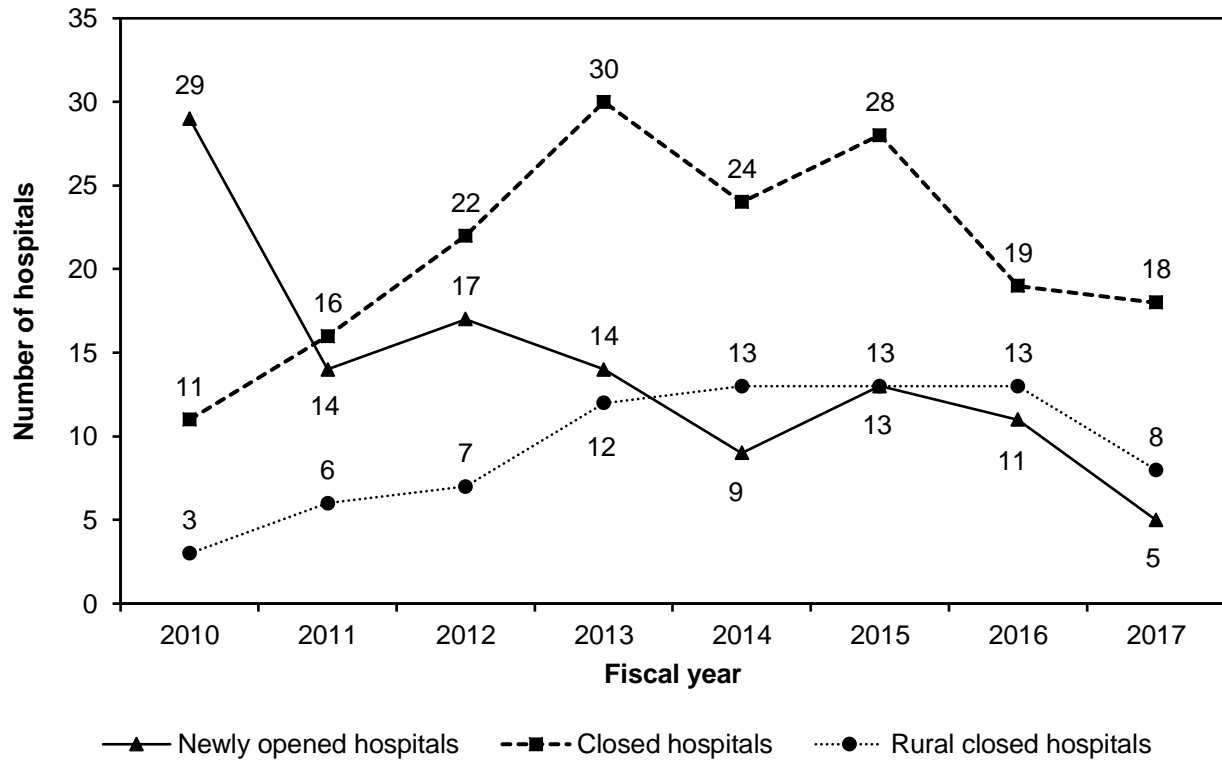


SECTION

6

Acute inpatient services
General short-term hospitals
Inpatient psychiatric facilities

Chart 6-1. Number of acute care hospital closures has exceeded openings each year since 2011

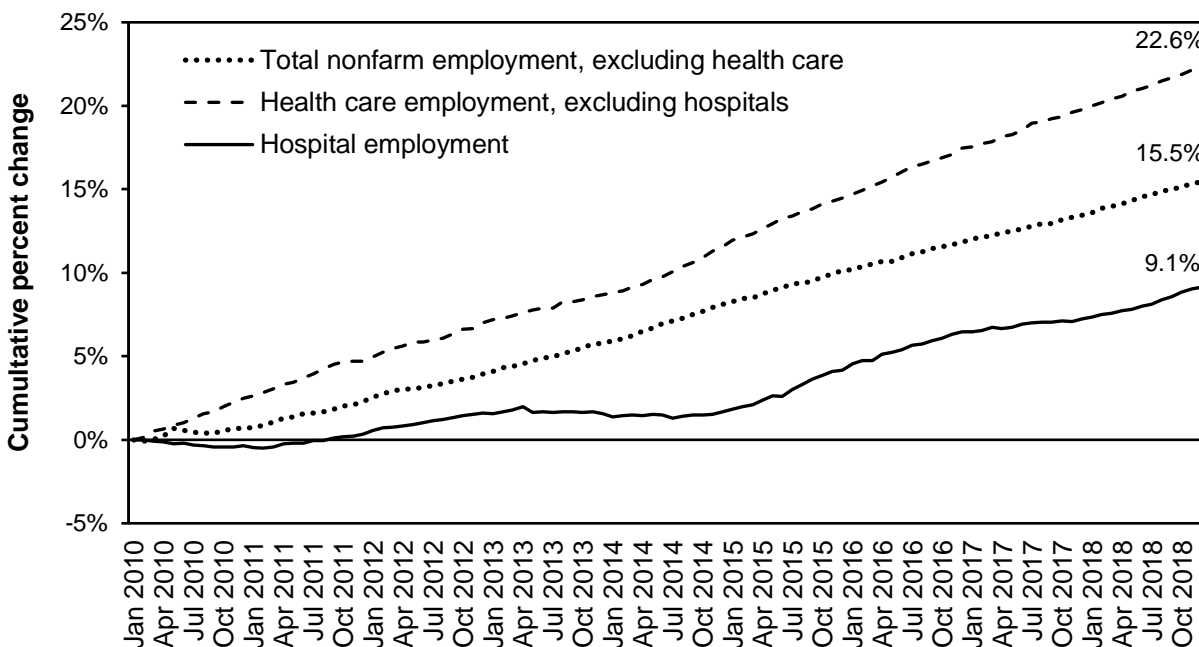


Note: Data are for general short-term acute care hospitals, including critical access hospitals. “Rural” refers to a county not in a core-based statistical area. The Commission’s reported number of open and closed hospitals can change from year to year based on hospitals that enter Medicare as an acute care facility and later convert to a more specialized type of facility, such as a long-term care hospital.

Source: MedPAC analysis of Provider of Service file from CMS, data from the Health Resources and Services Administration, and internet searches.

- While hospital closures are still relatively rare events, there have been more acute care hospital closures than openings each year since 2011.
- In 2017, 18 of the approximately 4,700 acute care hospitals participating in the Medicare program closed, and 5 hospitals opened. Among the 18 closures, 8 were in rural counties. Rural hospital closures could in part reflect low inpatient occupancy (see Chart 6-13). All five openings were in urban counties.

Chart 6-2. Employment for hospital industry has grown slower than rest of health care sector and rest of economy, 2010–2018

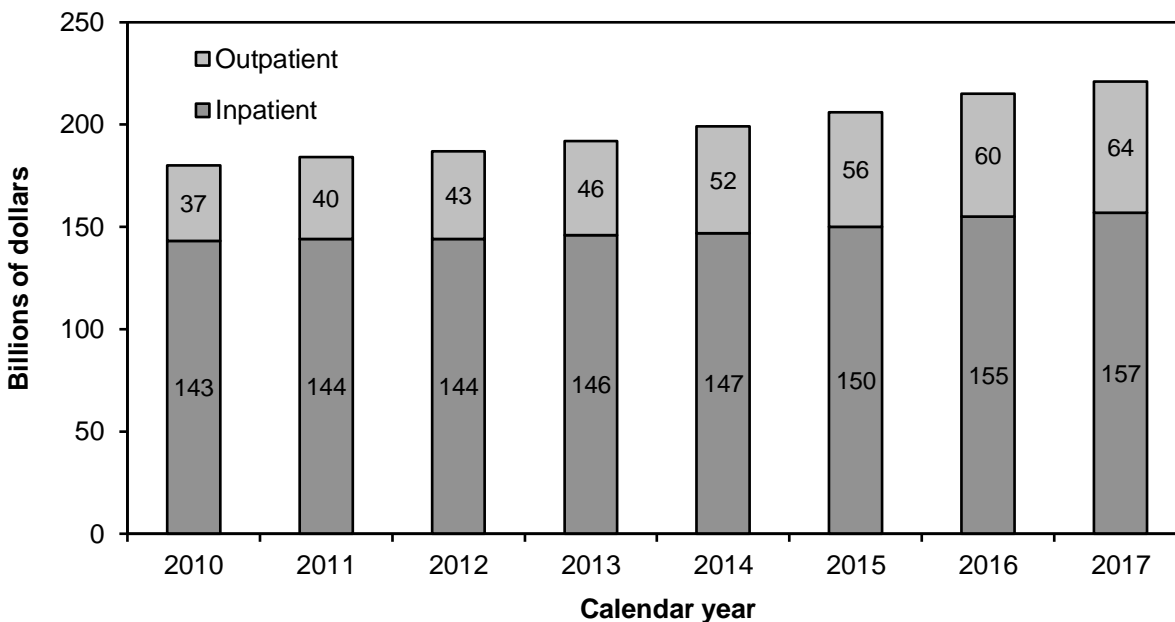


Note: “Cumulative percent change” is the total percentage change from 2010. “Total nonfarm employment” is defined as all employment not of or relating to farms or farming.

Source: MedPAC analysis of Bureau of Labor Statistics, Current Employment Statistics data set as of March 2019.

- The Bureau of Labor Statistics survey of current employment data indicates that the number of individuals directly employed within the hospital industry increased 9.1 percent from January 2010 to December 2018. Employment in the rest of the health care sector increased 22.6 percent, and employment across the rest of the economy (nonfarm minus health care) increased 15.5 percent as it recovered from the recession of 2009.
- In the most recent year (from 2017 to 2018), hospital employment increased 2.5 percent, the rest of the health care sector increased 4.3 percent, and employment across the rest of the economy (nonfarm minus health care) increased 3.1 percent.
- From 2016 to 2018, the number of hospital staff in health care practitioner and technical occupations overall increased 3 percent (data not shown). Within this category, larger-than-average increases occurred for physicians and surgeons (12 percent); diagnostic-related technologists and technicians (5 percent); therapists (4 percent); and registered nurses (3 percent). Clinical laboratory technologists and technicians were among the few occupations in this category with a decline in employment (–4 percent).
- From 2016 to 2018, the number of hospital staff in nonclinical occupations increased for just a few occupational categories: secretaries and administrative assistants (2 percent) and building cleaning workers (1 percent) (data not shown).

Chart 6-3. Medicare’s FFS payments for hospital outpatient services have grown faster than for inpatient services, 2010–2017



Note: FFS (fee-for-service). Analysis includes inpatient services covered by the acute inpatient prospective payment system (PPS) and psychiatric, rehabilitation, long-term care, cancer, and children’s hospitals and units covered by their respective payment systems; outpatient services covered by the outpatient PPS; and other outpatient services. Payments include program outlays and beneficiary cost sharing, including hospital cost sharing for beneficiaries eligible for Medicare because of end-stage renal disease.

Source: CMS, Office of the Actuary.

- Aggregate Medicare FFS inpatient spending was \$157 billion and outpatient spending was \$64 billion in 2017. From 2016 to 2017, inpatient spending increased 1.5 percent, while outpatient spending increased nearly 6.7 percent.
- Inpatient spending increased as much between 2015 and 2017 (\$7 billion) as it did between 2010 and 2015.
- Outpatient spending has increased as a share of total Medicare hospital spending in the past seven years. In 2010, outpatient spending accounted for approximately 20 percent of all Medicare spending for hospital services; by 2017, outpatient spending grew to almost 29 percent of total Medicare hospital spending.

