

CHAPTER

3

**Hospital inpatient and
outpatient services**

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

- 3** The Congress should:
- for fiscal year 2021, update the fiscal year 2020 Medicare base payment rates for acute care hospitals by 2 percent; and
 - provide hospitals with an amount equal to the difference between the update recommendation and the amount specified in current law through the Commission's recommended hospital value incentive program (HVIP).

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

Hospital inpatient and outpatient services

Chapter summary

In 2018, the Medicare fee-for-service (FFS) program and its beneficiaries paid 4,700 short-term acute care hospitals \$190 billion for inpatient and outpatient services, consisting of \$121 billion for inpatient stays and \$69 billion for outpatient services. Between 2017 and 2018, Medicare FFS payments to hospitals for inpatient and outpatient services increased by \$6 billion (3.2 percent), even as the number of Medicare FFS beneficiaries declined. Over this period, payments for inpatient services rose by \$1.3 billion (1.1 percent), primarily due to a combination of a 1.1 percent increase in inpatient prospective payment system (IPPS) base rates, a 1.8 percent increase in reported case mix, and an offsetting 1.6 percent decrease in inpatient stays per capita. Payments for outpatient services rose by \$4.7 billion (7.4 percent), primarily due to rapid growth in Part B drug spending, a continued shift in the site of service billing from physician offices to hospital outpatient departments, and an increase in outpatient payment rates.

Assessment of payment adequacy

Most payment adequacy indicators (including access to care, quality of care, and access to capital) are positive. Average Medicare margins continue to be negative, although hospitals with excess capacity still have an incentive to see Medicare beneficiaries, in part because Medicare payment rates were more than 8 percent above the variable costs associated with Medicare patients in 2018.

In this chapter

- Are Medicare payments adequate in 2020?
- How should Medicare payment rates change in 2021?

Beneficiaries' access to care—Access measures for hospital services include the capacity and supply of providers, the volume of services, and providers' marginal profits. On net, these indicators suggest Medicare FFS beneficiaries continue to have adequate access to hospital services.

- **Capacity and supply of providers**—In 2018, the average hospital occupancy rate was 63.3 percent, suggesting that hospitals have excess inpatient capacity in most markets. However, an increasing number of small hospitals struggling with low occupancy closed their inpatient departments and ceased to operate as full-service hospitals in 2018 and 2019. The average distance between the 69 hospitals that ceased inpatient services in 2018 or 2019 and the next nearest hospital was 13 miles, indicating that most patients maintained reasonable access to emergency and inpatient care. While closures of isolated hospitals are rare, there may be a need for a policy that would preserve access to emergency services in isolated communities where a full-service hospital is not viable (such as the Commission's June 2018 recommendation to allow isolated, rural stand-alone emergency departments).
- **Volume of services**—In 2018, inpatient stays per beneficiary fell by 1.6 percent while outpatient services per beneficiary rose by 0.7 percent. We continue to see volume shifting from small rural hospitals to larger urban facilities, from physician offices to hospital outpatient departments, and from inpatient to outpatient hospital settings.
- **Marginal profit**—Because Medicare payments exceed the marginal cost of providing services, hospitals with excess capacity have a financial incentive to serve Medicare beneficiaries. Marginal profits were over 8 percent on average in 2018.

Quality of care—From 2016 to 2018, risk-adjusted hospital mortality and readmission rates improved slightly. Patients' overall rating of their experience during a hospital stay has remained steady from 2016 to 2018. Hospital quality is improving at a slower pace than in the earlier years of the hospital quality incentive programs, which could indicate in part that easily achievable quality improvements have already occurred, signaling a need to redesign the hospital quality incentive programs. In March 2019, the Commission recommended that the Congress replace Medicare's current hospital quality programs with a single, outcome-focused, quality-based payment program for hospitals—the hospital value incentive program (HVIP)—based on our principles for quality measurement.

Providers' access to capital—On average, hospitals' access to capital remains strong due to several years of relatively high all-payer profit margins. This access

is reflected in significant hospital construction and strong bond offerings at relatively low interest rates. The industry-wide all-payer margin was 6.8 percent in 2018, slightly below the all-time high of 7.1 percent in 2017. For-profit hospitals had a particularly strong year in 2018, with an all-payer margin of 11.3 percent, representing the highest level over the past two decades. While most hospitals had strong margins, some hospitals struggled with low occupancy and all-payer losses (as evidenced by increased closures), suggesting a divergence in financial performance.

Medicare payments and providers' costs—In 2018, IPPS hospitals' aggregate Medicare margin was –9.3 percent, up slightly from –9.9 percent in 2017. The median Medicare margin for relatively efficient providers was about –2 percent. The 0.6 percentage point improvement in the aggregate Medicare margin from 2017 to 2018 appears to be due to three factors. First, CMS overestimated input price inflation by 0.2 percent. Because hospitals' payment rate updates are based in part on projected increases in a market basket of inputs, overestimates of price inflation caused payments to grow faster than costs. Second, hospitals limited their inpatient cost growth to about the rate of input price inflation, despite reporting a 1.8 percent increase in case mix. The shift in reported case mix toward more cases that pay higher rates, without an inflation-adjusted increase in costs per case, suggests more extensive coding of diagnoses, improvements in efficiency, or both. Third, outpatient (Part B) drug spending continued to rise rapidly, which can improve Medicare margins. Specifically, a feature of the 340B Drug Pricing Program can improve hospitals' Medicare margins because hospital discounts on drugs obtained through the 340B program increase if drug prices grow at a faster rate than the consumer price index for urban consumers.

Given our expectation of continued growth in reported case mix and increases in spending on Part B drugs (which have higher profit margins in part due to the 340B program), we expect the aggregate Medicare margin to improve from –9.3 percent in 2018 to approximately –8 percent in 2020. The exact change in Medicare margins for 2020 will depend on whether cost growth is larger or smaller than hospitals' payment rate growth on a case-mix-adjusted basis.

How should payment rates change in 2021?

Under current law, Medicare FFS hospital base payment rates are projected to increase by about 2.8 percent in 2021. This increase is the largest since 2009 and reflects the elimination of certain budgetary reductions in hospital updates that caused lower updates from 2010 to 2019 as part of the Affordable Care Act of 2010. For 2021, the Commission recommends that the Congress, for 2021, update

Medicare inpatient and outpatient payment rates by 2 percent. This payment update recommendation is based on indicators of beneficiaries' access to hospital care, hospitals' access to capital, hospital quality, and the relationship between Medicare payments and hospital costs. The difference between the update recommendation of 2.0 percent and the amount specified in current law (an estimated 0.8 percent of inpatient and outpatient payments) should be used to increase payments through the HVIP that the Commission recommended in 2019. These additional dollars would flow primarily to hospitals that do relatively well on quality and episode cost metrics. These recommendations would raise hospital payments by increasing the base payment rates and the average rewards hospitals receive under the proposed HVIP. On net, the 2.0 percent update, the expected increase in the inpatient HVIP rewards (0.8 percent), and the elimination of the inpatient penalties in the current quality programs (equal to 0.5 percent of all payments) would be expected to raise aggregate payments by an average of 3.3 percent. If the Commission's recommendation is not enacted, then the current law update would hold (projected to be 2.8 percent under the most recent CMS projection for hospital input price inflation).

Mandated report: Expanding the post-acute care transfer policy to hospice, preliminary results

Under the post-acute care transfer policy, when Medicare FFS beneficiaries with certain conditions have short inpatient stays and are transferred to a post-acute care setting, the transferring hospital receives a per diem payment rather than the full IPPS amount. The Bipartisan Budget Act of 2018 expanded the IPPS post-acute care transfer policy to include hospital transfers to hospice beginning in fiscal year 2019 and mandated that the Commission evaluate and report on the effects of this policy change.

Preliminary results from the first six months indicate that the policy change produced small program savings without any significant changes in Medicare FFS beneficiaries' timely access to hospice care. ■

Background

Medicare payments to short-term acute care hospitals

In 2018, the Medicare fee-for-service (FFS) program and its beneficiaries paid 4,700 short-term acute care hospitals \$190 billion for inpatient and outpatient services, consisting of \$121 billion for inpatient stays and \$69 billion for outpatient services (Table 3-1).¹ Between 2017 and 2018, Medicare payments to hospitals for inpatient and outpatient services increased by \$6 billion, or 3.2 percent, which was a percentage point lower than the average growth between 2014 and 2017. Over this time period (2017 to 2018), payments for FFS beneficiaries' inpatient stays rose 1.1 percent (\$1.3 billion), reflecting increases in payments per inpatient stay (3 percent) and declines in inpatient stays per capita (1.6 percent) and FFS Part A beneficiary enrollment (0.3 percent). Payments for FFS beneficiaries' use of outpatient services rose 7.4

percent (\$4.7 billion), driven by increases in payments per outpatient service (7.6 percent) and services per capita (0.7 percent), and a decline in FFS Part B beneficiary enrollment (0.9 percent).²

How Medicare sets hospital payment rates

Until 1984, Medicare FFS payments to short-term acute care hospitals were based on their cost of providing care. Currently, Medicare FFS payments to most hospitals for inpatient and outpatient services are determined by the inpatient and outpatient prospective payment systems, in which rates are set prospectively and largely do not depend on individual hospitals' costs. One rationale for ending cost-based payments was to increase the incentive for hospitals to control their costs. Therefore, while Medicare continues to adjust payment rates for factors outside of hospitals' control (such as regional wage rates or patient characteristics), Medicare does not pay hospitals more for having high costs relative to neighboring hospitals with similar patients. Indeed, as we have demonstrated in

**TABLE
3-1**

Inpatient and outpatient Medicare FFS payments to short-term acute care hospitals have continued to grow

	2014	2015	2016	2017	2018	Percent change		
						Average annual 2014–2017	Annual 2017–2018	Cumulative 2014–2018
Payments								
(in billions of dollars)								
Inpatient and outpatient	\$162.6	\$169.2	\$177.1	\$183.7	\$189.6	4.2%	3.2%	16.6%
Inpatient stays	109.8	112.5	116.8	119.4	120.6	2.8	1.1	9.8
Outpatient services	52.7	56.6	60.3	64.3	69.0	6.8	7.4	30.8
Payments per FFS beneficiary								
(in thousands of dollars)								
Inpatient stays	2.9	3.0	3.0	3.1	3.2	2.1	1.4	7.8
Outpatient services	1.6	1.7	1.8	1.9	2.1	6.1	8.4	32.1

Note: FFS (fee-for-service). Analysis includes short-term acute care hospitals in the U.S. (exclusive of territories). "Payments" refers to Medicare FFS payment rates (including any applicable beneficiary cost-sharing responsibilities) on claims at time of payment and reflect sequestration reductions in effect since April 2013. The table does not include Medicare FFS supplemental payments or payments for hospital-based providers. "Year" refers to fiscal year, except for rows related to outpatient services, which refer to calendar year. Percent change columns were calculated on unrounded data, and "average" refers to compound annual growth rate.

Source: MedPAC analysis of Medicare Provider Analysis and Review files, outpatient claims, and enrollment data.

previous years' payment analyses, hospitals with higher costs are often those under less pressure to constrain costs. At the same time, Medicare does not pay more to hospitals with low costs because low costs are their own reward in a prospective payment system.

Medicare FFS payments to short-term acute care hospitals fall into three main categories:

- *payments for FFS beneficiaries' inpatient stays*, which for most hospitals are determined by per stay rates under the inpatient prospective payment system (IPPS);
- *payments for FFS beneficiaries' outpatient services*, which for most hospitals are determined by per service rates under the outpatient prospective payment system (OPPS); and
- *supplemental payments not tied to specific services or FFS beneficiaries* (such as payments for uncompensated care, direct graduate medical education, and indirect medical education payments for Medicare Advantage (MA) beneficiaries' use of hospital services), which are determined by special payment policies under the IPPS.

Inpatient prospective payment system

Medicare's IPPS primarily pays acute care hospitals a predetermined amount per stay. The IPPS per stay payments are derived through a series of adjustments applied to separate operating and capital base payment rates, which are updated annually. The adjustments to base rates include those for geographic factors, case mix (the expected relative costliness of inpatient treatment for patients with similar clinical conditions), and certain hospital characteristics (such as teaching hospital status or disproportionate share hospital status for serving a disproportionate share of low-income patients). There are additional special payments for new technologies, extraordinarily high cost cases, and certain rural hospitals, as well as quality incentives and penalties. In addition, certain costs of inpatient services—primarily organ acquisition costs—are excluded from the IPPS per stay rates and reimbursed on a cost basis. While the IPPS sets payments primarily per stay, it also sets rates for certain forms of hospital support not tied to the provision of specific services, most notably payments for uncompensated care and direct costs of graduate medical education.³

Outpatient prospective payment system

The unit of payment in the OPSS consists of a primary service and ancillary items that are packaged with the primary service. Examples of primary services include emergency department visits, computed tomography scans, and surgical procedures. The OPSS pays a predetermined amount for each primary service. CMS classifies the services into ambulatory payment classifications (APCs) on the basis of clinical and cost similarity. For each APC, CMS determines a base payment rate that is based on the geometric mean cost that hospitals incur when providing the services in the APC. CMS derives payments to hospitals by adjusting the base payment rate for each service provided for geographic differences in input prices. The OPSS also has special payments for new technologies, designed for situations in which individual services cost the hospital much more than the base payment, and for certain hospital types (such as being 1 of 11 cancer centers, a children's hospital, or a rural sole community hospital). The OPSS also pays separately for drugs that have costs that exceed a threshold, corneal tissue acquisition, and blood and blood products.⁴

Other payment systems for special groups of short-term acute care hospitals

While Medicare FFS payments to most short-term acute care hospitals are determined by the IPPS and OPSS, some are exempt from one or both prospective payment systems and are paid under different methodologies:

- 1,350 small hospitals designated as critical access hospitals, for which inpatient and outpatient payment rates are made based on hospitals' allowable costs;
- 47 hospitals in Maryland, for which inpatient and, more recently, outpatient rates are set using a global budget construct under a state waiver;
- 55 children's hospitals and 11 cancer hospitals, for which inpatient payment rates are 100 percent of their costs of care, while outpatient payments are determined by the OPSS (with special payment adjustments); and
- 31 Indian Health Service hospitals, for which inpatient payment rates are determined by the IPPS, while outpatient payments rates are 100 percent of their costs of care.

