SECTION 9

Post-acute care

Skilled nursing facilities
Home health agencies
Long-term care hospitals
Inpatient rehabilitation facilities

Chart 9-1. The number of most post-acute care providers grew or remained stable in 2009

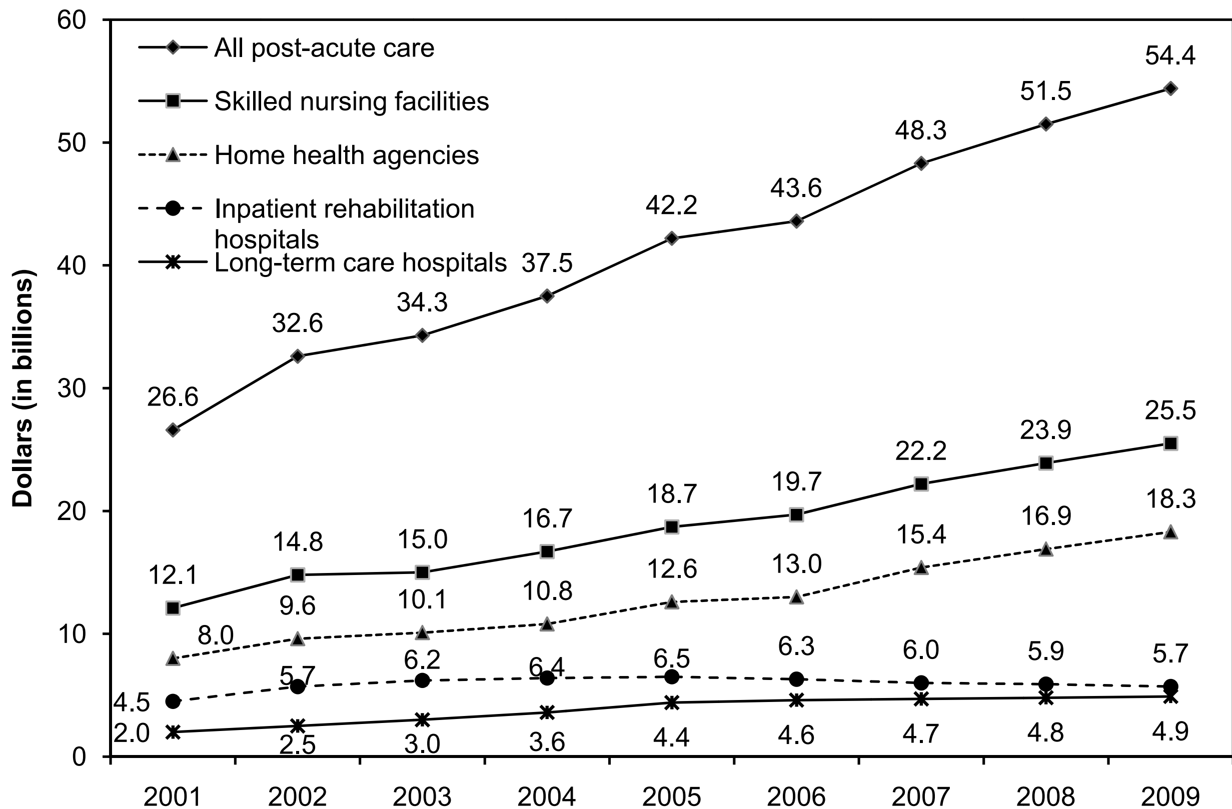
	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average annual percent change 2001–2009	Percent change 2008–2009
Home health agencies	7,061	7,056	7,342	7,803	8,313	8,954	9,403	10,026	10,422	3.4%	3.9%
Inpatient rehabilitation facilities	1,144	1,181	1,207	1,221	1,235	1,225	1,202	1,202	1,196	0.6	–0.5
Long-term care hospitals	278	297	334	366	392	397	402	420	432	5.7	2.8
Skilled nursing facilities	14,715	14,794	14,879	14,939	15,001	15,007	15,038	15,043	15,053	0.3	0.0

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

Source: MedPAC analysis of data from certification and Survey Provider Enhanced Reporting on CMS's Survey and Certification's Providing Data Quickly system for 2001–2009 and CMS Provider of Service data.

- The number of home health agencies has increased substantially since 2002.
- The number of inpatient rehabilitation facilities (rehabilitation hospitals and rehabilitation units) declined slightly in 2009, after remaining stable in 2007 and 2008.
- In spite of a moratorium on new long-term care hospitals beginning in October 2007, the number of these facilities has continued to grow.
- The total number of skilled nursing facilities has remained about the same for four years, but the mix of facilities continues to shift from hospital-based to freestanding facilities. Hospital-based facilities make up 7 percent of all facilities, down from almost 11 percent in 2001.

Chart 9-2. Medicare's spending on home health care and skilled nursing facilities fueled growth in post-acute care expenditures



Note: These numbers are program spending only and do not include beneficiary copayments. Spending amounts for 2009 were estimated before passage of the Affordable Care Act.

Source: CMS, Office of the Actuary.

- Increases in fee-for-service spending on post-acute care have slowed in part due to expanded enrollment in managed care, whose spending is not included in this spending.
- Despite the slower growth, spending on all post-acute care still grew close to 6 percent between 2008 and 2009, fueled by the increases in home health care and skilled nursing facility expenditures.
- Fee-for-service spending on inpatient rehabilitation hospitals has declined since 2005, reflecting policies intended to ensure that patients who do not need this intensity of services are treated in less intensive settings.

Chart 9-3. Ten most common diagnoses among Medicare SNF patients account for less than a third of SNF admissions in 2007

Diagnosis code from hospital stay	Diagnosis	Share of SNF admissions
544	Major joint and limb reattachment of lower extremity	5.5%
127	Heart failure and shock	3.6
089	Simple pneumonia and pleurisy, age >17, with CC	3.4
576	Septicemia without mechanical ventilation 96+ hours, age > 17	2.9
210	Hip and femur procedures except major joint, age >17, with CC	2.9
320	Kidney and urinary tract infection, age > 17, with CC	2.5
014	Intracranial hemorrhage and stroke with infarction	2.4
316	Renal failure	2.2
462	Rehabilitation	1.9
296	Nutritional and miscellaneous metabolic disorders, age > 17, with CC	1.9
	Total	29.2

Note: SNF (skilled nursing facility), CC (complication or comorbidity). The diagnosis code from hospital stay is the discharge diagnosis related group.

Source: MedPAC analysis of DataPRO files from CMS, 2007.

- The most common diagnosis for a SNF admission in 2007 was a major joint and limb reattachment procedure of the lower extremity, typically a hip or knee replacement.
- Ten conditions accounted for about 30 percent of all admissions to SNFs in 2007.
- The 10 most frequent conditions and their rank orderings did not vary by ownership (for-profit and nonprofit facilities) or type (hospital-based and freestanding facilities). Hospital-based facilities had double the share of major joint procedures compared with freestanding facilities.