Chart 6-4. Urban acute care hospitals comprised half of hospitals but vast majority of Medicare FFS discharges, 2017

Hospital group	Acute care hospitals		Medicare FFS discharges	
	Number	Share of total	Number (thousands)	Share of total
All PPS and critical access	4,559	100%	9,502	100%
PPS hospitals	3,212	70.5	9,198	96.8
Urban	2,430	53.3	8,258	86.9
Rural	782	17.2	939	9.9
Large urban	1,262	27.7	4,039	42.5
Other urban	1,168	25.6	4,219	44.4
Rural referral	88	1.9	217	2.3
Sole community	363	8.0	481	5.1
Medicare dependent	133	2.9	97	1.0
Other rural, <50 beds	108	2.4	43	0.5
Other rural, ≥50 beds	90	2.0	101	1.1
Nonprofit	1,883	41.3	6,481	68.2
For-profit	846	18.6	1,648	17.3
Government	483	10.6	1,068	11.2
Major teaching	310	6.8	1,701	17.9
Other teaching	778	17.1	3,600	37.9
Nonteaching	2,124	46.6	3,897	41.0
Critical access hospitals	1,347	29.6	304	3.2

Note: FFS (fee-for-service), PPS (prospective payment system). Data are for general short-term acute care hospitals covered under the inpatient PPS and critical access hospitals with complete 2017 cost reports. "Large urban" areas are those with populations of more than 1 million. "Major teaching hospitals" are defined by a ratio of interns and residents to beds of at least 0.25. Components may not sum to totals due to rounding.

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

- In 2017, there were almost 9.2 million discharges among Medicare FFS beneficiaries as 3,212 acute care PPS hospitals and another 304,000 discharges at 1,347 small, rural hospitals designated as critical access hospitals.
- Urban PPS hospitals comprised half (53 percent) of the acute care hospitals but the vast majority (about 87 percent) of Medicare FFS discharges.
- About 91 percent of rural hospitals were paid through the critical access hospital program or one of three other special PPS payment provisions for rural hospitals (sole community hospitals, Medicare-dependent hospitals, and rural referral centers). Collectively, these four types of hospitals accounted for 88 percent of all rural Medicare FFS discharges.

Chart 6-5. Circulatory system was most common major diagnostic category among Medicare FFS discharges from acute care hospitals, 2010 and 2017

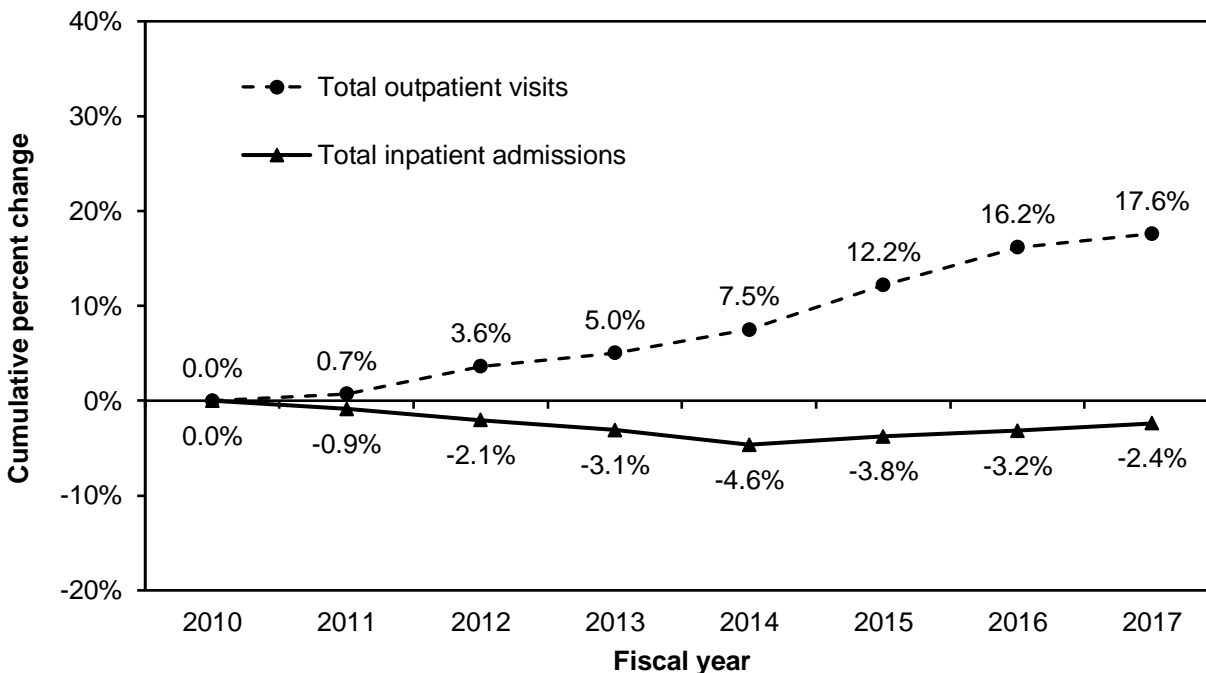
MDC number	MDC name	Share of Medicare FFS discharges		Percentage point change
		2010	2017	
5	Circulatory system	24%	20%	-3
8	Musculoskeletal system	12	14	2
4	Respiratory system	15	14	-1
6	Digestive system	11	10	-1
18	Infectious and parasitic diseases	5	10	5
1	Nervous system	8	8	0
11	Kidney and urinary tract	7	8	1
10	Endocrine, nutritional and metabolic	4	4	0
7	Hepatobiliary system and pancreas	3	3	0
9	Skin, subcutaneous tissue and breast	3	2	0
	Total	91	92	1

Note: FFS (fee-for-service), MDC (major diagnostic category). Data are for inpatient discharges of Medicare FFS beneficiaries from general short-term acute care hospitals covered under the inpatient prospective payment system and critical access hospitals. Components may not sum to totals due to rounding.

Source: MedPAC analysis of MedPAR data from CMS.

- In 2017 (and 2010), 10 major diagnostic categories accounted for over 90 percent of all Medicare FFS discharges from acute care hospitals.
- The circulatory system was the most common major diagnostic category among Medicare FFS discharges; however, its share declined from 24 percent to 20 percent between 2010 and 2017.
- Between 2010 and 2017, the major diagnostic category with the largest increase was infectious and parasitic diseases, which increased from 5 percent to 10 percent of Medicare FFS discharges, due to growth in the number of FFS beneficiaries hospitalized with septicemia or severe sepsis.

Chart 6-6. All-payer hospital outpatient visits increased rapidly while inpatient admissions declined, 2010–2017

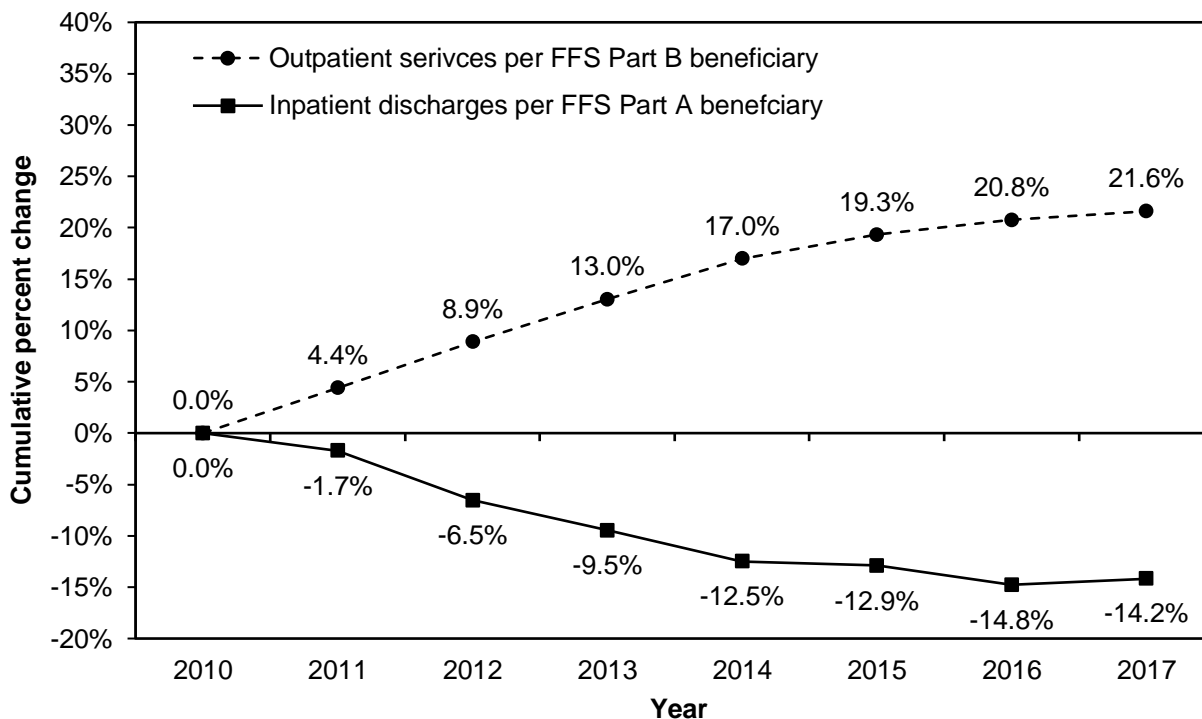


Note: “Cumulative percent change” is the total percentage change from 2010. “Outpatient visits” include all clinic visits, referred visits, observation services, outpatient surgeries, and emergency department visits, regardless of the number diagnostic and/or therapeutic treatments the patient received during the visit. Data are for community hospitals (nonfederal short-term general and specialty hospitals), estimated from those who responded to the American Hospital Association (AHA) survey. The AHA began, with the 2019 edition of Hospital Statistics, using a new methodology to classify facilities as hospitals. As a result of the application of the new, broader hospital definition, the number of community hospitals in each of 2013 to 2017 increased by approximately 400.

Source: MedPAC analysis of Hospital Statistics data from the American Hospital Association.

- In 2017, there were nearly 766 million outpatient visits and 34 million inpatient admissions across all patients at community hospitals (nonfederal short-term general and specialty hospitals) (data not shown).
- All-payer hospital outpatient visits grew rapidly between 2010 and 2017, while inpatient admissions declined overall. From 2010 to 2017, the number of outpatient visits increased about 18 percent. By contrast, over the same period, the number of all-payer inpatient admissions declined more than 2 percent.
- All-payer outpatient and inpatient service use both increased from 2014 to 2017. Over this period, the number of outpatient visits increased by 10.1 percentage points, while the number of inpatient admissions increased 2.2 percentage points.

Chart 6-7. Growth in Medicare outpatient services and decline in inpatient discharges per FFS beneficiary have slowed, 2010–2017

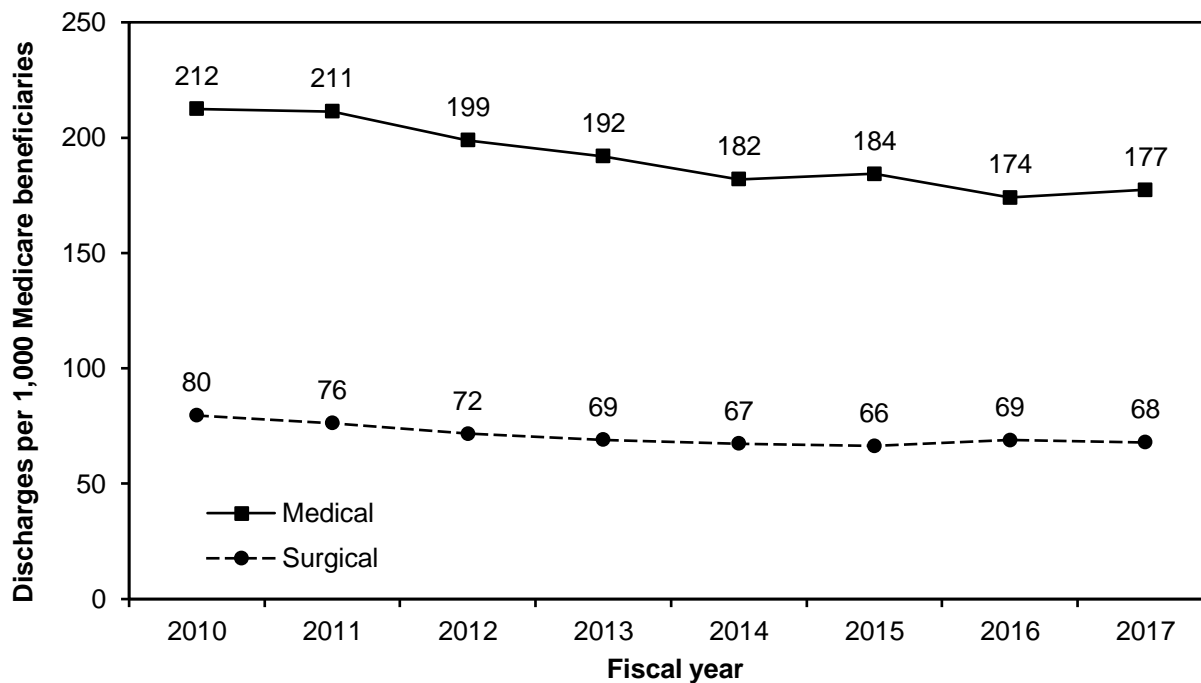


Note: FFS (fee-for-service). “Cumulative percent change” is the total percentage change from 2010. Years for outpatient services are calendar years, and years for inpatient discharges are fiscal years. Data for outpatient services include hospitals paid under the outpatient prospective payment system and critical access hospitals; data for inpatient admissions include hospitals paid under the inpatient prospective payment system.