Links between Medicare FFS payment rates to hospitals and those used by other parts of Medicare and other payers

Increasingly, Medicare FFS hospital payment rates are used as a rate-setting benchmark. Any update to the Medicare base payment rates will affect not only FFS and MA payment rates but also many other payers.

Specifically, with regard to Medicare FFS payments to short-term acute care hospitals, links to other parts of the Medicare program and other payers include:

- *MA plan hospital payment rates.* Most MA plans pay hospitals using rates that are equal to Medicare FFS rates (Berenson et al. 2015, Maeda and Nelson 2017).
- *Department of Veterans Affairs payment rates to community hospitals and other providers.* Since 2011, the Department of Veterans Affairs (VA) has been setting payment rates for most care—including hospital care—provided in non-VA settings not to exceed FFS rates, citing Medicare as the federal health care industry standard (Department of Veterans Affairs 2019).⁵
- *Upper limit on hospital rates for Medicaid beneficiaries and low-income uninsured.* The Medicaid program also uses Medicare rates when setting maximum supplemental “upper payment limit” Medicaid FFS payments to hospitals. States can make supplemental payments to hospitals to make up the difference between the Medicaid FFS payments and the Medicare limit; states reported \$13 billion in such payments in 2017 (Medicaid and CHIP Payment and Access Commission 2019). The rates that uninsured individuals pay are also often benchmarked to Medicare due to limits on rates charged to low-income uninsured individuals that were enacted in the Affordable Care Act of 2010 (ACA).
- *Commercial hospital rates.* Most recently, Montana’s state employee health plan fixed its inpatient and outpatient hospital payment rates to 234 percent of Medicare (Appleby 2018). The state of Washington has proposed limiting rates paid by insurers in its new “public option” (expected to start in 2021) at 160 percent of Medicare (Kliff 2019). Colorado is also discussing a “public option” that would limit what a variety of health care providers (including hospitals) could charge insurers, applying a multiplier

to Medicare payment rates for each hospital (Colorado Division of Insurance 2019a).⁶

Are Medicare payments adequate in 2020?

To judge whether Medicare payments in 2020 are adequate for relatively efficient hospitals, we examine several indicators of payment adequacy. We consider:

- beneficiaries’ access to hospital care;
- quality of hospital care;
- hospital’s access to capital; and
- the relationship of Medicare’s payments to hospitals’ costs for both average and relatively efficient hospitals.

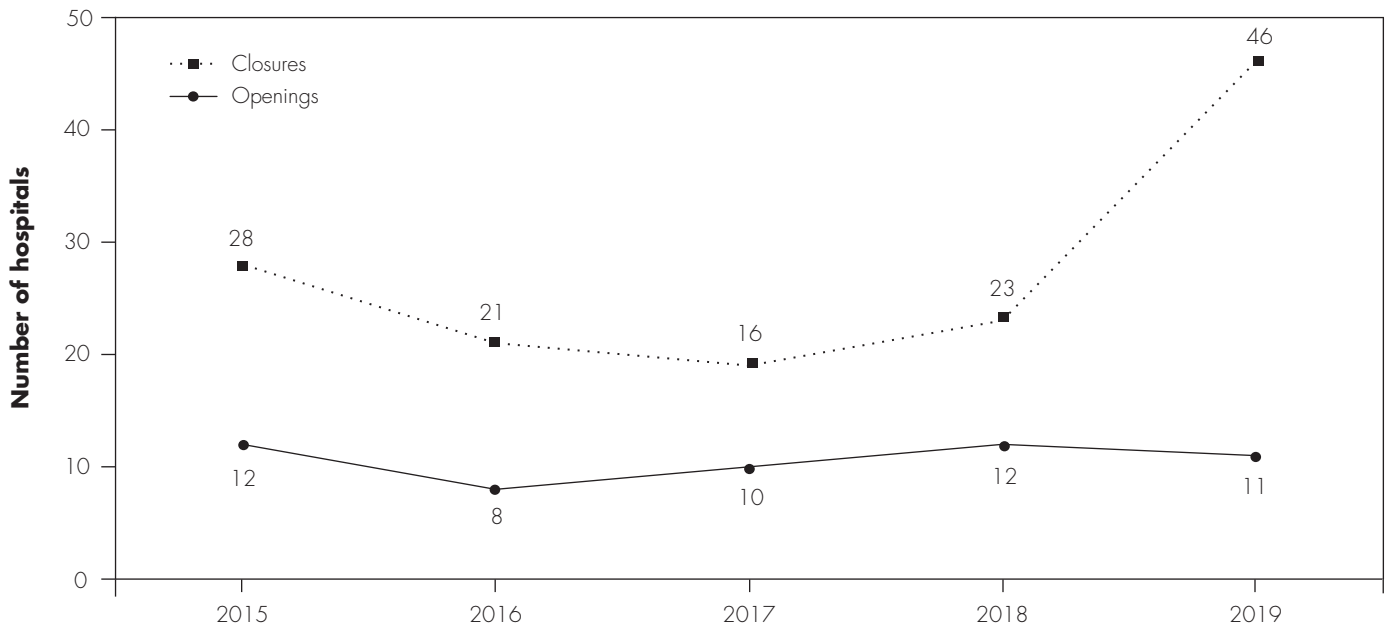
Most of our payment adequacy indicators for hospitals are positive, but 2018 Medicare margins remained negative for most hospitals and were about –2 percent for relatively efficient providers.

Beneficiaries’ access to care remained good; excess inpatient capacity persisted

To evaluate access to care, we examined the availability of hospital services to Medicare beneficiaries by analyzing the capacity and supply of hospitals, the volume of hospital services per capita, growth in outpatient spending, and hospitals’ marginal profit on Medicare FFS beneficiaries. Medicare beneficiaries’ access to hospital services remained good, in part because excess inpatient capacity persisted in most markets.

Hospitals continued to have excess capacity

Hospitals continued to have significant excess capacity. Between 2017 and 2018, aggregate occupancy rates of all acute inpatient beds increased slightly from 62.5 percent to 63.3 percent. The degree of excess inpatient capacity was higher at rural hospitals. In 2018, the aggregate occupancy rate of urban hospitals was 66.8 percent, while the average occupancy rate of rural hospitals was 41.1 percent. Since 2013, hospital occupancy rates have been slowly increasing from 60.2 percent to 63.3 percent, primarily driven by reductions in available inpatient beds. Given excess inpatient capacity, some hospitals have

**FIGURE
3-1****The number of hospitals that ceased inpatient service increased in 2018 and 2019**

Note: Hospital “closures” are defined as cessation of Medicare beneficiaries’ access to inpatient services at a short-term acute care hospital or critical access hospital in the U.S. (exclusive of territories). Hospital “openings” are defined as gain of Medicare beneficiaries’ access to inpatient services. The figure does not include the relocation of inpatient services from one hospital to another under common ownership within 10 miles, nor does it include hospitals that both opened and closed within a 5-year time period. Years reported are fiscal years.

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

sought to reduce their inpatient capacity and replace it with outpatient capacity (Barclays 2018, Goldberg 2018, Japsen 2018).

Hospital closures increased in 2018 and 2019

While hospital closures are still relatively rare events, there was an increase in the number of closures in recent years, without a corresponding increase in openings (Figure 3-1). In fiscal years 2018 and 2019, a total of 69 hospitals closed—ceased providing inpatient services—nearly twice the number in the prior 2 years. These 69 hospitals tended to be smaller (43 had 100 or fewer beds) and urban (39 of the 69 were in urban areas),⁷ have low inpatient occupancy rates (approximately 25 percent, on average), and have poor profitability (all-payer margin of -17 percent, on average, in the year before closure). The 11 critical access hospitals that closed had slightly positive Medicare margins, but had -13 percent all-payer margins due to losses on their non-Medicare business. In

comparison, over fiscal years 2018 and 2019, 23 hospitals opened, slightly more than the 18 that opened in the prior two years. The 23 hospitals that opened in 2018 and 2019 were small (all had 100 or fewer beds), and all but 1 were located in urban areas.

A majority of the hospitals that closed between fiscal years 2018 and 2019 cited financial reasons as a driving factor of closure. Accordingly, several of the hospitals that closed during the two-year period filed for bankruptcy before their closure. Six of the hospitals that closed in 2019 were managed by the same company, EmpowerHMS, which was involved in a controversial billing scheme.⁸ These six hospitals were on the brink of closure in prior years, but were kept open for a short period after being acquired. Nonfinancial reasons for closures included consolidation, environmental factors (e.g., destruction due to the Camp Fire in California), and failure to meet Medicare conditions of participation.

**TABLE
3-2**

Inpatient stays per capita have decreased at a slowing rate, with larger decreases at critical access and rural hospitals

	Stays per 1,000 FFS beneficiaries									Percent change		
	2010	2011	2012	2013	2014	2015	2016	2017	2018	Average annual 2010–2017	Annual 2017–2018	Cumulative 2010–2018
Total	306	301	282	272	259	260	253	254	250	-2.7%	-1.6%	-18.6%
By type of short-term acute care hospital												
IPPS (and Maryland)	295	290	272	262	250	251	244	245	241	-2.6	-1.6	-18.3
Critical access	11	11	10	9	8	9	8	8	8	-4.5	-2.1	-29.1
By location												
Urban	262	259	244	236	226	227	222	222	219	-2.3	-1.5	-16.5
Rural	44	42	38	36	33	33	31	31	30	-4.8	-2.1	-30.8

Note: FFS (fee-for-service), IPPS (inpatient prospective payment system). Analysis includes short-term acute care hospitals in the U.S. (exclusive of territories). The type of short-term acute care hospital components do not sum to the total because cancer and children’s hospitals are not shown. “Urban” is defined as located in a core-based statistical area. Average percentage change is calculated as the compound average growth rate. Percentage changes were calculated on unrounded data.

Source: MedPAC analysis of Medicare Provider Analysis and Review claims and enrollment data.

Rural hospitals often face the greatest challenges with declining admissions, with half of critical access hospitals having fewer than 325 admissions in 2017. These declining admissions in part reflect a decline in the population in some areas and a decline in inpatient use generally. But rural beneficiaries increasingly bypass their rural hospitals to seek care at urban hospitals. In 2010, 40 percent of rural beneficiaries’ hospital admissions were in urban hospitals; by 2018, this share grew to 48 percent of their admissions.

The effect of recent hospital closures on beneficiaries’ access varied. The average distance from the 69 hospitals that closed in 2018 and 2019 to the nearest hospital was about 13 miles, and nearly one-third of the closures were within 5 miles of the nearest hospital, suggesting most beneficiaries maintained reasonable access to emergency and inpatient care in their region. In addition, about 40 percent of the former hospital locations still offer some services, such as urgent care or clinic services.

Furthermore, some of the hospitals that closed are working to reopen, including the one closure that was more than 35 miles away from the nearest hospital. While closures of isolated hospitals are rare, there may be a need for a policy that would preserve access to emergency services in cases where a full-service hospital is not viable (such as the Commission’s June 2018 recommendation to allow isolated, rural, stand-alone emergency departments) (Medicare Payment Advisory Commission 2018).

Inpatient stays per capita have declined slowly in recent years

Between 2017 and 2018, inpatient stays per 1,000 Medicare FFS beneficiaries decreased 1.6 percent to 250 (Table 3-2). While a reversal from the slight increase observed between 2016 and 2017, the decrease in inpatient stays per Medicare FFS beneficiary between 2017 and 2018 is consistent with the longer-term trend of a slowing decline in inpatient stays per capita.

**TABLE
3-3**

Share of short stays increased starting in 2015, while discharges to post-acute care and hospice have consistently increased since 2010

	Share of FFS inpatient stays									Percent change		
	2010	2011	2012	2013	2014	2015	2016	2017	2018	Average annual 2010–2017	Annual 2017–2018	Cumulative 2010–2018
By length of stay												
1 day	13.7%	13.3%	12.7%	12.4%	11.6%	11.6%	12.3%	12.9%	13.4%	-0.8%	3.8%	-2.1%
2 days	16.1	16.2	16.4	16.4	17.2	17.6	18.1	18.4	18.4	1.9	0.0	13.9
3+ days	70.2	70.6	70.9	71.3	71.1	70.8	69.7	68.7	68.2	-0.3	-0.7	-2.8
By category of stay												
Medical	72.4	73.1	73.1	73.2	72.6	73.1	71.0	71.8	72.0	-0.1	0.3	-0.6
Surgical	27.6	26.9	26.9	26.8	27.4	26.9	29.0	28.2	28.0	0.3	-0.7	1.7
By discharge destination												
Home under self-care	48.9	48.1	47.7	46.5	45.6	45.2	45.4	45.0	44.8	-1.2	-0.5	-8.3
Post-acute care	40.5	41.1	41.4	42.5	43.3	43.6	43.6	43.9	44.0	1.2	0.2	8.6
Hospice	2.3	2.5	2.7	2.8	2.9	3.0	3.0	3.1	3.2	4.2	3.0	37.5
Died	3.4	3.4	3.3	3.4	3.3	3.4	3.3	3.2	3.2	-0.8	0.2	-5.5

Note: FFS (fee-for-service). Analysis includes short-term acute care hospitals in the U.S. (exclusive of territories). Discharge destination components do not sum to 100 percent because beneficiaries discharged to other destinations are not shown. Years refer to fiscal years. Average percentage change is calculated as the compound average growth rate. Percentage changes were calculated on unrounded data.

Source: MedPAC analysis of Medicare Provider Analysis and Review claims.

The magnitude of the decrease in inpatient stays per capita varied across types of hospitals, with larger declines at critical access hospitals and rural hospitals (Table 3-2, p. 77). Between 2017 and 2018, the number of inpatient stays per capita fell 2.1 percent at rural hospitals, compared with 1.5 percent at urban hospitals.

Share of one-day stays and discharges to post-acute care have increased

The types of Medicare FFS inpatient stays have also shifted. Growth in the share of one-day stays continues to be notable. We also observed increases between 2017 and 2018 in the share of discharges to post-acute care or hospice (Table 3-3).

The share of one-day stays increased 3.8 percent between 2017 and 2018, while the shares of two-day stays held steady and stays of three or more days decreased—both consistent with the trend beginning in 2015. As the Commission has previously noted, growth in the number of one-day stays could be due to the reduced likelihood that CMS’s recovery audit contractors (RACs) will deny payment for one-day stays. In 2015, CMS ceased patient status reviews (which previously resulted in challenges to one-day stay claims.) The result was that from 2014 to 2015, claims challenged by the RACs as overpayments fell by 91 percent (Centers for Medicare & Medicaid Services 2015).