Chart 9-4. A growing share of Medicare stays and payments go to freestanding SNFs and for-profit SNFs

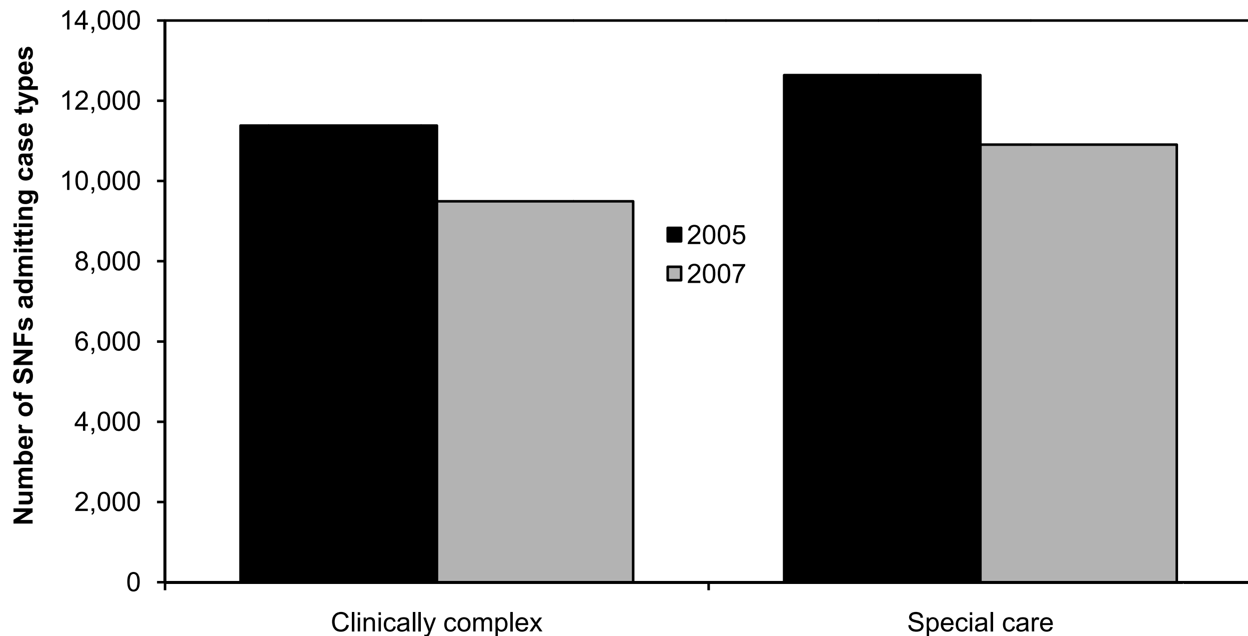
	Facilities		Medicare-covered stays		Medicare payments	
Type of SNF	2005	2008	2005	2008	2005	2008
All SNFs	100%	100%	100%	100%	100%	100%
Freestanding	92	93	87	91	93	95
Hospital based	8	7	13	9	7	5
Urban	67	70	79	81	81	83
Rural	33	30	21	19	19	17
For profit	68	68	66	69	72	74
Nonprofit	28	26	30	27	25	22
Government	5	5	4	3	3	3

Note: SNF (skilled nursing facility). Totals may not sum to 100 percent due to rounding or missing information about facility characteristics.

Source: MedPAC analysis of the Provider of Services and Medicare Provider Analysis and Review files 2005–2008.

- Freestanding SNFs made up 93 percent of facilities in 2008.
- Freestanding SNFs treated 91 percent of stays (up 4 percentage points from 2005) and accounted for 95 percent of Medicare payments.
- Between 2005 and 2008, for-profit SNFs' share of Medicare-covered stays increased 3 percentage points and payments increased 2 percentage points.
- Urban SNFs' share of facilities, Medicare-covered stays, and payments increased between 2005 and 2008.

Chart 9-5. Fewer SNFs admitted clinically complex and special care cases in 2007 compared with 2005



Note: SNF (skilled nursing facility). Admission category based on admitting case-mix group assignment. The clinically complex category includes patients who are comatose; have burns, septicemia, pneumonia, internal bleeding, or dehydration; or receive dialysis or chemotherapy. The special care category includes patients with multiple sclerosis or cerebral palsy, those who receive respiratory services seven days per week, or those who are aphasic or tube fed.

Source: MedPAC analysis of 2006 DataPro data from CMS.

- The number of SNFs that admit medically complex patients continued to decline.
- Between 2005 and 2007, the number of facilities admitting clinically complex cases decreased 9 percent, while the number admitting special care patients decreased 7 percent.
- Between 2005 and 2007, the number of SNFs remained about the same. As a result, medically complex admissions were more concentrated in fewer SNFs.

Chart 9-6. Small increase in SNF days resulted in longer average stays

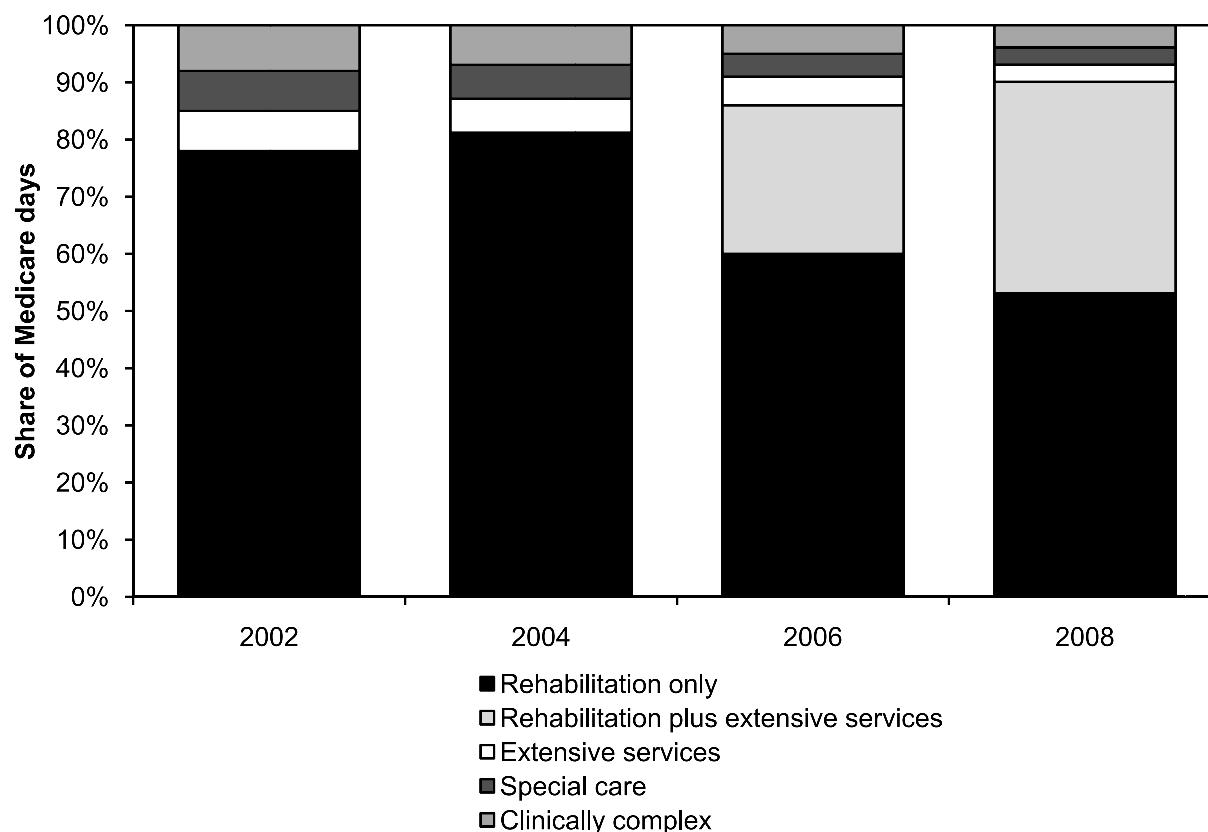
	2006	2007	2008	Change 2007–2008
Volume per 1,000 fee-for-service enrollees				
Covered admissions	71	72	74	2.8%
Covered days	1,874	1,925	1,991	3.4
Covered days per admission	26.4	26.7	27	1.1

