong performers had lower mortality and costs in 2013**

The composite mortality rate for the efficient group was 16 percent below the national median in 2013, and the median standardized Medicare cost per discharge in the efficient group was 10 percent lower than the national median. The lower costs allowed the relatively efficient hospitals to generate higher overall Medicare margins. The median hospital in the efficient group had an overall Medicare margin of 2 percent, while the median hospital in the comparison group had an overall Medicare margin of -6 percent. As shown in past years, it is possible to deliver relatively good quality care that patients value at a cost roughly equal to Medicare payment rates.

**Explaining the divergence in Medicare and commercial payment rates**

Despite Medicare margins of -5 percent to -7 percent in recent years, hospitals' all-payer margins (which include



Medicare) rose to a record high of over 7 percent in 2013. The all-payer margins are at historic highs because of rate increases from private insurers that are well above cost growth, resulting in high margins on patients with commercial insurance (Health Care Cost Institute 2014, Medicare Payment Advisory Commission 2014a). Commercial rates, on average, are about 50 percent higher than hospital costs and more than 50 percent higher than Medicare rates (Health Care Cost Institute 2014, Medicare Payment Advisory Commission 2014a). For example, Aetna and Blue Shield of California pay hospitals rates that are often 200 percent of Medicare's rate for inpatient care and 300 percent of Medicare's rate for outpatient services in California (California Department of Insurance 2014a, California Department of Insurance 2014b).

Some providers and insurers have argued that commercial rates must be high to compensate for losses on Medicare patients; they argue hospitals are forced to “cost shift” onto private payers. However, we argue the reverse: High commercial rates may cause losses on Medicare patients. We contend that most hospitals prefer higher revenues to lower revenues and will raise commercial rates when they have the market power. When hospital revenues are higher, expenditures and costs per discharge are higher (Medicare Payment Advisory Commission 2009, Stensland et al. 2010, White and Wu 2014). Thus, high commercial rates could drive costs up and Medicare margins down. In contrast, the cost-shift theory asserts that losses on Medicare patients cause high private-insurer rates. While hospitals may use their profits on private patients to cover some Medicare patient costs, we do not find that hospital costs are immutable or that hospitals must charge commercial rates that are 200 percent of Medicare. The efficient provider analysis shows that there is room for some hospitals to lower their costs and therefore some room for lower prices. In other words, it is implausible that losses on Medicare patients forced hospitals to raise prices to a level that generated record-high all-payer profits in 2013.

Looking forward, the Medicare program has a limited number of tools to maintain pressure on hospitals to restrain their cost growth. Over the short run, Medicare payment updates could be reduced and hospitals would still be expected to accept Medicare patients because of excess capacity and because Medicare payments exceed marginal costs. Over the long term, significant restraints on payment rate updates without comparable restraint by private insurers on their rates could make it difficult for hospitals that serve primarily Medicare patients to compete

for labor with hospitals primarily serving privately insured patients. The implication is that as long as private payers and employers are unable to constrain commercial rates, hospital profits, costs, or both will rise and the profitability of caring for Medicare patients relative to the profitability of caring for commercially insured patients will continue to diverge.

### **How would current law changes from 2014 through 2016 affect hospitals' Medicare payments and beneficiaries' access?**

Overall Medicare margins were –5.4 percent on average in 2013. The 2 percent sequester was in effect for roughly half of fiscal year 2013 and the full year in 2014, reducing 2014 payments relative to 2013 by almost 1 percentage point. Given the full-year effect of the sequester, we expect overall Medicare margins will decline slightly in 2014.

As we discussed in our March 2014 report to the Congress, a series of policy changes in current law are expected to result in a net reduction in payment rates from 2014 to 2015. Under current law, the base payment rate update is projected to be 2.2 percent. The following payment policy changes are expected to roughly offset the 2015 update:

- Medicare uncompensated care payments will decline because of expansion of the number of insured individuals. That decline will reduce Medicare payments by roughly 1 percent. (However, increases in insured patients will increase non-Medicare revenues).
- Two additional changes will affect hospitals with poor performance on quality metrics:
  - Readmission penalties are expected to increase in 2015 when additional clinical conditions are added to the readmissions policy, which is expected to reduce payments by an additional 0.1 percent in 2015.
  - The 25 percent of hospitals with the lowest performance on HACs will face a 1 percent reduction in their IPPS payments (equal to roughly 0.2 percent of all Medicare hospital payments in 2015).
- Payments for electronic health records (EHRs) are slowly being phased out, causing a decline in EHR payments equivalent to 0.5 percent of overall Medicare payments.