Between 2017 and 2018, the share of medical stays rose 0.3 percent while the share of surgical stays fell 0.7

percent, bringing both closer to levels before an atypical spike in inpatient surgeries in 2016. The decrease in the share of surgical stays was driven by a 7.8 percent decrease between 2017 and 2018 in the most common surgical stay—major joint replacement of a lower extremity without major comorbidities or complications (data not shown). The decline in inpatient lower extremity joint replacements was more than offset by 69,000 joint replacements in the outpatient hospital setting, which were covered by Medicare starting in 2018.

Between 2017 and 2018, the share of stays in which the Medicare FFS beneficiary was discharged home under self-care fell 0.5 percent while the share discharged to post-acute care and hospice rose 0.2 percent and 3.0 percent, respectively—each consistent with trends since 2010. In conjunction with the decline in inpatient stays per capita, these trends could reflect in part a shift of care for less severe conditions to outpatient settings, with the remaining inpatient stays consisting of sicker patients. However, it also reflects increased use of hospice care in end-of-life planning. (See text box for preliminary results regarding the expansion of the post-acute care transfer policy to hospice, pp. 96–99.)

Growth in outpatient hospital services reflects shifts of services to hospital outpatient departments

In 2018, hospital outpatient services per beneficiary increased by 0.7 percent. Consistent with prior years, this growth reflects increases in:

- the shift of clinic visits, drug administration, and other services from physician offices to hospital outpatient departments (HOPDs) as hospitals have acquired physician practices and
- the shift of complex surgical procedures from inpatient to outpatient settings.

Continued growth in outpatient volume over several years suggests Medicare beneficiaries have adequate access to outpatient care.

Clinic, drug administration, and other services have continued to shift from physician offices to HOPDs, with corresponding increases in hospital outpatient spending

A large source of growth in HOPD volume and spending on hospital outpatient services has been due to a shift from (relatively lower cost) physician offices to (relatively higher cost) HOPDs. From 2012 to 2018, the volume of clinic visits and drug administration (especially for

chemotherapy drugs) rose substantially in the hospital outpatient setting, while the volume of these services fell in freestanding physician offices. Over this period, the volume of OPPS clinic visits rose 37 percent (from 710 per 1,000 FFS beneficiaries to 963 per 1,000 FFS beneficiaries), and OPPS chemotherapy administration rose 53 percent (from 90 per 1,000 FFS beneficiaries to 136 per 1,000 FFS beneficiaries). At the same time, the volume of physician office visits in freestanding offices fell 2.0 percent (from 6,704 per 1,000 FFS beneficiaries to 6,497 per 1,000 FFS beneficiaries), and chemotherapy administration fell 16.6 percent (from 166 per 1,000 FFS beneficiaries to 137 per 1,000 FFS beneficiaries).

Most recently, from 2017 to 2018, the volume of clinic visits grew 2.6 percent in HOPDs, while Medicare spending on these visits rose by 8.4 percent. The volume of chemotherapy administration grew 5.6 percent in HOPDs and Medicare spending rose 10.8 percent. In contrast, the volume of office visits and chemotherapy administration provided in freestanding offices dropped 1.4 percent and 1.6 percent, respectively.

The shift of some complex services from the inpatient to the outpatient setting has increased OPPS volume, with corresponding increases in OPPS spending

Growth in relatively complex services—such as knee replacement; endovascular procedures; and removal, replacement, or insertion of defibrillator systems or pulse generators—suggests that some of the growth in OPPS volume and spending is from services migrating from the (relatively higher cost) inpatient to the (relatively lower cost) outpatient setting. For example, from 2012 to 2018, spending on the services in APC 5464 (Level 4 neurostimulator and related procedures) increased 174 percent and from 2017 to 2018, by 18.3 percent.

Hospitals with excess capacity continue to have a financial incentive to serve Medicare beneficiaries

Another measure of access is whether providers have a financial incentive to expand the number of Medicare beneficiaries they serve. This measure examines whether Medicare payments cover the variable cost of treating an additional Medicare patient, meaning the costs that vary with volume over a one-year period of time. On average, based on data from hospital cost reports, the marginal profit on Medicare FFS beneficiaries across hospital service lines was over 8 percent in 2018.⁹ An 8 percent marginal profit assumes that all labor costs are variable over a one-year time frame. To the extent that some labor costs are fixed, the marginal profit would be higher.

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

Mortality rate	2016	2017	2018
Unadjusted mortality	8.4%	8.4%	8.5%
Risk-adjusted mortality	6.7	6.4	6.1

Source: MedPAC analysis of Medicare claims files for Medicare fee-for-service beneficiaries ages 65 and older.

Because hospitals would be expected to generate over 8 percent profit on a marginal increase in Medicare volume, hospitals with excess capacity have a financial incentive to serve more Medicare beneficiaries.

Quality of care improved modestly

The quality of hospital care has modestly improved in recent years, and at least part of this improvement appears to be due to financial incentives from Medicare quality incentive programs included in the IPPS. In 2020, hospitals' performance on quality metrics has the potential to increase a hospital's IPPS payments by as much as 3.0 percent and to lower payments by as much as about 5.5 percent. Three payment adjustments are responsible for these rewards and penalties: the Hospital Readmission Reduction Program (HRRP) (which can reduce payments up to 3.0 percent), the Hospital Value-Based Purchasing Program (which can raise a hospital's payments by as much as 3.0 percent or lower them by as much as 1.5 percent), and the Hospital-Acquired Condition Reduction Program (which can reduce a hospital's payments by 1 percent for 25 percent of hospitals). These programs do not apply to outpatient payments. In 2020, almost a quarter of hospitals will see a net increase in payments (averaging about \$113,000), and a little less than three-quarters will see a net decrease in payments (averaging about \$457,000) under the combined effect of these programs. On net, we estimate that these three programs will lower Medicare payments by about \$917 million in 2020, equivalent to about 0.8 percent of Medicare's IPPS payments.

Key measures of quality have improved slightly or remained stable

Over the past few years, mortality rates, readmission rates, and patient experience measures have improved slightly or remained stable. However, hospital quality is

improving at a slower pace than in the earlier years of the hospital quality incentive programs, which could reflect in part that the easier quality improvements have been made and signal a need to redesign the hospital incentive programs. In March 2019, the Commission recommended that the Congress replace Medicare's current hospital quality programs with a single, outcome-focused, quality-based payment program for hospitals—the hospital value incentive program (HVIP)—based on our principles for quality measurement (see text box on the HVIP design, p. 94).

Risk-adjusted mortality rates improved From 2016 to 2018, risk-adjusted mortality rates declined by 0.6 percentage point, including a 0.3 percentage point decline in 2018 (Table 3-4). Over the three-year period, unadjusted mortality rates were relatively constant, but expected mortality increased because beneficiaries admitted in recent years tended to have more comorbidities and thus a higher risk of mortality. Other studies have found similar improvements for condition-specific mortality and overall readmissions in earlier years (Hines 2015, Krumholz 2015, Medicare Payment Advisory Commission 2018). The combination of a decline in risk-adjusted readmissions and a decline in risk-adjusted hospital mortality is evidence of modestly improving quality.

Risk-adjusted readmission rates improved slightly The Congress enacted the HRRP in 2010, and since that time, readmission rates have fallen. In our recent analysis of the HRRP, we found that the program gave hospitals an incentive to reduce inappropriate readmissions (Medicare Payment Advisory Commission 2018). Our updated analysis of readmission rates across all conditions for beneficiaries over age 65 found that between 2016 and 2018, the unadjusted unplanned readmission rate increased

**TABLE
3-5****Trends in unadjusted and risk-adjusted rates of readmissions across all conditions**

Type of readmission	2016	2017	2018
Unadjusted unplanned readmissions	15.6%	15.7%	15.8%
Risk-adjusted unplanned readmissions	14.0	13.8	13.7

Source: MedPAC analysis of Medicare claims files for Medicare fee-for-service beneficiaries ages 65 and older.

slightly by 0.2 percentage point, from 15.6 percent to 15.8 percent (Table 3-5). However, once risk adjusted, these rates declined from 14.0 percent in 2016 to 13.7 percent.

Patient experience measure results remained stable

Patient-reported experiences with their care during inpatient stays remained stable from 2016 to 2018. Hospitals collect Hospital Consumer Assessment of Healthcare Providers and Systems® (H-CAHPS®) surveys from a sample of admitted patients, which CMS uses to calculate results for 10 measures of patient experience.¹⁰ The H-CAHPS measures key components of quality by assessing whether something that should happen during a hospital stay (such as clear communication) actually happened or how often it happened. In 2018, communication with nurses, communication with doctors, and receipt of discharge information had the highest scores, with over 80 percent of surveyed patients answering with the most positive response. From 2016 to 2018, the share of patients rating their overall hospital experience a 9 or 10 on a 10-point scale has remained stable at 73 percent. In 2018, the care transitions measure result remained low, with only 53 percent of surveyed patients responding with “Strongly Agree” that they understood their care when they left the hospital.

Hospitals’ access to capital remained strong

Hospitals’ access to capital remained strong because of several years of relatively high all-payer profit margins and is reflected in significant hospital construction and strong bond offerings at relatively low interest rates.

Total (all-payer) profitability remained strong

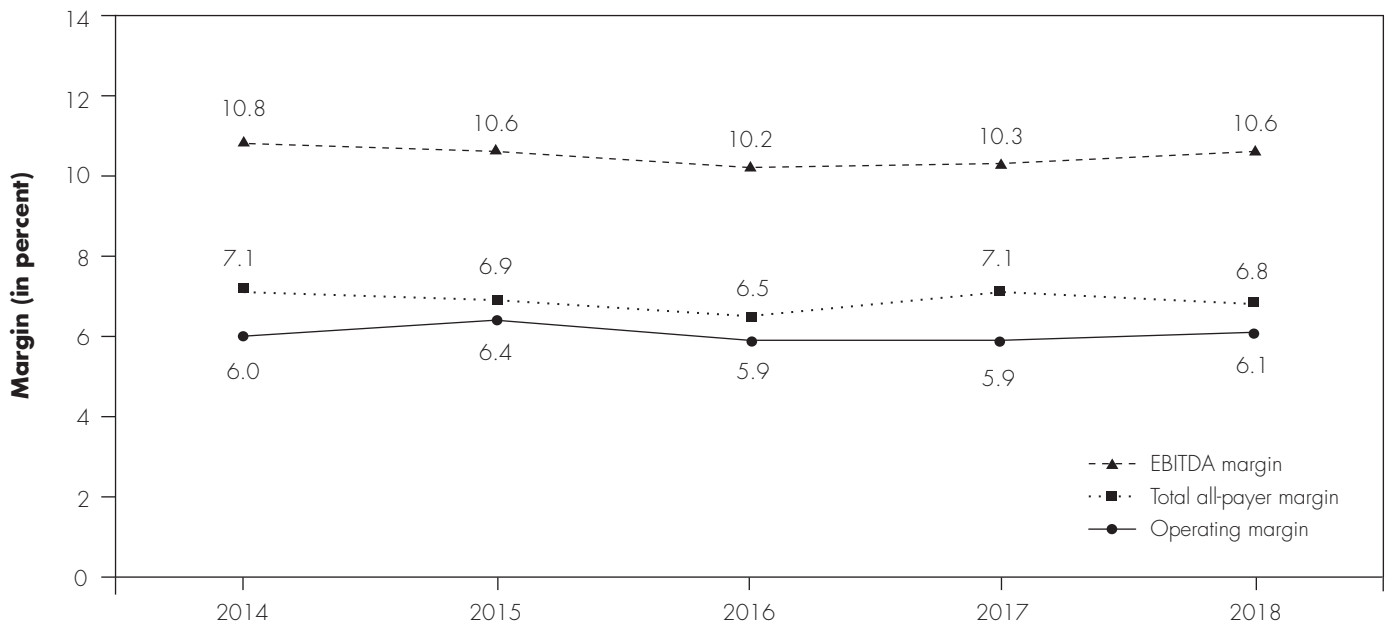
Hospitals’ access to capital for expansions and acquisitions is largely dependent on their total (all-payer) profitability. In 2017, Medicare represented about one-third of all-

payer revenues and 45 percent of all admissions, while commercially insured patients represented more than 40 percent of patient revenues and generated almost all of the operating profits for a typical hospital.¹¹ All-payer margins remained strong because the growth of private payer rates continues to rise faster than costs (Health Care Cost Institute 2018). After many years of strong commercial profit margin growth, operating margins (which exclude investment income) rose to 6.4 percent in 2015. Since 2015, operating margins consistently have been about 6 percent. In 2018, total margins (which include investment income) were 6.8 percent, near the all-time high of 7.1 percent in 2017 (Figure 3-2, p. 82). Total margins (which include all payers and investment income) continue to vary across hospital types. For example, in 2018 and consistently over the past decade, for-profit hospitals had a higher total margin (11.3 percent) compared with nonprofit hospitals (6.4 percent) (data not shown). The all-payer profit margin for for-profit hospitals was the highest we have recorded over the last two decades. The strong all-payer margins allow hospitals to access capital markets.

Other measures of all-payer profitability also remained strong. Cash flow—as measured by earnings before interest, taxes, depreciation, and amortization—has remained steady and strong for the decade, between 10 percent and 11 percent. Financial ratings agencies consistently reported that most hospitals’ operating and cash flow margins improved in 2018, reversing a multiyear decline and highlighting continued stability in the hospital sector (Fitch Ratings 2019, Lancaster Pollard 2019, S&P Global Ratings 2019).

Mergers and acquisitions have continued

Hospitals and hospital systems have continued to expand through acquisition. In 2018, 257 individual hospitals

**FIGURE
3-2****Hospitals' all-payer financial performance remains strong**

Note: EBITDA (earnings before interest, taxes, depreciation, and amortization). A margin is calculated as payments minus costs, divided by payments. Analysis includes inpatient prospective payment system hospitals in the U.S. with complete cost reports and non-outlier cost per stay data.