Note: SNF (skilled nursing facility). Data include 50 states and the District of Columbia. Data for 2008 are preliminary.

Source: Calendar year data from CMS, Office of Research, Development and Information.

- Between 2007 and 2008, covered days rose 3.4 percent and admissions rose 2.83 percent, resulting in a small increase in covered days per admission.
- Measures are reported on a per fee-for-service enrollee basis because the counts of days and admissions do not include the utilization of beneficiaries enrolled in Medicare Advantage (MA) plans. Because MA enrollment continued to increase, changes in utilization could reflect a smaller pool of users rather than changes in service use by the beneficiaries captured by the data.

Chart 9-7. Case mix in freestanding SNFs shifted toward rehabilitation plus extensive services RUGs and away from other broad RUG categories



Note: SNF (skilled nursing facility), RUG (resource utilization group). The clinically complex category includes patients who are comatose; have burns, septicemia, pneumonia, internal bleeding, or dehydration; or receive dialysis or chemotherapy. The special care category includes patients with multiple sclerosis or cerebral palsy, those who receive respiratory services seven days per week, or those who are aphasic or tube fed. The extensive services category includes patients who have received intravenous medications or suctioning in the past 14 days, have required a ventilator or respiratory or tracheostomy care, or have received intravenous feeding within the past 7 days. Days are for freestanding skilled nursing facilities with valid cost reports.

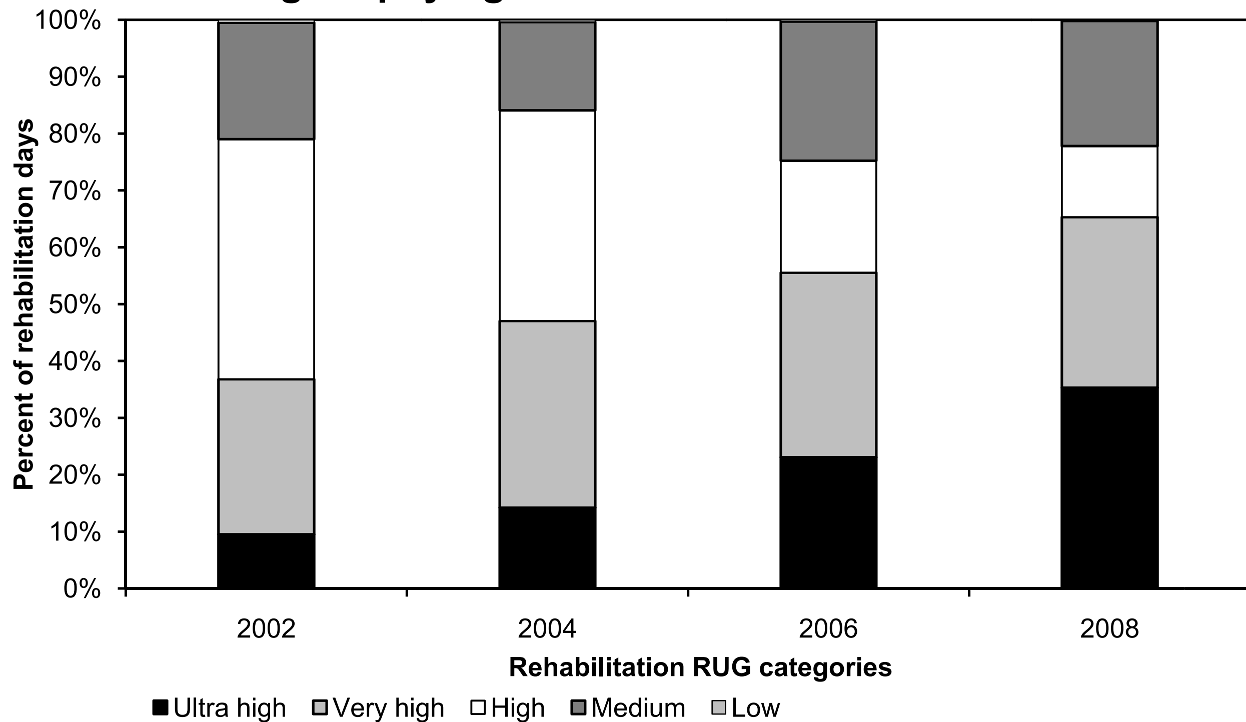
Source: MedPAC analysis of freestanding SNF cost reports.

- In 2008, rehabilitation RUGs accounted for 90 percent of all Medicare days in freestanding SNFs. Rehabilitation-only RUGs accounted for 53 percent of days.

- The nine rehabilitation plus extensive services RUGs accounted for 53 percent of all freestanding SNFs' RUG days in 2008. In 2007, these highest payment RUGs made up 34 percent of RUG days.

- Some of the growth in total rehabilitation days may be explained by a shift in the site of care from inpatient rehabilitation facilities to SNFs. Between 2004 and 2008, the share of beneficiaries who had a major joint replacement or revision and were discharged from a hospital to a SNF increased 3 percentage points, from 33 percent to 36 percent.

