

SECTION

8

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**Post-acute care**  
**Skilled nursing facilities**  
**Home health services**  
**Inpatient rehabilitation facilities**  
**Long-term care hospitals**

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**Chart 8-1. Number of post-acute care providers remained stable in 2015**

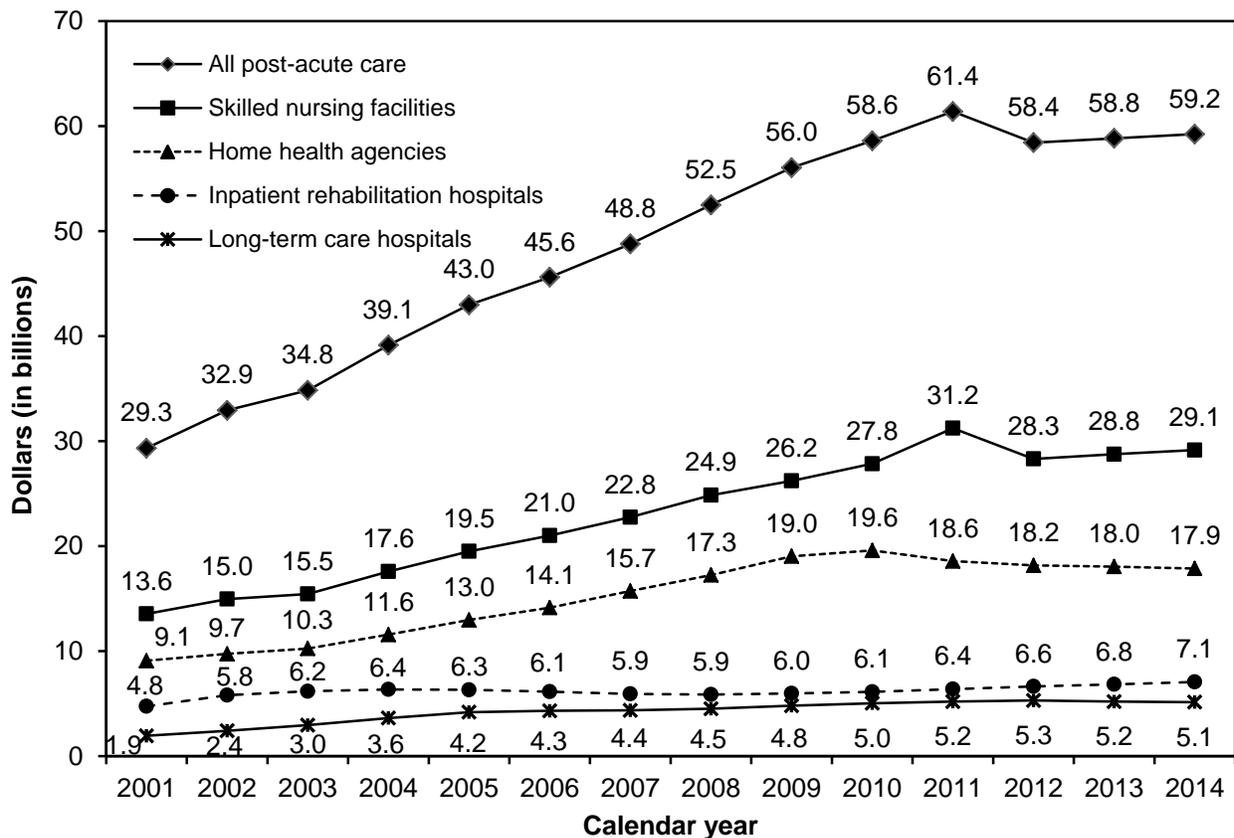
	2007	2009	2011	2013	2014	2015	Average annual percent change 2007–2014	Percent change 2014–2015
Home health agencies	9,291	10,568	12,054	12,613	12,461	12,346	4.3%	–0.9%
Inpatient rehabilitation facilities	1,202	1,196	1,165	1,161	1,177	1,182	–0.3	0.4
Long-term care hospitals	396	427	437	432	422	426	0.9	0.9
Skilled nursing facilities	15,047	15,062	15,120	15,163	15,173	15,223	0.1	0.3

Note: The skilled nursing facility count does not include swing beds.

Source: MedPAC analysis of data from the Provider of Services files from CMS.

- The number of home health agencies declined slightly in 2014 and 2015 after several years of substantial growth. The decline in agencies was concentrated in Texas and Florida, two states that saw considerable growth following the implementation of the prospective payment system in October 2000.
- Most inpatient rehabilitation facilities (IRFs) are distinct units in acute care hospitals; only about one-fifth are freestanding facilities. However, because hospital-based units tend to have fewer beds, they account for only about half of Medicare discharges from IRFs.
- In spite of a moratorium on new long-term care hospitals (LTCHs) beginning in October 2007, the number of these facilities continued to grow through 2011. The number of LTCHs has since decreased from 437 in 2011 to 426 in 2015.
- The total number of skilled nursing facilities (SNFs) has increased slightly since 2007, and the mix of facilities shifted from hospital-based to freestanding facilities. In 2015, hospital-based facilities made up 5 percent of all SNF facilities, down from 8 percent in 2005 (data not shown).