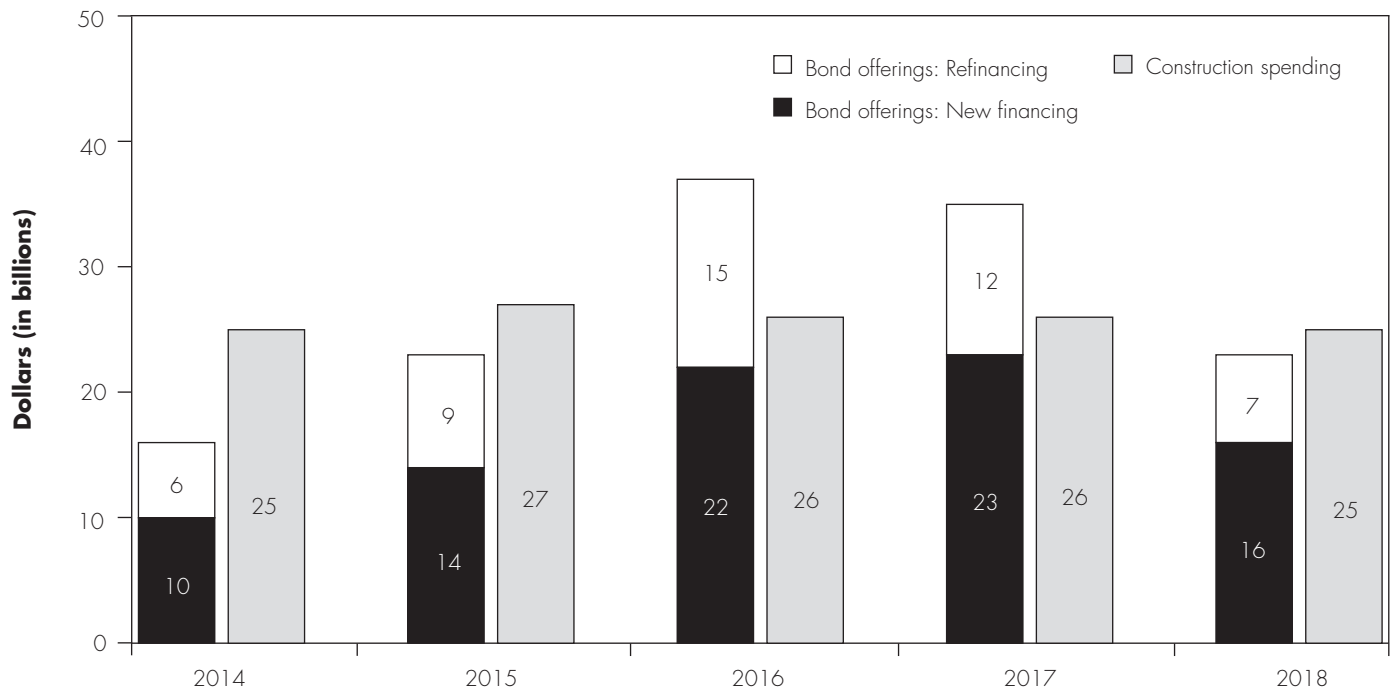
Source: MedPAC analysis of Medicare hospital cost report data.

were acquired in 79 transactions. The number of acquired hospitals was up from 2017's 216 acquisitions, but roughly consistent with the number of acquisitions in 2016 and 2015 (241 and 267, respectively). Of the 257 acquired hospitals, 65 percent were in single-facility deals while 35 percent were in multi-facility deals. Acquisitions tended to involve either large hospitals merging with or being acquired by larger health systems or small hospitals joining together to form regional health systems.

Despite declining Medicare margins, all-payer hospital profitability has grown

Some industry stakeholders have posited that low Medicare margins are a driver of mergers and acquisitions as hospitals seek to maintain their profitability by increasing efficiency and increasing their ability to extract higher payments from commercial payers. If a decline in Medicare margins were the cause of mergers, we would see consolidation after a period of low Medicare profitability and the mergers bringing overall profits up

just to the minimum level needed to provide high-quality care. This reasoning can be stated as the *low profits cause most mergers* hypothesis. An alternative hypothesis is that *mergers cause high profits*, which would be the case if hospitals merge to improve profits even when they are not forced to by low Medicare profit margins. Under this scenario, we would see higher profits during periods of greater consolidation. Consistent with this hypothesis, data over the past 30 years suggest that hospital profits were highest in the decade of highest industry concentration. For example, during the first decade of data we examined (1989 to 1998), Medicare margins averaged 3.6 percent and were similar to all-payer margins (4.2 percent). Despite comparable Medicare and all-payer margins, this period was marked by hospital consolidation and acquisition of physician practices. During the subsequent decade (1999 to 2009), Medicare profit margins declined while hospitals' all-payer margins remained steady; hospital consolidation continued. By the most recent

FIGURE 3-3**Hospital bond offerings and construction spending remained strong, 2014–2018**

Note: Year refers to calendar year.

Source: Nonprofit hospitals' bond offering data from Thomson Reuters and hospital construction spending data from the U.S. Census Bureau.

decade (2009 to 2018), the average aggregate all-payer margin had increased by more than 2 percentage points to 6.4 percent—despite a decline in the aggregate Medicare margin to –6.9 percent during the decade. In other words, hospitals' profits on non-Medicare patients increased not only enough to offset all Medicare losses, but by a greater amount such that hospital all-payer profit margins are higher now than they were in the prior 20 years. By 2018, hospitals had enough commercial pricing power to increase their all-payer profit margin to 6.8 percent, well above the average margin in past decades. Because all-payer profits were highest when Medicare margins were lowest, we can infer that the increase in commercial prices was not done purely to offset Medicare losses.

Bond issuances and construction spending remained strong

Hospitals issued \$23 billion in bonds in 2018, including \$16 billion in new financing and \$7 billion in refinancing

(Thomson Reuters 2019) (Figure 3-3). This amount was a decline from 2017 primarily due to a reduction in refinancing that was associated with an increase in interest rates in 2018. Between November 2017 and November 2018, the average interest rate for double-A tax-exempt 30-year nonprofit hospital bonds increased from 3.2 percent to 3.9 percent (Cain Brothers 2018). Higher interest rates may have been one reason refinancing declined from \$12 billion in 2017 to \$7 billion in 2018. Since that time, interest rates on these hospital bonds have fallen significantly below 2017 levels (down to 2.65 percent by October 2019). Possibly due to the decline in interest rates, hospitals' 2019 bond issuances were on pace to eclipse their 2018 levels (Thomson Reuters 2019).

Hospital construction spending in 2018 was about \$25 billion. Hospital construction spending has been relatively stable since 2014 when the health care industry began to see a decrease in spending on inpatient hospital capacity

**TABLE
3-6**

Inpatient costs per stay continued to grow more slowly than the sum of inpatient case mix and input prices

	Annual percentage change					Average of annual changes, 2013-2018
	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	
Inpatient costs per stay	2.3%	2.3%	4.0%	1.8%	2.5%	2.6%
Inpatient case mix	2.0	0.7	3.4	0.7	1.8	1.7
Inpatient input prices	1.8	1.6	1.7	2.5	2.4	2.0

Note: Analysis includes hospitals paid under the inpatient prospective payment system (IPPS) in the U.S. with complete cost reports and non-outlier cost per stay data. Inpatient case mix is adjusted for transfers to other facilities. Inpatient input price inflation is calculated as change in four-quarter moving averages of the inpatient operating and capital market baskets, weighted by IPPS base rates. The average of annual changes is the arithmetic average.

Source: MedPAC analysis of cost reports, Medicare Provider Analysis and Review claims, and CMS market basket data as of the 3rd quarter of 2019.

(Census Bureau 2019). This trend is in part due to health systems focusing on lower cost outpatient facilities and renovations to existing facilities (Conn 2017).

Hospital employment increased

Between October 2014 and August 2019, the number of individuals employed by hospitals grew from 4.4 million to 4.8 million, an increase of 8.1 percent—slower than in the rest of the health care sector (10.3 percent), but faster than the economy as a whole (7.7 percent) (Bureau of Labor Statistics 2018b).

Hospitals have increased employment for certain high-skill health occupational categories. From 2016 to 2018, the number of physicians employed by hospitals increased 11.1 percent but varied by type of physician (Bureau of Labor Statistics 2018a). The number of registered nurses employed by hospitals rose 2.9 percent during this period, while the number of nurse practitioners employed by hospitals rose 11.6 percent. Hospitals also increased the number of physician assistants employed by 16.4 percent and pharmacists by 5.2 percent over the same period.

Medicare payments and providers' costs

Overall Medicare margins at IPPS hospitals improved modestly in 2018, driven in part by costs per inpatient stay growing more slowly than Medicare payments per stay and by rapid increases in outpatient drug revenues.

Medicare IPPS payments per inpatient stay grew faster than IPPS hospitals' costs per stay between 2017 and 2018

Changes in Medicare inpatient hospital payments per discharge under the IPPS depend primarily on three factors: (1) annual updates to base payment rates, (2) changes in reported patient case mix (a measure of relative patient complexity), and (3) policy changes that are not implemented in a budget-neutral manner.

Between 2017 and 2018, Medicare IPPS payments per inpatient stay increased 2.9 percent, to approximately \$12,500. This increase was slightly higher than the average annual change between 2014 and 2018 of 2.8 percent. The 2.9 percent increase resulted from:

- a 1.1 percent rise in inpatient operating and capital IPPS base rates¹² and
- a 1.8 percent rise in reported inpatient case mix at IPPS hospitals.

Growth in IPPS hospitals' costs per inpatient stay was less than combined growth of inpatient case mix and input prices

Between 2017 and 2018, IPPS hospitals' costs per stay grew 2.5 percent (Table 3-6). This increase resulted from growth in input prices (2.4 percent) and reported inpatient case mix (1.8 percent), combined with offsetting increases in productivity and coding practices

**TABLE
3-7**

Growth in costs per inpatient stay from 2017 to 2018 reflects modest growth in routine and ancillary services

Cost category	Costs and changes in cost per discharge	Percent change 2017-2018	Share of total Medicare costs 2018
2017 inpatient cost per discharge	\$13,616		
Categories comprising growth in inpatient costs per discharge from 2017 to 2018			
Routine (e.g., room, nursing)	\$139	3%	33%
Special care (e.g., intensive care)	34	2	11
Ancillary	172	2	56
Operating room	27	2	8
Cardiac catheterization	8	5	1
Lab	17	2	5
Respiratory therapy	7	2	2
Medical supplies	20	3	6
Implantable devices	33	3	10
Dialysis	7	7	1
Emergency	18	5	3
Observation	7	8	1
All other	30	0	19
2018 inpatient cost per discharge	\$13,961	2.5	

Note: Analysis includes hospitals paid under the inpatient prospective payment system in the U.S. with complete cost reports and non-outlier cost per stay data for each year 2015 through 2018. Components may not sum to total due to rounding.

Source: MedPAC analysis of cost report data from CMS.

(which lower case-mix-adjusted cost growth). The growth in costs per stay between 2017 and 2018 was higher than the growth between 2016 and 2017 (which represented the smallest increase in two decades) but lower than the increase between 2015 and 2016 (which was abnormally high due to an unusual one-year shift in services toward inpatient surgeries). We do not know to what extent the 1.8 percent increase in reported case mix reflects more intensive coding and to what extent it reflects true increases in patient complexity. What we do know is that case-mix-adjusted spending grew more slowly than input costs, suggesting that hospitals coded patients more extensively, improved productivity, or both.

Growth in IPPS hospitals' costs per stay The 2.5 percent increase in costs per inpatient stay from 2017 to 2018 (Table 3-6) reflects a modest growth in routine costs (e.g.,

nursing labor) and ancillary services (Table 3-7). Ancillary services made up about half of inpatient cost growth. Growth in cost for implantable devices and medical supplies grew slightly faster than the overall increase in cost per discharge, which made up a combined 16 percent of total hospital costs in 2018 (Table 3-7). Other categories of ancillary services grew faster but accounted for a lower share of hospital costs. For example, costs for cardiac catheterization, dialysis, and observation services grew more quickly than overall cost growth; however, because each of these services accounts for about 1 percent of total Medicare costs, their effect on the increase in cost per discharge was relatively small.

We did not include a separate estimate of drug costs per discharge in Table 3-7 because such estimates from year

to year are imprecise due to two unique factors in hospital pharmacy cost accounting. First, discounts under the 340B Drug Pricing Program apply to outpatient drugs but not inpatient drugs, which can result in biasing downward the cost of inpatient drugs by reducing the cost-to-charge ratio for all drugs in the hospitals' cost centers for pharmacy.¹³ Second, markups differ among drugs. Although the markup percentage is smaller on high-cost drugs, the expansion of new high-cost Part B drugs could cause an increase in the cost-to-charge ratio for the pharmacy cost center and cause an upward bias in cost estimates for inpatient drugs. It is not clear the degree to which the two potential biases offset each other. Given these limitations, we examined changes in unadjusted charges per inpatient stay. From 2017 to 2018, charges for inpatient drugs per discharge remained flat. This lack of cost growth in the inpatient setting is in stark contrast to the outpatient sector, where charges for drugs increased almost 20 percent. In 2018, the increase in outpatient Part B drug spending was much lower than in prior years at 7.5 percent (relative to 18.2 percent in 2017) largely due to CMS's policy of reducing payments for non-pass-through 340B drugs from average sales price (ASP) + 6 percent to ASP – 22.5 percent. The reduction in payments for 340B drugs was offset by raising payments for other HOPD services.

Growth in IPPS hospitals' case mix reflects both increased patient severity and coding practices From 2017 to 2018, the reported resource needs for Medicare FFS inpatients at IPPS hospitals (or case-mix index (CMI)) increased 1.8 percent. The CMI increase likely reflects both changes in patient severity and changes in coding practices.

Some trends are consistent with an increase in patient severity. For example, the overall decline in inpatient stays per capita and growth in the share of inpatient stays discharged to post-acute care and hospice, as well as the increase in volume at ambulatory surgical centers (see Chapter 5), all suggest that Medicare FFS beneficiaries with less severe conditions are receiving care in non-inpatient settings, resulting in higher patient severity among the remaining inpatient cases.