Source: MedPAC analysis of hospital outpatient claims and MedPAR data from CMS.

- In 2017, Medicare FFS beneficiaries received approximately 170 million outpatient services and had 9 million inpatient discharges at hospitals paid under the prospective payment systems (data not shown).
- From 2010 to 2017, the number of Medicare outpatient visits per FFS beneficiary increased 21.6 percent. By contrast, over the same period, the number of Medicare inpatient discharges per FFS beneficiary declined 14.2 percent.
- Between 2016 and 2017, both outpatient services and inpatient discharges per FFS beneficiary increased by about 0.7 percentage points. These small increases reflect a discontinuation of long-term trends where outpatient use increased while inpatient use decreased.

Chart 6-8. Declines in both medical and surgical inpatient discharges per Medicare FFS beneficiary have slowed, 2010–2017

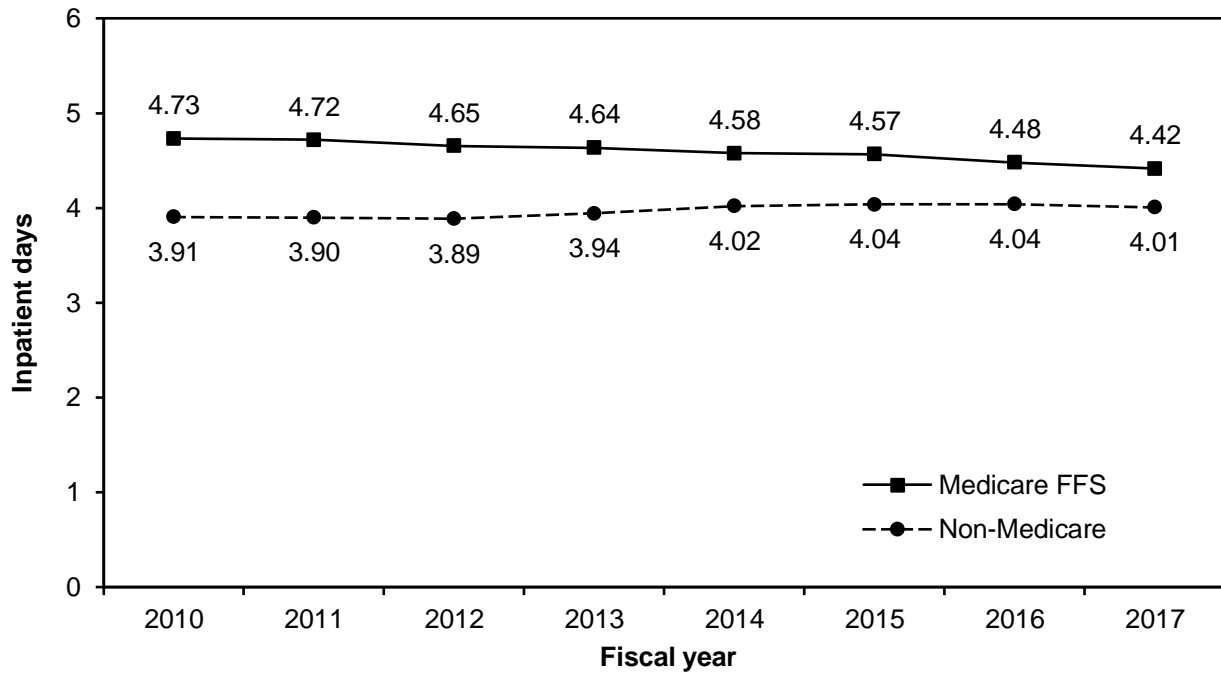


Note: FFS (fee-for-service). Data are for short-term general hospitals covered under the inpatient prospective payment system and critical access hospitals. Discharges are per 1,000 Medicare FFS Part A beneficiaries.

Source: MedPAC analysis of MedPAR data from CMS.

- From 2010 to 2017, the volume of medical inpatient discharges per 1,000 Medicare FFS beneficiaries declined 16.5 percent (from 212 to 177) and the volume of surgical inpatient discharges declined 14.7 percent (from 80 to 68).
- However, between 2016 and 2017, the volume of medical discharges per 1,000 Medicare FFS beneficiaries increased from 174 to 177, reflecting a discontinuation of long-term trends. This increase is in part attributable to an increase in the number of admissions for circulatory and respiratory diagnoses (the two largest medical major diagnostic categories).
- Between 2016 and 2017, the volume of surgical discharges decreased slightly from 69 to 68 per 1,000 Medicare FFS beneficiaries.
- Together, these two trends resulted in an increase in the overall average patient case mix for Medicare inpatient discharges of 0.6 percent between 2016 and 2017 (data not shown).

Chart 6-9. Average length of stay has decreased for Medicare FFS inpatients and increased for non-Medicare inpatients, 2010–2017

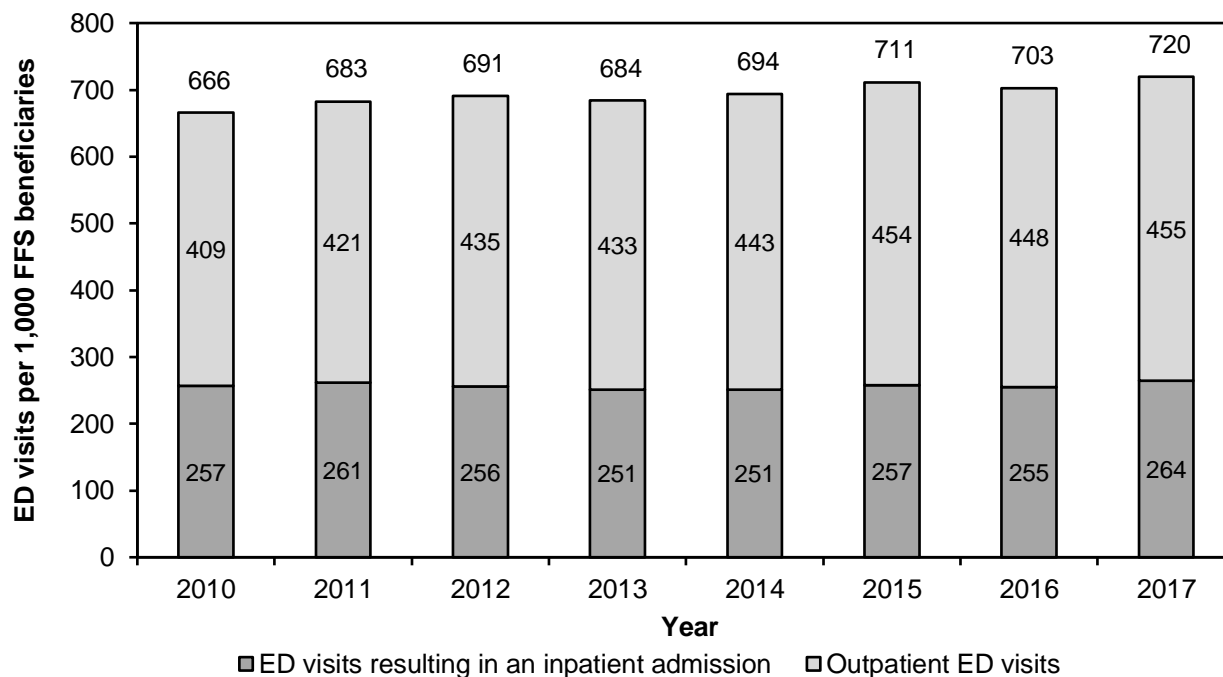


Note: FFS (fee-for-service). Average length of stay is calculated from discharges and patient days (excluding swing bed days). Data are for a consistent cohort of general short-term acute care hospitals covered by the inpatient prospective payment system.

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

- From 2010 to 2017, the average length of stay for Medicare FFS inpatients declined 6.7 percent, from 4.73 days to 4.42. By contrast, the average length of stay for non-Medicare inpatients increased 2.6 percent over the same time period, from 3.91 days to 4.01 days.
- Together, these two trends led to the difference in average length of stay between Medicare FFS and non-Medicare inpatients decreasing from almost a day in 2010 to less than half a day in 2017.

Chart 6-10. Hospital emergency department use per Medicare FFS beneficiary increased, 2010–2017

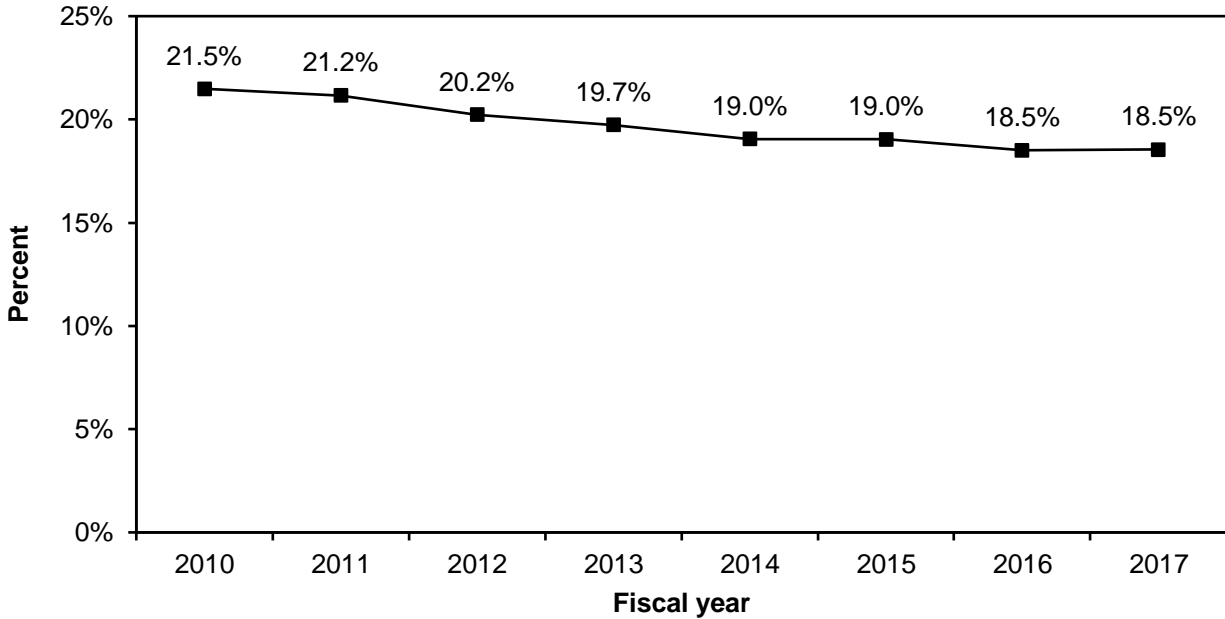


Note: FFS (fee-for-service), ED (emergency department). Years for outpatient ED visits are calendar years, and years for ED visits resulting in an inpatient admission are fiscal years. Data for outpatient ED visits include hospitals paid under the outpatient prospective payment system and critical access hospitals; data for ED visits resulting in an inpatient admission include hospitals paid under the inpatient prospective payment system and critical access hospitals. Components may not sum to totals due to rounding.

