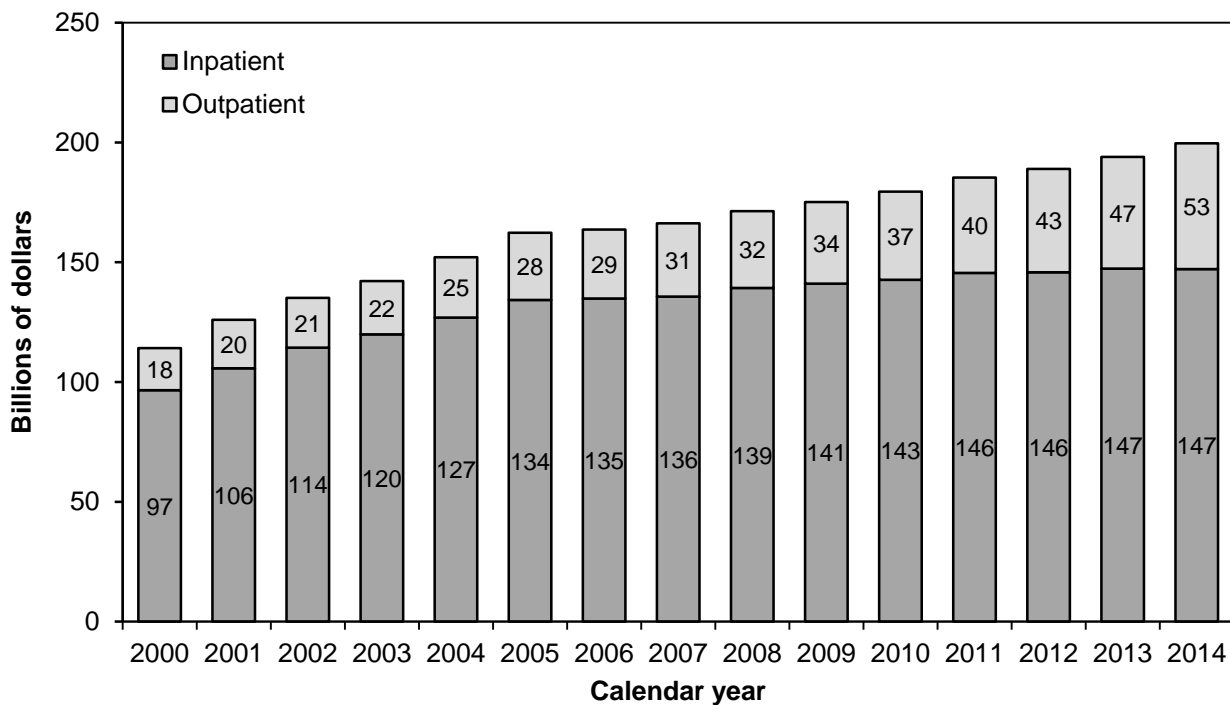


SECTION

6

Acute inpatient services
Short-term hospitals
Inpatient psychiatric facilities

Chart 6-1. Growth in Medicare’s FFS payments for hospital inpatient and outpatient services, 2000–2014

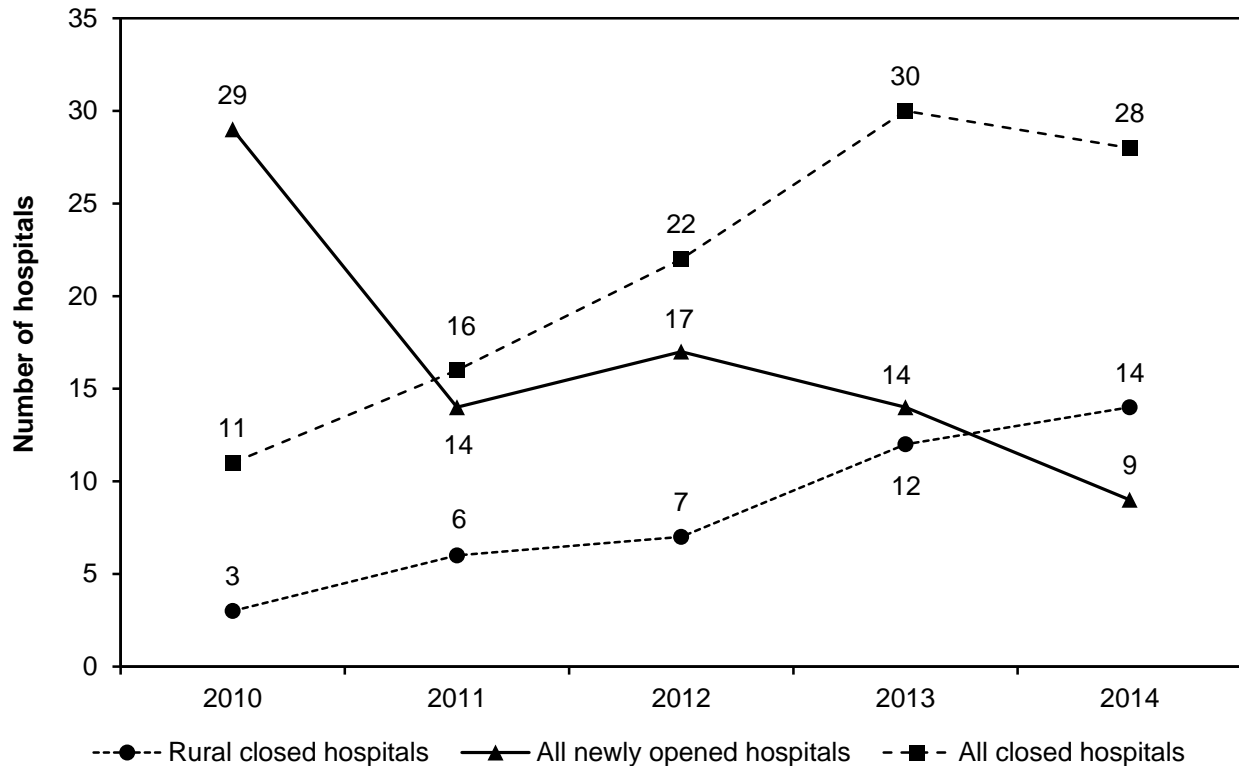


Note: FFS (fee-for-service). Analysis includes inpatient services covered by the acute inpatient prospective payment system (PPS); psychiatric, rehabilitation, long-term care, cancer, and children’s hospitals and units; outpatient services covered by the outpatient PPS; and other outpatient services.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

Source: CMS Office of the Actuary.

- Aggregate Medicare FFS inpatient spending was \$147 billion and outpatient spending was \$53 billion in 2014. From 2013 to 2014, inpatient spending was virtually unchanged, while outpatient spending increased nearly 13 percent.
- Inpatient spending increased substantially between 2001 and 2005 but remained relatively unchanged from 2005 to 2007. Spending for both inpatient and outpatient care began to increase in 2008, but beginning in 2011, inpatient spending began to plateau and outpatient spending grew significantly.
- Outpatient spending has increased as a share of total Medicare hospital spending in the past 14 years. In 2000, outpatient spending accounted for 16 percent of all hospital spending; in 2014, outpatient spending grew to over 26 percent of total Medicare hospital spending.

Chart 6-2. Annual changes in number of acute care hospitals participating in the Medicare program, 2010–2014



Note: "Hospitals" refers to general short-term acute care hospitals. 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 or critical access hospital.

Source: MedPAC analysis of CMS's Provider of Service file, inpatient prospective payment system final rule impact file, and hospital cost reports.

- The number of hospital closures exceeded the number of openings in 2014, with 28 acute care hospitals closing (less than 1 percent of all acute care hospitals participating in the Medicare program) and 9 hospitals starting participation in the Medicare program.
- In 2014, rural hospital closures accounted for half of all hospital closures. The number of rural hospital closures has gradually increased in recent years, from 3 in 2010 to 14 in 2014. Rural hospital closures could in part reflect declining inpatient volume at many rural hospitals.

Chart 6-3. Percent change in hospital employment overall and for selected occupations, 2010–2014

	Total hospital employment (May 2010)	Total hospital employment (May 2014)	Percent change in total hospital employment (2010–2014)
All hospital occupations	5,159,860	5,247,530	1.7%
Physicians and surgeons (DE)	122,200	153,380	25.5
Computer and math science	56,820	67,010	17.9
Life, physical, & social science	27,160	31,650	16.5
Pharmacists	58,680	66,010	12.5
Business and finance	96,960	107,520	10.9
Physician assistants	18,710	19,810	5.9
Diagnostic-related technologists	212,030	221,880	4.7
Management	189,430	194,930	2.9
Registered nurses	1,521,400	1,560,200	2.6
Community and social services	101,240	100,330	-0.9
Clinical laboratory technicians	165,040	161,370	-2.2
Office and administrative	744,850	700,250	-6.0
LPNs/LVNs	145,130	101,580	-30.0

Note: DE (direct employment [by the hospital]), LPN (licensed practical nurse), LVN (licensed vocational nurse). Sum of employment for selected occupations listed does not equal the total in the “All hospital occupations” row.

Source: MedPAC analysis of Bureau of Labor Statistics, Occupational Employment Statistics data set as of September 2014.

- The U.S. Bureau of Labor Statistics (BLS) survey of occupational employment data shows that from May 2010 to May 2014, hospital employment increased 1.7 percent.
- Five occupations with notable growth in the hospital sector from 2010 to 2014 include physicians and surgeons directly employed by hospitals (25.5 percent); computer and math science positions (17.9 percent); life, physical, and social science positions (16.5 percent); pharmacists (12.5 percent); and business and finance positions (10.9 percent). Growth in the overall number of hospital-employed physicians suggests that hospitals have been more active in recent years in hiring physicians directly. Growth in computer and math science positions may reflect hospitals’ efforts to implement electronic health record systems.
- Four occupations with notable declines in employment in the hospital sector from 2010 to 2014 include LPNs and LVNs, office and administrative staff, clinical laboratory technicians, and community and social service positions (social workers). During this time, the number of LPN/LVNs declined 30 percent (by roughly 44,000 LPN/LVNs). By contrast, during the same time period, the number of registered nurses employed by hospitals increased 2.6 percent (roughly 39,000 registered nurses), suggesting a continued shift toward employing nurses with a higher level of training.
- More recent industry-level (as opposed to occupation-level) survey data from BLS suggest that overall hospital employment increased by 5 percent between May 2014 and January 2016. As of January 2016, hospitals accounted for approximately 3.4 percent of all U.S. nonfarm employment (data not shown).

Chart 6-4. Share of Medicare acute care hospital inpatient discharges by hospital group, 2014

Hospital group	Hospitals		Medicare discharges	
	Number	Share of total	Number (thousands)	Share of total
All PPS and CAHs	4,647	100%	9,528	100%
CAHs	1,336	28.8	322	3.4
PPS hospitals	3,311	71.3	9,206	96.6
Urban (PPS only)	2,459	52.9	8,192	86.0
Large urban	1,341	28.9	4,471	46.9
Other urban	1,118	24.1	3,721	39.1
Rural (PPS only)	852	18.3	1,014	10.6
Rural referral	97	2.1	237	2.5
Sole community	379	8.2	495	5.2
Medicare dependent	147	3.2	108	1.1
Other rural, <50 beds	113	2.4	43	0.5
Other rural, ≥50 beds	116	2.5	131	1.4
Tax status (PPS only)				
Voluntary	1,901	57.4	6,442	70.0
Proprietary	867	26.2	1,638	17.8
Government	543	16.4	1,126	12.2
Teaching status (PPS only)				
Major teaching	293	8.8	1,588	16.7
Other teaching	730	22.0	3,335	36.2
Nonteaching	2,288	69.1	4,283	46.5

Note: PPS (prospective payment system), CAH (critical access hospital). Maryland hospitals are excluded. 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. "Other teaching hospitals" have a ratio below 0.25. Data are limited to providers with complete 2014 cost reports. Hospitals in urban, rural, tax status, and teaching status categories are all PPS hospitals. Numbers may not sum to totals due to rounding.