Chart 9-8. Rehabilitation case mix continues to shift toward higher paying rehabilitation RUGs



Note: RUG (resource utilization group). Rehabilitation days include days in the rehabilitation case-mix groups and the rehabilitation plus extensive services case-mix groups. Days are for freestanding skilled nursing facilities with valid cost report data.

Source: MedPAC analysis of freestanding skilled nursing facility cost reports.

- The distribution of rehabilitation days in freestanding skilled nursing facilities continued to shift toward the highest therapy groups. Between 2006 and 2008, the share of ultra high and very high rehabilitation days increased 35 percent, making up almost two-thirds of all rehabilitation days. During this period, the share of days in the high, medium, and low rehabilitation groups declined 10 percent.

- The shifts toward higher intensity RUGs could be a function of shifts in site of service from other settings or could reflect the payment incentives to furnish the services necessary to get patients classified into higher paying rehabilitation RUGs.

Chart 9-9. Freestanding SNF Medicare margins have exceeded 10 percent for seven years

Type of SNF	2002	2003	2004	2005	2006	2007	2008
All	17.4%	10.8%	13.7%	12.9%	13.3%	14.7%	16.5%
Urban	16.8	10.2	13.1	12.4	13.1	14.5	16.1
Rural	20.4	14.0	16.3	15.4	14.6	15.7	18.3
For profit	19.6	13.4	16.2	15.2	15.8	17.4	19.0
Nonprofit	8.7	1.3	3.5	4.2	3.3	4.0	7.0
Government*	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: SNF (skilled nursing facility).
*Government-owned providers operate in a different context from other providers, so their margins are not necessarily comparable.

Source: MedPAC analysis of freestanding SNF cost reports.

- Although aggregate Medicare margins for freestanding SNFs have varied over the past 7 years, they have exceeded 10 percent every year since 2001 (2001 not shown).
- Aggregate Medicare margins increased from 2007 to 2008 due to costs per day growing more slowly than payments per day. The growth in payments reflected the increased share of days classified into the highest paying resource utilization groups.
- Examining the distribution of 2008 margins, one-half of freestanding SNFs had margins of 17.9 percent or more. One-quarter had Medicare margins at or below 7.4 percent and one quarter had margins of 26.2 percent or higher.

Chart 9-10. Freestanding SNFs with relatively low costs and high quality maintained high Medicare margins

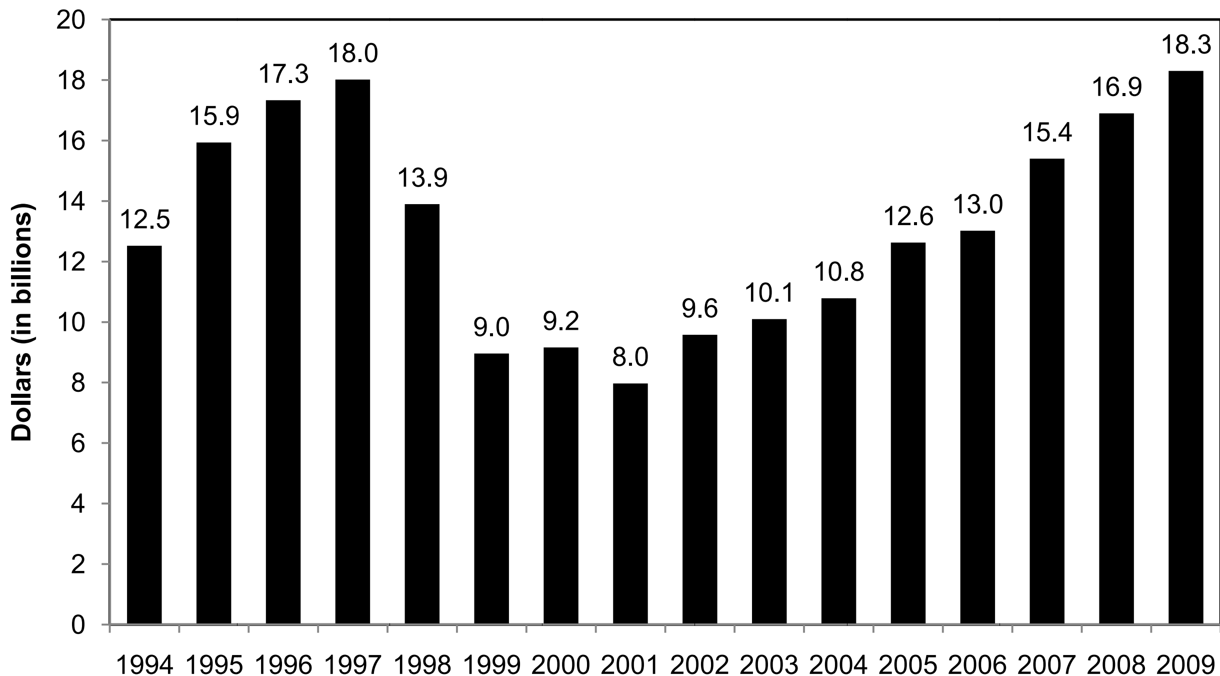
Characteristic	SNFs with relatively low costs and good quality (6 percent)	Other SNFs
Performance in 2007		
Relative* community discharge rate	1.39	1.0
Relative* rehospitalization rate	0.79	1.0
Relative* cost per day	0.83	1.0
Median length of stay	35 days	41 days
Medicare margin	24.6%	16.0%
Performance in 2008		
Relative* cost per day	0.85	1.0
Median length of stay	37 days	40 days
Medicare margin	24.9%	17.7%
Percent urban (2008)	64%	75%
Percent nonprofit (2008)	24%	21%
Median number of beds (2008)	99 beds	109 beds

Note: SNF (skilled nursing facility). SNFs with relatively low costs and good quality were those in the lowest third of the distribution of cost per day, in the top third for one quality measure, and not in the bottom third for the other quality measure. 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 rehospitalization for five conditions (congestive heart failure, respiratory infection, urinary tract infection, sepsis, and electrolyte imbalance) within 100 days of hospital discharge. Increases in rates of discharge to community indicate improved quality; increases in rehospitalization rates for the five conditions indicate worsening quality. Quality measures were calculated for all facilities with more than 25 stays.
*Measures are relative to the national average.

Source: MedPAC analysis of quality measures for 2004–2007 and Medicare cost report data for 2004–2008.

- Freestanding SNFs can have relatively low costs and provide good quality of care while maintaining high margins.
- Compared with other SNFs, relatively efficient SNFs had community discharge rates that were 39 percent higher, rehospitalization rates that were 21 percent lower, and costs per day that were 17 percent lower. They also had shorter lengths of stay than other SNFs. Relatively efficient SNFs had Medicare margins in 2008 of 24.9 percent compared with a median margin for other SNFs of 17.7 percent.
- Relatively efficient SNFs were less likely to be located in an urban area and more likely to be nonprofit than other SNFs.