However, because growth in inpatient costs per discharge between 2017 and 2018 was close to inpatient input price inflation, a significant portion of the increase in reported CMI likely reflects changes in coding practices. In particular, reported patient severity increased for many diagnosis related groups (DRGs) between 2017 and 2018, with a greater share of patients coded as having

comorbidities and complications that increase payment rates. These shifts within DRGs collectively raised case mix by 0.7 percent and likely resulted from more intensive coding. In addition, certain shifts across DRGs also likely reflect changes in coding practices rather than the changes in patient severity. For example, between 2017 and 2018, the share of Medicare FFS inpatients hospitalized for pneumonia rose 36 percent while the share hospitalized for chronic obstructive pulmonary disease (COPD) fell 27 percent, coinciding with a change in COPD coding instructions (Archibald 2017, Johnson 2017).¹⁴

Growth in inpatient input prices was lower than forecast

Between 2017 and 2018, hospital inpatient operating and capital input prices increased 2.4 percent, driven by low economy-wide inflation and slow wage growth. The increases in the hospital inpatient operating and capital market baskets between 2017 and 2018 were primarily the result of changes in the main components of the inpatient operating market basket:

- a 2.1 percent increase in compensation costs for hospital workers (costs that constituted 56 percent of the inpatient operating market basket);
- a 2.4 percent increase in costs of other labor and non-labor related services (costs that constituted 23 percent of the market basket); and
- a 3.4 percent increase in products (costs that constituted 17 percent of the market basket), including a 6.1 percent increase in pharmaceuticals.

The actual increase in hospital input prices, 2.5 percent, was lower than what CMS forecast at the time of the 2018 IPPS final rule, 2.7 percent, which was the estimate used in setting payment rates. While CMS makes a forecast error adjustment for the inpatient capital PPS, it does not correct for any forecasting error in setting inpatient operating payment rate updates, which account for a larger share of inpatient spending. This forecast contributed to higher inpatient margins for IPPS hospitals.

The forecast error for hospital input prices was not unique to 2018: Actual inflation in hospital input prices has consistently been lower than what CMS forecast at the time of the IPPS final rules. For example, in every year from 2014 through 2019, hospitals' actual input price inflation was lower than CMS's forecast, with the difference averaging roughly 0.5 percentage point per year.

**TABLE
3-8**

Growth in Medicare payments for hospital outpatient department services driven by separately payable drugs and a shift from physician offices, 2012-2018

Service or item	Spending (in billions)		Percent change 2012-2018	Driver of growth
	2012	2018		
Drugs	\$6.0	\$12.9	115%	High-cost drugs, increased volume, shift from physician offices
Clinic visits	1.9	3.7	96	Shift from physician offices
Chemotherapy administration	0.4	0.8	104	Shift from physician offices
Total	43.2	65.5	52	

Note: Spending includes both program outlays and beneficiary coinsurance under the outpatient prospective payment system (OPPS). Part B drugs separately payable under the OPPS include pass-through drugs and drugs that are separately payable but do not have pass-through status. Outpatient spending is computed on the calendar year.

Source: MedPAC analysis of 2012 and 2018 hospital outpatient standard analytic claims files and data from the CMS Office of the Actuary.

Outpatient spending growth driven by Part B drug spending and shift of services from physician offices to HOPDs

From 2012 to 2018, Medicare spending for hospital outpatient services grew at an annual rate of 7.2 percent. Contributing to this growth were increases in:

- the costs of drugs, especially for the treatment of cancer;
- spending associated with higher payments for clinic visits and other services that shifted from physician offices to HOPDs as hospitals acquired physician practices and increased their employment of physicians; and
- complex surgical procedures that often involve prosthetics or medical devices and that migrated from the inpatient setting.¹⁵

Outpatient spending growth driven by Part B drugs The largest source of OPPS spending growth has been Part B drugs, which include those that have pass-through status (drugs that are new to the market) and those that are not pass through but are separately payable under the OPPS. From 2012 to 2018, OPPS spending for these drugs increased from \$6.0 billion to \$12.9 billion, an increase of 115 percent

(13.6 percent per year, on average) (Table 3-8).¹⁶ This rise resulted from a shift in the payment for the drugs from the physician fee schedule (when administered in a freestanding office) to the OPPS (when administered in the hospital) and an increase in outpatient spending on drugs in general.

The growth in spending on Part B drugs is due to price increases, increased use of existing drugs, and, to a lesser extent, the introduction of new, expensive cancer drugs. From 2012 to 2018, about 79 percent of the increase in spending on separately payable drugs was for those that treat cancer.¹⁷ During that period, OPPS spending on cancer drugs increased from \$4.1 billion to \$9.5 billion.

The shift of clinic visits, drug administration, and other services to HOPDs has increased spending and beneficiary cost sharing without evidence of improved quality The second largest source of outpatient spending growth was the shift of clinic visits, drug administration, and other services from physician offices to HOPDs. From 2012 to 2018, OPPS spending for clinic visits increased from \$1.9 billion to \$3.7 billion, an increase of 96 percent. Over the same period, spending for chemotherapy administration rose from \$0.4 billion to \$0.8 billion, an increase of 104 percent (Table 3-8).

The shift of clinic visits and chemotherapy administration from physician offices to HOPDs is important because

it increases Medicare program spending and beneficiary cost sharing without any evidence of improved quality. Medicare payment rates for the same or similar services are generally higher in HOPDs than in freestanding offices. For example, we estimate that the Medicare program spent \$2.2 billion more in 2018 than it would have if payment rates for clinic visits in HOPDs were the same as physician office rates. In addition, beneficiaries' cost sharing was \$550 million more in 2018 than it would have been under physician office rates.

However, Section 603 of the Bipartisan Budget Act (BBA) of 2015 has begun to have a small effect on the differences in payments between HOPDs and physician offices for clinic visits. Under BBA of 2015 provisions, CMS has implemented lower OPSS payment rates for services provided in some hospitals' off-campus provider-based departments. CMS intends for the lower OPSS rates to approximate the rates paid in physician offices under the Medicare physician fee schedule (PFS), on average. For 2017 and 2018, the effects of this policy were limited and had a small effect on spending under the OPSS because the policy originally applied only to new off-campus HOPDs. The BBA of 2015 allows off-campus HOPDs that were billing under the OPSS to continue to bill at the higher HOPD rates. However, CMS expanded this policy in 2019 so that hospitals must bill clinic visits provided in all off-campus HOPDs at the lower OPSS rate that approximates the PFS rate. This policy will likely substantially reduce OPSS spending for clinic visits in the current year.¹⁸

Growth in Part B drug spending improved hospital profitability

Hospitals can generate profits on their sales of separately payable drugs, which include pass-through drugs and separately payable non-pass-through drugs, to Medicare beneficiaries. The profitability is most pronounced for hospitals that participate in the 340B Drug Pricing Program, which offers certain hospitals substantial discounts on drug acquisition costs.

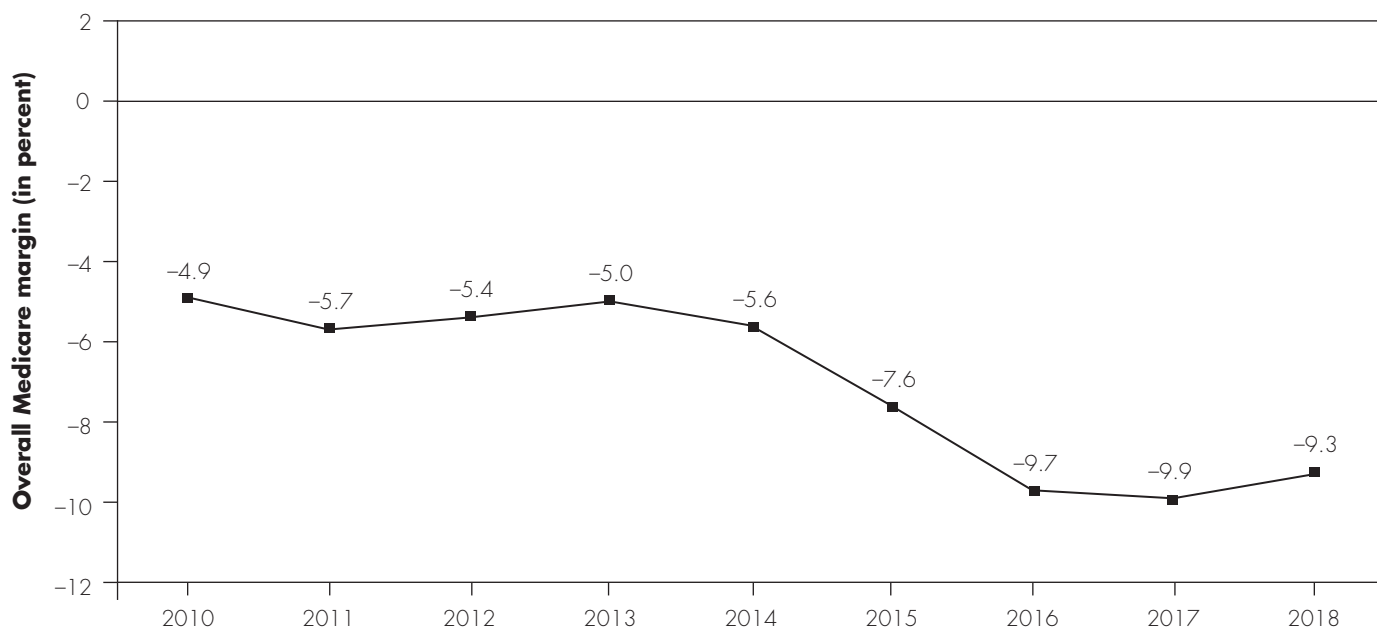
The discount for each drug obtained through the 340B program is based on a ceiling price. The ceiling price is the maximum allowed amount a manufacturer can charge 340B hospitals. The formula for the ceiling price is the average manufacturer price (AMP) for a drug less a unit rebate amount (URA). For brand drugs, the URA includes a percentage rebate and, if the product's price has risen faster than inflation, an inflation rebate. For

brand products, the percentage rebate is the greater of 23.1 percent of AMP or the difference between AMP and the best price. The inflation rebate is the difference between AMP and what AMP would have been if AMP had risen at the same rate as the consumer price index for all urban consumers (CPI-U) between a base year and the current period. The URA is less for generic drugs. The discount for each drug is the URA.

Due to these discounts, separately payable drugs are typically profitable for 340B hospitals, even after CMS's decision to decrease the payment rates for separately payable non-pass-through drugs obtained through the 340B program from ASP + 6 percent in 2017 to ASP – 22.5 percent in 2018. One reason that hospitals' acquisition price can be more than 22.5 percent below the ASP is the adjustment in the 340B pricing formula that occurs if drug price inflation exceeds the CPI-U. The faster drug companies raise their prices, the faster the 340B discounts grow. As a result, prices 340B hospitals pay manufacturers can decline when the average sales price (across all buyers) increases. Information is limited, but analyses by the Congressional Budget Office and the Office of Inspector General suggest the inflation adjustment in the 340B program substantially reduces 340B drug ceiling prices (Congressional Budget Office 2014, Government Accountability Office 2015, Office of Inspector General 2015).

The discounts hospitals receive on the 340B program improve outpatient margins in two ways. First, the payments hospitals receive for 340B drugs (even at ASP – 22.5 percent) are higher than the drug's discounted acquisition cost under the 340B program (and these discounts are growing). Second, CMS redistributes the reduced spending that results from the ASP – 22.5 percent payment rates for some 340B drugs to all other APCs by increasing the "conversion factor," which amounts to boosting the payment rate on all other outpatient services. The net result is that CMS increased the OPSS conversion factor in 2018 by 4.8 percent. Most of this increase was to maintain budget neutrality; that is, CMS raised the base payment rates for OPSS services to offset a substantial drop in the payment rates for separately payable non-pass-through drugs obtained through the 340B program.

The complexity of services provided under the OPSS—measured by the increase in the average relative weight among the services provided—also rose (2.5 percent). The combination of strong drug spending growth (7.5 percent),

**FIGURE
3-4****Overall Medicare margin increased slightly from 2017 to 2018**

Note: A margin is calculated as payments minus costs, divided by payments; margins are based on Medicare-allowable costs. Analysis includes inpatient prospective payment system hospitals in the U.S. with complete cost reports and non-outlier cost per stay data. "Overall Medicare margin" refers to an aggregate Medicare margin across all hospital service lines.

Source: MedPAC analysis of Medicare cost reports from CMS.

the effect of the 340B discounts on drug acquisition costs, the effect on the conversion factor, and the increased weight of outpatient services contributed to hospitals' improving Medicare margins between 2017 and 2018.

Trend in the overall Medicare margin

From 2010 to 2013, the overall Medicare margin, defined as Medicare payments minus the allowable costs of treating Medicare patients divided by Medicare payments, held relatively steady, going from -4.9 to -5.0 percent (Figure 3-4).^{19,20} However, from 2014 to 2017, the Medicare margin dropped from -5.6 percent to -9.9 percent. This decline was not unexpected given several payment adjustments required by statute, including reductions to the annual payment update, adjustments for documentation and coding improvement, lower incentive payments for the adoption of electronic health records, and lower uncompensated care payments that corresponded with increases in the insured population.

From 2017 to 2018, the overall Medicare margin rose to -9.3 percent, as a result of three factors. First, CMS overestimated input price inflation by 0.2 percent. Because hospitals' payment rate updates are based in part on projected increases in a market basket of inputs, overestimates of price inflation caused payments to grow faster than costs. Second, hospitals limited their inpatient cost growth to about the rate of input price inflation, despite reporting a 1.8 percent increase in case mix. The shift in reported case mix toward higher paying cases without an inflation-adjusted increase in costs per case suggests a combination of more extensive coding of diagnoses, improvements in efficiency, or both. Third, outpatient (Part B) drug spending continues to rise rapidly, which can improve Medicare margins. Specifically, certain hospitals benefit because of the discounts they receive on drugs obtained through the 340B program if drug prices rise at a faster rate than the CPI-U.