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

- In 2014, 3,311 hospitals provided 9.2 million discharges under Medicare's acute inpatient PPS and 1,336 CAHs provided 322,000 discharges, for a combined total of more than 4,600 hospitals providing 9.5 million Medicare discharges. The number of PPS discharges continued to decline from 2013 to 2014, in part because of a shift in services to the outpatient setting (data not shown).
- Approximately 13.5 percent of PPS hospitals are covered by three special payment provisions (rural referral centers (RRCs), sole community hospitals (SCHs), and Medicare dependent hospitals (MDHs)) intended to help rural facilities that are not CAHs; these facilities accounted for 8.8 percent of all discharges.
- About 90 percent of rural hospitals were given special payments through the CAH, RRC, SCH, or MDH program in 2014. Collectively, these three types of hospitals provide 87 percent of all rural Medicare discharges (data not shown).

Chart 6-5. Change in share of discharges by major diagnostic categories, 2006–2014

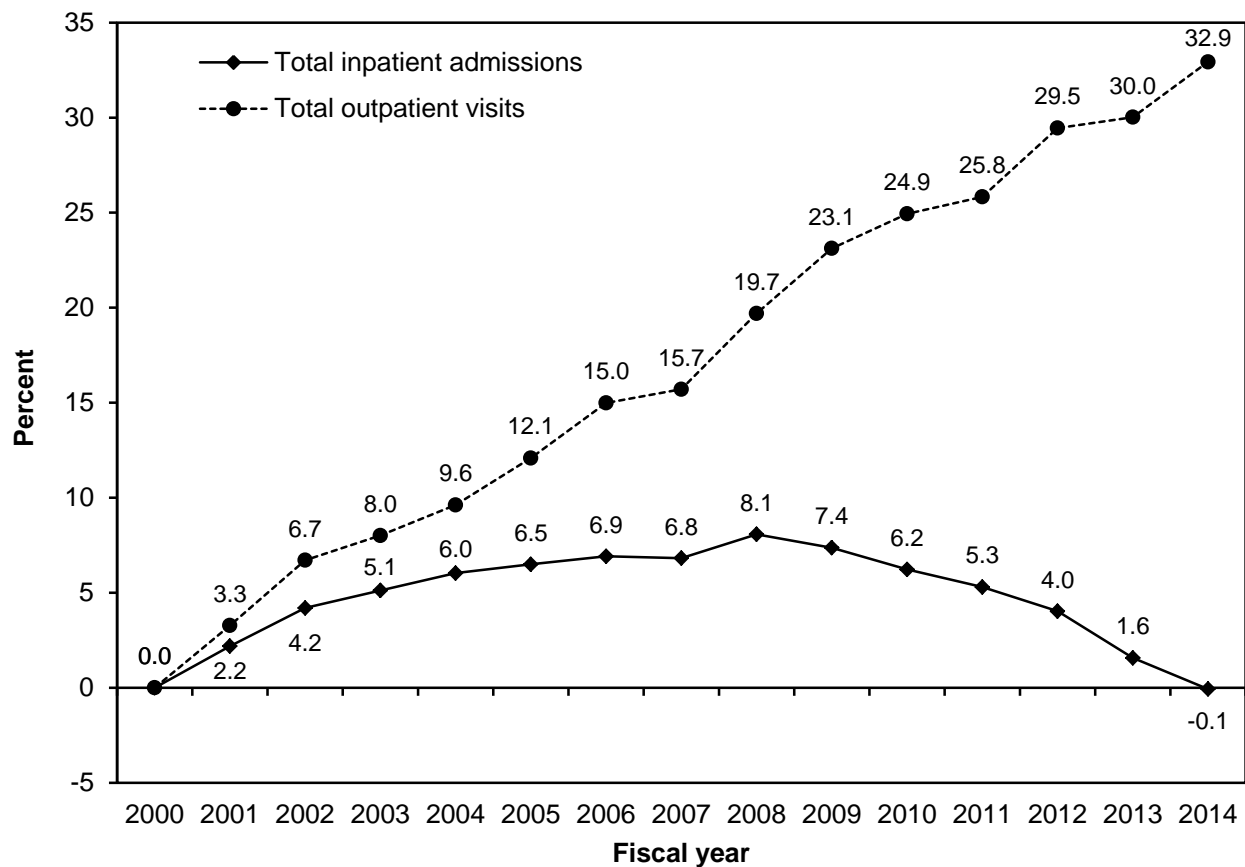
MDC number	MDC name	Share of all discharges 2006	Share of all discharges 2014	Percentage point change
5	Circulatory system	27%	20%	–7
4	Respiratory system	14	14	0
8	Musculoskeletal system	12	14	2
6	Digestive system	11	11	0
1	Nervous system	8	8	0
18	Infectious and parasitic diseases	4	8	4
11	Kidney and urinary tract	6	8	2
10	Endocrine, nutritional and metabolic	4	4	0
7	Hepatobiliary system and pancreas	3	3	0
9	Skin, subcutaneous tissue and breast	3	3	0
	Total	92	93	1

Note: MDC (major diagnostic category).

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

- In fiscal year 2014, 10 major diagnostic categories accounted for 93 percent of all discharges from hospitals paid under the inpatient prospective payment system.
- Circulatory system cases accounted for one-fifth of all inpatient discharges in 2014, a decline of 7 percentage points from 2006.
- Musculoskeletal system cases accounted for 14 percent of all inpatient discharges in 2014, up 2 percentage points from 2006.
- Infectious and parasitic disease cases accounted for 8 percent of all inpatient discharges in 2014, up 4 percentage points from 2006.
- Kidney and urinary tract cases accounted for 8 percent of all inpatient discharges in 2014, up 2 percentage points from 2006.

Chart 6-6. Cumulative change in total all-payer inpatient admissions and outpatient visits, 2000–2014

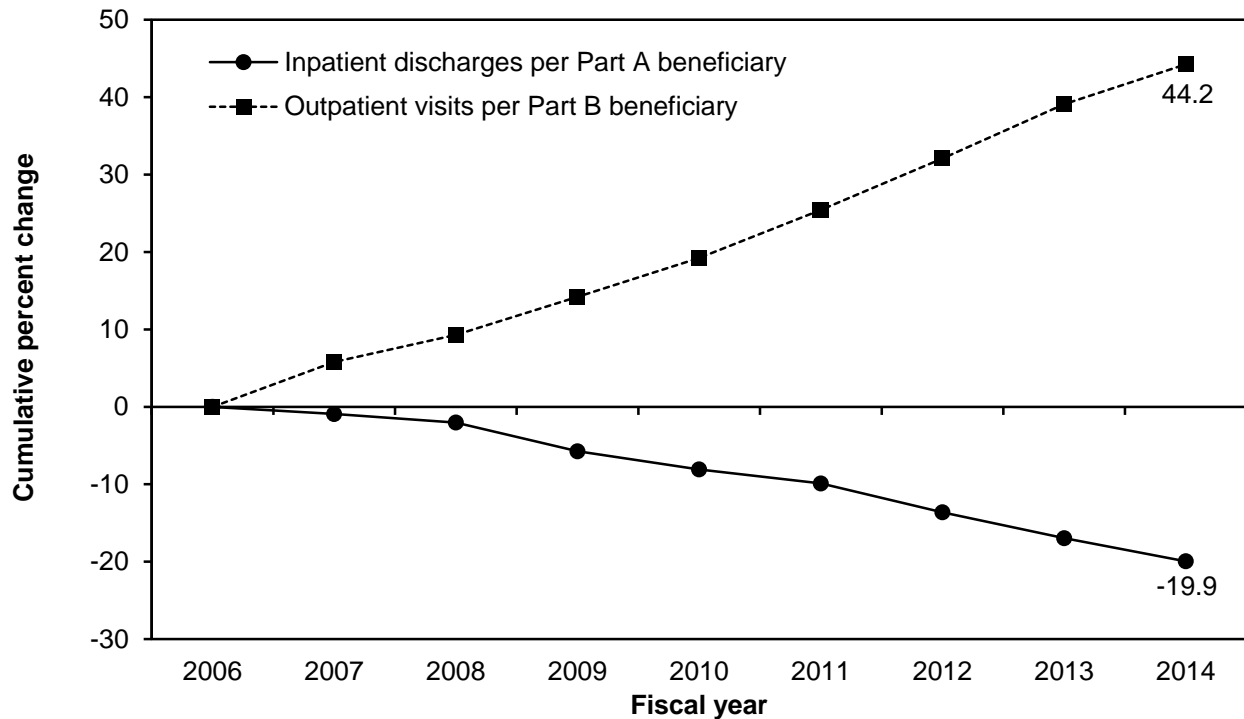


Note: “Cumulative change” is the total percent increase from 2000 through 2014. Data reflect admissions (all payers) to and outpatient visits at about 5,000 community hospitals. “Community hospitals” are defined as all nonfederal, short-term general, and other specialty hospitals. “Other specialty hospitals” include obstetrics and gynecology; eye, ear, nose, and throat; rehabilitation; orthopedic; and other individually described specialty services. Community hospitals include academic medical centers or other teaching hospitals if they are nonfederal short-term hospitals. Excluded are hospitals not accessible by the general public, such as prison hospitals or college infirmaries.

Source: American Hospital Association, AHA Hospital Statistics.

- In 2014, community hospitals provided nearly 693 million outpatient visits and slightly fewer than 33 million inpatient admissions (data not shown).
- Hospital outpatient service use grew much more rapidly from 2000 to 2014 than inpatient service use. Total hospital outpatient visits increased 33 percent from 2000 to 2014.
- Outpatient visits increased 2.9 percentage points from 2013 to 2014, or by nearly 5 million visits (data not shown).
- Total inpatient admissions grew by over 8 percent between 2000 and 2008 but have since declined. Inpatient admissions decreased by 1.7 percentage points from 2013 to 2014, or over 500,000 admissions (data not shown).

Chart 6-7. Cumulative change in Medicare outpatient services and inpatient discharges per FFS beneficiary, 2006–2014

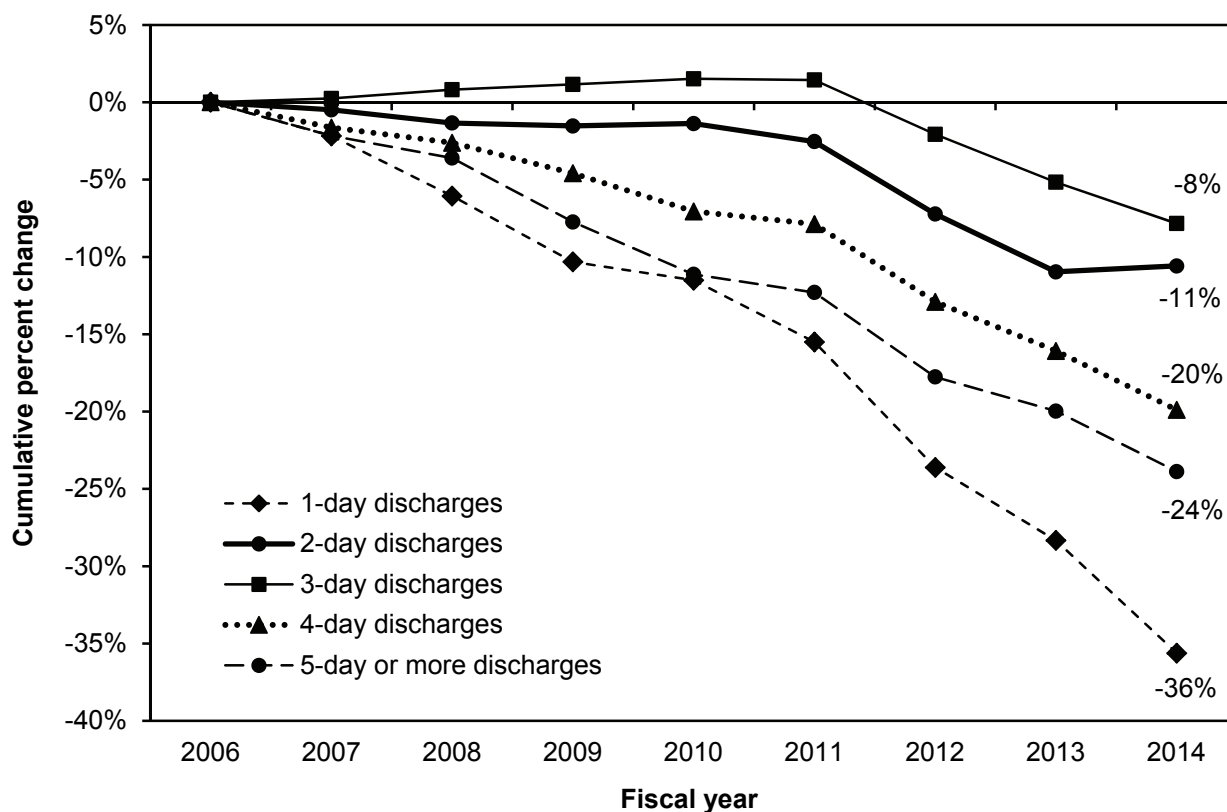


Note: FFS (fee-for-service). Data pertain to short-term general and surgical hospitals, including critical access and children's hospitals.