- Mandated recovery of past overpayments because of documentation and coding changes after implementation of MS–DRGs resulted in a 0.8 percent adjustment to inpatient rates, equivalent to 0.5 percent of overall 2015 payments.

We expect cost growth per discharge to be similar to the 3 percent level seen in recent years based on cost growth reported by publicly traded companies and data from the Census Bureau. Because we expect cost growth to be slightly higher than the update in 2015 and because payments will be reduced by about 2.5 percent due to the policy changes listed above, we expect overall Medicare margins to decline by about 3 percent in 2015. A 3 percent reduction would bring margins down from roughly –6 percent in 2014 to approximately –9 percent in 2015. This margin includes the effect of the sequester fully phased in by 2014. If the sequester is removed (consistent with our recommendation), margins would be about 1.8 percent higher, or roughly –7 percent, closer to the levels in recent years.

### **Marginal profits on Medicare patients**

Despite negative margins in 2015, most hospitals will continue to have a financial incentive to increase the volume of Medicare patients they see because their marginal revenue from each additional patient is expected to exceed their marginal cost of caring for an additional Medicare patient. We can estimate the marginal profit on Medicare patients by looking at costs that vary with patient volume (variable costs) and revenues that vary with Medicare volume (variable revenues). Online Appendix 3-A, available at <http://www.medpac.gov>, includes a detailed discussion of costs that are variable over a period of one year.

Marginal costs are expected to be between 70 percent and 90 percent of total costs for hospitals with over 2,000 discharges and closer to 50 percent of total costs for smaller hospitals with under 2,000 discharges (see online Appendix 3-A, available at <http://www.medpac.gov>, for details). For example, if an average-sized hospital's fixed costs were 20 percent of total costs, then the marginal costs would be 80 percent of total costs.

In aggregate, assuming current levels of cost growth, IPPS hospitals' Medicare payments are expected to be equal to 92 percent of total allowable costs in 2015.<sup>18</sup> Medicare uncompensated care payments do not vary with Medicare volume and therefore are not part of variable revenues. They are expected to be equal to roughly 4 percent of total allowable costs in 2015; therefore the marginal revenue

from a service is expected to be close to 88 percent of total allowable costs of that service in 2015.

For a hospital for which variable revenue is equivalent to 88 percent of total costs and variable costs are 80 percent of total costs, the marginal revenue from an additional patient will still exceed the costs. Therefore, the average hospital will still have a direct financial incentive to admit Medicare patients. While marginal profits are a sufficient condition for hospitals to have a financial incentive to see Medicare patients, there are also other reasons for them to do so. Hospitals benefit from indirect incentives such as wanting to keep nonprofit status, wanting to avoid low occupancy rates, and not wanting to alienate physicians by taking only privately insured patients.

### **Policy changes in 2016 that will affect providers' payments and costs**

The 2016 update under current law is projected to be 2.3 percent. However, policy changes will continue to reduce payments, including further reduction in DSH payments, reductions in HIT payments, and an additional adjustment for past overpayments from coding. The net effect of these changes will be an offset of about 2 percentage points of the 2.3 percentage point increase resulting from the update. Depending on cost growth, margins could decline from 2015 to 2016.

### **Despite potential changes in payments and costs, access is expected to remain strong**

Following the enactment of the Patient Protection and Affordable Care Act of 2010, some analysts argued that the slow growth of Medicare payments and continued rapid growth in private payer rates would create a large divergence that, in the long run, could put pressure on Medicare patients' access to care (Foster 2010, Newhouse 2010, Shatto and Clemens 2011). They suggested that either private insurers will have to slow the growth in their payment rates or the Medicare program will have to increase its rates of payment growth to maintain beneficiaries' access to care. In 2011, commercial insurer payment rates were 47 percent above costs, whereas Medicare rates were 6 percent below costs, resulting in a rate gap of 53 percent in 2011. Data from HCCI on private pay increases compared with Medicare rate increases in this chapter suggest that this gap will grow above 53 percent by 2015 (Health Care Cost Institute 2014).