**Chart 8-2. Growth in Medicare’s post-acute care expenditures has slowed since 2012**



Note: These numbers represent only program spending; they do not include beneficiary copayments.

Source: CMS Office of the Actuary 2016.

- Increases in fee-for-service (FFS) spending on post-acute care have slowed in part because of expanded enrollment in managed care under Medicare Advantage (Medicare Advantage spending is not included in this chart). The slowest growth in FFS spending on post-acute care since 2001 occurred between 2012 and 2014.
- FFS spending on inpatient rehabilitation hospitals declined between 2004 and 2008, reflecting policies intended to ensure that patients who do not need this intensity of services are treated in less-intensive settings. However, spending on inpatient rehabilitation hospitals has increased since 2008.
- FFS spending on skilled nursing facilities increased sharply in 2011, reflecting CMS’s adjustment for the implementation of the new case-mix groups (resource utilization groups, version IV) beginning October 2010. Once CMS established that the adjustment it made was too large, it lowered the adjustment, and spending dropped in 2012.

**Chart 8-3. Freestanding SNFs and for-profit SNFs account for the majority of facilities, Medicare stays, and Medicare spending**

Type of SNF	Facilities		Medicare-covered stays		Medicare payments (billions)	
	2006	2014	2006	2014	2006	2014
Totals	15,178	15,005	2,454,263	2,344,173	\$19.5	\$27.0
Freestanding	92%	95%	89%	94%	94%	97%
Hospital based	8	5	11	6	6	3
Urban	67	72	79	83	81	85
Rural	33	28	21	17	19	15
For profit	68	70	67	72	73	76
Nonprofit	26	25	29	24	24	21
Government	5	5	4	3	3	3

Note: SNF (skilled nursing facility). Totals may not sum to 100 percent due to rounding and missing values.

Source: MedPAC analysis of the Provider of Services and Medicare Provider Analysis and Review files, 2006 and 2014.

- The mix of where beneficiaries receive SNF services has shifted toward freestanding, urban, and for-profit facilities.
- In 2014, freestanding facilities accounted for 94 percent of stays and an even larger share of Medicare's payments (97 percent).
- Urban facilities accounted for 72 percent of facilities, 83 percent of stays, and 85 percent of Medicare payments in 2014.
- In 2014, for-profit facilities accounted for 70 percent of facilities, but proportionally higher shares of stays and Medicare payments (72 percent and 76 percent, respectively).

## Chart 8-4. SNF service use declined between 2013 and 2014

Volume measure	2008	2010	2012	2013	2014	Percent change 2013–2014
Covered admissions per 1,000 FFS beneficiaries	73	72	68	67	66	–1.4%
Covered days (in thousands)	1,977	1,938	1,861	1,835	1,808	–1.5
Covered days per admission	27.0	27.1	27.4	27.6	27.6	0.0

Note: SNF (skilled nursing facility), FFS (fee-for-service). Data include 50 states and the District of Columbia. Yearly figures presented in the table are rounded, but the percent-change column was calculated using unrounded data.

Source: Calendar year data from CMS, Office of Information Products and Data Analytics, 2015.

- In 2014, 4.5 percent of beneficiaries used SNF services, down slightly from 2011 (data not shown).
- Between 2013 and 2014, admissions per 1,000 FFS beneficiaries declined 1.4 percent, paralleling the decline in inpatient hospital use. An acute hospital stay of three or more days is a prerequisite for Medicare coverage of SNF care.
- During the same period, covered days declined at a similar rate (–1.5 percent) so the covered days per admission remained the same (27.6 days).

## Chart 8-5. Freestanding SNF Medicare margins remain high despite reductions in payments

	2004	2006	2008	2010	2012	2013	2014
All	13.8%	12.8%	16.7%	19.4%	14.1%	13.2%	12.5%
Rural	16.1	13.5	17.9	19.4	13.0	12.1	10.6
Urban	13.3	12.7	16.4	19.4	14.2	13.3	12.9
Nonprofit	3.8	3.2	7.2	10.8	5.7	5.0	3.9
For profit	16.1	15.1	19.0	21.5	16.2	15.3	14.9

Note: SNF (skilled nursing facility).

Source: MedPAC analysis of freestanding SNF cost reports 2004–2014.

- Though lower than in recent years, the Medicare margin for freestanding SNFs in 2014 exceeded 10 percent for the 15th consecutive year (not all years are shown). After reaching over 21 percent in 2011 (not shown), the margins have declined for two reasons: Current law requires market basket increases to be offset by a productivity adjustment, and sequestration began lowering payments in April 2013 by 2 percent on an annualized basis.
- In 2014, on average, urban facilities had higher Medicare margins than rural facilities even though rural facilities have higher base rates than urban facilities. In aggregate, for-profit SNFs had considerably higher Medicare margins than nonprofit SNFs, reflecting their larger size, their lower cost growth, and their higher share of the more profitable therapy case-mix groups (the ultra-high and very high groups).
- In 2014, total margins (the margin across all payers and all lines of business) for freestanding facilities remained positive (1.9 percent, the same as in 2013, data not shown).