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

- From 2006 to 2014, the number of Medicare inpatient discharges per FFS beneficiary declined by nearly 20 percent. From 2006 to 2008, the number of inpatient discharges per beneficiary was relatively flat, but beginning in 2008, the volume of discharges per beneficiary began to decline.
- From 2006 to 2014, the number of Medicare outpatient visits per FFS beneficiary increased 44 percent.
- Together these two trends suggest a shift in services from the inpatient to the outpatient setting, as well as a shift in billing for some services from physician offices to outpatient hospital departments.
- From 2013 to 2014, the number of Medicare inpatient discharges per FFS beneficiary declined approximately 2.9 percentage points, slightly more than the average annual decline from 2006 to 2013.
- From 2013 to 2014, the number of Medicare outpatient visits per FFS beneficiary increased 3.7 percentage points, slightly less than the average annual increase from 2006 to 2013.

Chart 6-8. Cumulative change in Medicare inpatient discharges per FFS beneficiary, by length of stay, 2006–2014

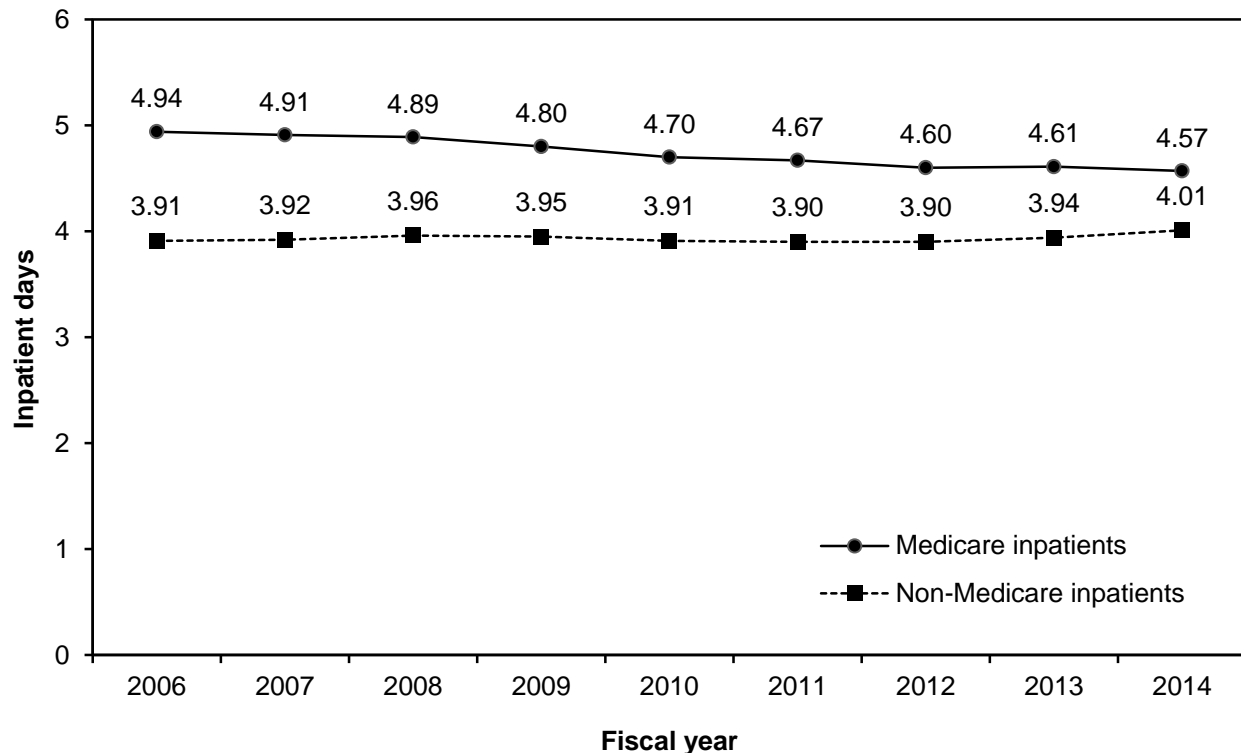


Note: FFS (fee-for-service). Data reflect short-term general and surgical hospitals, including critical access and children's hospitals.

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

- In recent years, one-day inpatient discharges declined more rapidly than inpatient discharges of other lengths. From 2006 to 2014, one-day inpatient stays declined nearly 36 percent per FFS beneficiary. In 2014, there were approximately 1.2 million one-day discharges, representing 11 percent of all discharges (data not shown).
- From 2006 to 2014, three-day inpatient stays declined the least rapidly. From 2006 to 2011, three-day stays increased. However, three-day inpatient stays began to decline in 2011. In 2014, there were approximately 2 million three-day discharges, representing 18 percent of all discharges (data not shown).
- Collectively, inpatient discharges of five days or more declined rapidly from 2006 to 2014, at -24 percent per beneficiary. Rates of decline for these longer stays were variable depending on the number of days, but ranged from 22 percent to 56 percent for the most common lengths (five-day, six-day, seven-day, and eight-day discharges). In 2014, there were approximately 4.6 million discharges of 5 or more days in length, representing 42 percent of all discharges (data not shown).
- From 2006 to 2014, inpatient surgical discharges per beneficiary declined approximately 26 percent (data not shown), or an average of 3.3 percent per year. Over the same period, inpatient medical discharges per beneficiary declined approximately 20 percent, or an average of 2.4 percent per year.

Chart 6-9. Trends in Medicare and non-Medicare inpatient lengths of stay, 2006–2014

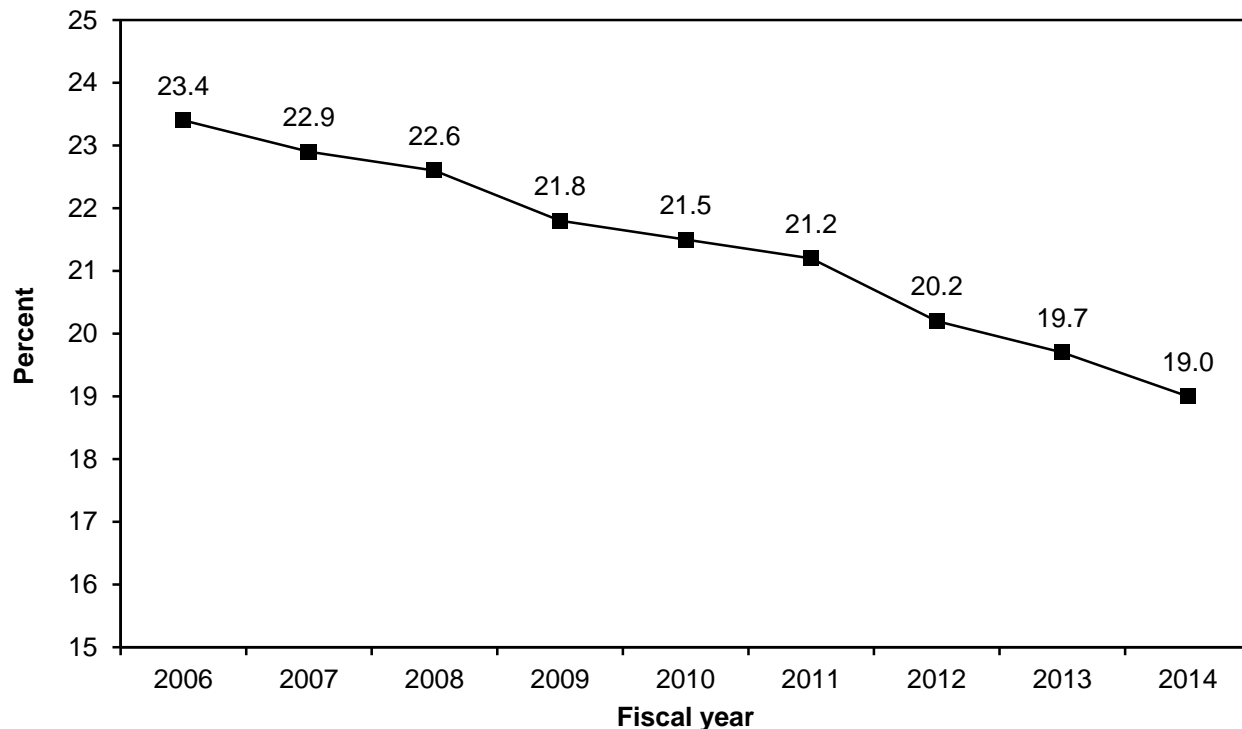


Note: Length of stay is calculated based on discharges and patient days for more than 3,000 hospitals covered by the inpatient prospective payment system. Chart excludes critical access hospitals.

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

- While Medicare length of stay fell between 2006 and 2014, the average length of stay for non-Medicare inpatients was relatively flat. Between 2006 and 2014, Medicare inpatient length of stay fell 7.5 percent, while the inpatient length of stay for all non-Medicare inpatients increased 2.6 percent.
- The decline in average length of inpatient stays for Medicare beneficiaries was slight between 2013 and 2014.
- In 2014, the average length of inpatient stays for Medicare beneficiaries was approximately one-half a day longer than for non-Medicare inpatients. In 2006, the difference was more than a full day.

Chart 6-10. Share of Medicare Part A fee-for-service beneficiaries with at least one hospitalization, 2006–2014



Note: Analysis excludes Medicare Advantage claims and claims for non-inpatient prospective payment system hospitals such as critical access hospitals and hospitals located in Maryland.

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

- The share of Medicare fee-for-service beneficiaries with Part A coverage who had at least one inpatient hospitalization in a given year declined by 4.4 percentage points from 2006 to 2014. In 2014, 19 percent of Medicare beneficiaries had at least one inpatient stay covered under Part A.
- Medicare fee-for-service beneficiaries with Part A coverage who used inpatient hospital services in 2014 had an average of 1.69 inpatient claims over the course of the year (data not shown), a decline of approximately 2 percent from 2006 (1.73 inpatient claims per year).
- A portion of the decline in beneficiaries' use of inpatient services could reflect the increase in the number of cases in which beneficiaries are served in outpatient observation status. In addition, this decline could also represent, in part, a secular trend in reduced inpatient use.