**TABLE
3-9**

Overall Medicare margins varied by hospital type

Hospital group	2014	2015	2016	2017	2018
All hospitals (excluding CAHs)	-5.6%	-7.6%	-9.7%	-9.9%	-9.3%
Urban	-5.8	-7.9	-9.9	-10.0	-9.6
Rural					
Excluding CAHs	-3.5	-4.9	-7.5	-8.2	-6.6
Including CAHs	-1.9	-3.2	-5.4	-5.9	-4.9
Nonprofit	-7.1	-9.1	-11.1	-11.0	-10.6
For profit	0.8	-1.3	-2.1	-2.6	-0.9
Major teaching	-3.7	-6.3	-8.5	-9.0	-9.6
Other teaching	-5.0	-6.3	-8.6	-8.2	-7.5
Nonteaching	-7.7	-9.9	-11.7	-12.2	-10.9
High DSH	-2.3	-4.6	-7.2	-8.1	-8.3
Moderate-to-low DSH	-6.4	-8.1	-10.0	-9.9	-9.1
No DSH	-13.3	-15.3	-15.7	-16.4	-14.7

Note: CAH (critical access hospital), DSH (disproportionate share [hospital]). Analysis includes inpatient prospective payment system hospitals in the U.S. with complete cost reports and non-outlier cost per stay data. A margin is calculated as payments minus costs, divided by payments; margins are based on Medicare-allowable costs. "High DSH" includes hospitals with the highest DSH adjustment percentages (top quartile). "Moderate-to-low DSH" includes hospitals with DSH adjustment percentages that exceed zero but are not included in the highest quartile. Overall Medicare margin refers to an aggregate Medicare margin across all hospital service lines. "Major teaching" hospitals are defined by a ratio of interns and residents to beds of at least 0.25. "Other teaching" hospitals have a ratio below 0.25 but greater than 0. "Nonteaching" hospitals have a ratio of 0.

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

Medicare margins by hospital type, 2018

In 2018, rural IPPS hospitals (excluding critical access hospitals) had a -6.6 percent overall aggregate Medicare margin, which was 3.0 percentage points higher than the -9.6 percent aggregate margin for urban hospitals (Table 3-9). Major teaching hospitals (i.e., hospitals with a high resident-to-bed ratio) had an aggregate Medicare margin of -9.6 percent while other teaching hospitals (i.e., hospitals with a resident-to-bed ratio less than 0.25) had an aggregate Medicare margin of -7.5 percent. Since 2017, the other teaching hospitals have had higher margins than hospitals classified as major teaching primarily due to comparatively lower levels of cost growth. Nonteaching hospitals had a lower aggregate Medicare margin than either category of teaching hospital, in large part because teaching hospitals receive extra payments through the indirect medical education adjustment, and most qualify for disproportionate share hospital (DSH) adjustments and uncompensated care payments.

In 2018, for-profit hospitals had the highest aggregate Medicare margin (-0.9 percent), well above the -10.6

percent aggregate Medicare margin for nonprofit hospitals (Table 3-9). Much of this differential reflects lower outpatient costs at for-profit hospitals. In 2018, hospitals that treated the highest shares of low-income patients (high DSH) had a -8.3 percent aggregate Medicare margin. In contrast, hospitals treating the lowest share of low-income patients (no DSH) had the lowest aggregate Medicare margin (-14.7 percent). The difference in Medicare margins was attributable in part to the DSH adjustments and uncompensated care payments received by hospitals (data not shown). In addition, hospitals with high shares of Medicare and Medicaid patients tend to have more pressure to control costs and therefore tend to have lower costs per discharge.

Fiscal pressure constrains costs

Hospitals under financial pressure tend to have lower costs. To illustrate this tendency, we compare hospitals under low and high financial pressure in the analysis below. In addition to financial pressure affecting the level of costs, the literature shows that changes in Medicare rates can affect the rate of cost growth. Hospitals that

receive larger increases in Medicare payment rates tend to have larger cost increases. To determine the association between financial pressure and 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 2013 to 2017. For these years, the hospitals under high pressure historically had non-Medicare profit margins of less than 1 percent, while the low-pressure hospitals had non-Medicare profit margins of more than 5 percent. We found that hospitals under high pressure during the five-year period ended up with lower standardized Medicare costs per discharge in 2018 than hospitals under low levels of financial pressure. For more details on our analytic methods, see our earlier analysis of payment adequacy (Medicare Payment Advisory Commission 2011).

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

- **High pressure equals low cost.** The 24 percent of hospitals under the most financial pressure had median standardized Medicare costs per case that were 4 percent lower than the national median for the 2,734 IPPS hospitals with available data. Because of their lower Medicare costs, hospitals under pressure had only slight losses on Medicare (–1 percent margin in 2018 and –2 percent margin in 2017). These hospitals tended to have slightly higher shares of patients paying at government rates (48 percent of inpatient days were attributed to Medicare and Medicaid FFS patients).
- **Low pressure equals high cost.** The 63 percent of hospitals under a low level of financial pressure had median standardized Medicare costs per case that were 2 percent above the national median. Because of higher costs, they generated a median Medicare profit margin of –10 percent in 2018, about 2 percentage points below the national median. These hospitals tended to have a slightly smaller share of patients paying at government rates (44 percent of inpatient days were attributed to Medicare and Medicaid FFS patients).

Another way to examine the relationship between financial pressure and costs is to see how changes in Medicare prices affect changes in costs. For example, White and Wu found that hospitals that received higher Medicare payment increases resulting from policy changes tended to have higher cost growth (White and Wu 2014). Contrary to “cost-shift” theory, they also found that lower Medicare

price growth did not cause hospitals to increase prices negotiated with commercial insurers. Instead, they found lower Medicare prices led to lower cost growth (White 2013). Similar findings have been reported by others (Clemens and Gottlieb 2017, Frakt 2015). A recent study examined how hospitals responded when they received a large increase in their wage index through Section 508 of the Medicare Modernization Act. The study found that the hospitals that received higher Medicare payments through the 508 program “treated more patients, increased payroll, hired nurses, added new technology, raised CEO pay, and ultimately increased their spending by over \$100 million annually” (Cooper et al. 2017). One exception to the literature is a recent working paper that finds faster price growth at hospitals that were penalized under the HRRP; however, the authors caution it is not definitive evidence of cost shifting (Darden et al. 2019). The implication of these studies is that constraining Medicare prices should help constrain hospital costs.

Relatively efficient hospitals

The Commission follows two principles when identifying a set of efficient providers. First, the providers must do relatively well on cost and quality metrics. Second, the performance has to be consistent, meaning that the provider cannot have poor performance on any metric over the past three years. In the hospital sector, the variables we use to identify relatively efficient hospitals are risk-adjusted all-condition mortality, risk-adjusted potentially preventable readmissions, and standardized inpatient Medicare costs per case. Our assessment of efficiency is not in absolute terms, but rather, relative to a comparison group of other IPPS hospitals.²¹

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 2015 to 2017.²² We then examined the performance of the two hospital groups in fiscal year 2018.

Hospitals were identified as relatively efficient if they met four criteria in each year from 2015 to 2017:

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

**TABLE
3-10**

Performance of relatively efficient hospitals

Relative performance measure	Type of hospital	
	Relatively efficient, 2015-2017	Other hospitals
Number of hospitals	266	1,612
Share of hospitals	14%	86%
Historical performance, 2015-2017 (share of national median)		
Risk-adjusted:		
All-condition 30-day mortality rates	90%	102%
Potentially preventable readmission rates	93	102
Standardized Medicare costs per discharge	91	102
Performance metrics, 2018 (share of national median)		
Risk-adjusted:		
All-condition 30-day mortality rates	90%	101%
Potentially preventable readmission rates	93	101
Standardized Medicare costs per discharge	92	102
Share of patients rating the hospital a 9 or 10 (out of 10)	73	70
Median, 2018:		
Overall Medicare margin	-2%	-8%
Non-Medicare margin	9	9
Total (all-payer) margin	7	5
Share of patients for whom Medicaid is the primary payer	7	8

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

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

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

The objective was to identify a sample of 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. Because we screen out hospitals that have few Medicaid patients or have poor performance in a single year, our methodology does not seek to identify all efficient hospitals, only a subsample of relatively efficient hospitals. The rationale

for this methodology and the details of computing the various measures are discussed in our March 2011 report (Medicare Payment Advisory Commission 2011). As a secondary check on hospital quality, we also require that at least 60 percent of the hospital's patients rated the hospital a 9 or 10 on a 10-point scale (in the year before the performance period).²³

Examining performance of relatively efficient and other hospitals from 2015 to 2017 Of the 1,878 hospitals that met our screening criteria during the 2015 to 2017 period, 266 (14 percent) were found to be relatively efficient.²⁴ We examined the performance of relatively efficient hospitals on three measures by reporting the group's

**TABLE
3-11**

Current law updates to IPPS and OPSS payment rates

	2018	2019	2020	2021*
Inpatient operating market basket	2.7%	2.9%	3.0%	3.2%
Productivity	-0.6	-0.8	-0.4	-0.4
Other statutory update reductions	-0.75	-0.75	0.0	0.0
Annual update	1.35	1.35	2.6	2.8

Note: IPPS (inpatient prospective payment system), OPSS (outpatient prospective payment system). In addition to the annual update shown in the table, the inpatient operating base rate is also subject to other statutory and budget-neutrality adjustments not shown; separate updates to inpatient capital base rates also not shown. *Based on forecasts as of third quarter of 2019; forecast used to set actual update will be revised to use most recent economic data at the time the final rule for fiscal year 2021 is published in August 2020.

Source: MedPAC analysis of IPPS final rules, CMS market basket data and multifactor productivity data as of the third quarter of 2019.

median performance divided by the median for the set of hospitals in our analysis (Table 3-10). The median efficient hospital’s relative risk-adjusted 30-day mortality rate for the 3-year assessment period was 90 percent of the national median, meaning that the 30-day mortality rate for the efficient group was 10 percent below (that is, better than) the national median. The median readmission rate for the efficient group was 7 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 were spread across the country and had a diverse set of characteristics, but they were more likely to be larger nonprofit hospitals because those hospitals tend to have better performance on the quality metrics we analyzed. The efficient group has a share of Medicaid patients similar to other hospitals.²⁵ For a more complete description of the methodology and other characteristics of relatively efficient providers, see online Appendix 3-B from our 2016 report to the Congress, available at <http://www.medpac.gov>.

Historically strong performers had lower mortality and costs in 2018 Lower costs allowed the relatively efficient hospitals to generate better Medicare margins. In 2018, the median hospital in the efficient group had a Medicare margin of -2 percent while the median hospital in the comparison group had a Medicare margin of -8 percent (Table 3-10). The relatively efficient group also continued to perform better on quality metrics, with risk-adjusted mortality equal to 90 percent of the national median and risk-adjusted readmissions equal to 93 percent of the national median (Table 3-10).

How would current-law changes for 2019, 2020, and 2021 affect hospitals’ Medicare payments and beneficiaries’ access?

We project Medicare margins for 2020 based on margins in 2018 and policy changes that took place in 2019 and 2020.

The 2019 update for inpatient (IPPS) operating and outpatient (OPSS) base payment rates was 1.35 percent. In 2020, the annual update is 2.6 percent for both inpatient and outpatient services, substantially higher than in prior years due to the end of a series of payment reductions that were enacted as part of the ACA in 2010 (Table 3-11).²⁶ Other changes in payment policy are largely offsetting, bringing the net increase in IPPS hospitals’ Medicare payment rates to about 4 percent between 2018 and 2020.

We expect cost growth per discharge of about 2.5 percent per year in 2019 and 2020, about equal to the rate of growth from 2017 to 2018. However, we also expect case mix to continue to grow. In the past, we have underestimated the increase in hospital case mix and thus we did not foresee the improvement in hospital margins that occurred in 2018.

Given our expectation of continued case-mix growth and continued profit margin benefits related to spending on Part B drugs with 340B discounts, we expect hospitals’ aggregate Medicare margin to improve from -9.3 percent in 2018 to approximately -8 percent in 2020. We also expect the efficient providers’ Medicare margins to be between break even and slightly negative. The exact

The Commission's standing recommendation to replace current hospital quality programs with a new hospital value incentive program

The Commission asserts that quality measurement should be patient oriented, encourage coordination, and promote delivery system change. In March 2019, the Commission recommended that the Congress replace Medicare's current hospital quality programs with a single, outcome-focused, quality-based payment program for hospitals—the hospital value incentive program (HVIP)—based on our principles for quality measurement. Consistent with the Commission's principles, the HVIP links payment to quality of care to reward hospitals for providing high-quality care to beneficiaries while maintaining low episode costs.

Initially, the HVIP can incorporate existing quality measure domains such as readmissions, mortality, spending, patient experience, and hospital-acquired conditions (or infection rates). By using existing measures on which hospitals are already evaluated, assuming equal weighting of the measure domains, the HVIP raises the weight of mortality and patient experience and lowers the weight of readmissions and infection rates compared with current quality programs. In line with the Commission's principles, the HVIP uses clear, prospectively set performance standards to translate hospital performance on these quality measures to a reward or a penalty.

According to the Commission's principles, adjusting measure results for social risk factors can mask disparities in clinical performance. Accordingly,

the HVIP accounts for differences in providers' patient populations by incorporating a peer-grouping methodology in which quality-based payments are distributed to hospitals separated into 10 peer groups, defined by the share of beneficiaries with full dual eligibility for Medicare and Medicaid (treated as a proxy for income). The HVIP redistributes pools of dollars to hospitals in the peer groups based on their quality performance. The pools of dollars are funded by a payment withhold from all hospitals in the peer group (e.g., 5 percent) and a portion of the current-law hospital payment update.

Under the Commission's HVIP model, the grouping of hospitals into peer groups that serve similar populations makes payment adjustments more equitable than existing quality payment programs. As a result, we expect that under the HVIP, large urban hospitals and major teaching hospitals would, on average, receive rewards rather than the penalties they receive under current programs. Rural and nonteaching hospitals, on average, would receive higher rewards than large urban and major teaching hospitals. Relatively efficient providers also would receive more of a reward from the HVIP compared with other hospitals. All groups receive higher payments on average due to removing penalties in the current program and adding funds to the HVIP. In addition, all hospitals would benefit from the streamlined reporting and the HVIP's lower burden of data collection. ■

change in Medicare margins for 2020 will depend on whether cost growth exceeds hospitals' payment rate growth on a case-mix-adjusted basis.

How should Medicare payment rates change in 2021?

The Commission's update recommendation for 2021 is based on indicators of beneficiaries' access to hospital

care, hospitals' access to capital, hospital quality, and the relationship between Medicare payments and hospital costs. As discussed in our March 2019 report to the Congress, the Commission has recommended a new hospital value incentive program (HVIP) that aligns with the Commission's principles for quality measurement and would replace existing quality incentive programs (see text box on the HVIP). The following recommendation would increase hospital payments by raising the base payment rate and the average rewards hospitals receive under the proposed Medicare HVIP.