Chart 9-11. Spending for home health care, 1994–2009



Source: CMS, Office of the Actuary, 2009.

- Medicare home health care spending grew at an average annual rate of 20 percent from 1992 to 1997. During that period, the payment system was cost based. Eligibility had been loosened just before this period, and enforcing the program’s standards became more difficult.

- Spending began to fall after 1997, concurrent with the introduction of the interim payment system (IPS) based on costs with limits, tighter eligibility, and increased scrutiny from the Office of Inspector General.

- In October 2000, the prospective payment system (PPS) replaced the IPS. At the same time, eligibility for the benefit broadened slightly. Enforcement of the Medicare program’s integrity standards continues at the regional home health intermediaries and state survey and certification agencies.

- Home health has risen steadily under PPS. Spending has risen by 9.9 percent a year between 2001 and 2008.

Chart 9-12. The provision of home health care changed after the prospective payment system started

	1997	2001	2008	Percent change 1997–2001	Percent change 2001–2008
Number of visits (in millions)	258	74	118	–72%	60%
Visit type (percent of total)					
Home health aide	48%	25%	18%	–37	–28
Skilled nursing	41	50	55	20	10
Therapy	10	24	26	101	8
Medical social services	1	1	1	1	NA
Visits per home health patient	73	37	37	–49	–2

Note: The prospective payment system began in October 2000.

Source: Home health Standard Analytic File; Health Care Financing Review, Medicare and Medicaid Statistical Supplement, 2002.

- The types and amount of home health care services that beneficiaries receive have changed. In 1997 home health aide services were the most frequently provided visit type, and beneficiaries who used home health received an average of 73 visits.
- CMS began to phase in the interim payment system in October 1997 to stem the rise in spending for home health services and implemented a prospective payment system (PPS) in 2000 (see Chart 9-11). By 2001, total visits had dropped by 72 percent, total users had dropped by 30 percent, and average visits per user had dropped to 37. The mix of services changed as well, with skilled nursing and therapy visits now accounting for about three-quarters of all services. Since PPS was implemented the number of users and episodes has risen rapidly (see Chart 9-13).

Chart 9-13. Trends in the provision of home health care

	2002	2005	2008	Average annual percent change 2002–2008
Number of users (in millions)	2.5	3.0	3.2	3.9%
Percent of beneficiaries who used home health	7.1%	8.0%	9.1%	4.0
Episodes (in millions)	4.1	5.2	6.1	6.7
Episodes per home health patient	1.6	1.8	1.9	2.7
Visits per home health patient	31	32	37	3.5
Average payment per episode	$2,329	$2,470	$2,786	3.0

Source: MedPAC analysis of the home health Standard Analytic File.

- Under the prospective payment system (PPS), in effect since 2000, the number of users and the number of episodes have risen significantly. In 2008, more than 3 million beneficiaries used the home health benefit.
- The number of home health episodes increased rapidly from 2002 to 2008. The number of beneficiaries using it has also increased since 2002, but at a lower rate than the growth in episodes.
- The number of visits per home health patient increased in 2008 to 37. This increase is primarily due to an increase in the number of home health episodes per patient and a slight increase in the number of visits per episode. CMS is investigating operations in south Florida and other areas, where high levels of utilization may be driving some of the growth in volume.

Chart 9-14. Margins for freestanding home health agencies

	2007	2008	Percent of agencies 2008
All	16.5%	17.4%	100%
Geography			
Urban	16.7	17.8	81.5
Rural	15.4	15.7	18.5
Type of control			
For profit	18.3	18.5	86
Nonprofit	12.0	14.3	14
Volume quintile			
First	8.4	7.9	20
Second	11.7	9.2	20
Third	13.0	13.1	20
Fourth	16.8	16.1	20
Fifth	17.5	19.5	20

Note: 4,706 agencies for 2007 and 5,069 agencies for 2008.

Source: MedPAC analysis of 2007–2008 Cost Report files.

- In 2008, about 78 percent of agencies had positive margins (not shown in chart). These estimated margins indicate that Medicare's payments are above the costs of providing services to Medicare beneficiaries, for both rural and urban home health agencies (HHAs).
- These margins are for freestanding HHAs, which composed about 85 percent of all HHAs in 2008. HHAs are also based in hospitals and other facilities.
- HHAs that served mostly urban patients in 2008 had a weighted average margin of 17.8 percent; those that served mostly rural patients had a weighted average margin of 15.7 percent. The 2008 margin is consistent with the historically high margins the home health industry has experienced under the prospective payment system. The weighted average margin from 2001 to 2007 was 17.4 percent, indicating that most agencies have been paid well in excess of cost under prospective payment.
- For-profit agencies in 2008 had a weighted average margin of 18.5 percent, and nonprofit agencies had a weighted average margin of 14.3 percent.
- Agencies that serve more patients have higher margins. The agencies in the lowest volume quintile in 2008 have a weighted average margin of 7.9 percent, while those in the highest have a weighted average margin of 19.5 percent.

Chart 9-15. The top MS–LTC–DRGs made up more than half of LTCH discharges in 2008

MS–LTC–DRG	Description	Discharges	Percentage
207	Respiratory system diagnosis with ventilator support 96+ hours	14,986	11.5%
189	Pulmonary edema & respiratory failure	8,745	6.7
871	Septicemia or severe sepsis without ventilator support 96+ hours with MCC	6,482	5.0
177	Respiratory infections & inflammations with MCC	4,340	3.3
592	Skin ulcers with MCC	4,004	3.1
949	Aftercare with CC/MCC	3,752	2.9
193	Simple pneumonia & pleurisy with MCC	2,696	2.1
593	Skin ulcers with CC	2,590	2.0
190	Chronic obstructive pulmonary disease with MCC	2,558	2.0
208	Respiratory system diagnosis with ventilator support <96 hours	2,486	1.9
945	Rehabilitation with CC/MCC	2,275	1.7
178	Respiratory infections & inflammations with CC	1,964	1.5
559	Aftercare, musculoskeletal system & connective tissue with MCC	1,944	1.5
573	Skin graft and/or debridement for skin ulcer or cellulitis with MCC	1,912	1.5
539	Osteomyelitis with MCC	1,903	1.5
682	Renal failure with MCC	1,738	1.3
166	Other respiratory system OR procedures with MCC	1,693	1.3
291	Heart failure & shock with MCC	1,688	1.3
862	Postoperative & post-traumatic infections with MCC	1,672	1.3
919	Complications of treatment with MCC	1,659	1.3
	Top 20 MS–LTC–DRGs	71,087	54.3
	Total	130,869	100.0

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 these facilities. Columns may not sum due to rounding.