Source: MedPAC analysis of standard analytical file of outpatient claims and MedPAR data from CMS.

- In 2017, Medicare FFS beneficiaries accounted for 28 million visits to hospital EDs (data not shown). Among these visits, over 17 million were outpatient ED visits—visits that did not result in an inpatient admission—and over 10 million were inpatient ED visits—visits that did result in inpatient admissions.
- From 2010 to 2017, the number of ED visits per 1,000 FFS beneficiaries increased from 666 to 720, or 8 percent. During this period, there was an 11 percent increase in outpatient ED visits per 1,000 FFS beneficiaries (from 409 to 455) and a 3 percent increase in ED visits resulting in inpatient admissions per 1,000 FFS beneficiaries (from 257 to 264).
- From 2010 to 2017, the number of outpatient ED visits billed at the highest of the five ED payment levels (Level 5) increased as a share of all ED visits, climbing from 20 percent to 29 percent (data not shown). By contrast, during the same period, ED visits coded in the three lowest ED payment levels decreased from 33 percent to 28 percent.

Chart 6-11. Decline in share of Medicare Part A FFS beneficiaries with at least one acute inpatient stay slowed, 2010–2017

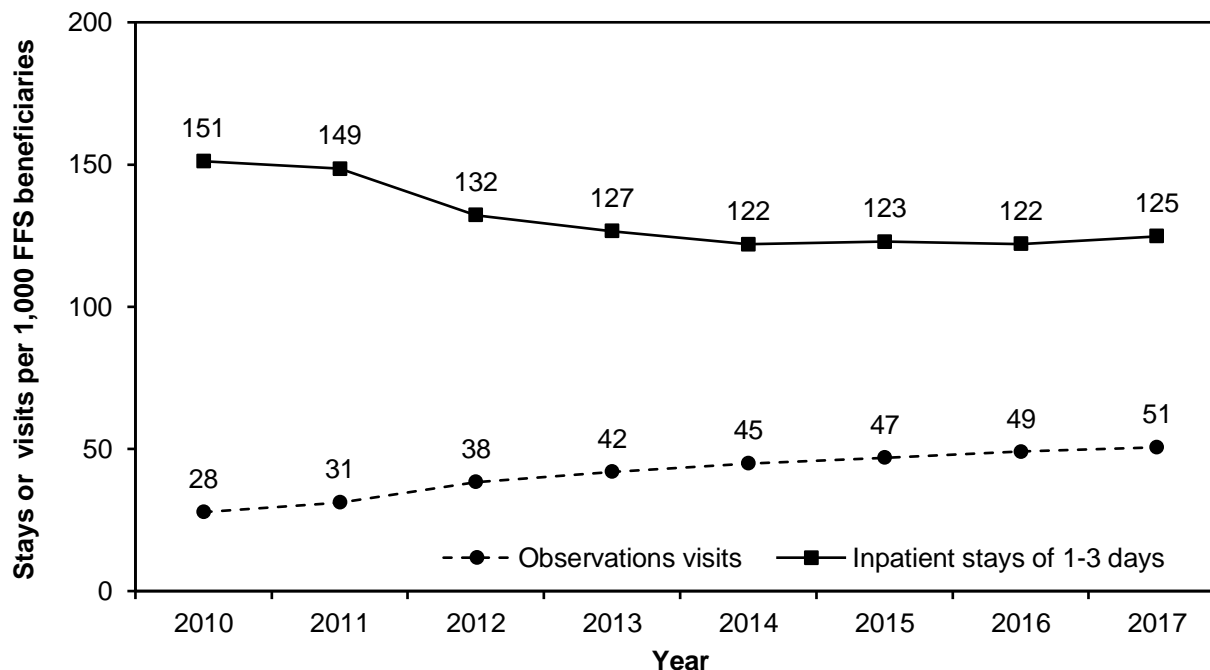


Note: FFS (fee-for-service). Data are for general short-term acute care hospitals covered by the inpatient prospective payment system.

Source: MedPAC analysis of MedPAR data from CMS.

- From 2010 to 2017, the share of Medicare Part A FFS beneficiaries who had at least one acute inpatient stay declined 3 percentage points, from 21.5 percent to 18.5 percent.
- From 2016 to 2017, the share of Medicare Part A FFS beneficiaries who had at least one acute care hospitalization remained steady at 18.5 percent.
- Medicare Part A FFS beneficiaries who had at least one acute care hospitalization in 2017 had an average of 1.68 hospitalizations over the course of the year (data not shown).
- A portion of the long-term decline in beneficiaries' utilization of inpatient services could reflect the increase in the number of cases in which beneficiaries are served in outpatient observation status (see Chart 6-12).

Chart 6-12. Number of outpatient observation visits per Medicare FFS beneficiary increased while short inpatient stays decreased, 2010–2017

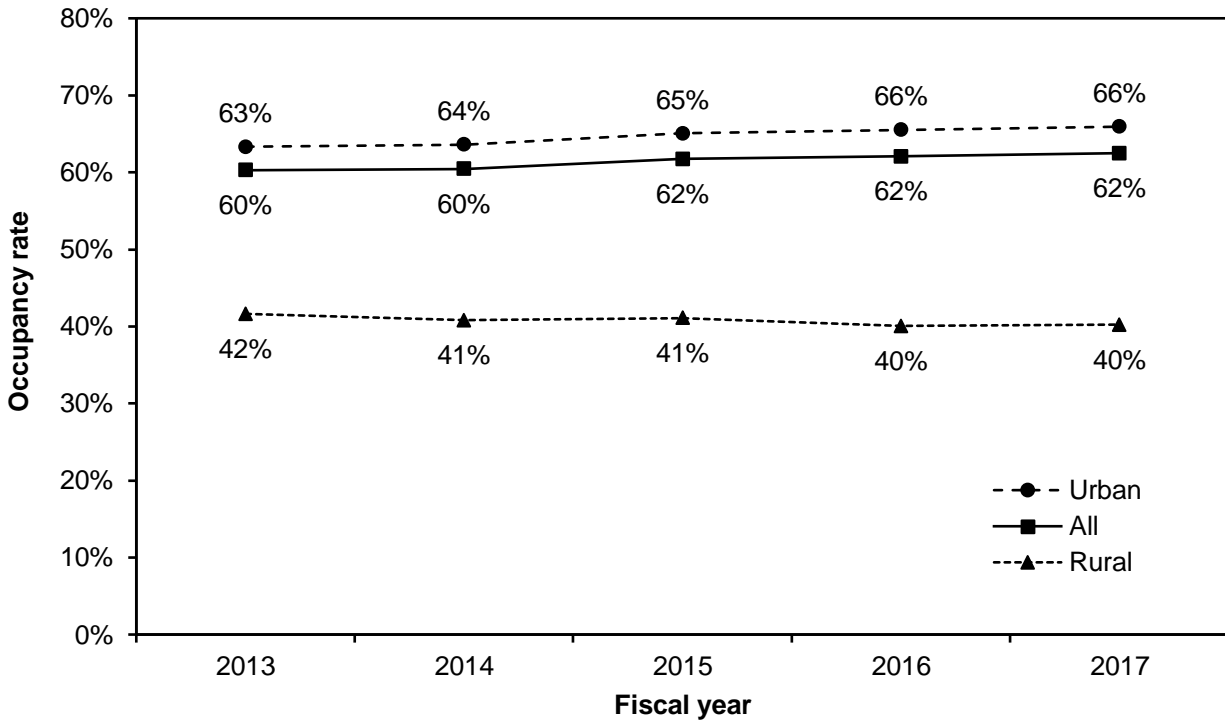


Note: FFS (fee-for-service). Observation visits are payable visits with a length of stay of at least eight hours. Years for outpatient visits are calendar years, and years for inpatient stays are fiscal years. Data for outpatient observation visits include hospitals paid under the outpatient prospective payment system and critical access hospitals; data for inpatient stays include hospitals paid under the inpatient prospective payment system.

Source: MedPAC analysis of standard analytical file outpatient claims and hospital cost report data from CMS.

- In 2017, Medicare beneficiaries had approximately 1.7 million outpatient observation visits and 4.7 million inpatient stays of 1–3 days (data not shown).
- From 2010 to 2017, the number of outpatient observation visits per 1,000 beneficiaries increased by 23 visits. By contrast, the number of inpatient stays of 1–3 days per 1,000 FFS beneficiaries decreased 26 stays over the same period. These trends suggest that outpatient observation visits may account for a portion of the decline in short inpatient stays.
- In 2017, approximately 13 percent of all outpatient observation visits were 48 hours or longer, the same percentage as in 2016 (data not shown).
- Between 2016 and 2017, the number of one-day inpatient stays increased 6 percent (data not shown).

Chart 6-13. Acute care hospital occupancy rates have increased slightly overall but declined slightly at rural hospitals, 2013–2017



Note: Hospital “occupancy rates” are defined as total bed days (including swing bed days) and observation bed days used, minus nursery bed days used, divided by total bed days available. Data are for a consistent cohort of approximately 4,130 general short-term acute care hospitals covered under the inpatient prospective payment system and critical access hospitals.

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

- In the aggregate, acute care hospital occupancy rates increased slightly between 2013 and 2017, from 60 percent to 62 percent.
- Occupancy rates are generally higher for urban than rural hospitals, and the differences increased since 2013. Between 2013 and 2017, the aggregate occupancy rate for urban hospitals increased from 63 percent to 66 percent, while the aggregate occupancy rate for rural hospitals decreased from 42 percent to 40 percent.

Chart 6-14. One-fifth of Medicare inpatient PPS payments were from special add-on payments, 2017