**Chart 8-6. Cost and payment differences explain variation in Medicare margins for freestanding SNFs in 2014**

Characteristic	Highest margin quartile (n = 3,186)	Lowest margin quartile (n = 3,186)	Ratio of highest quartile to lowest quartile
<b>Cost measures</b>			
Standardized cost per day	\$254	\$369	0.7
Standardized cost per discharge	\$11,120	\$14,185	0.8
Average daily census (patients)	89	67	1.3
Average length of stay (days)	45	37	1.2
<b>Revenue measures</b>			
Medicare payment per day	\$489	\$428	1.1
Medicare payment per discharge	\$22,728	\$16,107	1.4
Share of days in intensive therapy	85%	77%	1.1
Share of medically complex days	4	5	0.8
Medicare share of facility revenue	25	15	1.7
<b>Patient characteristics</b>			
Case-mix index	1.40	1.31	1.1
Share of dual-eligible beneficiaries	39%	27%	1.4
Share of minority beneficiaries	13	5	2.6
Share of very old beneficiaries	29	34	0.9
Medicaid share of days	65	58	1.1
<b>Facility mix</b>			
Percent for profit	90%	58%	N/A
Percent urban	78	67	N/A

Note: SNF (skilled nursing facility), N/A (not applicable). Values shown are medians for the quartile. Highest margin quartile SNFs were in the top 25 percent of the distribution of Medicare margins. Lowest margin quartile SNFs were in the bottom 25 percent of the distribution of Medicare margins. "Standardized costs per day" are Medicare costs adjusted for differences in area wages and the case mix (using the nursing component's relative weights) of Medicare beneficiaries. "Intensive therapy days" are days classified into ultra-high and very high rehabilitation case-mix groups. Very old beneficiaries are 85 years or older. Quartile figures presented in the table are rounded, but the ratio column was calculated using unrounded data.

Source: MedPAC analysis of freestanding SNF cost reports 2014.

- Medicare margins varied widely across freestanding SNFs. One-quarter of SNFs had Medicare margins at or below 2.4 percent, and one-quarter of facilities had Medicare margins at or above 21.2 percent (data not shown).
- High-margin SNFs had lower costs per day (30 percent lower costs than low-margin SNFs), after adjusting for wage and case-mix differences, and higher revenues per day (1.1 times the revenues per day of low-margin SNFs).
- Facilities with the highest Medicare margins had higher case-mix indexes, higher shares of beneficiaries who were dually eligible for Medicare and Medicaid, and higher shares of minority beneficiaries.

## Chart 8-7. Financial performance of relatively efficient SNFs reflects a combination of lower cost per day and higher payment per day

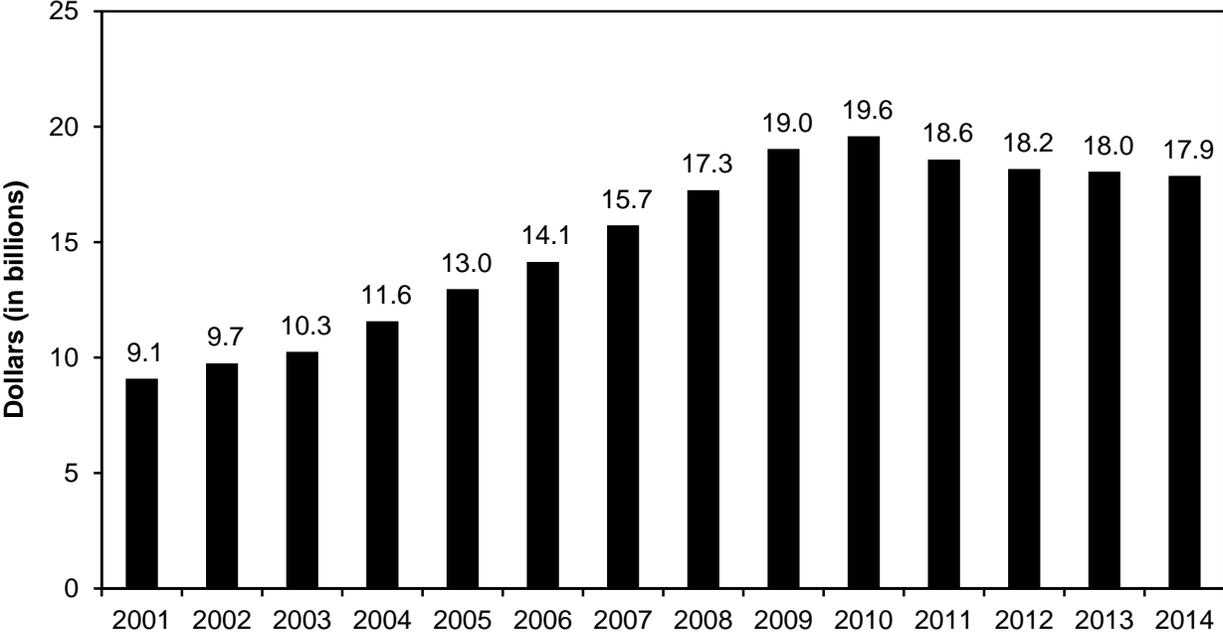
	Relatively efficient SNFs	All SNFs
<b>Performance in 2014</b>		
Community discharge rate	47.3%	37.3%
Readmission rate	9.2%	10.9%
Standardized cost per day	\$277	\$303
Medicare revenue per day	\$492	\$450
Medicare margin	20.0%	11.8%
Total margin	3.5%	1.7%
Facility case-mix index	1.43	1.35
Medicare average length of stay	35 days	40 days
Occupancy rate	89%	87%
Number of beds	120	100
Share of ultra-high therapy days	63%	52%
Share of medically complex days	4.7%	4.6%
Medicaid share of facility days	58%	61%
Share of urban	78%	66%
Share of for profit	83%	70%