Chart 6-11. Share of inpatient admissions preceded by emergency department visit, by location, 2006–2014

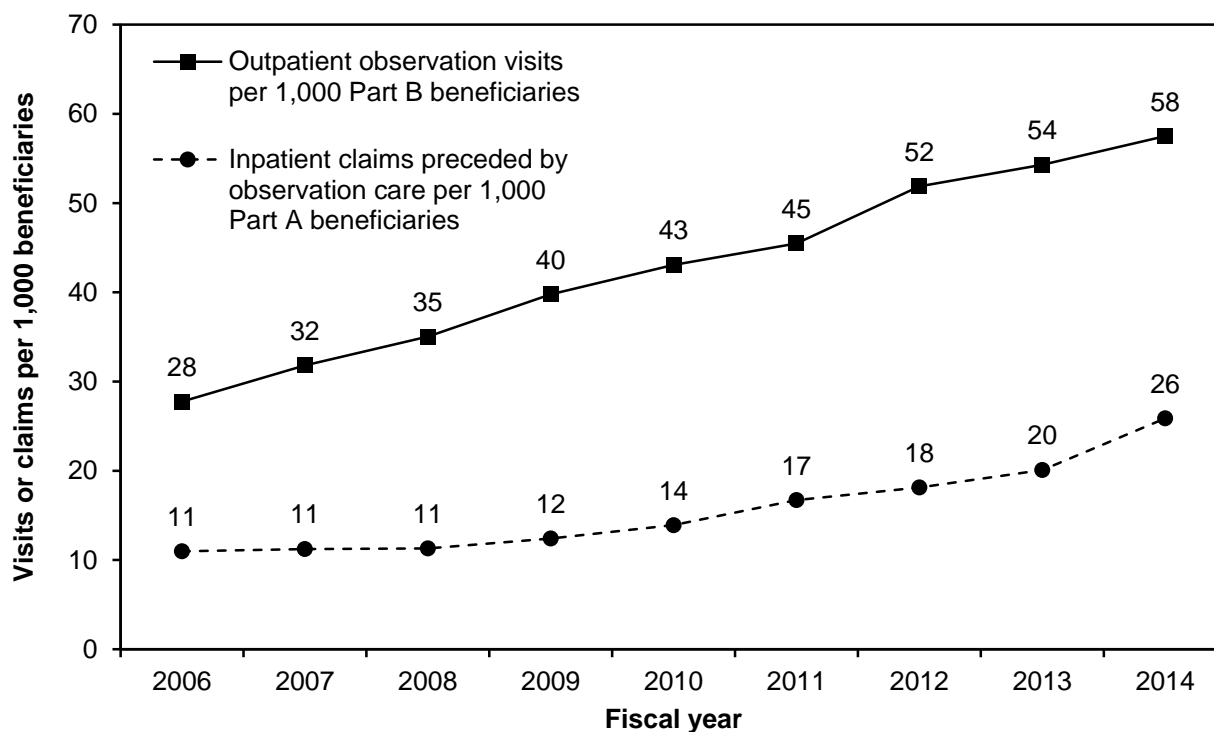
	Percent 2014	Average annual percent change 2006–2013	Percent change 2013–2014
All hospitals	71.3%	1.8%	0.2%
Urban	70.9	1.8	0.1
Large urban	72.7	1.7	0.0
Other urban	69.0	2.1	0.2
Rural	74.5	1.9	0.9
Rural referral	74.2	1.9	1.1
Sole community	74.0	1.9	1.1
Medicare dependent	76.3	1.9	1.2
Other rural, <50 beds	64.3	1.4	-3.9
Other rural, ≥50 beds	78.3	2.0	1.2
Tax status			
Voluntary	70.2	1.7	0.1
Proprietary	70.7	1.9	0.6
Government	68.1	2.2	0.4
Teaching status			
Major teaching	62.4	1.6	0.4
Other teaching	69.0	1.9	0.0
Nonteaching	73.6	1.9	0.3

Note: Figures are reported for fiscal years. Analysis excludes Medicare Advantage claims and claims for non-inpatient prospective payment system hospitals such as critical access hospitals and hospitals located in Maryland.

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

- In 2014, 71 percent of inpatient admissions entered the hospital through the emergency department (ED).
- From 2013 to 2014, the share of inpatient admissions entering the hospital through the ED was largely unchanged, following several years of increases. From 2006 to 2013, the average annual percent change in the share of inpatient admissions entering the hospital through the ED was 1.8 percent.
- The share of inpatient admissions preceded by an ED visit is consistently higher for rural hospitals than for urban hospitals. In 2014, nearly 75 percent of inpatient admissions provided at rural hospitals were preceded by an ED visit. By contrast, approximately 71 percent of inpatient admissions provided at urban hospitals were preceded by an ED visit. From 2013 to 2014, the smallest rural hospitals saw a 3.9 percent decline in inpatient admissions preceded by an ED visit.

Chart 6-12. Number of Medicare outpatient observation visits and inpatient claims preceded by observation care per 1,000 beneficiaries increased from 2006 to 2014



Source: Medicare hospital cost reports and Medicare outpatient claims data.

- In 2014, Medicare beneficiaries had approximately 2.9 million observation visits. Among this total, approximately 1 million were observation visits that preceded an inpatient stay and 1.9 million were exclusively outpatient stays (data not shown).
- The number of Medicare inpatient admissions preceded by observation care increased 136 percent from 2006 to 2014, from 11 admissions per 1,000 Part A beneficiaries to 26 admissions per 1,000 beneficiaries.
- The number of Medicare outpatient observation visits increased 107 percent from 2006 to 2014. During this period, the rate of outpatient observation visits per Part B beneficiary increased from approximately 28 visits per 1,000 beneficiaries to 58 visits per 1,000 beneficiaries.
- The length of outpatient observation visits increased in recent years. From 2006 to 2014, the average length of outpatient observation visits increased by approximately 4 hours, from 25.6 hours in 2006 to 28.0 hours in 2014 (data not shown).
- In 2014, approximately 317,000 observation visits were 48 hours or longer, representing approximately 11 percent of all observation stays (data not shown).
- The number of observation visits increased by similar amounts for patients with a prior admission and for patients without a prior admission, suggesting the growth is not primarily driven by the Hospital Readmission Reduction Program, which penalizes hospitals for excess preventable inpatient readmissions (see Chart 6-13).

Chart 6-13. Potentially preventable readmission rates for selected conditions, 2010–2014

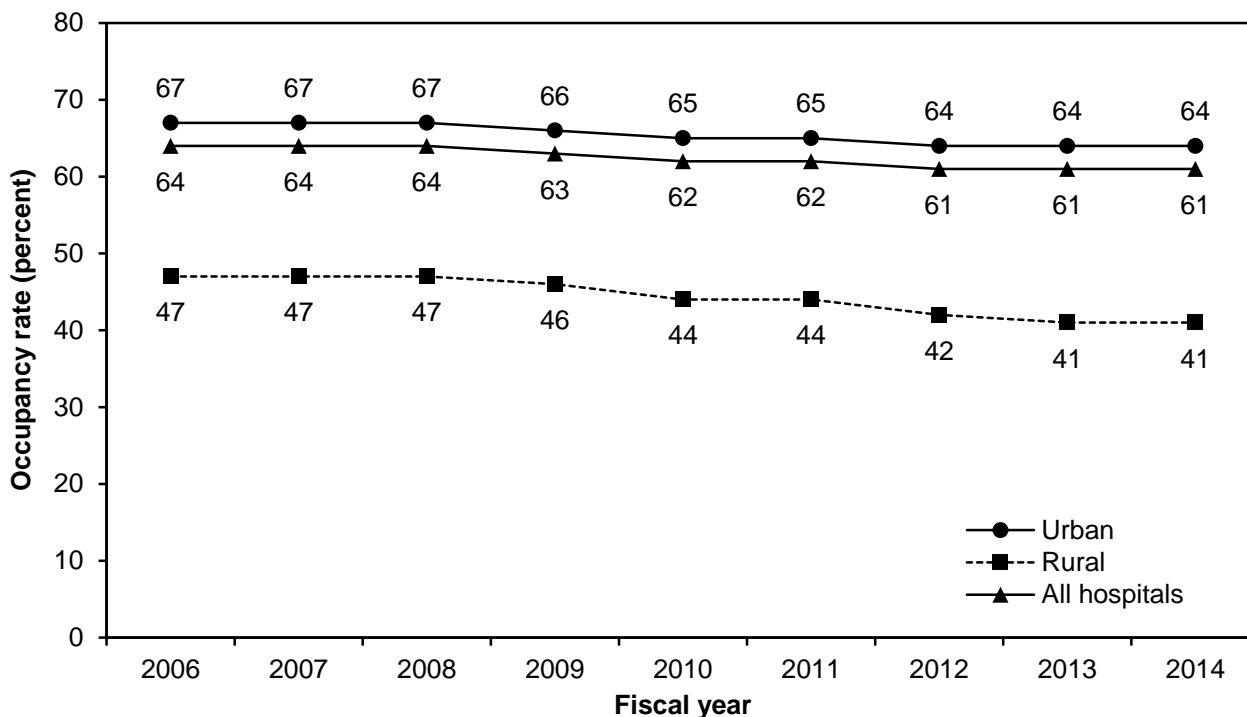
Reason for initial admission	2010	2011	2012	2013	2014	Percentage point change, 2010–2014
All	12.9%	12.4%	11.9%	11.3%	11.0%	–1.9
AMI	17.3	16.9	16.1	15.0	14.3	–3.0
Heart failure	19.5	19.2	18.4	17.6	17.0	–2.5
Pneumonia	13.1	12.6	12.1	11.5	11.5	–1.6
COPD	16.8	16.5	15.9	15.1	14.7	–2.1

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

Source: MedPAC analysis of 2010–2014 Medicare claims data and 3M™ potentially preventable readmissions software.

- The Congress enacted the Hospital Readmission Reduction Program (HRRP) in 2010, with penalties for hospitals that have above-average readmission rates for select conditions starting in 2013.
- Rates of potentially preventable readmissions declined across all conditions between 2010 and 2014, not just for those covered by the readmission reduction program. Across all conditions, potentially preventable readmission rates declined 1.9 percentage points, from 12.9 percent of discharges in 2010 to 11.0 percent in 2014.
- The three conditions covered under the HRRP beginning in 2013 have experienced declines in potentially preventable readmission rates. Readmissions for acute myocardial infarction declined 3 percentage points from 2010 to 2014. Readmissions for heart failure declined 2.5 percentage points from 2010 to 2014. Readmissions for pneumonia cases declined 1.6 percentage points over the same period. Chronic obstructive pulmonary disorder (COPD) was not included in HRRP until 2015, but COPD readmissions declined 2.1 percentage points over this period.
- The decline in readmissions is not primarily due to an increase in observation stays. From 2011 to 2016, only 20 percent to 25 percent of the decline in readmissions can be accounted for by increased use of outpatient observation (data not shown).

Chart 6-14. Hospital occupancy rates, 2006–2014



Note: "Hospital occupancy rates" are defined as total bed days used (including swing bed days) and observation bed days used, minus nursery bed days used, over total bed days available. A consistent cohort of approximately 3,300 prospective payment system and critical access hospitals was used in this analysis.

Source: MedPAC analysis of Medicare hospital cost reports.

- In the aggregate, hospital occupancy rates have been relatively stable over the past decade but have edged down slightly in more recent years as total inpatient admissions have fallen. In 2014, occupancy rates were 61 percent across all hospitals, their lowest level in the past 12 years (not all years are shown).
- Occupancy rates are generally higher for urban than for rural hospitals. In 2014, the aggregate occupancy rate for urban hospitals was 64 percent and the aggregate occupancy rate for rural hospitals was 41 percent.
- The decline in occupancy rates from 2006 to 2014 has been more rapid for rural hospitals than for urban hospitals. During this period, rural occupancy rates declined by about 6 percentage points and urban occupancy rates declined by about 3 percentage points.
- Occupancy rates vary across markets and are inversely correlated with the number of beds per capita in a market. The 10 major metropolitan areas with the lowest number of beds per capita had an average occupancy rate of 68 percent, while the 10 markets with the highest number of beds per capita had an average occupancy rate of 61 percent (data not shown). For example, in 2014, the market-wide occupancy rate in Atlanta (with 1.8 beds per 1,000 people) was 72 percent compared with 55 percent in St. Louis, MO (with over 3.4 beds per 1,000 people) (data not shown).