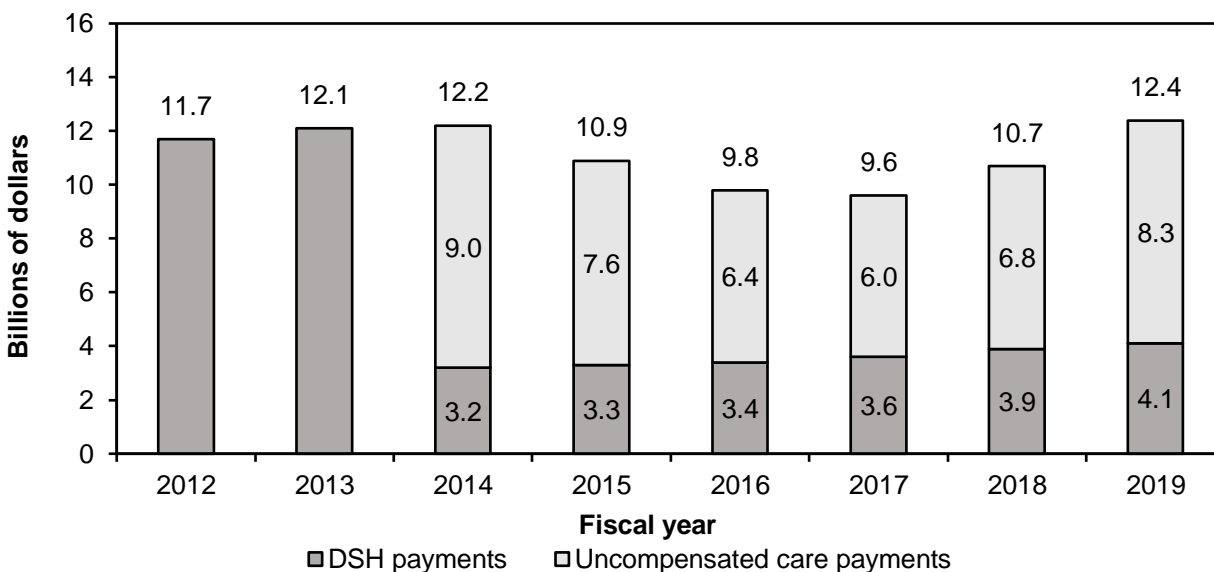
Inpatient PPS hospital group	Share of total inpatient PPS payments						Total payments (millions)
	Base	IME	DSH	UC	Outlier	Additional rural or isolated*	
All PPS	80.7%	5.6%	3.0%	5.0%	4.5%	1.6%	\$118,318
Urban	80.8	6.0	3.1	5.2	4.8	0.8	109,061
Rural	80.4	1.0	1.6	2.8	1.1	11.9	9,258
Large urban	80.1	6.6	3.2	5.7	5.2	0.1	55,393
Other urban	81.4	5.4	2.9	4.7	4.3	1.5	53,667
Rural referral	89.2	1.1	3.1	5.1	2.0	0.1	2,024
SCH (federal rate)	81.3	5.1	3.6	5.7	2.4	2.7	1,074
SCH (HSP rate)	74.8	0.0	0.0	0.0	0.2	25.2	4,183
Medicare dependent	79.3	0.1	1.9	3.9	1.1	14.2	824
Other rural, <50 beds	82.5	0.1	2.1	4.8	1.3	9.0	335
Other rural, ≥50 beds	86.0	1.9	2.8	5.8	1.4	2.4	818
Nonprofit	81.4	5.8	2.8	4.5	4.4	1.5	84,217
For-profit	85.1	2.5	3.3	5.7	3.2	1.0	18,890
Government	71.6	8.3	3.5	7.0	6.3	3.0	15,211
Major teaching	67.8	16.0	3.5	6.2	7.0	0.2	31,150
Other teaching	83.5	3.7	3.1	5.0	3.9	1.2	44,975
Nonteaching	87.4	0.0	2.5	4.1	3.2	3.1	42,194

Note: PPS (prospective payment system), IME (indirect medical education), DSH (disproportionate share hospital), UC (uncompensated care), SCH (sole community hospital), HSP (hospital-specific payment). Payments reflect 2017 payment rules applied to actual number of cases in 2017. Component do not sum to totals because other inpatient PPS payment components, such as new technology and quality payments, are not included in table.
 **Additional rural or isolated* payments include SCH, Medicare-dependent hospital, and low-volume add-on payments. For SCHs paid the HSP, this category includes all payments above the federal base rate, including the payments attributable to the costs associated with residency programs, low-income patients, and outlier cases.

Source: MedPAC analysis of MedPAR and impact file data from CMS.

- In 2017, Medicare payments to PPS hospitals for inpatient care to fee-for-service (FFS) beneficiaries were approximately \$118 billion.
- Base Medicare severity–diagnosis related group payments accounted for about 81 percent of these payments. Special add-on payments—including IME, DSH, UC, and outlier payments, as well as additional payments to rural or isolated hospitals—accounted for almost 20 percent. Payment adjustments for three quality programs—value-based payments or penalties, penalties for excess readmissions, and penalties for hospital-acquired conditions—reduced payments by about 1 percent (data not shown).
- In 2017, Medicare payments to critical access hospitals (CAHs) for inpatient care of FFS beneficiaries was approximately \$2.8 billion (data not shown). Cost-based reimbursement for CAHs results in payments significantly above what CAHs would be paid under the inpatient PPS.

Chart 6-15. After falling to a low in 2017, Medicare disproportionate share and uncompensated care payments to acute care hospitals increased



Note: DSH (disproportionate share hospital). Data are for general hospitals covered by the inpatient prospective payment system. Data represent CMS's estimated operating DSH payments and final uncompensated care payment levels.

Source: CMS hospital inpatient prospective payment systems for acute care hospitals final rules from fiscal years 2012 to 2019.

- In 2012, hospitals received almost \$12 billion in aggregate Medicare DSH payments. The traditional DSH payment formula was based on hospitals' share of Medicaid patients and Medicare patients with Supplemental Security Income (SSI).
- Beginning in 2014, DSH payments were calculated as 25 percent of the operating DSH payment the hospital would have received under the traditional DSH formula in effect before 2014. DSH-eligible hospitals are also eligible to receive uncompensated care payments. These payments are calculated as a fixed pool of dollars equal to 75 percent of the estimated total DSH payments hospitals would have received under the traditional DSH formula, times a factor that increases in proportion to the estimated percentage of the population without insurance relative to 2013. These payments are distributed based on the share of uncompensated care each hospital provides.
- Aggregate DSH payments have been approximately \$3 billion to \$4 billion per year since the policy change and have been increasing steadily. For fiscal year (FY) 2019, CMS has estimated \$4.1 billion in DSH payments. The increase in DSH payments between 2018 and 2019 is due to CMS-estimated growth in inpatient discharges for FY 2019 and the annual update to inpatient prospective payment system rates.
- The amount of uncompensated care payments declined about \$3 billion between 2014 and 2017 due to declines in the share of the population without insurance. Conversely, uncompensated care payments increased from 2017 to 2019 due to increases in both estimated total DSH payments under the traditional formula and estimated uninsured percentage.
- On net, the sum of DSH and uncompensated care payments increased \$0.7 billion between 2012 and 2019 to \$12.4 billion.

Chart 6-16. Medicare FFS inpatients discharged from acute care hospitals to home self-care decreased slightly while discharges to post-acute care increased, 2012–2017

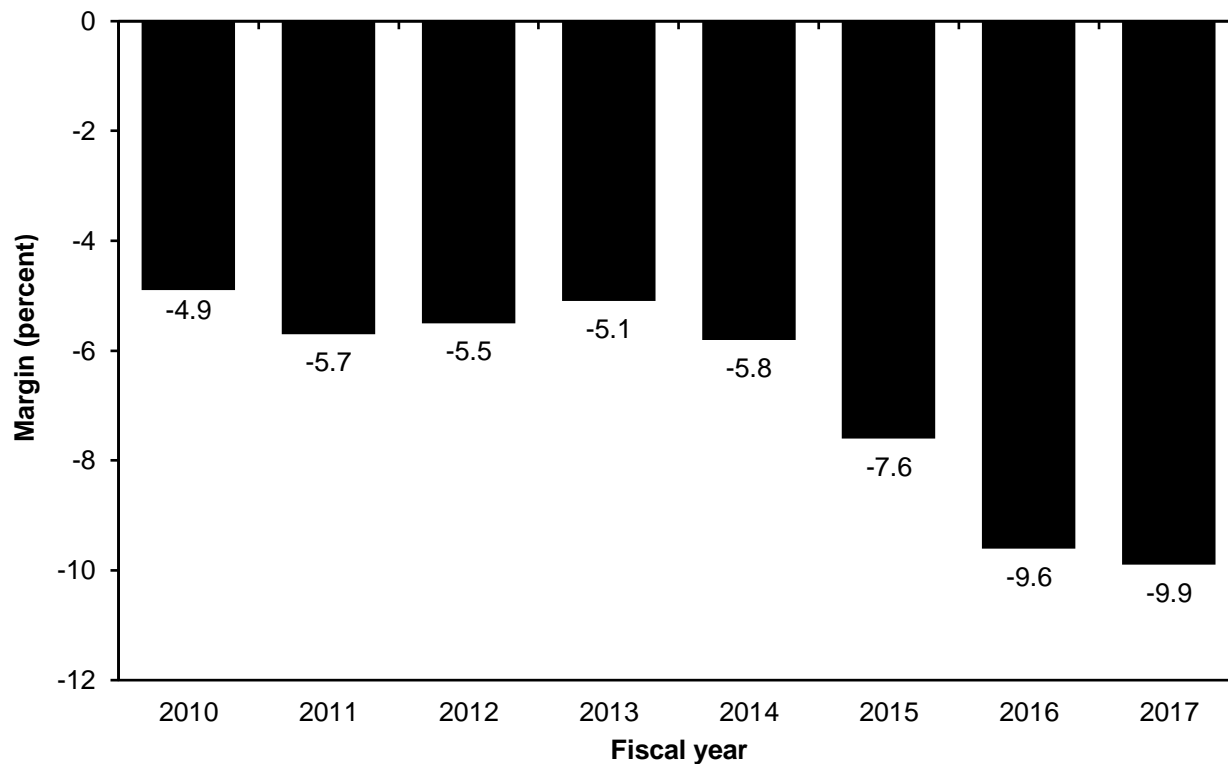
Destination	2012	2016	2017	Percentage point change 2012–2017
Home self-care	48.0%	45.7%	45.3%	–2.7
Post-acute care	40.9	43.2	43.5	2.6
Skilled nursing facility or swing bed	20.3	20.8	20.7	0.4
Home with home health care	15.9	17.2	17.9	2.0
Inpatient rehabilitation facility or unit	3.5	4.0	3.8	0.3
Long-term care hospital	1.2	1.1	1.1	–0.1
Hospice, medical facility or home	2.7	3.0	3.1	0.4
Other inpatient hospital	2.8	2.7	2.7	–0.1
Nursing home or intermediate care facility	1.5	1.3	1.2	–0.2
Died in hospital	3.3	3.2	3.2	–0.1
Left against medical advice	0.8	0.8	0.9	0.1
Other	0.1	0.2	0.1	0.0

Note: FFS (fee-for-service). Data are for discharges from short-term general acute care hospitals. Numbers may not sum due to rounding.

Source: MedPAC analysis of MedPAR data from CMS.

- From 2012 to 2017, the share of FFS inpatients discharged to home under self-care decreased 2.7 percentage points, while the share discharged to post-acute care increased 2.6 percent. The majority of this increase was from those discharged home with organized home health care.
- In 2017, about 45 percent of Medicare FFS inpatients at acute care hospitals were discharged to home under self-care, without any organized post-acute care; and another 43 percent were discharged to post-acute care services.
- In 2017, 0.15 percent of FFS inpatients at acute care hospitals were discharged or transferred with a planned acute care readmission (data not shown).

Chart 6-17. The aggregate Medicare margin for acute care hospitals has decreased since 2010

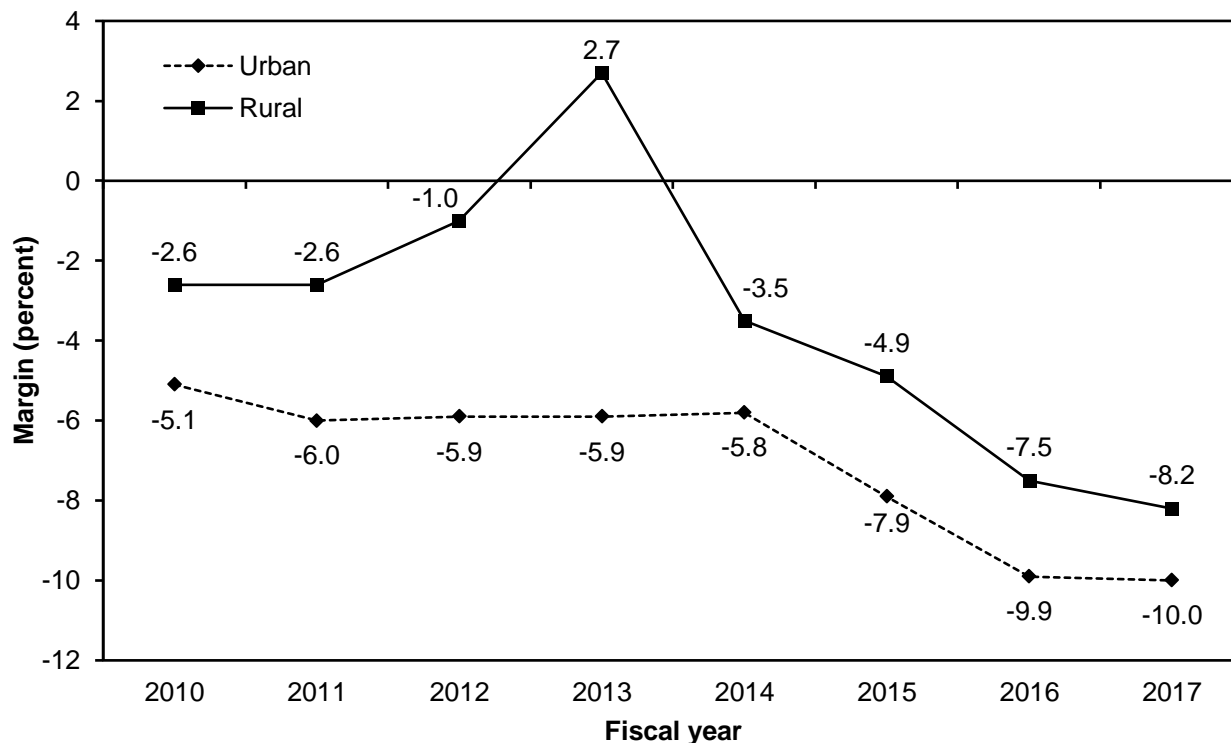


Note: Data are for general short-term acute care hospitals covered by the inpatient prospective payment system and exclude Maryland and critical access hospitals. A margin is calculated as revenue minus costs, divided by revenue. Margins are based on Medicare-allowable costs. Overall Medicare margins cover the costs and payments of acute inpatient, outpatient, inpatient psychiatric and rehabilitation unit, skilled nursing facility, and home health services, as well as graduate medical education, bad debts, Medicare payments for health information technology, and uncompensated care payments.