Note: SNF (skilled nursing facility). The analysis includes 11,637 freestanding facilities. SNFs were defined as “efficient” by their cost per day (2011–2013) and two quality measures (community discharge and readmission rates) for the same period. Efficient SNFs were those in the best third of the distribution of one measure and not in the bottom third on any measure in each of three years. Eight percent of SNFs qualified as relatively efficient. Costs per day were standardized for differences in case mix (using the nursing component relative weights) and wages. Quality measures were rates of risk-adjusted community discharge and readmission for patients with potentially avoidable conditions within 100 days of hospital discharge. Quality measures were calculated for all facilities with at least 25 stays. “Ultra-high therapy days” include days with at least 720 minutes per week of therapy. “Medically complex days” were defined as those assigned to clinically complex or special-care case-mix groups.

Source: MedPAC analysis of quality measures for 2011–2014 and Medicare cost report data for 2011–2014.

- “Relatively efficient SNFs” were defined as consistently providing relatively low-cost and high-quality care compared with other SNFs.
- Compared with other SNFs, relatively efficient SNFs furnished considerably higher quality (higher discharge to community rates and lower readmission rates) and had costs per day that were 8 percent lower.
- Compared with other SNFs, relatively efficient SNFs treated more complex patients, had a higher share of ultra-high therapy days, were larger, and had slightly higher occupancy rates.

**Chart 8-8. Spending on home health care, 2001–2014**



Source: CMS Office of the Actuary.

- In October 2000, the prospective payment system (PPS) replaced the previous Medicare payment system for home health care. At the same time, eligibility for the benefit broadened slightly.
- Home health care spending has risen rapidly under the PPS. Spending rose by about 10 percent per year between 2001 and 2009; spending peaked in 2010 and has declined slightly since then.

## Chart 8-9. Trends in the provision of home health care

	2002	2013	2014	<u>Percent change</u> 2013–2014	<u>Cumulative percent change</u> 2002–2014
Number of users (in millions)	2.5	3.5	3.4	–1.3%	36.0%
Percent of beneficiaries who used home health care	7.2%	9.3%	9.1%	–2.2	26.0
Episodes (in millions)	4.1	6.7	6.6	–2.1	60.1
Episodes per home health patient	1.6	1.9	1.9	–0.8	17.7
Visits per home health episode	18.9	17.0	17.5	3.1	–7.4
Visits per home health patient	30.8	32.9	33.6	2.2	9.1
Average payment per episode	\$2,335	\$2,674	\$2,689	0.5	15.1

Note: Yearly figures presented in the table are rounded, but the percent-change columns were calculated using unrounded data.

Source: MedPAC analysis of the home health standard analytic file.

- The number of home health episodes has increased since 2002. The number of beneficiaries using home health care has also increased since 2002, but at a lower rate than the growth in episodes. In 2014, 3.4 million beneficiaries used the home health benefit.
- The number of visits per episode decreased from 2002 to 2014. However, this decline was offset by an increase in the average number of episodes per patient, which increased from 1.6 in 2002 to 1.9 in 2014. Beneficiaries received fewer visits in an episode but had more 60-day episodes of care. As a result, the average number of visits increased from about 31 visits per home health user in 2002 to about 34 visits per home health user in 2014.

## Chart 8-10. Home health episodes not preceded by a hospitalization accounted for the majority of services in 2013

	Number of episodes (in millions)		Cumulative growth	Share of episodes	
	2001	2013		2001	2013
Episodes not preceded by a hospitalization or PAC stay:					
First	0.8	1.4	80%	20%	21%
Subsequent	<u>1.3</u>	<u>3.0</u>	137	<u>32</u>	<u>45</u>
Subtotal	2.1	4.5	115	53	66
Episodes preceded by a hospitalization or PAC stay:					
First	1.6	1.9	18	40	27
Subsequent	<u>0.3</u>	<u>0.5</u>	60	<u>8</u>	<u>7</u>
Subtotal	1.9	2.3	25	47	34
Total	3.9	6.9	72	100%	100%

Note: PAC (post-acute care). "First" indicates no home health episode in the 60 days preceding the episode. "Subsequent" indicates the episode started within 60 days of the end of a preceding episode. "Episodes not preceded by a hospitalization or PAC stay" indicates that there was no hospitalization or PAC stay in the 15 days before the start of the episode. "Episodes preceded by a hospitalization or PAC stay" indicates the episode occurred less than 15 days after a stay in a hospital (including a long-term care hospital, skilled nursing facility, or inpatient rehabilitation facility). The number of episodes presented in the table is rounded, but the cumulative-growth column was calculated using unrounded data. Components may not sum to subtotals or totals due to rounding.