Source: MedPAC analysis of MedPAR data from CMS.

- Cases in LTCHs are concentrated in a relatively small number of MS–LTC–DRGs. In 2008, the top 20 MS–LTC–DRGs accounted for more than half of all cases.

- The most frequent diagnosis in LTCHs in 2008 was respiratory diagnosis with ventilator support for more than 96 hours. Eight of the top 20 diagnoses, representing 30 percent of all cases, were respiratory conditions.

Chart 9-16. Long-term care hospital spending per FFS beneficiary increased under PPS

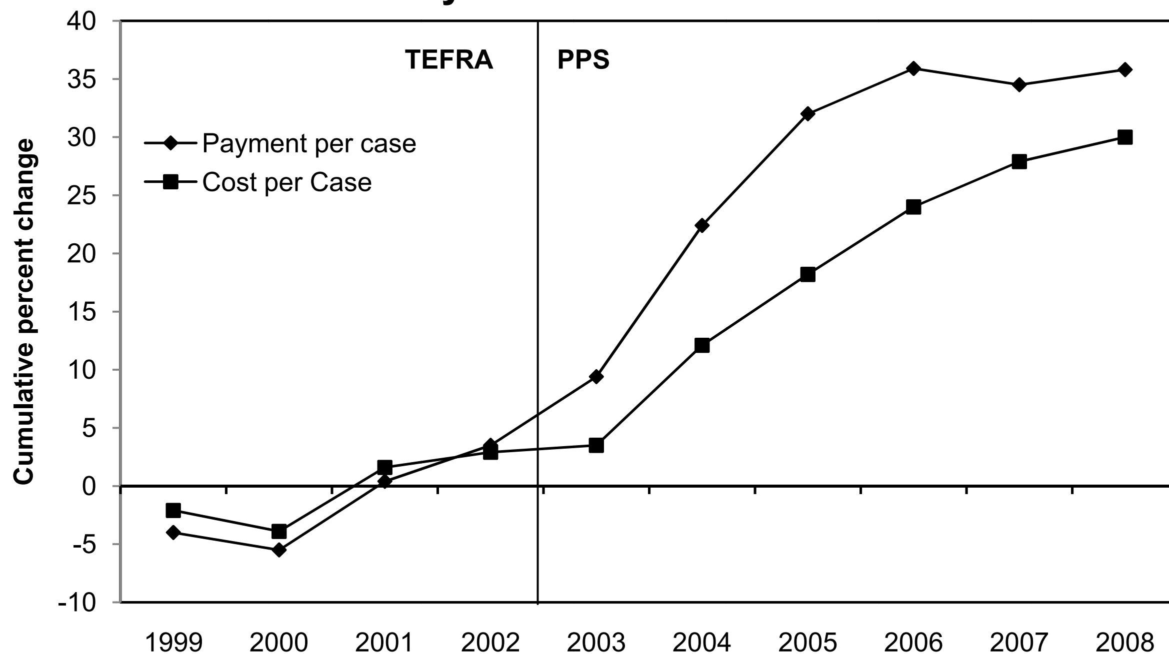
	2003	2004	2005	2006	2007	2008	Average annual change 2003–2005	2005–2007	2007–2008
Cases	110,396	121,955	134,003	130,164	129,202	130,869	10.2%	–1.8%	1.3%
Cases per 10,000 FFS beneficiaries	30.8	33.4	36.4	36.0	36.4	37.7	8.8	0.0	3.6
Spending per FFS beneficiary	$75.2	$101.3	$122.2	$124.3	$126.7	$132.6	27.5	1.8	4.7
Payment per case	$24,758	$30,059	$33,658	$34,859	$34,769	$35,200	16.6	1.6	1.2
Length of stay (in days)	28.8	28.5	28.2	27.9	26.9	26.7	–1.0	–2.3	–0.7

Note: FFS (fee-for-service), PPS (prospective payment system). Growth in per FFS cases and spending was slowed in 2006 and 2007 by large increases in the number of Medicare Advantage enrollees, whose long-term care hospital use and spending are not included in these totals.

Source: MedPAC analysis of MedPAR data from CMS.

- Between 2007 and 2008, Medicare spending for long-term care hospitals (LTCHs) increased 2.4 percent. However, because of growth in the number of beneficiaries enrolling in Medicare Advantage plans, Medicare spending per FFS beneficiary rose 4.7 percent.
- Similarly, between 2007 and 2008, the number of LTCH cases grew 1.3 percent. But when we control for the number of beneficiaries enrolled in FFS, the number of cases grew 3.6 percent.

Chart 9-17. The gap between LTCH payment and cost growth held steady



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

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

- Under TEFRA and before the PPS system was implemented in fiscal year 2003, LTCHs' Medicare per case costs and payments changed at similar rates. Under PPS, LTCHs' Medicare per case payments increased much faster than their per case costs. Payment growth slowed in 2006 and declined in 2007, then climbed again in 2008.

Chart 9-18. LTCHs' Medicare margins by type of facility

Type of LTCH	Share of discharges (2008)	TEFRA 2001	TEFRA 2002	PPS 2003	PPS 2004	PPS 2005	PPS 2006	PPS 2007	PPS 2008
All	100%	–1.6%	–0.1%	5.2%	9.0%	11.9%	9.8%	4.8%	3.4%
Urban	94	–1.6	–0.1	5.2	9.2	11.9	10.0	4.9	3.6
Rural	4	–2.7	–0.5	5.2	2.6	10.0	4.9	–0.5	–2.3
Freestanding	71	–1.3	0.1	5.4	8.1	11.2	9.0	5.2	3.7
Hospital within hospital	29	–2.1	–0.5	5.0	9.9	12.5	10.5	4.3	3.1
Nonprofit	17	–1.8	0.1	2.0	6.7	9.0	6.5	1.8	–2.0
For profit	81	–1.4	–0.1	6.3	10.0	13.0	11.0	5.7	4.9
Government*	2	–4.9	–2.6	–1.1	–0.7	0.3	–1.1	–4.4	–10.1

Note: LTCH (long-term care hospital), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system). Columns may not sum to 100 percent due to rounding or missing data.
*Government-owned providers 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 PPS, LTCHs' Medicare margins increased rapidly, from 5.2 percent in 2003 to 11.9 percent in 2005. Since 2005, aggregate margins have declined.

- Financial performance in 2008 varied across LTCHs. The aggregate Medicare margin for for-profit LTCHs (which account for 81 percent of all Medicare discharges from LTCHs) was 4.9 percent, compared with –2.0 percent for nonprofit facilities (which account for 17 percent of all Medicare LTCH discharges). Rural LTCHs' aggregate margin was –2.3 percent, compared with 3.6 percent for their urban counterparts. Rural providers account for about 6 percent of all LTCHs. They tend to be smaller than urban LTCHs, which may result in poorer economies of scale.