RECOMMENDATION 3

The Congress should:

- **for fiscal year 2021, update the fiscal year 2020 Medicare base payment rates for acute care hospitals by 2 percent; and**
- **provide hospitals with an amount equal to the difference between the update recommendation and the amount specified in current law through the Commission's recommended hospital value incentive program (HVIP).**

RATIONALE 3

Our payment adequacy indicators for 2018 show that beneficiaries had good access to care, hospitals maintained strong access to capital markets, and hospital quality improved, despite negative Medicare margins for most providers. Looking forward, we expect beneficiaries' access to care to remain adequate, given hospitals' modest occupancy rates, and hospitals to have good access to capital. Although the aggregate Medicare profit margin is expected to remain negative, it should improve slightly. This combination of payment adequacy indicators suggests a need to find a balance between maintaining program solvency and keeping pressure on hospitals to constrain costs and the desire to have the program pay the full cost of delivering care efficiently. Given our payment adequacy indicators, an update of 2 percent coupled with enhanced payments for hospitals with strong performance under the Commission's recommended HVIP (equal to the difference between the current-law update and 2 percent, currently 0.8 percent less the penalties in the current quality programs) would be high enough to maintain beneficiaries' access to care and move payment rates close to the cost of delivering high-quality care efficiently. The 2019 HVIP recommendation is described in the text box. The 2 percent update (rather than current law) would also limit growth in the differential between rates paid for physician office visits on a hospital campus and rates paid to freestanding physician offices. We expect the combination of a 2 percent update and the replacement of existing quality incentives (which reduce hospitals' Medicare payments in aggregate) with the new HVIP (which would increase Medicare payments in aggregate) would cause hospital Medicare margins to improve from 2020 to 2021, given expected levels of cost growth.

A single quality payment program for hospitals, such as our HVIP model, would be simpler to administer

and would produce more equitable results compared with the existing quality payment programs. The HVIP, as a single program, would eliminate the complexity of overlapping program requirements, would focus on outcomes, and would promote the coordination of care. It would also align with the Commission's principles for quality measurement by setting absolute value targets and using peer grouping to account for differences in provider populations. Under peer grouping in our HVIP model, differences in payment adjustments were reduced among providers serving populations with varying social risk factors.

IMPLICATIONS 3

Spending

- Current law is expected to increase payment rates by 2.8 percent (a 3.2 percent market basket less a 0.4 percent productivity adjustment). The recommended update of 2.0 percent with an increase in quality incentive payments would result in total hospital payments that are equal to current law. In addition, eliminating the current readmissions penalty program and hospital-acquired condition penalty would remove these penalties from hospital payment rates and thus increase spending by between \$750 million and \$2 billion in 2021 and by \$5 billion to \$10 billion over five years. On net, hospital payment rates would be expected to increase by an average of 3.3 percent. If the Commission's recommendation is not enacted, then the current law update would hold (projected to be 2.8 percent under the most recent CMS projection for hospital input price inflation).

Beneficiary and provider

- We do not expect the recommendation, relative to current law, to materially affect beneficiaries' access to care or providers' willingness to treat Medicare beneficiaries relative to current law. Beneficiaries may benefit from hospitals' enhanced incentives to improve the quality of care they provide and work with providers outside the hospital to lower cost and improve outcomes.
- The recommendation would also reduce the reporting burden on providers and, relative to current law, make payment adjustments more equitable among hospitals that serve populations with different social risk factors. ■

Mandated report preliminary results: Expanding the post-acute care transfer policy to hospice

The Bipartisan Budget Act (BBA) of 2018 expanded the inpatient prospective payment system (IPPS) post-acute care (PAC) transfer policy to apply to hospital transfers to hospice beginning fiscal year 2019. The BBA of 2018 mandates that the Commission evaluate and report on the effects of this policy change. The Commission is required to provide preliminary results by March 15, 2020, and submit a report to the Congress by March 15, 2021.

The PAC transfer policy

Under the PAC transfer policy, some short inpatient stays that are discharged to a PAC setting receive a reduced payment. Short stays are defined as lengths of stay that are more than one day below the geometric mean length of stay for a given diagnosis under Medicare's classification system—Medicare severity–diagnosis related groups (MS–DRGs). Short stays for certain DRGs that are discharged to a PAC setting receive a reduced payment. The PAC transfer policy applies to a subset of MS–DRGs that have a relatively high prevalence of short stays followed by discharge to post-acute care. In fiscal year 2019, the post-acute transfer policy applied to 279 of 761 MS–DRGs. The PAC transfer policy applies to discharges from IPPS hospitals to long-term care hospitals, critical access hospitals, inpatient psychiatric facilities, inpatient rehabilitation facilities, skilled nursing facilities, and home health agencies. As of October 2018, it also applies to discharges to hospice.

For short stays in eligible MS–DRGs that are followed by PAC, payment for IPPS hospitals is calculated by taking the full MS–DRG payment amount and dividing it by the geometric mean length of stay for the MS–DRG. The IPPS hospital generally receives a payment that is equal to double the per diem rate for the first day of the stay plus a per diem payment for each additional day of the stay, with the total payment not to exceed the full MS–DRG payment amount. A special payment formula exists—with a higher first-day payment amount—for a small subset of MS–DRGs that have disproportionately high first-day costs.

Mandated report

The BBA of 2018 requires that the Commission evaluate the effects of the expansion of the PAC transfer policy to hospice on:

- the number of discharges of hospital inpatients to hospice,
- the length of stays of patients in an inpatient hospital setting who are discharged to hospice,
- Medicare spending, and
- any other areas determined appropriate by the Commission.

In conducting the evaluation, the Commission is to consider factors such as whether the timely access to hospice care by patients admitted to a hospital has been affected through changes to hospital policies or behaviors made as a result of this policy.

Preliminary results of evaluation

In the first half of fiscal year 2019, the expansion of the PAC transfer policy to hospice resulted in a reduction in payments to IPPS hospitals of under \$200 million.

In the first two quarters of experience under the new policy, we do not observe significant changes in timely access to hospice care by hospital inpatients. Discharges to hospice among hospital inpatients appear to have increased slightly in this period, consistent with historical trends of increasing hospice use. Lengths of stay for hospital inpatients discharged to hospice oscillated before the policy change, making it difficult to interpret quarter-to-quarter changes in lengths of stay. In the first two quarters of fiscal year 2019, lengths of stay for inpatients discharged to hospice were within the range observed in prior quarters.

Number of discharges of hospital inpatients to hospice

The share of hospital inpatients discharged to hospice has increased or remained stable in the first two quarters of fiscal year 2019, consistent with historical trends (Figure 3-5). Among inpatients in medical MS–

(continued next page)

Mandated report preliminary results: Expanding the post-acute care transfer policy to hospice (cont.)

DRGs, discharges to hospice appear to have increased very slightly in 2019, both for those MS-DRGs that are subject to the transfer policy and for those that are not subject to it. For surgical DRGs, the share of patients discharged to hospice has remained stable both for MS-DRGs that are and are not subject to the transfer policy.

Hospice length of stay The mandate directs the Commission to examine hospital length of stay for patients discharged to hospice to determine whether it has changed in response to the transfer policy. Under the PAC transfer policy, when patients are discharged to a setting subject to the policy, the hospital receives a reduced payment only if the patient's hospital length of stay is equal to or less than the short-stay threshold (defined as one day less than the geometric mean length of stay for the MS-DRG). One way a hospital

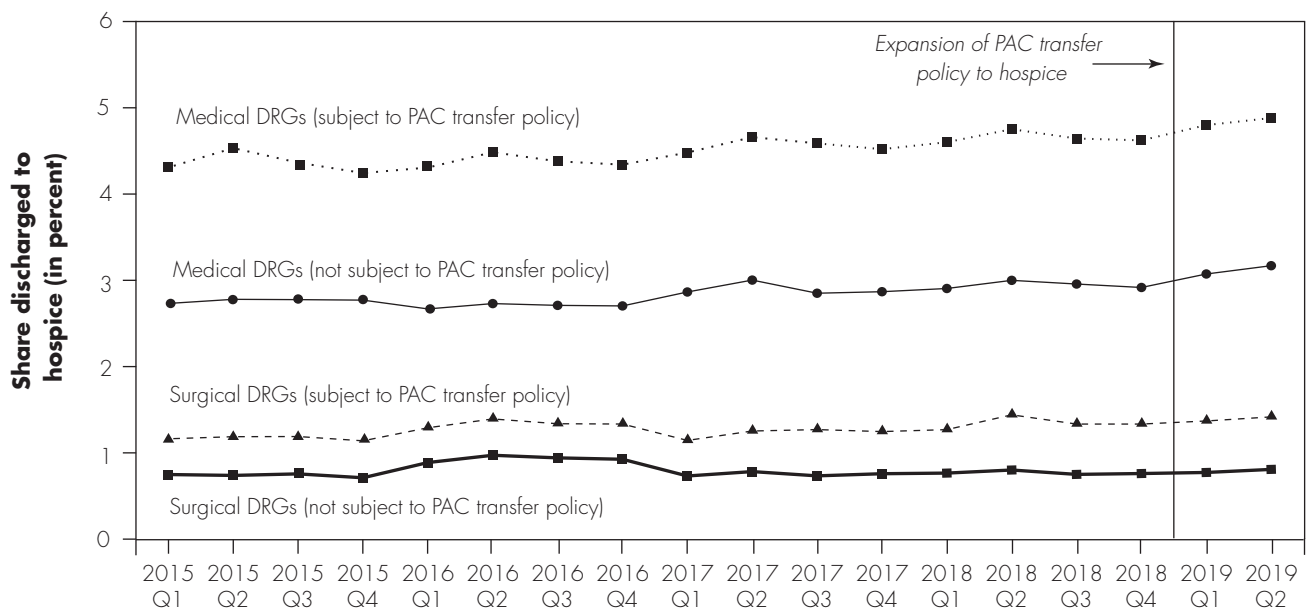
could theoretically avoid the reduced payment for a patient transferred to hospice would be to keep the patient in the hospital until the length of stay exceeds the short-stay threshold. However, it is also possible that the PAC transfer policy does not play a significant role in discharge decisions for hospice patients. The decision to refer a patient to hospice and the timing of a patient's hospice election is complex and influenced by many factors, including the patient's condition, providers' communication with the patient and family about the patient's prognosis, the patient's and family's understanding of the prognosis, and preferences for conventional care versus palliative care.

To examine whether hospital length of stay has changed with the expansion of the transfer policy, we analyzed inpatient length of stay for patients discharged to

(continued next page)

FIGURE 3-5

Share of hospital inpatients discharged to hospice by type of DRG and whether the DRG is subject to the PAC transfer policy, first quarter 2015 to second quarter 2019



Note: DRG (diagnosis related group), PAC (post-acute care), Q (quarter). Data are displayed by fiscal year and quarter. Data include inpatient prospective payment system hospitals only.

Source: MedPAC analysis of Medicare claims data.

Mandated report preliminary results: Expanding the post-acute care transfer policy to hospice (cont.)

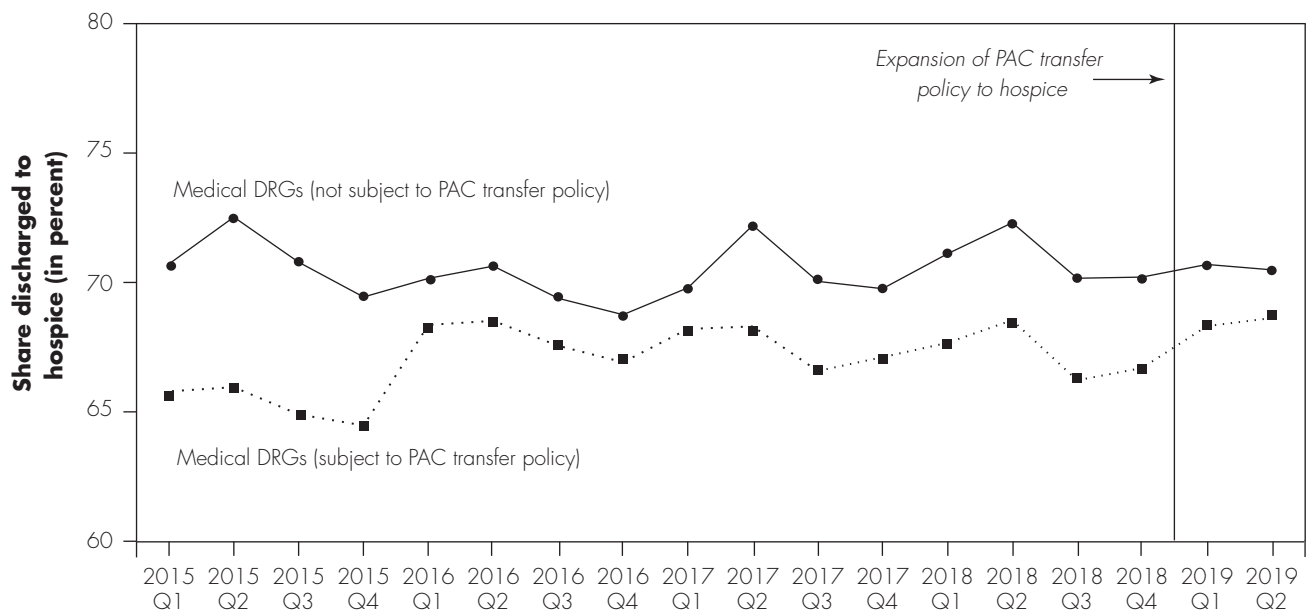
hospice and calculated the share of those patients with inpatient stays longer than the short-stay threshold (which we refer to as “long” inpatient stays). If the expansion of the transfer policy to hospice were resulting in hospice patients staying in the hospital longer, we would expect the share of patients with long inpatient stays to increase.