Source: CMS Datalink file 2013.

- The rise in the average number of episodes per beneficiary coincides with a relative shift away from using home health care as a PAC service.
- During the 2001 through 2013 period, the number of episodes not preceded by a hospitalization or PAC stay increased by 115 percent compared with a 25 percent increase in episodes that were preceded by a hospitalization or PAC stay. During that period, the share of all episodes not preceded by a hospitalization or PAC stay rose from about 53 percent to 66 percent.
- Beneficiaries for whom the majority of home health episodes in 2013 were preceded by a hospitalization or other post-acute stay had different characteristics from community-admitted beneficiaries. Community-admitted home health users were more likely to be dually eligible for Medicare and Medicaid, had more home health episodes, and had more episodes with a high share of home health aide services compared with post-acute users of home health (data not shown). Community-admitted users generally had fewer chronic conditions, tended to be older, and were more likely to have dementia and Alzheimer's disease (data not shown).

## Chart 8-11. Medicare margins for freestanding home health agencies

	2013	2014	Percent of agencies 2014
All	12.7%	10.8%	100%
Geography			
Mostly urban	13.1	11.2	85
Mostly rural	11.0	8.5	15
Type of control			
For profit	13.7	12.2	89
Nonprofit	10.0	6.4	11
Volume quintile (lowest to highest)			
First	6.1	4.0	20
Second	7.8	5.4	20
Third	8.9	7.6	20
Fourth	11.2	10.0	20
Fifth	14.8	12.5	20

Note: Agencies are characterized as urban or rural based on the residence of the majority of their patients.

Source: MedPAC analysis of 2013–2014 Medicare Cost Report files from CMS.

- In 2014, freestanding home health agencies (HHAs) (85 percent of all HHAs) had an aggregate margin of 10.8 percent. HHAs that served mostly urban patients in 2014 had an aggregate margin of 11.2 percent; HHAs that served mostly rural patients had an aggregate margin of 8.5 percent. The 2014 margin is consistent with the historically high margins the home health industry has experienced under the prospective payment system. The margin from 2001 to 2014 averaged 16.5 percent (data not shown), indicating that most agencies have been paid well in excess of their costs under the prospective payment system.
- For-profit agencies in 2014 had an average margin of 12.2 percent, and nonprofit agencies had an average margin of 6.4 percent.
- Agencies that serve more patients have higher margins. The agencies in the lowest volume quintile in 2014 had an aggregate margin of 4.0 percent, while those in the highest quintile had an aggregate margin of 12.5 percent.

## Chart 8-12. Number of IRF FFS patients was stable in 2014

	2004	2012	2013	2014	Average annual percent change 2004–2013	Percent change 2013–2014
Number of IRF cases	495,000	373,000	373,000	376,000	–3.1%	0.7%
Cases per 10,000 FFS beneficiaries	135.6	100.1	99.7	99.9	–3.4	0.2
Payment per case	\$13,290	\$17,995	\$18,258	\$18,632	3.6	2.0
Average length of stay (in days)	12.7	12.9	12.9	12.8	0.2	–0.4

Note: IRF (inpatient rehabilitation facility), FFS (fee-for-service). Numbers of cases reflect Medicare FFS utilization only. Yearly figures presented in the table are rounded, but the percent-change columns were calculated using unrounded data.

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

- The number of Medicare FFS IRF cases grew rapidly throughout the 1990s and the early years of the IRF prospective payment system, reaching a peak of about 495,000 in 2004.
- After CMS renewed its enforcement of the compliance threshold in 2004, IRF volume declined substantially. Between 2004 and 2008, the number of IRF cases fell almost 8 percent per year (data not shown). After 2008, volume began to increase slowly. Between 2013 and 2014, volume was fairly stable, rising less than 1 percent.
- In recent years, the number of IRF cases per 10,000 FFS beneficiaries has held steady at about 100. Relatively few Medicare beneficiaries use IRF services because, to qualify for Medicare coverage, IRF patients must be able to both tolerate and benefit from intensive rehabilitation therapy, which typically consists of at least three hours of therapy a day for at least five days a week.
- Medicare payments per IRF case rose, on average, 3.6 percent per year between 2004 and 2013. Payments per case grew 2.0 percent between 2013 and 2014.