Chart 9-19. LTCHs in the top quartile of Medicare margins in 2008 had much lower costs

Characteristics	High-margin LTCHs	Low-margin LTCHs
Mean total discharges (all payers)	577	419
Medicare share	66%	61%
Average length of stay (in days)	27	29
Mean per discharge:		
Standardized costs	$26,058	$38,314
Medicare payment	$38,297	$37,896
High-cost outlier payments	$2,176	$4,984
Share of:		
Cases that are SSOs	28%	35%
Medicare cases from primary-referring ACH	35	40
LTCHs that are for-profit	88	57

Note: LTCH (long-term care hospital), SSO (short-stay outlier), ACH (acute care hospital). High-margin LTCHs were in the top 25 percent of the distribution of Medicare margins. Low-margin LTCHs were in the bottom 25 percent of the distribution of Medicare margins. Standardized costs have been adjusted for differences in case mix and area wages. Average primary referring ACH referral share indicates the mean share of patients who are referred to LTCHs from each LTCH's primary referring ACH.

Source: MedPAC analysis of LTCH cost reports and MedPAR data from CMS.

- A quarter of all LTCHs had margins in excess of 11.8 percent, while another quarter had margins below –8.2 percent.
- Lower per discharge costs, rather than higher payments, drove the differences in financial performance between LTCHs with the lowest and highest Medicare margins. Low-margin LTCHs had standardized costs per discharge that were almost 50 percent higher than high-margin LTCHs ($38,314 vs. $26,058).
- High-cost outlier payments per discharge for low-margin LTCHs were more than double those of high-margin LTCHs ($4,984 vs. $2,176). At the same time, short-stay outliers made up a larger share of low-margin LTCHs' cases. Low-margin LTCHs thus cared for disproportionate shares of patients who are high-cost outliers and patients who have shorter stays. Both types of patients can have a negative effect on LTCHs' margins. LTCHs lose money on high-cost outlier cases since, by definition, they generate costs that exceed payments. Further, cases that are short-stay outliers may receive reduced payments.
- Low-margin LTCHs service fewer patients overall. Poorer economies of scale may therefore affect low-margin LTCHs' costs.
- Low-margin LTCHs were far less likely to be for profit than were their high-margin counterparts.

Chart 9-20. Most common types of inpatient rehabilitation facility cases, 2009

Type of case	Share of cases
Stroke	20.6%
Hip fracture	15.5
Major joint replacement	11.4
Debility	9.2
Neurological	9.0
Brain injury	7.3
Other orthopedic	6.3
Cardiac conditions	4.9
Spinal cord injury	4.3
Other	11.5

Note: Other includes conditions such as amputations, major multiple trauma, 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 (January through June of 2009).

- In 2009, the most frequent diagnosis for Medicare patients in inpatient rehabilitation facilities (IRFs) was stroke, representing close to 21 percent of cases, up from 2004, when stroke represented fewer than 17 percent of cases.
- Major joint replacement cases represented just over 11 percent of IRF admissions in 2009, down from 24 percent of cases in 2004, when major joint replacement was the most common IRF Medicare case type.

Chart 9-21. The volume of IRF FFS patients stabilized in 2008, after declining from 2004 to 2007

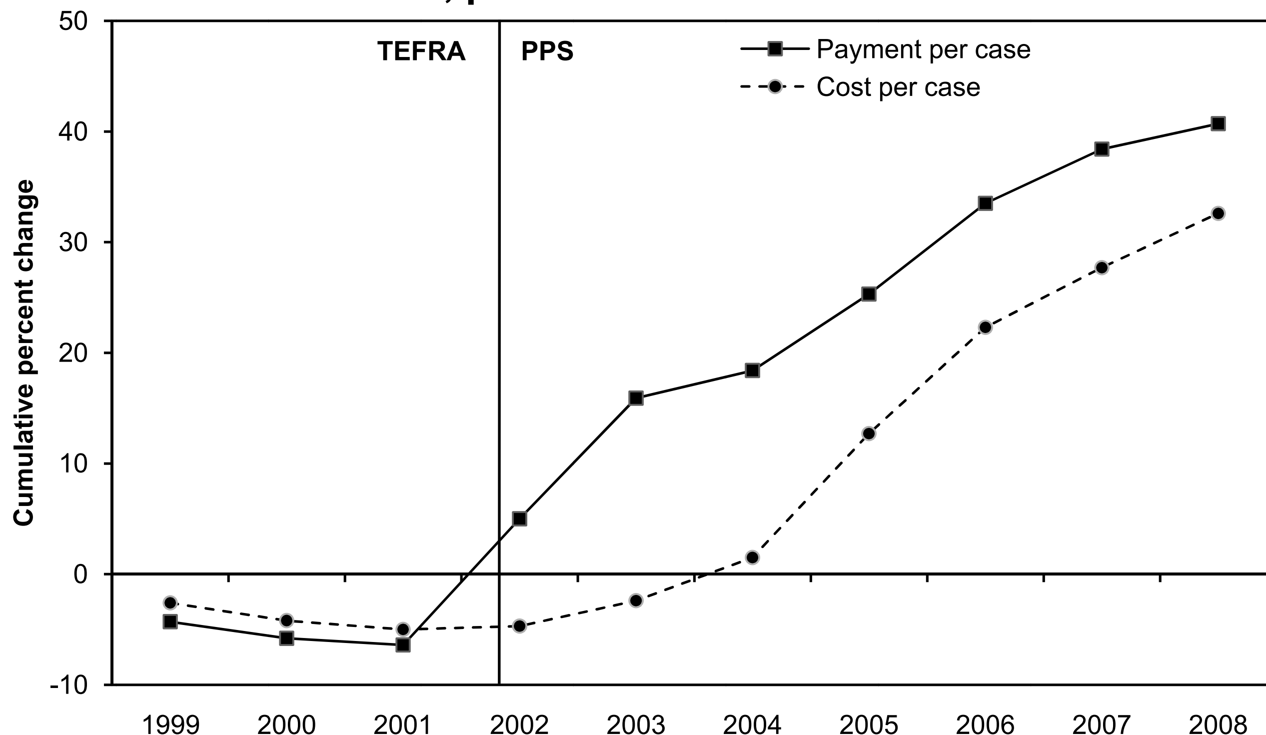
Type of IRF	2004	2006	2007	2008	Average annual change 2004–2007	Average annual change 2007–2008
IRF FFS patients	451,000	369,000	338,000	332,000	–9.2%	–1.7%
FFS patients per 10,000 FFS beneficiaries	124.9	103.0	96.2	95.6	–8.3	–0.6
Payment per case	$13,275	$15,354	$16,143	$16,649	6.7	3.1
Medicare spending (in billions)	$6.43	$6.29	$5.95	$5.84	–2.6	–1.8
Average length of stay (in days)	12.7	13.0	13.2	13.3	1.3	0.8

Note: IRF (inpatient rehabilitation facility), fee-for-service (FFS). Numbers of patients reflect Medicare FFS utilization only. With respect to the number of IRF FFS patients in a particular year, each IRF FFS patient is counted only once during that year, regardless of whether the patient had multiple IRF admissions that year.