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

- Most hospitals have excess capacity; occupancy fell from 64 percent to 60 percent in recent years.
- Medicare payment rates, while less than the total cost of care, are still greater than the marginal cost of care for most hospitals. Therefore, it is still profitable at the margin to see additional Medicare patients.
- Some hospitals currently accept discounts to Medicare rates from Medicare SELECT medigap plans to gain Medicare market share. These hospitals want more Medicare patients even at rates lower than standard Medicare rates.

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

### **Addressing differences in payment rates across sites of care for outpatient and inpatient care**

As part of our annual March report on payment adequacy, the Commission has traditionally had two objectives. One objective is to recommend an appropriate aggregate level of payments using the update. The second objective is to recommend adjustments in payment policies when necessary to set appropriate relative prices across services and across sites of care. One problem with the current system of relative prices is that differences in prices across care settings are causing distortions in provider incentives. For example, hospital outpatient department rates are not aligned with rates paid for the same services in a physician's office, giving hospitals an incentive to acquire physician practices and bill for the same services at outpatient rates, increasing costs to the program and to the beneficiary. To remove this incentive, we recommended setting outpatient rates closer to physician office rates for

a set of services that are often performed in both locations. The details are in our June 2013 and March 2014 reports to the Congress (Medicare Payment Advisory Commission 2014c, Medicare Payment Advisory Commission 2013a).

A similar problem exists for hospital inpatient services. Long-term care hospitals (LTCHs) are currently paid much higher rates than traditional acute care hospitals (ACHs), even for patients who do not require the specialized services of an LTCH. To better align payments between the ACH and the LTCH settings, we recommended a new criterion for patients receiving standard LTCH payments. We discussed the details of this recommendation in our March 2014 report to the Congress; in this chapter, we will only highlight the rationale behind the recommendation.

As described in our March 2014 report, Medicare pays LTCHs under a separate PPS, with higher payment rates—for both chronically critically ill (CCI) and non-CCI cases—than payments made for similar patients in other settings (Medicare Payment Advisory Commission 2014c). Historically, there have been few criteria defining LTCHs, the level of care they provide, or the patients they treat. The Commission and others have repeatedly raised concerns that the lack of meaningful criteria for admission to LTCHs means that these providers can admit less-complex patients who could be cared for appropriately in less expensive settings. Comparatively attractive payment rates for LTCH care have resulted in an oversupply of LTCHs in some areas and may generate unwarranted use of LTCH services by patients who are non-CCI (Medicare Payment Advisory Commission 2013b).

To reduce incentives for LTCHs to admit lower acuity patients—who could be appropriately cared for in other settings at a lower cost to Medicare—the Commission recommended that standard LTCH payment rates be paid only for LTCH patients who meet the CCI profile at the point of transfer from an ACH. LTCH cases that are non-CCI should be paid IPPS rates approximately the same as the MS-DRG payment rates that would have been paid if the patient had been treated in an IPPS hospital in the same local market.<sup>19</sup> The Commission recommended that the Congress use the savings achieved from improving the appropriateness of LTCH payments to improve the accuracy of payments for CCI cases in ACHs paid under the IPPS. Funds that would have been used to make payments under the LTCH payment system instead should be allocated to a new IPPS outlier pool to help alleviate the cost of caring for extraordinarily costly CCI cases in

ACHs. Outlier payments for IPPS CCI cases could be calculated using a lower fixed loss amount, and Medicare could pay 90 percent of hospitals' costs above the CCI outlier threshold. The outlier policy for non-CCI cases in IPPS hospitals would remain unchanged.

In our March 2014 report to the Congress, the Commission recommended that—in the absence of data on the metabolic, endocrine, physiologic, and immunological abnormalities that characterize CCI conditions—Medicare should define LTCH CCI cases as those who spent eight or more days in an intensive care unit (ICU) during an immediately preceding ACH stay. These cases were concentrated in a small number of MS-DRGs that correspond to the “ideal” LTCH patients as typically described by LTCH representatives and critical care clinicians (Dalton et al. 2012). Previous studies have found such severely ill patients more likely to benefit from LTCH care (Kennell and Associates Inc. 2010, Medicare Payment Advisory Commission 2004). At around the same time the Commission made its recommendation, the Congress passed the Pathway for SGR Reform Act of 2013, which contained a number of provisions affecting the LTCH PPS. Among those was a provision that defined patients appropriate for LTCH-level payment as those with a three-day ICU stay (for more detailed information see Chapter 11). The three-day ICU stay threshold scheduled to start in 2016 under current law is less restrictive than the Commission's recommended eight-day threshold. The Commission also recommended that an exception to the eight-day ICU threshold be made for LTCH cases that received mechanical ventilation for 96 hours or more during an immediately preceding acute care hospital stay.