## Chart 8-13. Most common types of inpatient rehabilitation facility cases, 2014

Type of case	Share of cases
Stroke	19.5%
Neurological conditions	13.1
Fracture of the lower extremity	12.2
Debility	10.3
Brain injury	8.7
Major joint replacement of lower extremity	7.8
Other orthopedic conditions	7.7
Cardiac conditions	5.6
Spinal cord injury	4.6
All other	10.6

Note: "Neurological conditions" includes multiple sclerosis, Parkinson's disease, polyneuropathy, and neuromuscular disorders. "Fracture of the lower extremity" includes hip, pelvis, and femur fractures. Patients with debility have generalized deconditioning not attributable to other conditions. "Other orthopedic conditions" excludes fractures of the hip, pelvis, and femur and hip and knee replacements. "All other" includes conditions such as amputations, arthritis, and pain syndrome. Numbers may not sum to 100 percent due to rounding.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS.

- In 2014, the most frequently occurring case type among beneficiaries admitted to inpatient rehabilitation facilities (IRFs) was stroke, which accounted for 19.5 percent of Medicare fee-for-service cases.
- The number and share of Medicare cases with neurological conditions has grown significantly over the past decade. Between 2004 and 2014, the number of neurological cases grew 93 percent, even as the total number of Medicare IRF cases declined 23 percent (data not shown). As a result, in 2014, neurological conditions made up 13.1 percent of all Medicare cases in IRFs, compared with 5.2 percent in 2004 (2004 data not shown).

**Chart 8-14. Inpatient rehabilitation facilities' Medicare margin by type of facility, 2004–2014**

	2004	2006	2008	2010	2012	2013	2014
All IRFs	16.7%	12.4%	9.3%	8.7%	11.2%	11.6%	12.5%
Hospital based	12.2	9.6	3.8	−0.5	0.8	0.2	1.0
Freestanding	24.7	17.5	18.2	21.4	23.9	24.4	25.3
Urban	17.0	12.6	9.5	9.0	11.6	12.0	13.0
Rural	13.2	10.1	6.9	4.7	6.5	6.5	6.4
Nonprofit	12.8	10.6	5.2	2.1	2.4	1.4	2.1
For profit	24.4	16.3	16.9	19.6	23.1	23.6	24.3

Note: IRF (inpatient rehabilitation facility).

Source: MedPAC analysis of cost report data from CMS.

- Between 2013 and 2014, the aggregate IRF Medicare margin rose from 11.6 percent to 12.5 percent. The aggregate margin has risen steadily since 2009, after a period of declining, though healthy, margins.
- Margins varied by ownership, with for-profit IRFs having substantially higher margins. At the same time, Medicare margins in freestanding IRFs far exceeded those of hospital-based facilities. Nevertheless, a quarter of hospital-based IRFs had Medicare margins greater than 11 percent (data not shown), indicating that many hospitals can manage their IRF units profitably. Further, despite the comparatively low average margin in hospital-based IRFs, evidence suggests that these units make a positive financial contribution to their parent hospitals. Commission analysis found that in 2013, the aggregate Medicare margin for acute care hospitals with IRF units was a percentage point higher than the margin of hospitals without IRF units (data not shown).
- Higher unit costs are a major driver of low margins in both hospital-based and nonprofit IRFs. However, the Commission has found that the mix of case types in IRFs is also correlated with profitability. IRFs with the highest margins have a higher share of neurological cases and a lower share of stroke cases. Further, we have observed differences in the types of stroke and neurological cases admitted to high- and low-margin IRFs. Stroke cases in the highest margin IRFs are much less likely to have paralysis than are stroke cases in the lowest margin IRFs. Neurological cases in the highest margin IRFs are much more likely to have a neuromuscular disorder (such as amyotrophic lateral sclerosis) than are neurological cases in the lowest margin IRFs (data not shown).
- The Commission has found that high-margin IRFs have patients who are, on average, less severely ill in the acute care hospital than patients admitted to low-margin IRFs. Once admitted to and assessed by the IRF, however, the average patient profile changes, with patients treated in high-margin IRFs appearing to be more disabled than those in low-margin IRFs. This finding suggests the possibility that assessment and coding practices may contribute to greater revenues in some IRFs (data not shown).

## Chart 8-15. Low standardized costs led to high margins for both hospital-based and freestanding IRFs, 2014

Characteristic	Lowest cost quartile	Highest cost quartile
Median cost per discharge		
All	\$10,583	\$18,888
Hospital based	10,992	18,881
Freestanding	10,437	19,833
Median Medicare margin		
All	26.1%	-21.3%
Hospital based	19.5	-21.3
Freestanding	31.1	-21.7
Median		
Number of beds	42	18
Occupancy rate	70%	50%
Case-mix index	1.29	1.21
Share of facilities in the quartile that are:		
Hospital based	43%	95%
Freestanding	57	5
Nonprofit	30	65
For profit	66	18
Government	4	17
Urban	94	70
Rural	6	30

Note: IRF (inpatient rehabilitation facility). Cost per discharge is standardized for differences in wages across geographic areas, differences in case mix across providers, and differences across providers in the prevalence of high-cost outliers, short-stay outliers, and transfer cases.