Chart 6-15. Medicare inpatient payments, by source and PPS hospital group, 2014

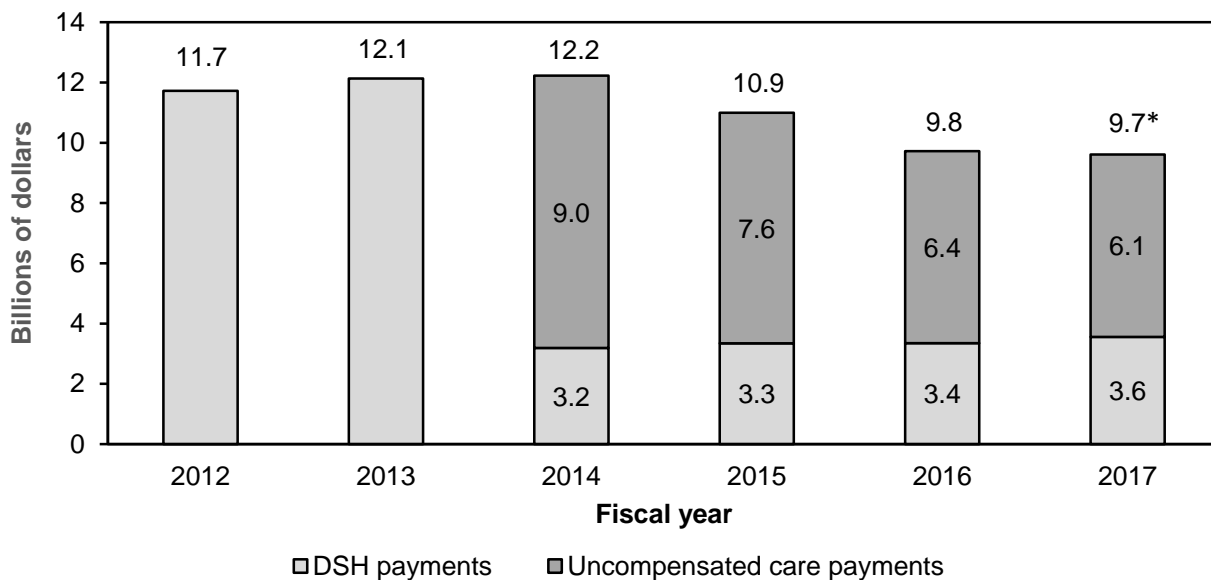
Hospital group	Percent of total payments						Total payments (millions)
	Base	IME	DSH	UC	Outlier	Additional rural hospital	
All PPS hospitals	78.7%	5.2%	2.4%	8.2%	4.1%	1.4%	\$112,210
Urban PPS	78.5	5.6	2.8	8.3	4.3	0.6	103,085
Rural PPS	80.5	0.8	1.7	5.0	1.2	10.9	9,124
Large urban	76.6	6.8	3.0	8.9	4.8	0.0	59,906
Other urban	81.2	3.9	2.5	7.4	3.7	1.4	43,180
Rural referral	87.2	0.7	2.6	7.8	1.8	0.0	2,105
SCH (HSP rate)	75.0	0.1	0.0	0.0	0.3	25.2	3,142
SCH (federal rate)	80.9	2.7	2.7	8.0	2.0	3.6	1,754
Medicare dependent	80.0	0.0	1.9	5.6	1.2	11.3	833
Other rural, <50 beds	78.9	0.0	2.5	7.4	1.6	9.6	294
Other rural, ≥50 beds	84.0	1.2	2.8	8.4	1.5	2.1	996
Voluntary	79.5	5.5	2.4	7.2	4.1	1.3	79,594
Proprietary	82.5	1.9	3.0	8.9	2.9	0.9	17,734
Government	70.0	7.6	3.7	11.0	5.3	2.6	14,882
Major teaching	64.8	15.6	3.4	10.1	6.1	0.0	28,292
Other teaching	81.0	3.6	2.7	8.0	3.7	1.0	40,249
Nonteaching	85.5	0.0	2.2	6.6	3.1	2.7	43,669

Note: PPS (prospective payment system), IME (indirect medical education), DSH (disproportionate share), UC (uncompensated care), SCH (sole community hospital), HSP (hospital-specific payment). Chart includes hospitals covered by the inpatient prospective payment system but excludes critical access hospitals. The “Medicare-dependent” hospital category includes facilities paid at either the HSP or the federal rate. Percentages may not sum to 100 percent due to rounding. Percentages were generated by simulating payments using 2014 payment rules applied to the actual number of cases in 2014. Direct graduate medical education payments are excluded. “Additional rural hospital” payments are the total payments made to hospitals beyond the federal base rate, including SCH, Medicare-dependent hospital, and low-volume add-on payments. For SCHs paid the HSP rate, the additional rural hospital payments also include the payments they received indirectly—attributable to the costs associated with residency programs, low-income patients, and outlier cases.

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

- Medicare inpatient payments in 2014 to hospitals covered by the acute inpatient prospective payment system (IPPS) exceeded \$112 billion. About \$103 billion (92 percent) went to urban hospitals and \$9 billion (8 percent) went to rural hospitals. This figure does not reflect \$2.7 billion in payments to critical access hospitals (CAHs) for inpatient care. Cost-based reimbursement for post-acute care in CAH swing beds results in payments that are significantly above what CAHs would have been paid under the IPPS.
- Base payments accounted for 78.7 percent of all inpatient payment in 2014. Special payments—including IME, DSH, UC, and outlier payments, as well as additional payments to rural hospitals through the SCH and Medicare-dependent hospital programs—accounted for 21.3 percent of all inpatient payments.
- In 2014, uncompensated care payments for each eligible hospital were based on each hospital’s number of Medicaid and Supplemental Security Income patient days.
- Outlier payments accounted for 4.1 percent of total inpatient payments in 2014, or approximately \$4.6 billion.

Chart 6-16. Medicare inpatient disproportionate share and uncompensated care payments, 2012–2017



Note: DSH (disproportionate share). Chart includes hospitals covered by the inpatient prospective payment system. The chart excludes hospitals not eligible for DSH payments or uncompensated care payments: critical access hospitals, hospitals in Maryland, and sole community hospitals paid hospital-specific rates.
 *While data for 2012 through 2016 represent DSH and uncompensated care payment levels finalized by CMS, data for 2017 represent payment levels proposed by CMS.

Source: CMS hospital inpatient prospective payment systems (IPPS) for acute care hospitals and long-term care hospital prospective payment system final rule regulations from fiscal years 2012 to 2016 and the CMS IPPS for acute care hospitals and long-term care hospital prospective payment system proposed rule regulations for fiscal year 2017.

- Before 2014, hospitals received approximately \$12 billion in aggregate Medicare DSH hospital payments annually. The traditional DSH payment formula was based on hospitals’ share of patients with Medicaid and Supplemental Security Income.
- Beginning in 2014, DSH payments are calculated as 25 percent of the operating DSH payment the hospital would have received under the traditional DSH formula (noted above). Aggregate DSH payments have been approximately \$3 billion per year since the policy change, and for fiscal year 2017, CMS has proposed \$3.6 billion in DSH payments.
- Beginning in 2014, DSH 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 DSH payment received under the traditional DSH formula, minus an amount that increases in proportion to the decline in the share of the uninsured population. The amount of uncompensated care payments declined \$2.6 billion between 2014 and 2016 due to the declining uninsured population. For fiscal year 2017, CMS proposed \$6.1 billion in uncompensated care payments.
- From fiscal year 2013 to 2014, inpatient DSH payments declined by approximately \$9 billion, but in 2014 hospitals were eligible to receive \$9 billion in uncompensated care payments that were paid separately from the inpatient payment system.
- On net, the sum of DSH and uncompensated care payments declined \$2 billion between 2012 and 2017 (\$11.7 billion to \$9.7 billion) due to the decline in the uninsured population.

Chart 6-17. Discharge destination of Medicare fee-for-service beneficiaries, 2006–2014

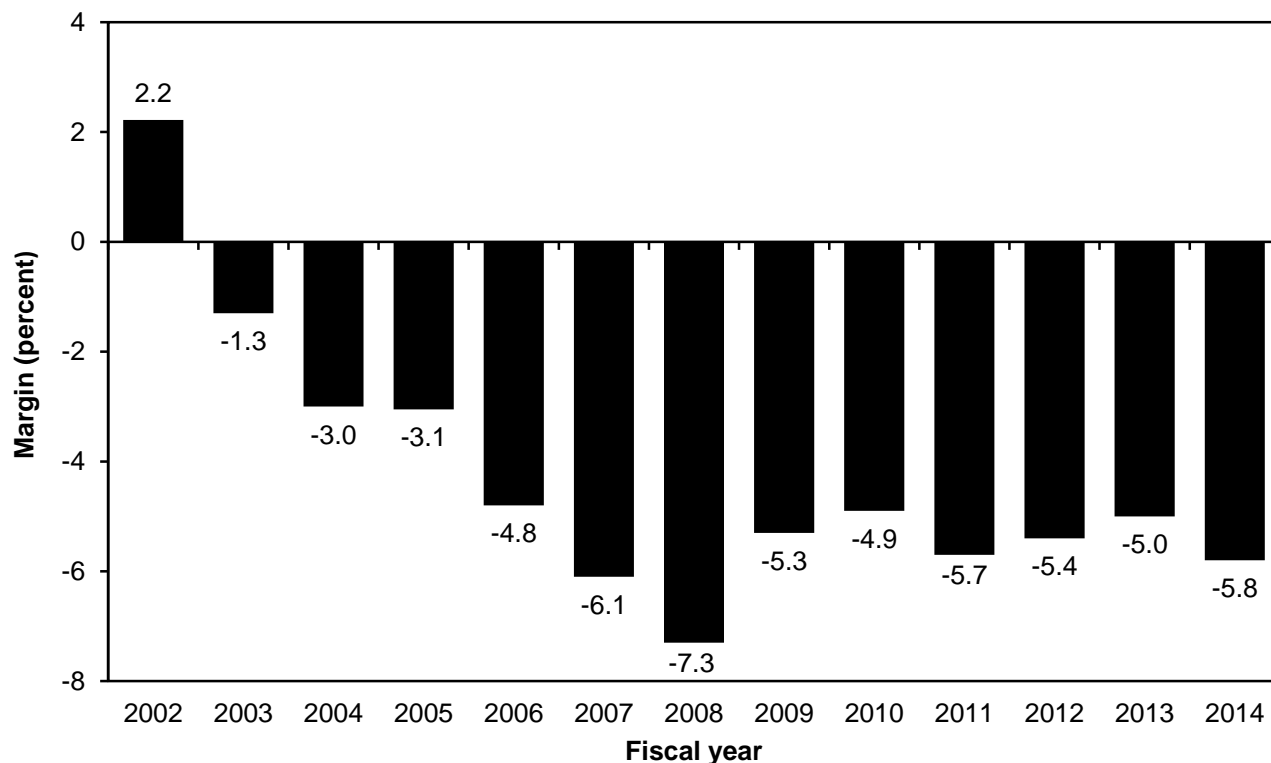
Destination	2006	2013	2014	Percentage point change 2006–2014
Home self-care	52.3%	46.8%	46.0%	–6.3%
Skilled nursing or swing bed	18.8	20.7	21.0	2.2
Home with organized home health care	13.8	16.5	16.8	3.1
Inpatient rehabilitation facility	3.4	3.6	3.8	0.4
Long-term care hospital	0.9	1.2	1.2	0.3
Inpatient psychiatric facility	0.4	0.5	0.5	0.1
Hospice	1.6	2.7	2.9	1.2
Other setting (e.g., ICF, nursing facility)	2.0	1.7	1.6	–0.4
Transferred to other acute care hospital	2.5	2.1	2.2	–0.3
Left against medical advice	0.6	0.8	0.8	0.2
Died in hospital	3.8	3.4	3.3	–0.5

Note: ICF (intermediate care facility). Numbers may not sum to 100 percent due to rounding. Percentage point changes were calculated using unrounded numbers.

Source: Medicare inpatient claims data.

- In 2014, 46 percent of all Medicare fee-for-service patients were discharged from an acute care hospital to home under self-care, without any organized post-acute care. The share of beneficiaries discharged home under self-care has decreased since 2006 with greater use of various post-acute care providers, particularly home health care, skilled nursing care, and hospice.
- About one in five beneficiaries are discharged to skilled nursing care, either in a skilled nursing facility (SNF) or hospital swing bed. The share of beneficiaries being discharged to SNF-level care increased 2.2 percentage points between 2006 and 2014.
- An increasing share of beneficiaries is being discharged home with organized home health care, from 13.8 percent of discharges in 2006 to 16.8 percent in 2014.
- In 2014, about 5 percent of beneficiaries were discharged to hospital-level post-acute care in an inpatient rehabilitation facility (3.8 percent) or long-term care hospital (1.2 percent), an increase of 0.7 percentage points since 2006.
- Discharges to hospice care have shown substantial growth, rising from 1.6 percent of discharges in 2006 to 2.9 percent of discharges in 2014. A little more than half of these hospice discharges were to medical facility–level care rather than home care.
- The share of patients dying in the hospital or being transferred to another acute care hospital has been declining.