Similarly, the Commission recommended that the cases in IPPS hospitals that will be eligible for higher outlier payments should be those in which the IPPS stay includes eight or more days in an ICU, with an exception to the eight-day ICU requirement made for patients receiving prolonged mechanical ventilation.

In concert with the payment changes for LTCHs, the Commission suggested that the Congress change the length-of-stay requirement for LTCHs. Currently, to qualify as an LTCH, a facility must maintain an average length of stay of more than 25 days. When non-CCI cases are paid IPPS-based rates, this requirement would apply only for CCI cases and no longer apply for non-CCI cases. This change would remove the financial incentives LTCHs currently have to keep non-CCI patients in the LTCH longer than necessary. Therefore, we would expect the average length of stay and the cost for non-CCI cases at LTCHs to decline. We also expect LTCHs to admit fewer non-CCI cases and to be more selective in choosing which non-CCI cases they do admit.

Without behavioral changes, aggregate payments to LTCHs would decline by about \$2 billion, which would be shifted to IPPS hospitals that care for the most expensive ICU cases. However, because of the expected efficiency gains described above, the net effect on LTCH profits is expected to be far less than \$2 billion. Our March 2014 report to the Congress discusses these effects in detail.

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## **How should Medicare payment rates change in 2016?**

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Last year, the Commission recommended a package of three changes to Medicare hospital payments: an increase in hospital outlier payments (financed by reduced LTCH payments as discussed above), setting payments for certain services (e.g., echocardiograms) that can be done safely in physician offices at or near the rates paid in physician offices, and a 3.25 percent payment rate update to base payment rates. The increase in outlier payments for IPPS hospitals and the decrease in certain LTCH payments are designed to reduce payment differentials across sites of care. Given that the payment adequacy indicators for 2015 were very similar to the adequacy indicators in 2014, the Commission has decided to stand by its previous multi-part recommendation (see text box). ■



## The Commission reiterates its March 2014 recommendation on hospital payment

### Recommendation 3, March 2014 report

The Congress should direct the Secretary of Health and Human Services to:

- **reduce or eliminate differences in payment rates between outpatient departments and physician offices for selected ambulatory payment classifications.**
- **set long-term care hospital base payment rates for non-chronically critically ill (CCI) cases equal to those of acute care hospitals and redistribute the savings to create additional inpatient outlier payments for CCI cases in inpatient prospective payment system hospitals. The change should be phased in over a three-year period from [2016 to 2018].**
- **increase payment rates for the acute care hospital inpatient and outpatient prospective payment systems in [2016] by 3.25 percent, concurrent with the change to the outpatient payment system discussed above and with initiating the change to the long-term care hospital payment system.**

### Rationale

The Commission balanced several factors in reaching its recommendation. First, incentives to shift care to higher cost sites must be reduced. The recommendation would reduce the incentive to shift patient billing to hospital-owned outpatient facilities when the patient does not need hospital-level care. The recommendation would also reduce the incentive to admit non-CCI patients to long-term care hospitals (LTCHs). The savings from this policy would be used to increase payments for chronically critically ill (CCI) patients in acute care hospitals. This policy of reducing payment rates for non-CCI cases in LTCHs and increasing payments for CCI cases in inpatient prospective payment system hospitals would make the system more equitable and reduce incentives to shift non-CCI cases to the more costly LTCH setting.