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

- IRFs with the lowest standardized costs (those in the lowest cost quartile) had a median standardized cost per discharge that was 44 percent less than that of the IRFs with the highest standardized costs (those in the highest cost quartile).
- IRFs with the lowest costs tended to be larger: The median number of beds was 42 compared with 18 in the highest cost quartile. In addition, IRFs with the lowest costs had a higher median occupancy rate (70 percent vs. 50 percent). These results suggest that low-cost IRFs benefit from economies of scale.
- Low-cost IRFs were disproportionately freestanding and for profit. Still, 43 percent of IRFs in the lowest cost quartile were hospital based and 30 percent were nonprofit. By contrast, in the highest cost quartile, 95 percent were hospital based and almost two-thirds were nonprofit.

**Chart 8-16. The top 25 MS–LTC–DRGs made up two-thirds of LTCH discharges in 2014**

MS–LTC –DRG	Description	Discharges	Percentage
189	Pulmonary edema and respiratory failure	16,017	12.0%
207	Respiratory system diagnosis with ventilator support 96+ hours	15,224	11.4
871	Septicemia without ventilator support 96+ hours with MCC	8,809	6.6
177	Respiratory infections and inflammations with MCC	3,733	2.8
592	Skin ulcers with MCC	3,663	2.7
208	Respiratory system diagnosis with ventilator support <96 hours	3,105	2.3
949	Aftercare with CC/MCC	2,864	2.1
539	Osteomyelitis with MCC	2,785	2.1
682	Renal failure with MCC	2,437	1.8
919	Complications of treatment with MCC	2,321	1.7
314	Other circulatory system diagnoses with MCC	1,981	1.5
190	Chronic obstructive pulmonary disease with MCC	1,975	1.5
870	Septicemia with ventilator support 96+ hours	1,966	1.5
862	Postoperative and post-traumatic infections with MCC	1,955	1.5
559	Aftercare, musculoskeletal system and connective tissue with MCC	1,947	1.5
166	Other respiratory system OR procedures with MCC	1,925	1.4
4	Tracheostomy with ventilator support 96+ hours or primary diagnosis except face, mouth, and neck without major OR	1,840	1.4
193	Simple pneumonia and pleurisy with MCC	1,809	1.3
291	Heart failure and shock with MCC	1,739	1.3
638	Diabetes with CC	1,665	1.2
570	Skin debridement with MCC	1,629	1.2
853	Infectious and parasitic diseases with OR procedure with MCC	1,600	1.2
981	Extensive OR procedure unrelated to principal diagnosis with MCC	1,568	1.2
560	Aftercare, musculoskeletal system and connective tissue with CC	1,359	1.0
602	Cellulitis with MCC	1,328	1.0
	<b>Top 25 MS–LTC–DRGs</b>	<b>87,244</b>	<b>65.1</b>
	<b>Total</b>	<b>134,004</b>	<b>100.0</b>

Note: MS–LTC–DRG (Medicare severity–long-term care–diagnosis related group), LTCH (long-term care hospital), MCC (major complication or comorbidity), CC (complication or comorbidity), OR (operating room). MS–LTC–DRGs are the case-mix system for LTCHs. Components may not sum to totals due to rounding.

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

- Cases in LTCHs are concentrated in a relatively small number of MS–LTC–DRGs. In 2014, the top 25 MS–LTC–DRGs accounted for 65 percent of all cases.
- The most frequent diagnosis in LTCHs in 2014 was pulmonary edema and respiratory failure. Nine of the top 25 diagnoses were respiratory conditions or involved prolonged mechanical ventilation.

**Chart 8-17. The number of Medicare LTCH cases and users continued to decrease between 2013 and 2014**

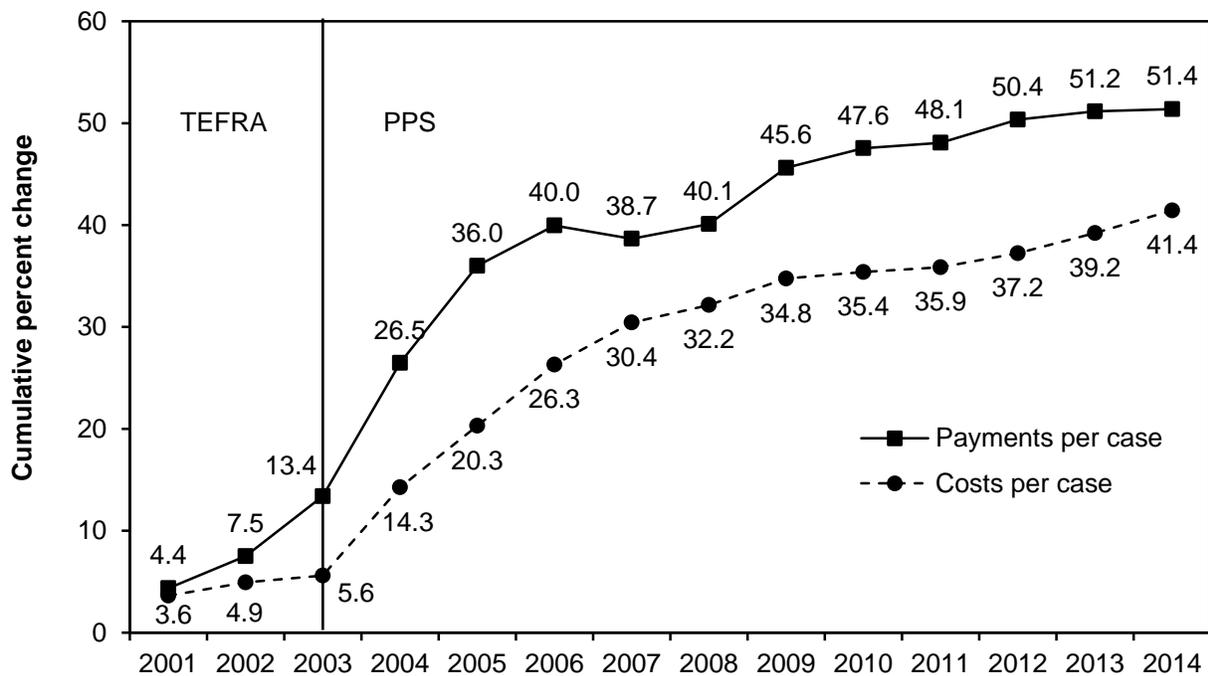
	2008	2010	2012	2013	2014	Average annual change		
						2008–2012	2012–2013	2013–2014
Cases	130,869	134,683	140,463	137,827	133,984	2.4%	–1.9%	–2.8%
Cases per 10,000 FFS beneficiaries	36.9	37.4	37.7	36.6	35.7	0.7	–2.8	–2.6
Spending per FFS beneficiary	\$129.8	\$144.2	\$148.8	\$146.7	\$142.7	4.7	–1.4	–2.8
Payment per case	\$35,200	\$38,582	\$39,493	\$40,070	\$40,015	3.9	1.5	–0.1
Length of stay (in days)	26.7	26.6	26.2	26.5	26.3	–0.6	1.0	–0.7
Users	115,328	118,322	123,652	121,532	118,288	2.4	–1.7	–2.7