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

- The aggregate Medicare margin incorporates payments and costs for acute inpatient, outpatient, skilled nursing, home health care, and inpatient psychiatric and rehabilitative services, as well as direct graduate medical education, bad debts, Medicare payments for health information technology, and—starting in 2014—uncompensated care payments.
- The aggregate Medicare margin decreased from –4.9 percent in 2010 to –9.9 percent in 2017.
- In 2017, 25 percent of hospitals had aggregate Medicare margins of 0.6 percent or higher, and another 25 percent had margins of –21.3 percent or lower (data not shown). About 25 percent of hospitals had positive Medicare margins in 2017.

Chart 6-18. Rural hospitals continued to have a higher aggregate Medicare margin than urban hospitals in 2017



Note: Data are for general short-term acute care hospitals covered by the inpatient prospective payment system and exclude Maryland and critical access hospitals. A margin is calculated as revenue minus costs, divided by revenue. Margins are based on Medicare-allowable costs. Overall Medicare margins cover the costs and payments of acute inpatient, outpatient, inpatient psychiatric and rehabilitation unit, skilled nursing facility, and home health services, as well as graduate medical education, bad debts, Medicare payments for health information technology, and uncompensated care payments.

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

- The aggregate Medicare margin was higher for urban hospitals than for rural hospitals before 2004 (data not shown); however, since 2005, the aggregate Medicare margin for rural hospitals has exceeded that for urban hospitals. The higher rural margins reflect special rural add-on payments. In 2017, the difference between urban and rural hospital margins was about 1.8 percentage points.
- The aggregate Medicare margin includes inpatient and outpatient services, but not laboratory services. The rural margin rose to 2.7 percent in 2013 in part because of low-volume add-on payments and health information technology payments. However, in 2014, the rural margin fell to -3.5 percent because some unprofitable services that had been paid as laboratory services shifted into the outpatient payment system. These outpatient tests were a disproportionately large share of rural hospital payments, causing rural margins to fall faster than urban margins.

Chart 6-19. Teaching hospitals had higher aggregate Medicare margins than nonteaching hospitals, 2017

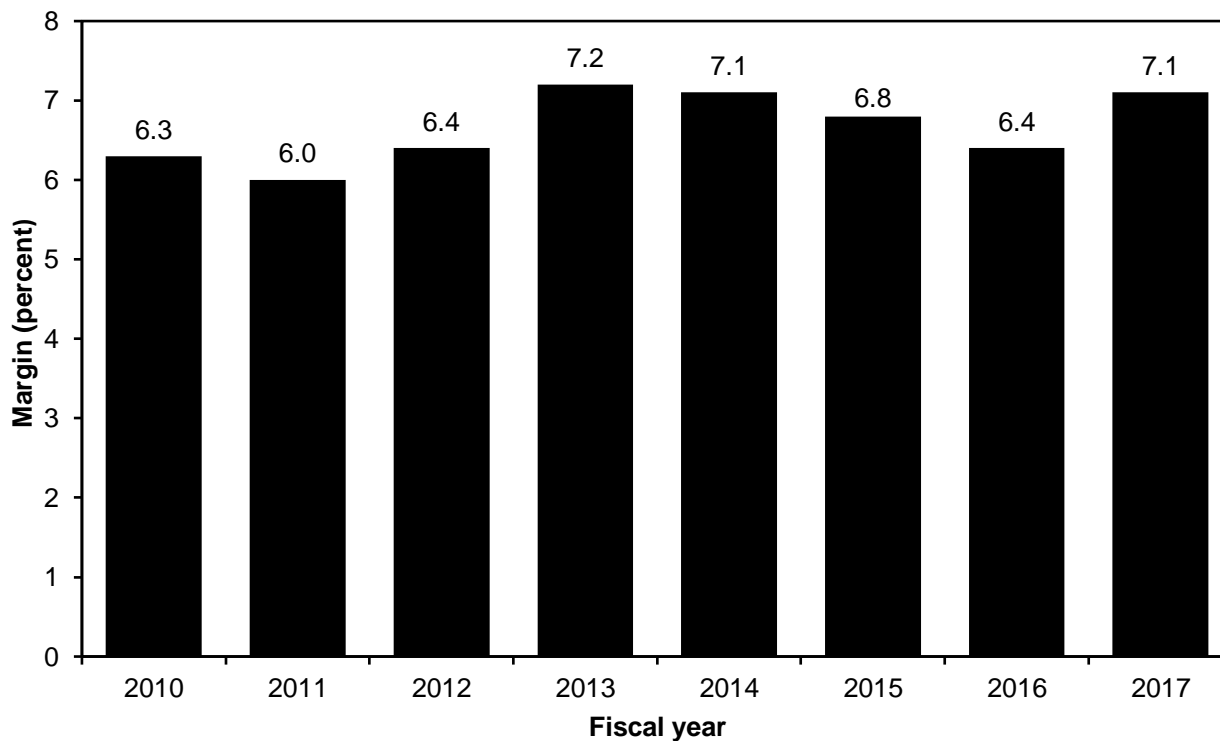
Hospital group	Share of hospitals	Aggregate Medicare margin
All hospitals	100%	-9.9%
Major teaching	11	-9.0
Other teaching	24	-8.2
Nonteaching	65	-12.1
Both teaching and DSH	31	-8.3
Teaching only	3	-15.0
DSH only	53	-11.4
Neither teaching nor DSH	12	-16.1

Note: DSH (disproportionate share hospital). Data are for general short-term acute care hospitals covered by the inpatient prospective payment system and exclude Maryland and critical access hospitals. A margin is calculated as revenue minus costs, divided by revenue. Margins are based on Medicare-allowable costs. Overall Medicare margins cover the costs and payments of acute inpatient, outpatient, inpatient psychiatric and rehabilitation unit, skilled nursing facility, and home health services, as well as graduate medical education, bad debts, Medicare payments for health information technology, and uncompensated care payments. Components may not sum to 100 percent due to rounding.

Source: MedPAC analysis of 2017 Medicare cost report data from CMS.

- Teaching hospitals (both major teaching and other teaching) had higher aggregate overall Medicare margins in 2017 compared with nonteaching hospitals. Their better financial performance was largely due to the additional payments they received from the IME and DSH adjustments to their inpatient payments.
- Hospitals that do not receive DSH payments had the lowest aggregate Medicare margin. In 2017, the aggregate Medicare margin of these hospitals was -15.0 percent (hospitals that received IME payments only) and -16.1 percent (hospitals that did not receive either IME or DSH payment), well below the aggregate margin of hospitals that receive both IME and DSH payments (-8.3 percent).
- Teaching hospitals (major teaching and other teaching) have a higher aggregate Medicare margin than nonteaching hospitals, while major teaching hospitals have a lower aggregate total margin than both other teaching and nonteaching hospitals (see Chart 6-22).

Chart 6-20. Hospital aggregate total margin increased in 2017 to 7.1 percent

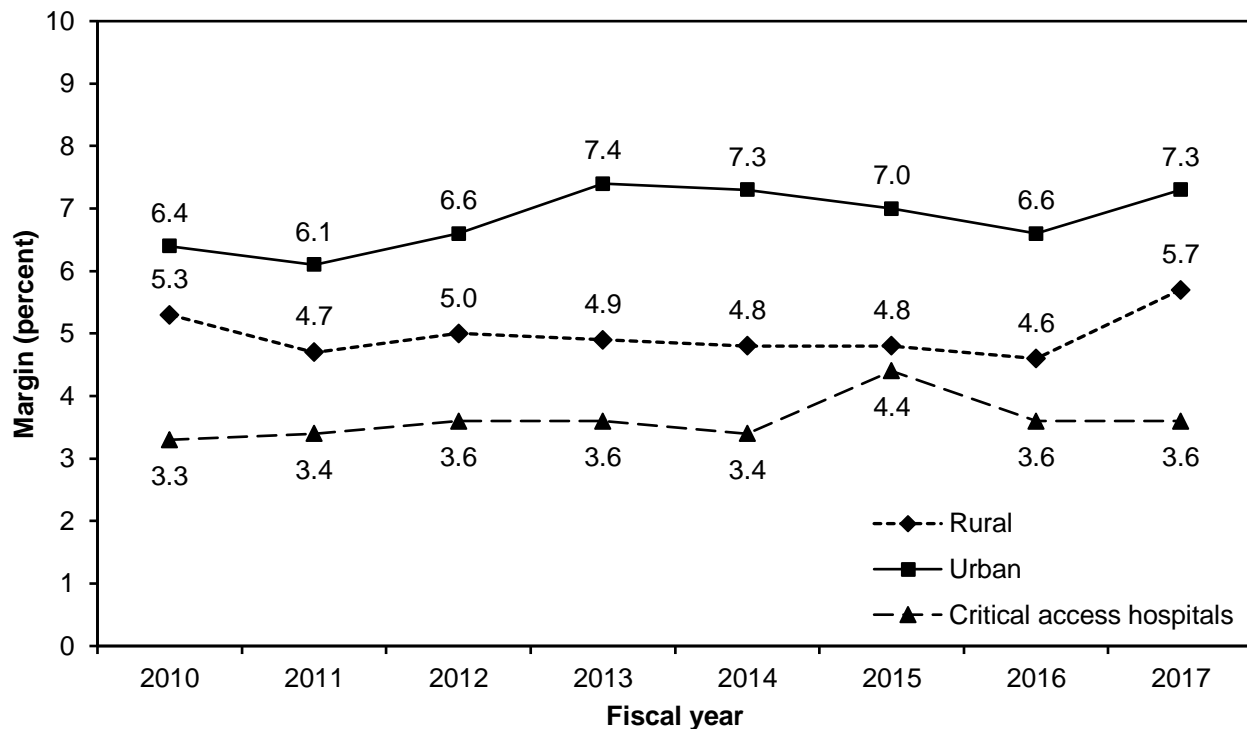


Note: Data are for general short-term acute care hospitals covered by the inpatient prospective payment system and include critical access hospitals. A margin is calculated as revenue minus costs, divided by revenue. "Total margin" includes all patient care services funded by all payers, plus nonpatient revenue such as investment income. Analysis excludes Maryland hospitals.