Chart 6-18. Overall Medicare margin, 2002–2014

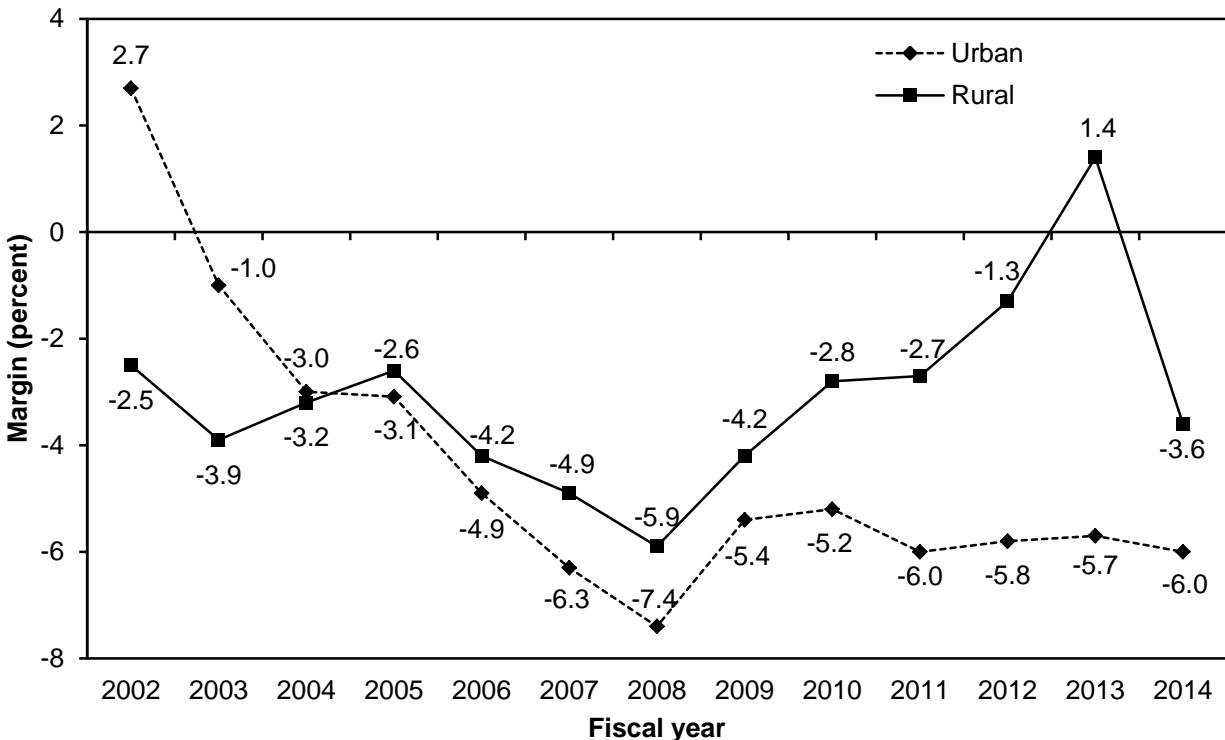


Note: A margin is calculated as revenue minus costs, divided by revenue. Data reflect Medicare-allowable costs and exclude critical access hospitals. "Overall Medicare margins" cover the costs and payments of acute inpatient, outpatient, inpatient psychiatric and rehabilitation unit, skilled nursing facility, and home health services, as well as graduate medical education and bad debts. Maryland hospitals are excluded from this analysis.

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

- The overall 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 overall margin follows a trend similar to that for the Medicare inpatient margin.
- The overall Medicare margin in 2002 was 2.2 percent. In 2014, it was –5.8 percent.
- In 2014, 25 percent of hospitals had overall Medicare margins of 5.9 percent or higher and another 25 percent had margins of –15.6 percent or lower. About 39 percent of hospitals had positive overall Medicare margins in 2013 (data not shown).

Chart 6-19. Overall Medicare margin, by urban and rural location, 2002–2014

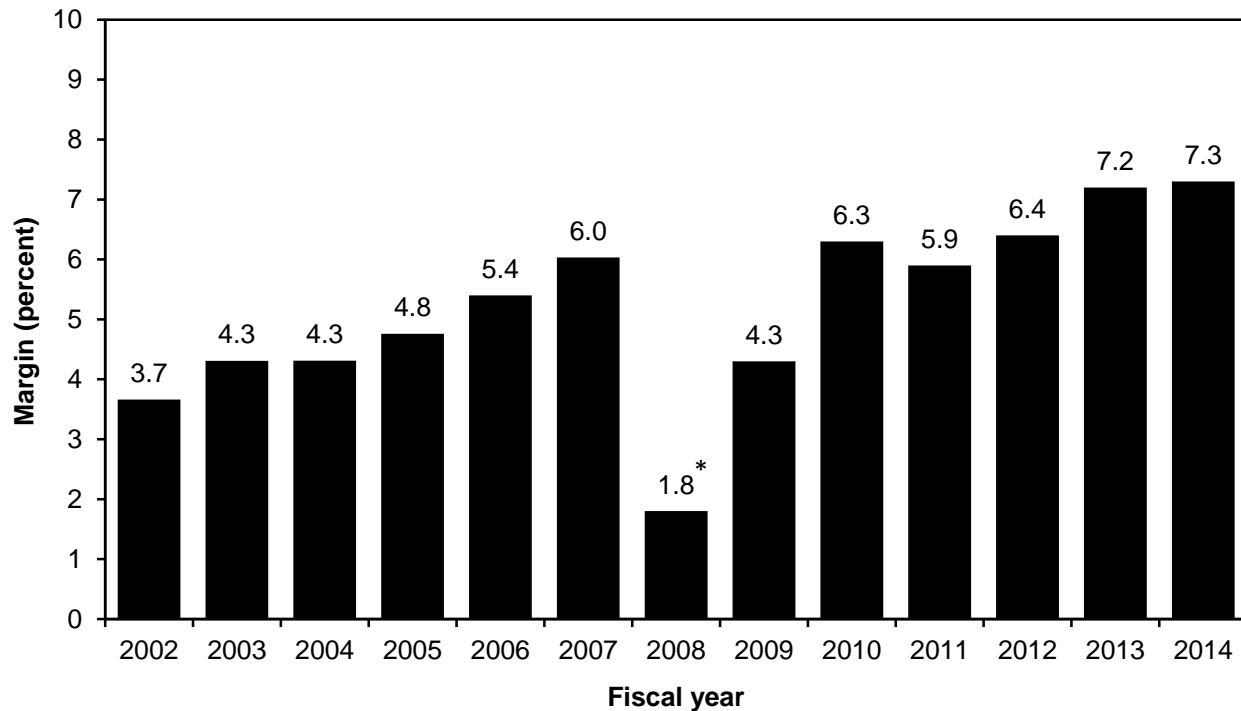


Note: A margin is calculated as revenue minus costs, divided by revenue. Data reflect Medicare-allowable costs and exclude critical access hospitals. "Overall Medicare margins" cover the costs and payments of acute hospital inpatient, outpatient, inpatient psychiatric and rehabilitation unit, skilled nursing facility, and home health services, as well as direct graduate medical education and bad debts. Maryland hospitals are excluded from this analysis.

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

- As with inpatient margins, overall Medicare margins historically were higher for urban hospitals than for rural hospitals, but since 2005, overall Medicare margins for rural hospitals have exceeded those for urban hospitals. The difference is about 2.4 percentage points in 2014.
- The difference in overall Medicare margins between urban and rural hospitals narrowed throughout the middle of the past decade. In 2002, the overall margin for urban hospitals was 2.7 percent, compared with -2.5 percent for rural hospitals. In 2004, the overall Medicare margin for urban hospitals was -3.0 percent, compared with -3.2 percent for rural hospitals. Policy changes made in the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 helped to improve the relative financial position of rural hospitals. Further legislation to assist rural hospitals was implemented after 2008. Most recently, in 2014, the overall Medicare margin for urban hospitals was -6.0 percent compared with -3.6 percent for rural hospitals.

Chart 6-20. Hospital total all-payer margin, 2002–2014



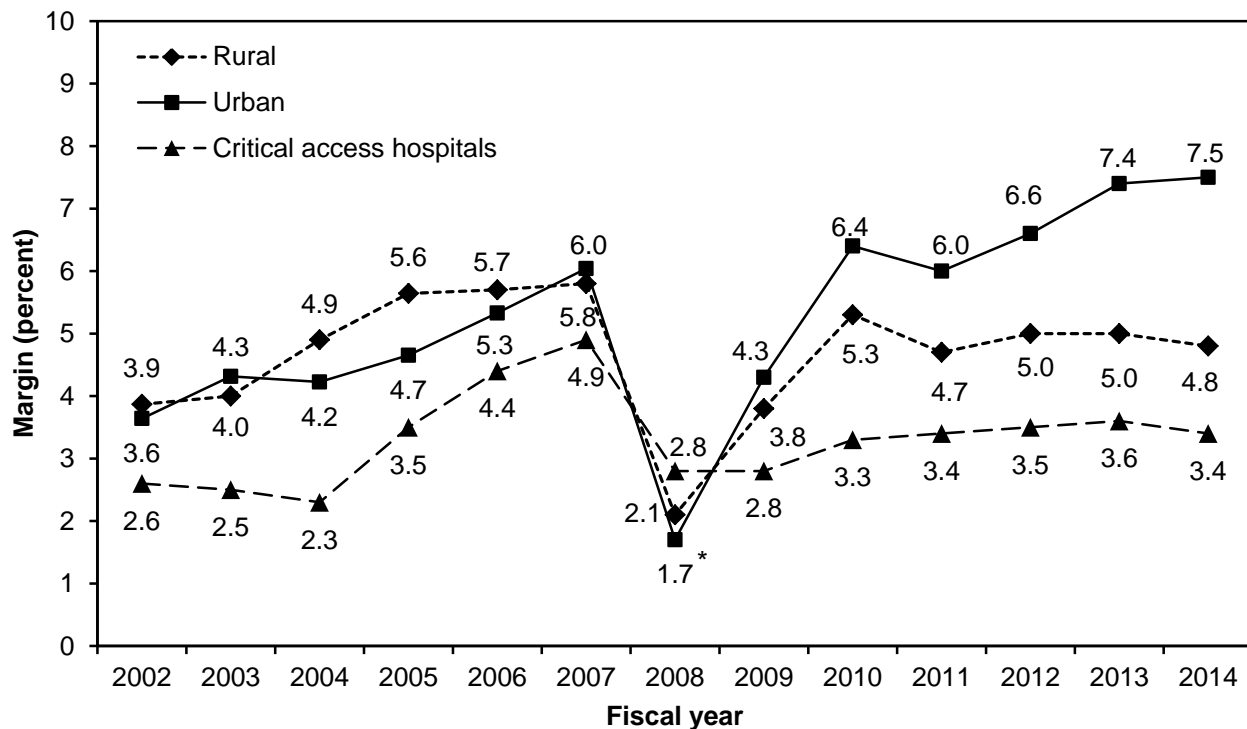
Note: A margin is calculated as revenue minus costs, divided by revenue. Total margin includes all patient care services funded by all payers, plus nonpatient revenue. Analysis excludes critical access hospitals. Maryland hospitals are excluded from this analysis.

*The significant drop in total margin includes investment losses stemming from the decline of the U.S. stock market in 2008.

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

- The 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—Medicare inpatient margin and overall Medicare margin—are operating margins that do not include investment income.
- From 2002 to 2007, total margins increased to the highest level in a decade. In 2008, the total margin declined to 1.8 percent. The 2008 decline of the U.S. stock market resulted in significant investment losses for hospitals, which resulted in a corresponding decline in total margins. In 2014, total margins increased to 7.3 percent from 7.2 percent in 2013, reaching their highest levels since we started tracking total all-payer margins.