The update recommendation is higher than current law because of a balance of several factors. First,

most payment adequacy indicators are positive, but Medicare margins are negative. Second, several current law policy changes are scheduled to reduce payments in 2015 and 2016. Because of these changes and reduced payments, as well as the proposed changes to outpatient payments and outlier payments for CCI cases, an update of 3.25 percent in the base payment is warranted. The Commission maintains that Medicare payment rates should be determined by analysis of payment adequacy rather than an across-the-board sequester reduction. Therefore, the Commission recommends that hospitals receive base payment rates that are 3.25 percent higher than the 2015 base payment rates, and there should be no sequester adjustment. However, if the Congress increases hospital payments by reinstating expiring special payments, the full 3.25 percent update would not be warranted.

We also realize that the proposed changes to the long-term care payment system and the acute care hospital outlier payments for CCI cases would be large. For that reason, we propose that these changes be phased in over a three-year period.

### Implications Spending

- As we discussed in the March 2014 recommendation, if the LTCH reform and acute care hospital CCI outlier payments were phased in over three years, roughly \$700 million per year would be transferred from the LTCH payment system to the acute care payment system. Aligning certain outpatient ambulatory payment classifications with physician office rates would reduce payments to hospitals by approximately \$1.4 billion, and increasing the update of base payment rates over current law would increase payments by approximately \$1.7 billion over current law. The net increase in payments to hospitals over current law would be close to \$1 billion.
- The package of three payment changes (the 3.25 percent increase in base payment rates, LTCH reform coupled with acute care hospital CCI

*(continued next page)*

## The Commission reiterates its March 2014 recommendation on hospital payment (cont.)

outlier payments, and aligning certain outpatient ambulatory payment classifications with physician office rates) would increase Medicare program spending by between [\$750 million and \$2 billion in 2016] and between \$5 billion and \$10 billion over five years.

### **Beneficiaries and providers**

- Beneficiaries would see lower cost sharing because the effect of alignment of selected outpatient

payment rates with the physician fee schedule (which lowers cost sharing) is larger than the higher update (which increases cost sharing). The recommendation may also slow or stop the shift of services from freestanding practices to hospital outpatient departments. Payments to LTCHs would decline for the non-CCI cases, and payments to acute care hospitals would increase for CCI cases. In addition, the higher update would increase payments for all cases in acute care hospitals. ■