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

- The aggregate total hospital margin for all payers—Medicare, Medicaid, other government, and private payers—reflects the relationship of all hospital revenues to all hospital costs, including inpatient, outpatient, post-acute, and nonpatient services. The total margin also includes nonpatient revenue such as investment income. Other types of margins we track—including the aggregate Medicare margin—are operating margins that do not include investment income.
- From 2013 to 2015, the aggregate total margin was close to 7 percent, a level higher than the prior two decades. The all-payer margin decreased slightly to 6.4 percent in 2016, but increased to 7.1 percent in 2017.

Chart 6-21. Urban hospitals have the highest aggregate total margin, 2010–2017

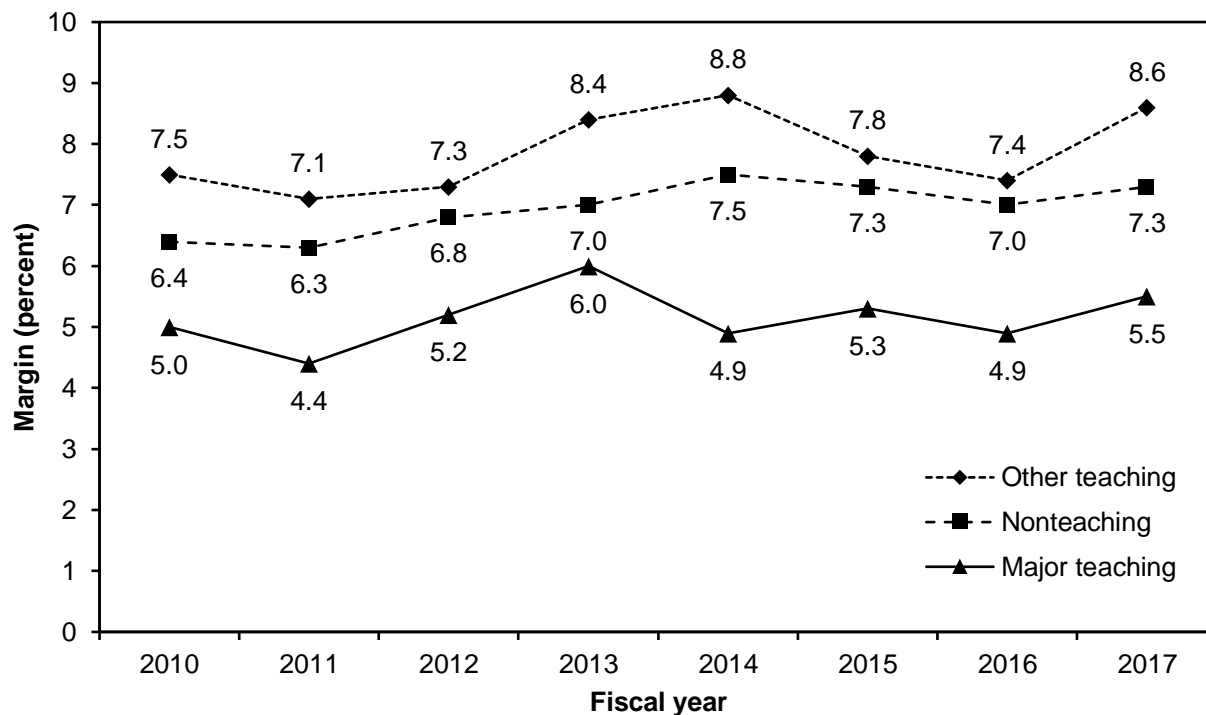


Note: Data are for general short-term acute care hospitals covered by the inpatient prospective payment system and include critical access hospitals. A margin is calculated as revenue minus costs, divided by revenue. "Total margin" includes all patient care services funded by all payers, plus nonpatient revenue such as investment income. Analysis excludes Maryland hospitals.

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

- Urban hospitals have a higher aggregate total margin than rural hospitals. In 2017, the aggregate total margin was 7.3 percent for urban hospitals and 5.7 percent for rural hospitals. The rural hospital aggregate total margin of 5.7 percent is the highest margin since 2007 (not all data shown).
- In general, the aggregate total margin for critical access hospitals has historically been lower than for other urban or rural hospitals.
- The aggregate total margin for critical access hospitals generally has remained between 3.3 percent and 3.6 percent since 2010.

Chart 6-22. The hospital aggregate total margin continued to be lower for major teaching hospitals than for other hospitals, 2010–2017



Note: Data are for general short-term acute care hospitals covered by the inpatient prospective payment system and include critical access hospitals. A margin is calculated as revenue minus costs, divided by revenue. Total margin includes all patient care services funded by all payers, plus nonpatient revenue such as investment income. Analysis excludes Maryland hospitals. "Major teaching" hospitals are defined by a ratio of interns and residents to beds of 0.25 or greater, while "other teaching" hospitals have a ratio of greater than 0 and less than 0.25.

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

- The aggregate total margin for major teaching hospitals has consistently been lower than that for other teaching and nonteaching hospitals. In 2017, the aggregate total margin for major teaching hospitals was 5.5 percent, lower than the aggregate total margin for other teaching hospitals (7.3 percent) and nonteaching hospitals (8.6 percent).
- Major teaching hospitals have lower operating margins than other teaching and nonteaching hospitals (data not shown). However, teaching hospitals have a higher aggregate Medicare margin than nonteaching hospitals due in large part to extra payments they receive through indirect medical education and disproportionate share adjustments and uncompensated care payments (see Chart 6-19).

Chart 6-23. Financial pressure leads to lower costs

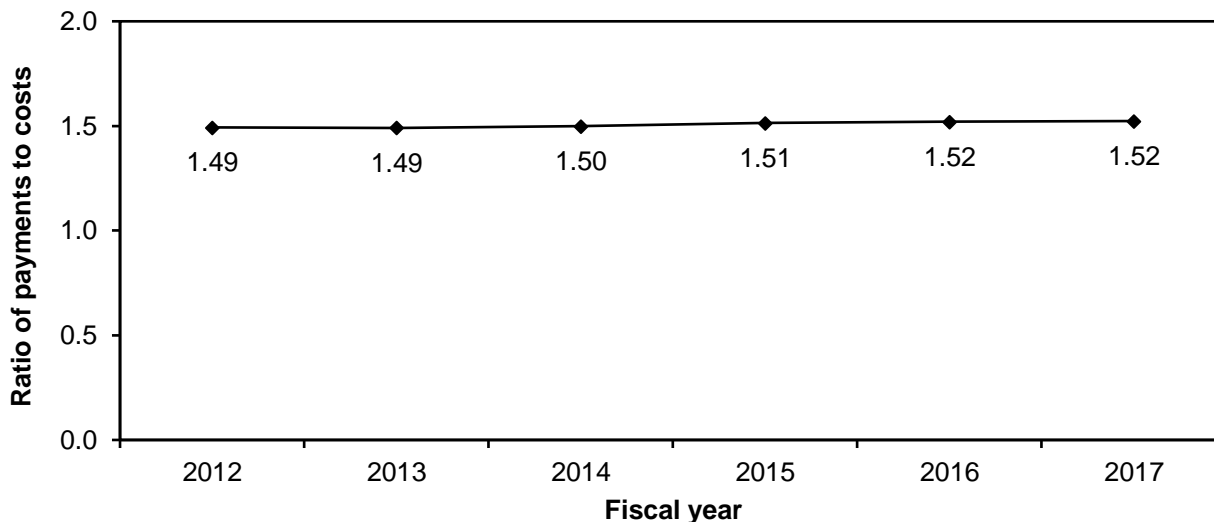
	Level of financial pressure, 2014–2016		
	High pressure (non-Medicare margin ≤ 1%)	Medium pressure	Low pressure (non-Medicare margin > 5%)
Number of hospitals	700	362	1,736
Financial characteristics, 2017 (medians)			
Non-Medicare margin (private, Medicaid, uninsured)	–3%	3%	14%
Standardized cost per discharge (as a share of the national median)			
For-profit and nonprofit hospitals	0.94	0.98	1.03
Nonprofit hospitals	0.95	0.99	1.05
For-profit hospitals	0.88	0.94	0.96
Annual growth in cost per discharge, 2015–2017	2.0%	2.6%	2.3%
Overall 2017 Medicare margin (medians)	–2%	–6%	–11%
Patient characteristics (medians)			
Total hospital discharges in 2017	3,347	6,483	7,872
Medicare share of inpatient days	39%	37%	37%
Medicaid share of inpatient days	8%	7%	6%
Medicare case-mix index	1.43	1.53	1.65

Note: Standardized costs are adjusted for hospital case mix, wage index, outliers, transfer cases, interest expense, and the effect of teaching and low-income Medicare patients on hospital costs. The sample includes all hospitals that had complete cost reports on file with CMS by October 2018. “High-pressure” hospitals are defined as those with a median non-Medicare profit margin of 1 percent or less from 2014 to 2016 and a net worth (assets – liabilities) that grew by less than 1 percent per year over that period if the hospital’s Medicare profits had been zero. “Low-pressure” hospitals are defined as those with a median non-Medicare profit margin greater than 5 percent from 2014 to 2016 and a net worth that grew by more than 1 percent per year over that period if the hospital’s Medicare profits had been zero. “Medium-pressure” hospitals are those that fit into neither the high- nor the low-pressure categories.

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

- Hospitals under higher financial pressure had 6 percent lower standardized costs per discharge than the national median. For-profit hospitals tended to constrain their costs more than nonprofit hospitals. They had below-average costs even when they had high profit margins.
- Cost growth was similar for all categories of hospitals (between 2.0 percent and 2.6 percent), suggesting that hospitals’ cost differentials remain fairly stable across time.
- Hospitals with lower volume, lower case mix, and higher Medicaid and Medicare shares of discharges are more likely to be under financial pressure.

Chart 6-24. Private-payer ratio of payments to costs for hospital services remained relatively flat, 2012–2017

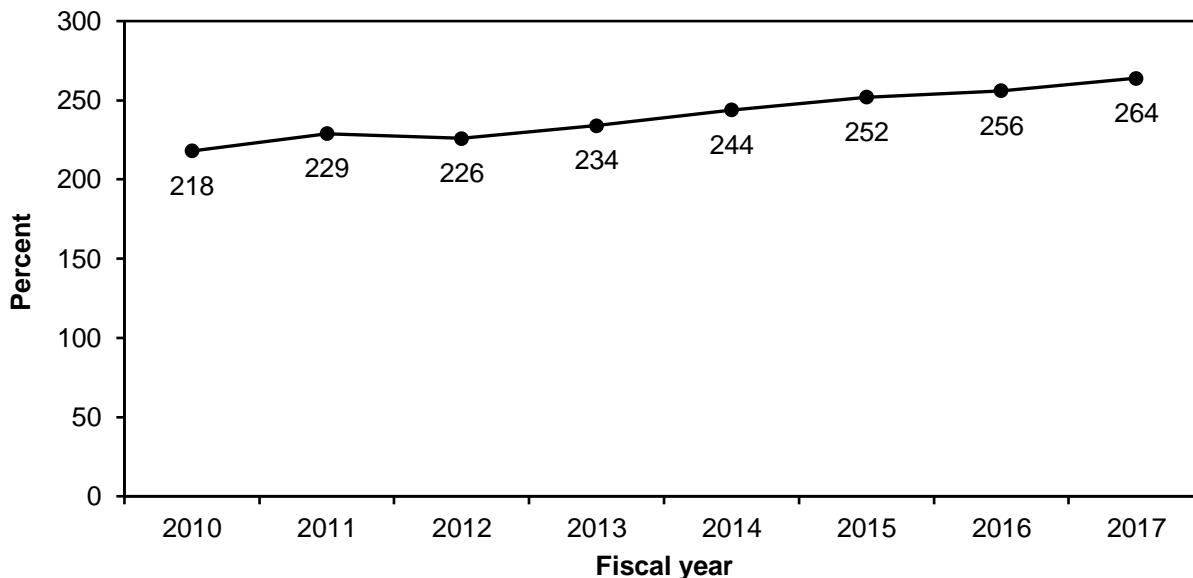


Note: Data are for community hospitals (nonfederal short-term general and specialty hospitals) that responded to the American Hospital Association (AHA) survey and cover all hospital service lines. Data prior to 2017 used AHA's internal methodology to classify facilities as hospitals. Beginning in 2017, AHA changed the definition of *hospital* to include an institution licensed as a general or specialty hospital by the appropriate state agency and accredited by one of the following organizations: The Joint Commission Healthcare Facilities Accreditation Program, DNV Health Accreditation, or the Center for Improvement in Healthcare Quality Accreditation, or a hospital that is Medicare certified as a provider of acute services under Title XVIII of the Social Security Act. As a result of the application of the new, broader hospital definition, the number of community hospitals in 2017 increased by approximately 400.