Note: LTCH (long-term care hospitals), FFS (fee-for-service). Yearly figures presented in the table are rounded, but the average-annual-change columns were calculated using unrounded data.

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

- Controlling for the number of FFS beneficiaries, the number of LTCH cases declined 2.6 percent between 2013 and 2014. This two-year decline that began in 2013 is due at least in part to a congressional moratorium that limited growth in the number of LTCHs.
- Between 2013 and 2014, the number of beneficiaries who had LTCH stays (“users”) decreased by 2.7 percent.

**Chart 8-18. LTCHs' per case costs increased more than payments in 2014**



Note: LTCH (long-term care hospital), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system). Percentage changes are calculated based on consistent two-year cohorts of LTCHs.

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

- In the first years of the PPS, costs per case increased rapidly, following a surge in payments per case. Between 2005 and 2007, growth in cost per case slowed considerably because regulatory changes to Medicare's payment policies for LTCHs slowed growth in payment per case to an average of 1.3 percent per year.
- For most of the past decade, LTCHs held cost growth below the rate of market basket increases, likely because of ongoing concerns about possible changes to Medicare's payment policies for LTCH services. The slowest growth in average cost per case occurred between 2009 and 2011, when the average cost per case increased less than 1 percent per year.
- Starting in 2011, the average cost per case increased more rapidly each year, equaling 2.2 percent between 2013 and 2014.

**Chart 8-19. The aggregate average LTCH Medicare margin fell in 2013 and 2014**

Type of LTCH	Share of discharges	Medicare margin					
		2009	2010	2011	2012	2013	2014
All	100%	5.7%	6.8%	6.9%	7.5%	6.8%	4.9%
Urban	94	6.0	7.1	7.1	7.7	7.0	4.9
Rural	6	-3.0	0.6	3.1	3.7	2.5	4.1
Nonprofit	13	-0.7	-0.3	0.5	-0.2	-1.4	-2.8
For profit	85	7.4	8.4	8.5	9.3	8.7	6.9
Government	2	N/A	N/A	N/A	N/A	N/A	N/A

Note: LTCH (long-term care hospital), N/A (not applicable). Margins for government-owned providers are not shown. They operate in a different context from other providers, so their margins are not necessarily comparable.

Source: MedPAC analysis of cost report data from CMS.

- After implementation of the prospective payment system on October 1, 2002, LTCHs' Medicare margins increased rapidly for all LTCH provider types, climbing to 11.9 percent in 2005 (data not shown). Margins then fell as growth in payments per case leveled off.
- From 2009 through 2012, LTCH margins climbed as providers consistently held cost growth below that of payment growth.
- In 2013, the aggregate LTCH margin fell from 7.5 percent (in 2012) to 6.8 percent, primarily because of the first year of a three-year phase-in of the downward adjustment for budget neutrality and the effect of sequestration beginning on April 1, 2013. The aggregate LTCH margin fell further to 4.9 percent in 2014.
- Financial performance in 2014 varied across LTCHs. The aggregate Medicare margin for for-profit LTCHs (which accounted for 85 percent of all Medicare discharges from LTCHs) decreased from 8.7 percent in 2013 to 6.9 percent in 2014. The aggregate margin for nonprofit LTCHs fell from -1.4 percent in 2013 to -2.8 percent in 2014. These declines were from cost growth that exceeded growth in payments.