## Endnotes

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- 1 Payments per beneficiary include roughly \$7 billion of inpatient and outpatient payments to critical access hospitals, which are paid 1 percent over their costs of inpatient, outpatient, and (in swing beds) post-acute services.
- 2 Before 2015, the OPPS had 39 “device-dependent” APCs, which are populated by services that usually, but not always, require a device to be implanted or used to perform the procedure. For 2015, CMS has transformed 36 of the 39 device-dependent APCs into C-APCs as well as 2 APCs that are not device dependent (0067 Level II stereotactic radiosurgery and 0351 Level VII anterior segment eye procedures). C-APCs combine a primary service and all adjunctive services and supplies reported on a claim (with some exceptions) into a single payment. The exceptions include services such as diagnostic screenings, therapy, and self-administered drugs. CMS also expanded the extent to which items are packaged into larger payment bundles in the OPPS. The specific items included in this expanded packaging include prosthetic supplies and ancillary services that have mean costs of less than \$100 when provided with a procedure, clinic visit, or emergency room visit. These ancillary services are paid separately when provided alone.
- 3 To obtain these results, we used the volume of E&M visits in outpatient PPS hospitals, OPPS payment rates in 2014, and physician fee schedule payment rates in 2014.
- 4 When occupancy is computed, a bed is considered occupied if it is used by an inpatient or an observation patient.
- 5 In 2013, the average hospital bed occupancy rates of urban hospitals and rural hospitals were 63 percent and 41 percent, respectively. Small rural hospitals (100 or fewer beds) had an average occupancy rate of 37 percent in 2013. In contrast, major teaching hospitals had an average occupancy of 75 percent.
- 6 Hospitals that closed were located an average of 15 miles from the nearest competitor. Among the closures, CAHs were an average of 21 miles from their nearest hospital, and IPPS hospitals were an average of 12 miles from the nearest hospital. The CAHs that closed had an average occupancy rate of 35 percent in 2013, and the hospital closest to them had a slightly higher average occupancy rate of 41 percent. The IPPS hospitals that closed had an average occupancy rate of 34 percent, and the closest hospital to them had an average occupancy rate of 49 percent.
- 7 Merger and acquisition (M&A) data from Irving Levin Associates are gathered through media and government (state and federal) reports documenting merger or acquisition agreements reached between the interested parties. Because of the decentralized nature of market activity in this field, these data are likely to underestimate the total volume in M&A deals that occur each year. We also believe that Irving Levin’s data set is somewhat biased toward larger deals.
- 8 There is some evidence that when individuals gain insurance, they increase their inpatient use; in the Oregon Medicaid expansion, newly insured individuals increased their chance of being hospitalized by 2.1 percentage points (Finkelstein et al. 2011). The Congressional Budget Office projects that roughly 30 million people will gain insurance over the next few years; a 2 percentage point increase in admissions of newly insured individuals would yield roughly 600,000 more admissions. Discharge rates reported by the Census and data from for-profit hospitals through the first nine months of 2014 suggest hospitals are seeing a small increase in discharges because of the expansion of insurance coverage and improvement in the economy (Business Wire 2014a, Business Wire 2014b, Business Wire 2014c).
- 9 In-hospital mortality rates for all five conditions that we analyze—acute myocardial infarction, congestive heart failure, hip fracture, stroke, and pneumonia—improved (i.e., went down) by statistically significant percentages from 2010 to 2013. Over the same period, 30-day postdischarge mortality rates demonstrated statistically significant declines (i.e., improved) for stroke and pneumonia but show statistically insignificant changes for the other three conditions.
- 10 The eight AHRQ PSIs that we analyzed are deaths in low-mortality DRGs, deaths among surgical inpatients, iatrogenic pneumothorax, central catheter-related infections, postoperative respiratory failure, postoperative pulmonary embolism/deep-vein thrombosis, postoperative wound dehiscence, and accidental puncture or laceration. Rates of central catheter-related infections and postoperative pulmonary embolisms declined; the other patient safety indicators did not change by a statistically significant amount.
- 11 The six largest services in order of Medicare patient revenues are inpatient acute care, outpatient care, inpatient rehabilitation care, inpatient psychiatric care, home health care, and skilled nursing services.
- 12 It is plausible that the 4 percent reduction in discharges in 2013 was primarily due to a reduction in lower severity cases. Because lower severity cases are treated outside of the hospital or as observation cases, the average case mix remaining within the hospital could increase. In contrast, the case mix changes in 2008 and 2009 were tied to changes in documentation and coding practices. Analyses by both CMS and the Commission have concluded that the increases in

- case mix reported for 2008, 2009, and 2010 (2 percent, 2.6 percent, and 0.5 percent, respectively) resulted from changes in hospitals' documentation and coding rather than from an actual shift toward patients whose care required greater resources (Medicare Payment Advisory Commission 2010b).
- 13 The net effect is that total payments in 2013 were reduced by about 1 percent in fiscal year 2013 because the sequester was in effect for roughly one-half of the fiscal year. The sequester reduces payments from the Medicare program. It does not reduce payments from beneficiaries.
  - 14 The \$3 billion comprises payments to hospitals for FFS patients; it does not include payments for managed care patients or payments received by critical access hospitals under the program.
  - 15 The services included in the overall Medicare margin are Medicare acute inpatient; outpatient; graduate medical education; Medicare SNF (including swing beds); Medicare home health care; Medicare inpatient psychiatric; and Medicare inpatient rehabilitation; as well as special payments for health information technology; temporary extra payments to hospitals located in low-spending counties; and (starting October 1, 2014) uncompensated care payments.
  - 16 We use medians rather than means to limit the influence of outliers on our set of efficient providers.
  - 17 While H-CAHPS and similar patient satisfaction surveys have the limitation of being subjective, we add it as another way to screen out low-value providers because it has the advantage of not being dependent on coding. It is possible that overly aggressive coding by some providers could artificially lower their risk-adjusted cost and risk-adjusted mortality metrics.
  - 18 Hospitals' loss on Medicare patients is expected to be 8 percent of overall Medicare costs in 2015. This same loss is expected to be equal to 9 percent of hospital Medicare revenues.
  - 19 The proposed IPPS rates use the operating and capital base payment rates and MS-DRG relative weights from the IPPS. However, some payment adjustments (e.g., the LTCH geographic wage index) and the LTCH outlier policy differ from the comparable policies in the IPPS. Therefore, LTCH and IPPS payments, while similar, would not be exactly equal in all cases.

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