Source: MedPAC analysis of data from the American Hospital Association Annual Survey of Hospitals.

- The private-payer ratio of payments to costs reflects hospitals' weighted average profit margin for patients without government insurance across all service lines of business (e.g., inpatient, outpatient, and hospital-owned physician practices). In 2017, the ratio of payments to costs was 1.52 among private payers, which includes commercial payers as well as other nongovernment payers and self-pay patients.
 - This ratio was slightly lower (1.45) when including imputed data for hospitals that did not respond to the AHA survey.
 - The ratio of 1.52 understates the payment-to-cost ratio for those with commercial insurance because it is a weighted average of payment-to-cost ratios for those with commercial insurance, other nongovernmental payers, and self-pay patients. Hospitals generally incur losses on self-pay patients, which pulls down the weighted average. Therefore, the payment-to-cost ratio for only those with commercial insurance is substantially higher than 1.52.
- From 2012 to 2017, the private-payer ratio of payments to costs was relatively flat. During this period, total hospital profit margins remained near 7 percent (see Chart 6-20).
 - A flat payment-to-cost ratio across all hospital services does not necessarily mean that commercial prices are rising at the same rate as costs for hospital inpatient or outpatient services. For example, a flat overall payment-to-cost ratio could reflect an increase in inpatient prices relative to costs plus the acquisition of physician practices with lower payment-to-cost ratios (for facility fees and drugs) that are folded into hospitals' outpatient operations.

Chart 6-25. Rapid charge growth caused the markup of charges above costs for Medicare services to increase, 2010–2017

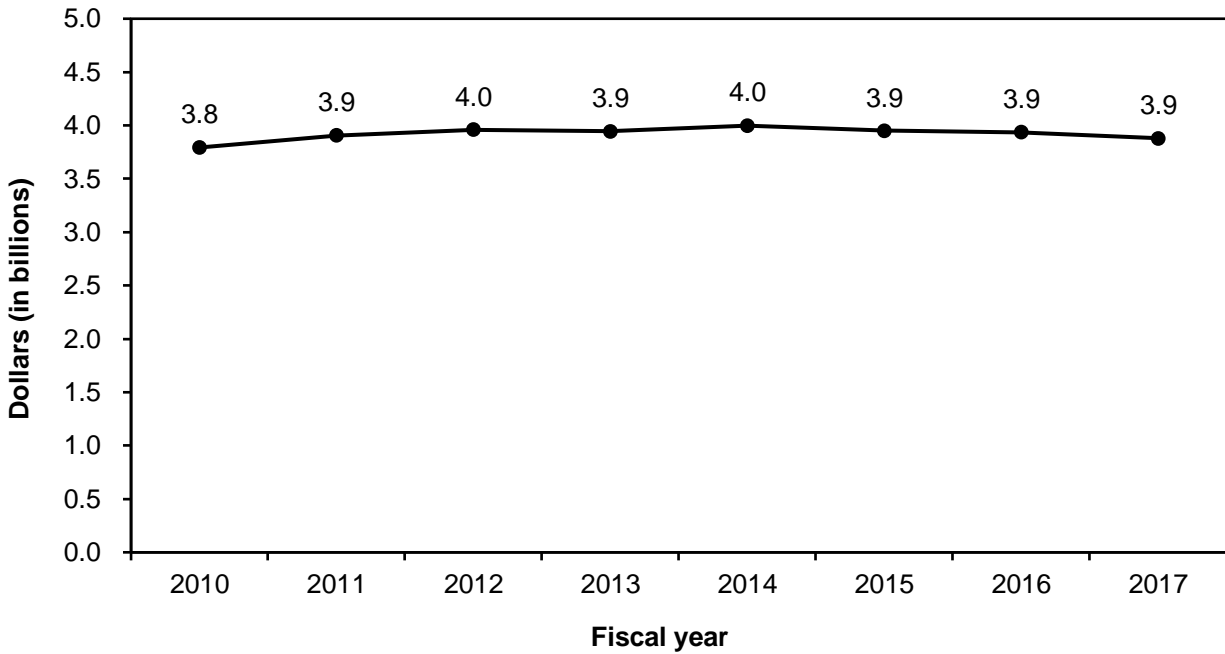


Note: Data are for community hospitals (nonfederal short-term general and specialty hospitals) that responded to the American Hospital Association (AHA) survey, and cover all hospital service lines. Markups for Medicare services are calculated as the percentage by which charges exceed costs for patients with fee-for-service Medicare. Data prior to 2017 used AHA's methodology to classify facilities as hospitals. Beginning in 2017, AHA changed the definition of *hospital* to include an institution licensed as a general or specialty hospital by the appropriate state agency and accredited by one of the following organizations: The Joint Commission Healthcare Facilities Accreditation Program, DNV Health Accreditation, or the Center for Improvement in Healthcare Quality Accreditation, or a hospital that is Medicare certified as a provider of acute services under Title XVIII of the Social Security Act. As a result of the application of the new, broader hospital definition, the number of community hospitals in 2017 increased by approximately 400.

Source: MedPAC analysis of data from American Hospital Association Annual Survey of Hospitals.

- The markup of hospitals' charges above costs for Medicare services reflects the percent by which charges exceed costs across all service lines of business for patients with fee-for-service Medicare. In 2017, the markup for Medicare services was 264 percent, reflecting hospital charges (\$786 billion) that were over three times costs (\$216 billion) (data not shown).
- The markup of charges over costs for Medicare services in 2017 was higher among urban hospitals (275 percent) than among rural hospitals (184 percent) (data not shown).
- Among both urban and rural hospitals in 2017, the markup of charges over costs among for-profit hospitals was approximately two times higher than the markup among nonprofit or government-owned hospitals (data not shown).
- From 2010 to 2017, the average markup of hospitals' charges above costs for Medicare services rose from 218 percent to 264 percent. Rapid growth in charges may have little impact on hospital financial performance because few patients pay full charges. However, charge growth may significantly affect uninsured patients, who may pay full charges. More rapid growth in charges (relative to growth in costs) may reflect hospitals' attempts to maximize revenue from private payers (who often structure their payments as a discount off charges).

Chart 6-26. Medicare payments to inpatient psychiatric facilities have been relatively flat, 2007–2017



Note: These fiscal year–incurred data represent only program spending; they do not include beneficiary cost sharing. Spending for inpatient psychiatric care furnished in scatter beds in acute care hospitals (and paid for under the acute care inpatient prospective payment system) is not included in this chart.

Source: CMS Office of the Actuary.

- Medicare pays for inpatient psychiatric facility (IPF) care under the IPF prospective payment system.
- Medicare program spending for beneficiaries' care in IPFs grew less than 1 percent per year, on average, between 2010 and 2017.

Chart 6-27. A growing share of inpatient psychiatric facilities are for-profit, 2010–2017

Type of IPF	2010	2013	2016	2017	Average annual change		
					2010–2013	2013–2016	2016–2017
All	1,596	1,573	1,595	1,589	–0.5%	0.5%	–0.4
Urban	1,261	1,238	1,258	1,255	–0.6	–0.5	–0.2
Rural	334	334	335	331	0.0	0.1	–1.2
Freestanding	447	463	500	508	1.2	2.6	1.6
Hospital-based units	1,149	1,110	1,095	1,081	–1.1	–0.5	–1.3
Nonprofit	807	749	733	733	–2.5	–0.7	0.0
For profit	386	467	514	516	6.6	3.3	0.4
Government	403	357	348	340	–4.0	–0.9	–2.3

Note: IPF (inpatient psychiatric facility). Data are from facilities that submitted valid Medicare cost reports in the given fiscal year. Components may not sum to totals due to missing data.

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

- Between 2010 and 2013, the number of IPFs that filed Medicare cost reports fell, on average, 0.5 percent per year. However, between 2013 and 2016, the supply of IPFs recovered, growing, on average, 0.5 percent per year. In 2017, the number of IPFs fell 0.4 percent.
- A growing share of Medicare IPF users receive care in for-profit facilities. Between 2010 and 2013, the number of for-profit IPFs grew nearly 7 percent per year, on average. Over the same period, the number of nonprofit IPFs fell more than 2 percent per year, on average. The number of for-profit IPFs continued to grow through 2016, while the number of nonprofit IPFs declined. In 2017, the numbers of for-profit and nonprofit facilities remained relatively stable.

Chart 6-28. Almost three-quarters of IPF patients were classified into one diagnosis group, 2017

MS-DRG	Diagnosis	Share
885	Psychosis	71.8%
884	Organic disturbances and mental retardation	7.0
057	Degenerative nervous system disorders without MCC	6.2
897	Alcohol/drug abuse or dependency, no rehabilitation, without MCC	4.6
881	Depressive neurosis	3.7
895	Alcohol/drug abuse or dependency with rehabilitation, without MCC	1.6
882	Neurosis except depressive	1.3
880	Acute adjustment reaction and psychosocial dysfunction	0.9
883	Disorders of personality and impulse control	0.7
056	Degenerative nervous system disorders with MCC	0.6
894	Alcohol/drug use—left AMA	0.3
886	Behavioral and developmental disorders	0.2
896	Alcohol/drug abuse or dependency without rehabilitation, with MCC	0.2
876	OR procedure with principal diagnosis of mental illness	0.1
887	Other mental disorders	0.1
081	Nontraumatic stupor and coma without MCC	<0.1
080	Nontraumatic stupor and coma with MCC	<0.1
	Nonpsychiatric MS-DRGs	0.8
	Total	100.0

Note: IPF (inpatient psychiatric facility), MS-DRG (Medicare severity–diagnosis related group), MCC (major comorbidity or complication), AMA (against medical advice), OR (operating room). Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS.

- Medicare patients in IPFs are generally assigned 1 of 17 psychiatric MS-DRGs.
- The most frequently occurring IPF diagnosis—accounting for about 72 percent of IPF discharges in 2017—was psychosis. This broad category includes patients with principal diagnoses of schizophrenia, bipolar disorder, and major depression.
- In 2017, the next most common discharge diagnosis, accounting for 7 percent of IPF cases, was organic disturbances and mental retardation.

Chart 6-29. A majority of IPF users are under the age of 65, 2017

Characteristic	Share of all IPF users	Share of users with more than one IPF stay
Current eligibility status		
Aged	42.1%	29.3%
Disabled	57.8	70.6
ESRD only	0.1	0.1
Age		
<45	23.0	30.6
45–64	34.3	39.4
65–79	27.8	22.0
80+	14.9	8.0
All	100.0	27.8

Note: IPF (inpatient psychiatric facility), ESRD (end-stage renal disease). Components may not sum to totals due to rounding. The “aged” category includes beneficiaries ages 65 and older without ESRD. The “disabled” category includes beneficiaries under age 65 without ESRD. The “ESRD only” category includes beneficiaries with ESRD, regardless of age.

Source: MedPAC analysis of MedPAR data from CMS.

- Of Medicare beneficiaries who had at least one IPF stay in 2017, 57.8 percent qualified for Medicare because of a disability. These beneficiaries tend to be younger and poorer than the typical fee-for-service beneficiary.
- Approximately 28 percent of Medicare beneficiaries who used an IPF in 2017 had more than one IPF stay during the year. These beneficiaries were far more likely than all IPF users to be disabled, often because of a psychiatric diagnosis.