Overall, the data on inpatient length of stay do not indicate significant changes in timely access to hospice care in the first two quarters of fiscal year 2019. Figures 3-6 and 3-7 show the share of patients transferred to hospice with long inpatient stays for medical and surgical MS-DRGs, respectively. In general, the share of inpatients discharged to hospice with long inpatient stays oscillates over time, which suggests that caution should be taken in interpreting any quarter-to-quarter

(continued next page)

FIGURE 3-6

Share of Medicare inpatients discharged from medical MS-DRGs to hospice with inpatient lengths of stays greater than the short-stay threshold, first quarter 2015 to second quarter 2019



Note: MS-DRG (Medicare severity–diagnosis related group), PAC (post-acute care), Q (quarter). Data are displayed by fiscal year and quarter. Data include inpatient prospective payment system hospitals only.

Source: MedPAC analysis of Medicare claims data.

Mandated report preliminary results: Expanding the post-acute care transfer policy to hospice (cont.)

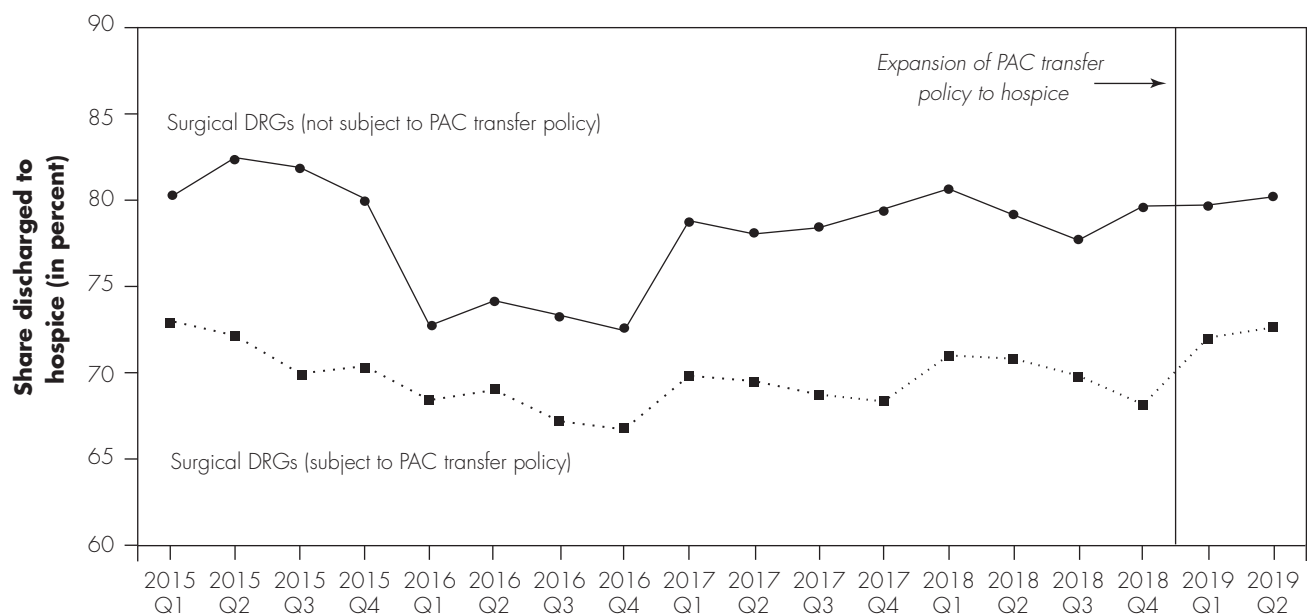
changes. For medical MS-DRGs that are subject to the transfer policy, the share of inpatients discharged to hospice who had long inpatient stays was 68.6 percent in the second quarter 2019, up from fourth quarter 2018 (66.7 percent) but similar to second quarter 2018 (68.5 percent) (Figure 3-6). For surgical MS-DRGs that are subject to the transfer policy, the share of inpatients discharged to hospice who have long inpatient stays appears to have increased slightly between fourth quarter 2018 and second quarter 2019, but the second

quarter 2019 level remains within the historical range (Figure 3-7).

These preliminary results reflect experience with the first two quarters of the new policy. As with any analysis of early data, caution should be taken in generalizing from these results. Our evaluation report due in March 2021 will provide an assessment of experience over the first one and one-half years of the policy. ■

**FIGURE
3-7**

Share of Medicare inpatients discharged from surgical MS-DRGs to hospice with inpatient lengths of stay greater than the short-stay threshold, first quarter 2015 to second quarter 2019



Note: MS-DRG (Medicare severity–diagnosis related group), PAC (post-acute care), Q (quarter). Data are displayed by fiscal year and quarter. Data include inpatient prospective payment system hospitals only.

Source: MedPAC analysis of Medicare claims data.

Endnotes

- 1 Short-term acute care hospitals provide inpatient and outpatient medical care for acute medical conditions or injuries. In this chapter, we use the term “hospitals” to refer to short-term acute care hospitals in the U.S. that participated in the Medicare program (excluding those in territories). Other types of hospitals include inpatient rehabilitation facilities (Chapter 10), long-term care hospitals (Chapter 11), and inpatient psychiatric facilities. By participating in the Medicare program, hospitals agree to accept Medicare FFS payment rates as payment in full for services provided to Medicare FFS beneficiaries. Hospitals receive the Medicare payment rate from a combination of payments from the Medicare program (which pays the rate minus beneficiary cost-sharing responsibilities) and from beneficiaries or their supplemental insurance.

The \$190 billion includes only Medicare FFS payments for inpatient and outpatient services provided to FFS beneficiaries. Hospitals may also receive supplemental payments from the Medicare FFS program that are not tied to specific services (such as uncompensated care and direct graduate medical education payments) or that are tied to services provided to Medicare Advantage beneficiaries, as well as Medicare FFS payments for hospital-based providers (such as in-hospital post-acute care providers).
- 2 The decrease in Part A and Part B FFS beneficiaries reflects the shift of beneficiary enrollment toward Medicare Advantage plans. The greater decline in Part B could indicate that more baby boomers continue to work and delay signing up for Part B.
- 3 For more details on the IPPS, see the Hospital Acute Inpatient Services Payment System document in our *Payment Basics* series at http://medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_19_hospital_final_v2_sec.pdf?sfvrsn=0.
- 4 For more details on the OPDS, see the Outpatient Hospital Services Payment System in our *Payment Basics* series at http://www.medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_19_opd_final_sec.pdf?sfvrsn=0.
- 5 In 2019, the Department of Veterans Affairs finalized regulations to implement the new Veterans Community Care program under the MISSION Act. This rule maintains payment rates for most care at non-VA facilities not to exceed Medicare FFS rates, but includes exceptions, such as allowing higher rates in highly rural areas and clarifying that reference Medicare rates include those for critical access hospitals (Department of Veterans Affairs 2019).
- 6 Originally, Colorado had proposed rates in a range of 175 percent to 225 percent of Medicare. The current proposal has delayed setting rates and instead proposed that “hospital reimbursement rates be set through a public and transparent formula that ensures sustainability and helps to stabilize our rural hospitals, while preventing the price inflation currently taking place in some markets. This formula would be applied on a hospital-by-hospital basis, resulting in reimbursement rates that can be expressed as a percentage of Medicare...” (Colorado Division of Insurance 2019b).
- 7 We defined urban areas as those included within a core-based statistical area (CBSA). Rural areas were defined as those outside of a CBSA.
- 8 EmpowerHMS owned or managed 18 struggling, rural hospital facilities across 8 states. After attempting to make the hospitals profitable through a lab-billing venture, 12 of the hospitals entered bankruptcy and 8 closed between 2015 and 2019 (Ostrov and Weber 2019).
- 9 If we approximate marginal cost as total Medicare costs minus fixed building and capital costs (interest, depreciation, hazard insurance, equipment, plant maintenance, utilities, and operating costs), then marginal profit can be calculated as follows: $\text{Marginal profit} = (\text{payments for Medicare services} - (\text{total Medicare costs} - \text{fixed building and capital costs})) / \text{payments for Medicare services}$. This comparison is a lower bound on the marginal profit estimate because we do not consider any potential labor costs that are fixed. Using a cost-accounting approach, we find that about 20 percent of hospital costs are fixed over a one-year time frame, resulting in a marginal profit of over 8 percent. In our March 2015 report to the Congress, we also took an econometric approach to estimating hospitals’ marginal costs and found that fixed costs (over a one-year time frame) were about 20 percent of overall costs for medium and large hospitals. This finding is similar to findings in some earlier literature (Bamezai and Melnick 2006, Gaynor and Anderson 1995, Pauly and Wilson 1986). Small hospitals tend to have a lower share of costs that are variable and thus have higher marginal profits. Our 20 percent estimate of fixed costs at large hospitals also matches the 20 percent figure used by CMS for the IPPS outlier policy. For a discussion of our econometric results and the literature on hospital marginal costs, see the online appendix to Chapter 3 of our 2015 report, available at <http://www.medpac.gov> (Medicare Payment Advisory Commission 2015).
- 10 CAHPS is a registered trademark of the Agency for Healthcare Research and Quality.

- 11 Between 2010 and 2017, the Medicare share of hospital admissions rose from 42 percent to 45 percent. However, during that period, Medicare prices rose more slowly than commercial prices and revenues increased from the newly insured. As a result, Medicare’s share of all hospital revenues remained at 33 percent.
- 12 The 1.1 percent increase was driven by the 1.0 percent increase in the operating base payment rate, to \$5,572.53. This IPPS operating rate increase was the sum of three updates: a 1.35 percent annual update (a 2.7 percent market basket update, less a 0.6 percentage point productivity adjustment and a 0.75 percentage point reduction required by the Affordable Care Act of 2010); a 0.46 percent increase due to reducing a temporary adjustment for documentation and coding; and a 0.78 percent decrease due to budget neutrality and other adjustments (including the expiration of 0.6 percent increase for the two-midnight rule). The capital base rate increased 1.6 percent, to \$453.95, mainly reflecting the 1.3 percent capital market basket update.
- 13 The 340B Drug Pricing Program allows certain hospitals and other health care providers to obtain discounted prices on prescription drugs and biologics other than vaccines from drug manufacturers.
- 14 Beginning October 1, 2017, the coding instructions for COPD changed from “use additional code to identify the infection” to “code also used to identify the infection.” This instructional note allows codes to choose between assigning the principle diagnosis to COPD or to an infection (pneumonia).
- 15 Also, from 2013 to 2014, outpatient spending rose substantially (from \$46.5 billion to \$52.7 billion) due, in part, to CMS’s decision to include most clinical laboratory tests in the OPSS packaged payment rates, whereas these tests had previously been paid under the clinical laboratory fee schedule.
- 16 The increase of 13.6 percent is artificially low because it factors in a reduction in prices for 340B drugs from ASP + 6 percent to ASP – 22.5 percent in 2018. The reduction in prices paid for 340B drugs in 2018 did not cause an overall reduction in Medicare spending because CMS increased payment rates for all other Part B services to keep the 340B reduction budget neutral.
- 17 Six cancer drugs account for most of the increase in OPSS spending on Part B drugs in 2017 and 2018: pembrolizumab, daratumumab, nivolumab, durvalumab, denosumab, and eculizumab. From 2017 to 2018, payments to hospitals under the OPSS for these drugs grew by about \$860 million.
- 18 The American Hospital Association challenged in court the policy CMS implemented in 2019 to reduce the payment rate for all clinic visits provided in off-campus HOPDs at the lower OPSS rate. The result of the challenge is that the U.S. District Court for the District of Columbia vacated the policy for 2019. CMS is working to ensure that the 2019 claims affected by the policy are paid consistent with the court’s order. However, CMS does not believe that it is appropriate to change the policy at this time, which includes a two-year phase-in of reducing the OPSS payment rates to the lower OPSS rates for all clinic visits provided in off-campus HOPDs. On December 12, 2019, the Department of Health and Human Services filed notices of appeal in the U.S. District Court for the District of Columbia.
- 19 In analyzing hospital margins, we compute an overall (aggregate) Medicare margin restricted to IPPS hospitals in the U.S. with complete cost reports and non-outlier costs per stay data, as well as a second analysis that also includes critical access hospitals. We exclude from our analysis hospitals in Maryland, which are paid under a statewide all-payer prospective payment system rather than the IPPS, and other short-term acute care hospitals that are not paid under the IPPS, including cancer hospitals and children’s hospitals.
- 20 We report the overall Medicare margin across service lines because no hospital service line is a purely independent business. For example, we find that operating any in-hospital post-acute care provider improves the profitability of acute inpatient care services because such a provider allows a hospital to safely discharge patients sooner from their acute care beds, thus reducing the cost of the inpatient stay. The overall Medicare margin also takes into account revenues that are not included in the service-line payments for inpatient and outpatient care. These revenues, beginning in fiscal year 2014, include Medicare payments for uncompensated care. Excluding these Medicare revenues would understate Medicare payments to hospitals. Another benefit of focusing on overall Medicare margins is that we can avoid the challenges of precisely allocating overhead and administrative costs among the different service lines. The services included in the overall Medicare margin are Medicare’s acute inpatient, outpatient, graduate medical education, skilled nursing facility (including swing beds), hospital-based home health care, inpatient psychiatric, and inpatient rehabilitation services.
- 21 The objective of this analysis is to find a subset of the relatively efficient hospitals rather than to identify all efficient hospitals. For example, we exclude small hospitals with under 500 discharges from our analysis, not because we know they are inefficient, but because we have an insufficient volume of claims to know whether or not they performed at a relatively efficient level.
- 22 We use medians rather than means to limit the influence of outliers on our set of efficient providers.

- 23 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.
- 24 The 1,878 hospitals that met our screening criteria had levels of profitability similar to the overall hospital population. However, these hospitals tended to be larger than the average hospital for two reasons. First, we excluded hospitals with fewer than 500 discharges due to instability in their costs and quality indicators. Second, we excluded critical access hospitals due to their different cost accounting rules.
- 25 The efficient hospitals' shares of Medicaid discharges ranged from 4.0 percent at the 25th percentile to 13.6 percent at the 75th percentile compared with an interquartile range of 4.2 percent to 13.9 percent for the other group of hospitals.
- 26 The ACA required reductions in the inpatient market basket update for fiscal years 2010 through 2019. Inpatient capital rates are updated through a separate process and market basket. The annual update to the inpatient capital base rate was 1.4 percent in 2019, 1.5 percent in 2020, and is estimated to be 1.6 percent in 2021. The net change in inpatient operating and capital base rates include the annual update as well as statutory adjustments for coding and budget-neutrality adjustments. For example, the net update to inpatient operating base rates in 2018 was 1.0 percent.

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