Chart 6-21. Hospital total all-payer margin, by urban and rural location and critical access hospitals, 2002–2014

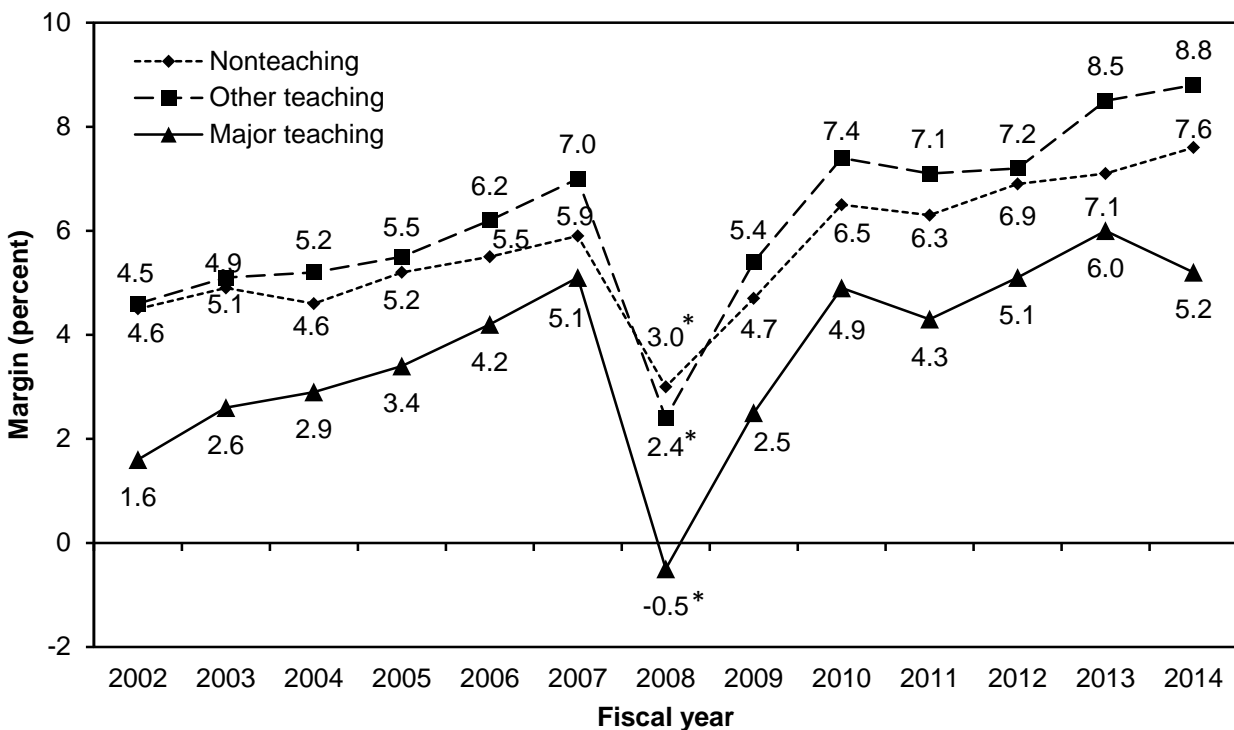


Note: A margin is calculated as revenue minus costs, divided by revenue. Total margin includes all patient care services funded by all payers, plus nonpatient revenue such as investment revenues. Maryland hospitals are excluded from this analysis. *The significant drop in total margin for all three categories in part reflects investment losses resulting from the U.S. stock market decline of 2008.

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

- Since 2009, urban hospitals have had higher total (all-payer) margins than rural hospitals. In 2014, total margins were 7.5 percent for urban hospitals and 4.8 percent for rural hospitals. From 2009 to 2013, the growth in urban and rural total all-payer margins reflects low cost growth and increasing private-payer reimbursement rates.
- In 2008, both rural and urban hospitals experienced their lowest level of total (all-payer) margins in the past 15 years. Hospitals' total margins include all patient care services funded by all payers, plus nonpatient revenue, such as investment revenue. The 2008 decline of the U.S. stock market resulted in significant investment losses for hospitals, which in turn resulted in a corresponding decline in total margins. Other types of margins we track—Medicare inpatient margin and overall Medicare margin—are operating margins that do not include investment income.
- In general, all-payer margins for critical access hospitals have historically been lower than for other urban or rural hospitals.

Chart 6-22. Hospital total all-payer margin, by teaching status, 2002–2014



Note: "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 less than 0.25. 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. Analysis excludes critical access hospitals. Maryland hospitals are excluded from this analysis.

*The significant drop in total margin for all three categories in part reflects investment losses resulting from the U.S. stock market decline of 2008.

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

- The total all-payer margins for major teaching hospitals have consistently been lower than those for other teaching and nonteaching hospitals. In 2014, the total margin for major teaching hospitals stood at 5.2 percent, compared with other teaching hospitals and nonteaching hospitals at 8.8 percent and 7.6 percent, respectively.
- Beginning in 2002, major teaching hospitals' total (all-payer) margins steadily increased, reaching 5.1 percent in 2007. However, in 2008, this trend was interrupted by a steep decline in their investment revenues, resulting in a negative total margin. Since then, total margins have recovered and remain above their historic average.

Chart 6-23. Medicare margins, by teaching and disproportionate share status, 2014

Hospital group	Share of hospitals	Share of Medicare inpatient payments	Overall Medicare margin
All hospitals	100%	100%	-5.8%
Major teaching	10	27	-4.0
Other teaching	23	33	-5.2
Nonteaching	67	40	-7.5
Both IME and DSH	30	57	-4.1
IME only	4	3	-14.6
DSH only	53	33	-6.3
Neither IME nor DSH	14	6	-13.5

Note: IME (indirect medical education), DSH (disproportionate share). Numbers may not sum to totals due to rounding. Maryland hospitals and critical access hospitals are excluded from this analysis.

Source: MedPAC analysis of 2014 Medicare cost report data from CMS.

- By contrast with all-payer total margins, major teaching hospitals had the highest Medicare inpatient and overall Medicare margins in 2014. 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 received only IME payments, and not DSH payments, had the lowest Medicare margins. In 2014, the overall Medicare margin of these hospitals was -14.6 percent, well below the margins of major teaching hospitals (-4.0 percent) and the all-hospital average (-5.8 percent).
- Major teaching hospitals have higher Medicare margins than other hospitals, but in contrast they have lower total (all-payer) margins than other hospitals (see Chart 6-22).

Chart 6-24. Financial pressure leads to lower costs

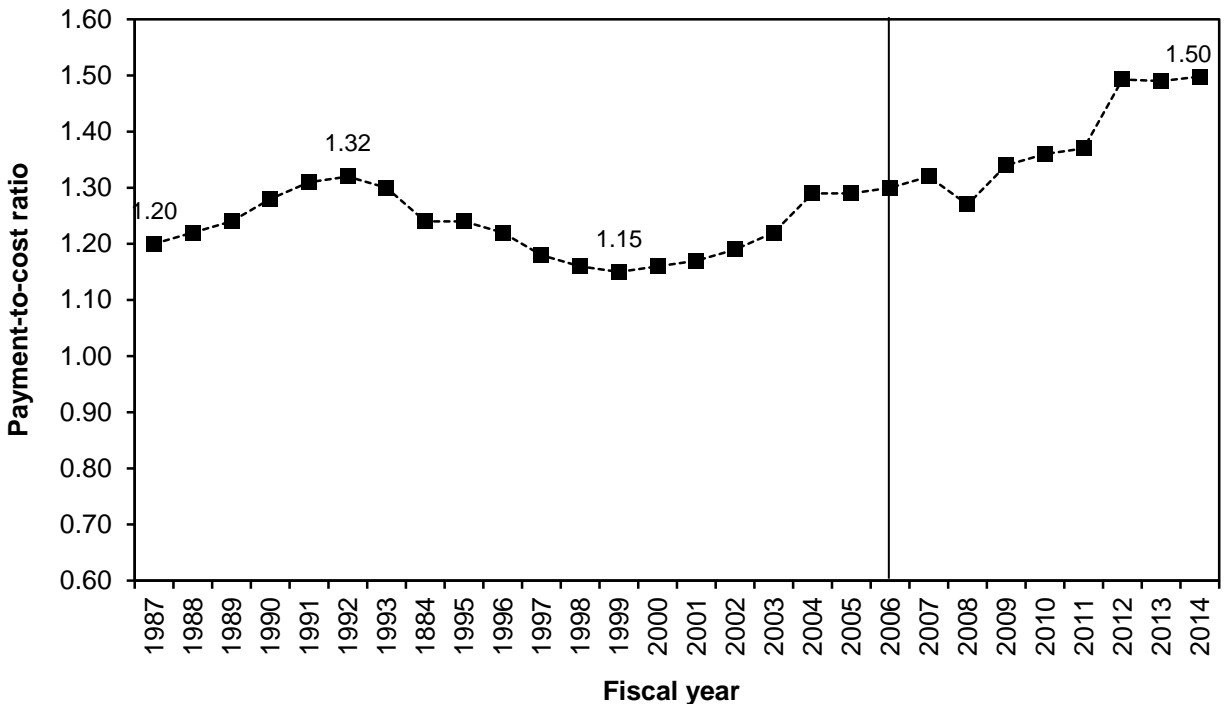
	Level of financial pressure, 2009–2014		
	High pressure (non-Medicare margin ≤ 1%)	Medium pressure	Low pressure (non-Medicare margin > 5%)
Number of hospitals	693	433	1,649
Financial characteristics, 2014 (medians)			
Non-Medicare margin (private, Medicaid, uninsured)	–5.0%	3.3%	13.5%
Standardized cost per discharge (as a share of the national median)			
For-profit and nonprofit hospitals	92	99	102
Nonprofit hospital	93	100	103
For-profit hospital	90	96	100
Annual growth in cost per discharge, 2011–2014	3%	3%	3%
Overall 2014 Medicare margin (medians)	6%	–2%	–8%
Patient characteristics (medians)			
Total hospital discharges in 2014	3,751	5,090	7,457
Medicare share of inpatient days	41%	39%	39%
Medicaid share of inpatient days	11	9	8
Medicare case-mix index	1.36	1.47	1.59

Note: The sample includes all hospitals that had complete cost reports on file with CMS by October 2015. “High-pressure hospitals” are defined as those with a median non-Medicare profit margin of 1 percent or less from 2009 to 2014 and with a net worth 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 2009 to 2014 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. “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.

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

- Higher financial pressure tends to lead to lower standardized costs per discharge. Hospitals with lower volume, lower case mix, and higher Medicaid charges are more likely to be under financial pressure.
- In 2014, hospitals under higher financial pressure had standardized costs per discharge at or below 93 percent of the national median and a median Medicare margin of 6 percent. By contrast, hospitals under lower financial pressure had standardized costs per discharge above 100 percent and a median Medicare margin of –8 percent.

Chart 6-25. Change in the private payer payment-to-cost ratio for hospital services, 1987–2014

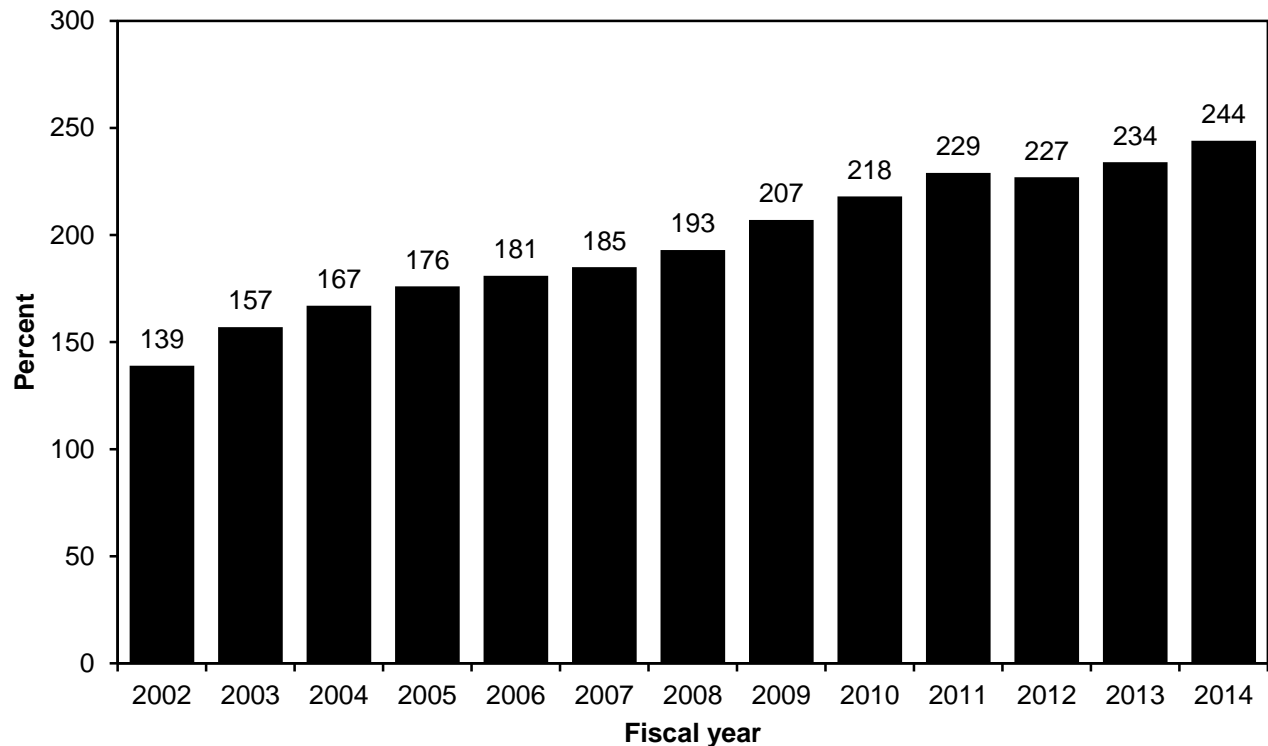


Note: Calculations are based on data from community hospitals (including critical access hospitals and Maryland hospitals) and cover all hospital services. The private payer payment-to-cost ratio includes self-pay patients. Data for 2006–2014 exclude Medicare and Medicaid managed care patients from the private payer payment-to-cost ratio. Starting in 2012, the American Hospital Association survey shifted from hospitals reporting bad debts as an expense to reporting bad debts as a reduction in revenue, resulting in an increase in the payment-to-cost ratio from 2011 to 2012.