Source: MedPAC analysis of MedPAR data from CMS. Total Medicare spending for IRF services from CMS Office of the Actuary.

- After controlling for changes in FFS enrollment, the volume of IRF FFS patients declined from 125 IRF patients per 10,000 FFS beneficiaries to 96 patients. The volume decline was largely due to providers' adjustment to the CMS compliance threshold (the 60 percent rule).
- The volume of IRF FFS patients stabilized in 2008, declining by only 0.6 percent between 2007 and 2008, after declining 8.3 percent annually from 2004 to 2007.
- Medicare FFS spending on IRFs declined between 2004 and 2008 as more IRFs complied with the 60 percent rule and more Medicare beneficiaries enrolled in Medicare Advantage plans.
- IRF Medicare payments per case and average length of stay have increased since 2004, consistent with increasing average case mix of IRF patients.

Chart 9-22. Overall IRFs' payments per case have risen faster than costs, post-PPS



Note: IRF (inpatient rehabilitation facility), PPS (prospective payment system), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982). Data are from consistent two-year cohorts of IRFs.

Source: MedPAC analysis of cost report data from CMS.

- Before implementation of the prospective payment system (PPS) in 2002, Medicare per case costs and payments increased at similar rates, as IRFs received cost-based reimbursement under TEFRA.
- Since implementation of the PPS, overall Medicare payments per case have increased faster than costs. Costs per case grew rapidly between 2004 and 2006 as a result of enforcement of the compliance threshold.
- These trends in Medicare per case payments and costs are reflected in IRFs' Medicare margins, shown in Chart 9-23.

Chart 9-23. Inpatient rehabilitation facilities' Medicare margin by type, 2001–2008

	TEFRA	PPS						
	2001	2002	2003	2004	2005	2006	2007	2008
All IRFs	1.5%	10.9%	17.8%	16.6%	13.2%	12.4%	11.9%	9.5%
Hospital based	1.5	6.2	14.8	12.1	9.3	9.6	8.1	4.2
Freestanding	1.5	18.5	22.9	24.7	20.4	17.4	18.5	18.0
Urban	1.5	11.4	18.3	16.9	13.4	12.5	12.1	9.7
Rural	1.1	5.8	12.4	13.7	11.8	10.6	10.0	7.4
Nonprofit	1.6	6.6	14.6	12.7	10.3	10.7	9.7	5.3
For profit	1.2	18.6	23.8	24.4	19.3	16.2	16.8	16.8

Note: TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system), IRF (inpatient rehabilitation facility).

Source: MedPAC analysis of cost report data from CMS.

- The aggregate Medicare margin increased rapidly during the first two years of the IRF PPS. Aggregate margins rose from just under 2 percent in 2001 to almost 18 percent in 2003.
- From 2003 to 2008, margins declined but remained high. This decline was largely due to reductions in patient volume over this time period that resulted in fewer patients among whom to distribute fixed costs. The 2007 to 2008 margin decrease was mainly a result of a midyear reduction in 2008 Medicare payment rates to 2007 levels, mandated by the Medicare, Medicaid, and SCHIP Extension Act of 2007.
- Freestanding and for-profit IRFs had substantially higher aggregate Medicare margins than hospital-based and nonprofit IRFs, continuing a trend that began with implementation of the IRF prospective payment system in 2002.

Web links. Post-acute care

Skilled nursing facilities

- Chapter 3A of MedPAC's March 2010 Report to the Congress provides information about the supply, quality, service use, and Medicare margins for skilled nursing facilities. Chapter 7 of MedPAC's June 2008 Report to the Congress provides information about alternative designs for Medicare's prospective payment system that would more accurately pay providers for their skilled nursing facility services. *Medicare payment basics: Skilled nursing facility payment system* provides a description of how Medicare pays for skilled nursing facility care.

  http://www.medpac.gov/chapters/Mar10_Ch03A.pdf

  http://www.medpac.gov/chapters/Jun08_Ch07.pdf

  http://www.medpac.gov/documents/MedPAC_Payment_Basics_09_SNF.pdf

- The official Medicare website provides information on skilled nursing facilities, including the payment system and other related issues.

  http://www.cms.gov/SNFPPS/

Home health services

- Chapter 3B of MedPAC's March 2010 Report to the Congress, Chapter 2E of MedPAC's March 2009 Report to the Congress, Chapter 4 of MedPAC's June 2007 Report to the Congress, and Chapter 5 of MedPAC's June 2006 Report to the Congress provide information on home health services. *Medicare payment basics: Home health care services payment system* provides a description of how Medicare pays for home health care.

  http://www.medpac.gov/chapters/Mar10_Ch03B.pdf

  http://www.medpac.gov/chapters/Mar09_Ch02e.pdf

  http://www.medpac.gov/chapters/Jun07_Ch04.pdf

  http://www.medpac.gov/publications/congressional_reports/Jun06_Ch05.pdf

  http://www.medpac.gov/documents/MedPAC_Payment_Basics_09_HHA.pdf

- The official Medicare website provides information on the quality of home health care, and additional information on new policies, statistics, and research as well as information on home health spending and use of services.

  http://www.cms.gov/HomeHealthPPS/

Long-term care hospitals

- Chapter 3D of MedPAC's March 2010 Report to the Congress provides information on long-term care hospitals. *Medicare payment basics: Long-term care hospital services payment system* provides a description of how Medicare pays for long-term care hospital services.

  http://www.medpac.gov/chapters/Mar10_Ch03D.pdf

  http://www.medpac.gov/documents/MedPAC_Payment_Basics_09_LTCH.pdf

- CMS also provides information on long-term care hospitals, including the long-term care hospital prospective payment system.

  http://www.cms.gov/LongTermCareHospitalPPS/

Inpatient rehabilitation facilities

- Chapter 3C of MedPAC's March 2010 Report to the Congress provides information on inpatient rehabilitation facilities. *Medicare payment basics: Rehabilitation facilities (inpatient) payment system* provides a description of how Medicare pays for inpatient rehabilitation facility services.

  http://www.medpac.gov/chapters/Mar10_Ch03C.pdf

  http://www.medpac.gov/documents/MedPAC_Payment_Basics_09_IRF.pdf

- CMS provides information on the inpatient rehabilitation facility prospective payment system.

  http://www.cms.gov/InpatientRehabFacPPS/