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

- The private payer payment-to-cost ratio reflects hospitals' weighted average profit margin on all service lines of business such as inpatient, outpatient, and hospital-owned physician practices. In 2014, the private payer payment-to-cost ratio was 1.50. This ratio includes payments and costs attributed to uninsured patients who pay for their own services (self-pay).
- The private payer payment-to-cost ratio for hospital services has fluctuated over time in part because of shifts in the relative bargaining power of hospitals and insurers. In 1992, hospitals' private payer payment-to-cost ratio was 1.32. However, with the expansion of health maintenance organizations and movements to narrow networks, the private payer payment-to-cost ratio declined to 1.15 by 1999. Between 2000 and 2012, the payment-to-cost ratio rose to approximately 1.50.
- From 2012 to 2014, the payment-to-cost ratio was relatively flat at around 1.50. During this period, total hospital profits increased from 6.4 percent in 2012 to a 30-year high of 7.3 percent in 2014 (see Chart 6-20), in part due to a decline in uncompensated care as more patients gained insurance (see Chart 6-16).

Chart 6-26. Markup of hospital charges above costs for Medicare services, 2002–2014

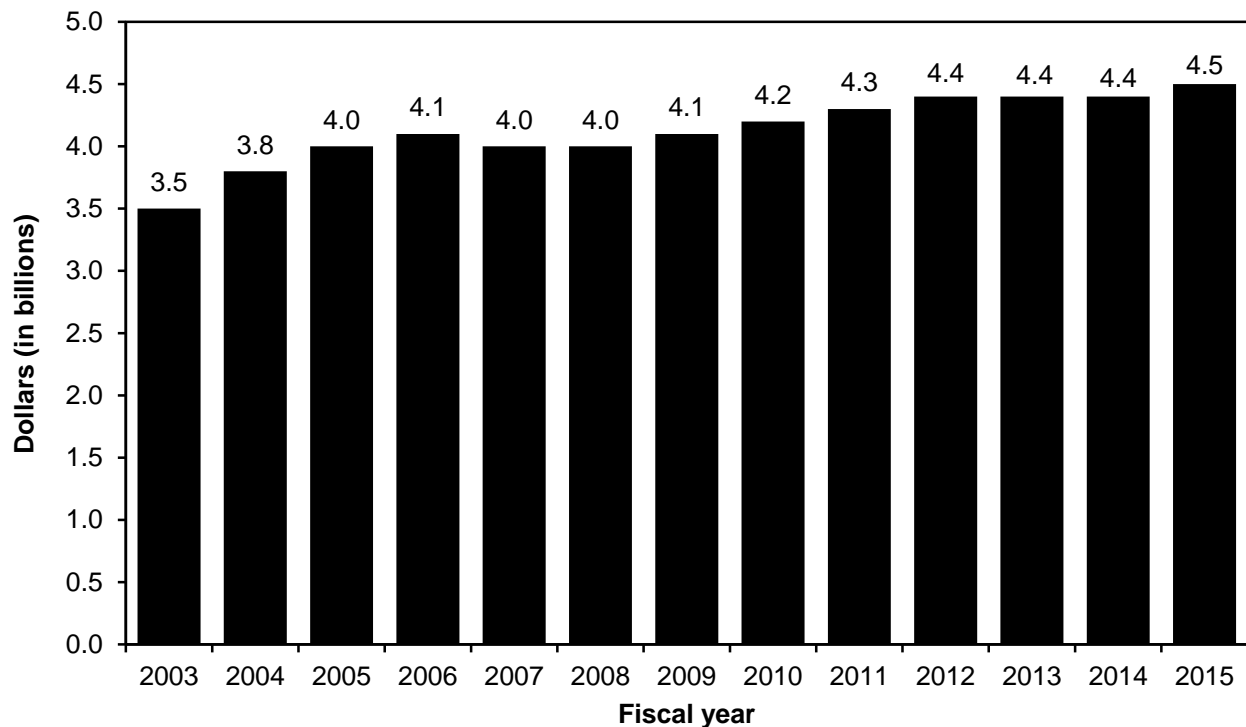


Note: Analysis includes all community hospitals (including critical access hospitals and hospitals in Maryland). Markups are calculated as the amount of charges over the amount of costs, minus the amount that charges equal costs (charges/costs – 1).

Source: American Hospital Association Annual Survey of Hospitals.

- The average markup of hospitals' charges above costs rose from 139 percent in 2002 to 244 percent in 2014. Hospital charges (\$649 billion) were more than three times costs (\$189 billion) in 2014.
- 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). The unusually large increases in charges in 2003 and 2004 may have resulted from some hospitals manipulating Medicare outlier payments. Toward the end of fiscal year 2003, Medicare revised its outlier policy in an attempt to curb hospitals' opportunity to increase their outlier payments through excessive increases in charges.
- The markup of charges over costs is generally higher for urban hospitals (254 percent in 2014) than for rural hospitals (167 percent in 2014) (data not shown).
- Among urban hospitals in 2014, the markup of charges over costs was higher for for-profit hospitals (462 percent) than for nonprofit hospitals (246 percent). Rural for-profit hospitals have a higher markup of charges over costs (361 percent) than nonprofit hospitals (185 percent) (data not shown).

Chart 6-27. Medicare payments to inpatient psychiatric facilities, 2003–2015



Note: 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.

- The inpatient psychiatric facility prospective payment system started January 1, 2005. It was phased in over a three-year period.
- Medicare program spending for beneficiaries' care in inpatient psychiatric facilities grew an average of 2.1 percent per year between 2003 and 2015.

Chart 6-28. Inpatient psychiatric facilities, 2004–2014

Type of IPF	2004	2006	2008	2010	2012	2013	2014	Average annual change	
								2004–2013	2013–2014
All	1,658	1,648	1,633	1,596	1,566	1,560	1,563	–0.7%	0.2%
Urban	1,326	1,308	1,288	1,259	1,237	1,229	1,229	–0.8	0.0
Rural	332	340	345	337	329	331	333	0.0	0.6
Freestanding	352	396	419	447	450	462	464	3.1	0.4
Hospital-based units	1,306	1,252	1,214	1,149	1,116	1,098	1,099	–1.9	0.1
Nonprofit	950	903	865	807	761	740	724	–3.0	–2.2
For profit	327	348	357	386	435	465	485	4.5	4.3
Government	381	397	411	403	370	355	354	–0.8	–0.3

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

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

- Between 2004 and 2013, the number of IPFs that filed Medicare cost reports fell, on average, almost 1 percent per year. Between 2013 and 2014, the supply of IPFs held steady.
- A growing share of Medicare IPF users receives care in for-profit facilities. Between 2004 and 2014, the number of for-profit IPFs grew, on average, more than 4 percent per year. Since 2004, the number of nonprofit IPFs has fallen 2.9 percent per year, on average, compared with a 4.5 percent increase in for-profit IPFs.

Chart 6-29. Number of inpatient psychiatric facility cases declined between 2013 and 2014

	2004	2006	2008	2010	2012	2013	2014	Average annual change	
								2004–2013	2013–2014
Cases	483,271	474,417	442,759	447,897	450,731	442,554	436,799	–1.0%	–1.3%
Cases per 1,000 FFS beneficiaries	13.2	13.1	12.5	12.4	12.1	11.8	11.6	–1.3	–1.2
Spending per FFS beneficiary	\$96.9	\$104.9	\$109.0	\$115.5	\$117.5	\$114.5	\$115.2	1.9	0.6
Payment per case	\$7,328	\$7,989	\$8,742	\$9,288	\$9,718	\$9,739	\$9,910	3.2	1.8
Payment per day	\$627	\$677	\$728	\$782	\$819	\$809	\$821	2.9	1.6
Length of stay (in days)	12.7	13.0	13.1	13.0	12.8	12.9	12.9	0.2	–0.2

Note: FFS (fee-for-service). Numbers of cases and beneficiaries reflect Medicare FFS use of services furnished in inpatient psychiatric facilities (IPFs). Scatter bed cases and spending are excluded, as are cases and spending for beneficiaries enrolled in Medicare Advantage plans.

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

- The number of IPF cases has declined, on average, about 1 percent per year since 2004.

Chart 6-30. One diagnosis accounted for almost three-quarters of IPF cases in 2014

MS-DRG	Diagnoses	Percentage
885	Psychosis	72.9%
057	Degenerative nervous system disorders without MCC	6.9
884	Organic disturbances and mental retardation	6.1
897	Alcohol/drug abuse or dependency, no rehabilitation, without MCC	4.8
881	Depressive neurosis	3.3
882	Neurosis except depressive	1.2
895	Alcohol/drug abuse or dependency with rehabilitation, without MCC	1.1
880	Acute adjustment reaction and psychosocial dysfunction	0.7
056	Degenerative nervous system disorders with MCC	0.5
886	Behavioral and developmental disorders	0.4
883	Disorders of personality and impulse control	0.4
894	Alcohol/drug use—left AMA	0.3
896	Alcohol/drug abuse or dependency without rehabilitation, with MCC	0.2
876	OR procedure with principal diagnosis of mental illness	0.1
081	Nontraumatic stupor and coma without MCC	0.1
887	Other mental disorders	0.1
080	Nontraumatic stupor and coma with MCC	0.0
	Nonpsychiatric MS-DRGs	1.0
	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).

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 73 percent of IPF discharges in 2014—was psychosis. This broad category includes patients with principal diagnoses of schizophrenia, bipolar disorder, and major depression.
- In 2014, the next most common discharge diagnosis, accounting for almost 7 percent of IPF cases, was degenerative nervous system disorder without MCC.

Chart 6-31. Characteristics of IPF users, 2014

Characteristic	Share of all IPF users	Share of users with more than one IPF stay
Current eligibility status*		
Aged	41.1%	28.7%
Disabled	58.8	71.2
ESRD only	0.1	0.1
Age (years)		
<45	23.4	31.0
45–64	34.9	39.8
65–79	25.6	20.3
80+	16.1	8.9
Race		
White	77.9	74.3
African American	16.0	18.9
Hispanic	2.8	3.3
Other	3.3	3.5
All	100.0	28.0

Note: IPF (inpatient psychiatric facility), ESRD (end-stage renal disease). Numbers may not sum to totals due to rounding.
 *Some aged beneficiaries are also disabled.

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

- Almost 59 percent of Medicare beneficiaries who had at least one IPF stay in 2014 qualified for Medicare because of a disability. These beneficiaries tend to be younger and poorer than the typical fee-for-service beneficiary.
- Twenty eight percent of Medicare beneficiaries who used an IPF in 2014 had more than one IPF stay during the year. These beneficiaries were far more likely than all IPF users to be disabled.
- A majority of beneficiaries admitted to IPFs are dually eligible for Medicare and Medicaid (data not shown). In 2014, 57 percent of Medicare beneficiaries with at least one IPF stay were dually eligible for at least one month of the year.

