SECTION 8

Post-acute care

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

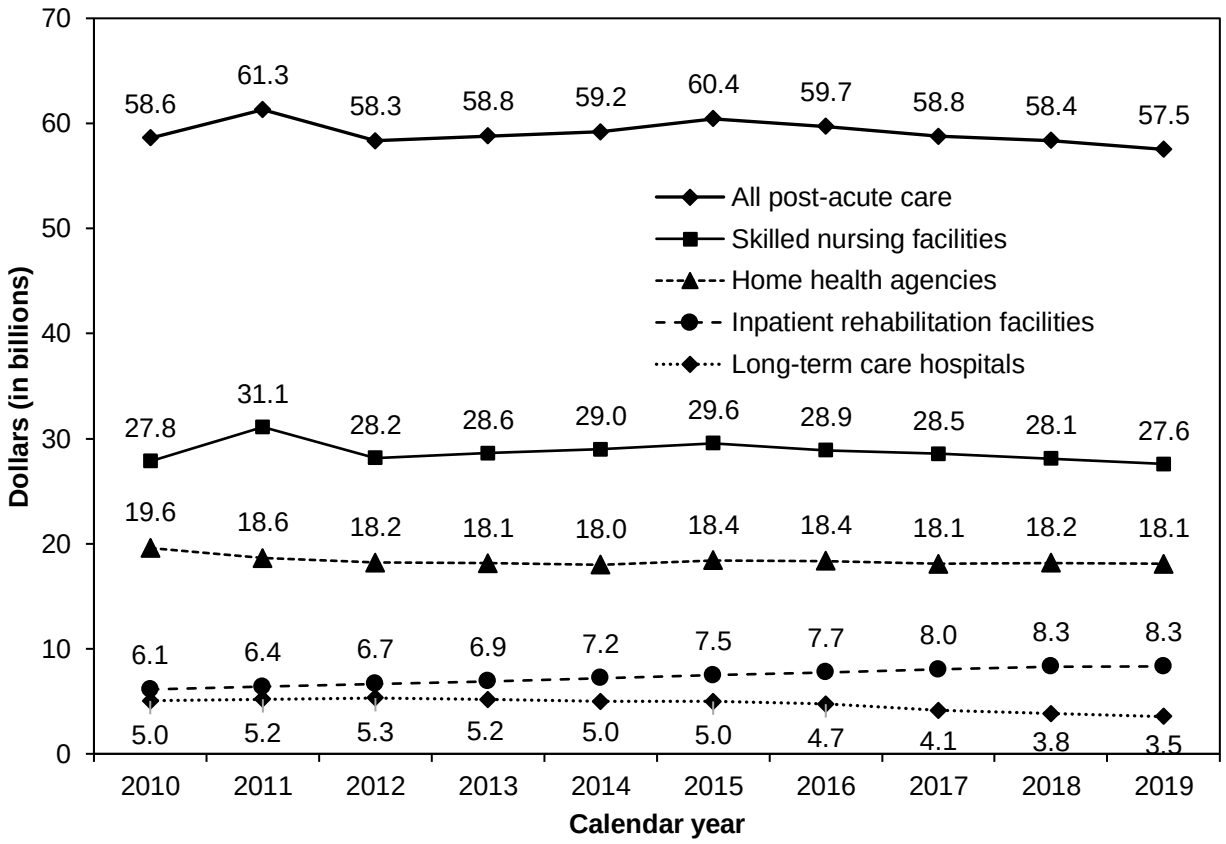
Chart 8-1. The number of post-acute care providers decreased slightly in 2020

	2016	2017	2018	2019	2020	Average annual percent change 2016–2020	Percent change 2019–2020
Home health agencies	12,342	11,964	11,701	11,571	11,456	–1.7	–1.0
Inpatient rehabilitation facilities	1,188	1,178	1,170	1,152	1,113	–1.5	–3.4
Long-term care hospitals	423	411	386	371	351	–4.6	–5.4
Skilled nursing facilities	15,344	15,377	15,350	15,297	15,156	–0.3	–0.9

Source: MedPAC analysis of active provider counts from CMS Survey and Certification's Quality, Certification, and Oversight reports (skilled nursing facilities and home health agencies) and CMS Provider of Services files (inpatient rehabilitation facilities and long-term care hospitals).

- The number of home health agencies has been declining since 2013 after several years of substantial growth (data not shown). The decline in agencies was concentrated in Texas and Florida, two states that saw considerable growth after the implementation of the home health prospective payment system in October 2000.
- The supply of inpatient rehabilitation facilities (IRFs) has been declining slightly since 2016. Most IRFs are distinct units in acute care hospitals; about one-quarter are freestanding facilities. However, because freestanding IRFs tend to have more beds, they account for about half of Medicare discharges from IRFs.
- After peaking in 2012 (data not shown), the number of long-term care hospitals (LTCHs) has decreased. The decline became more rapid after the implementation of a dual payment-rate system that reduced payments for certain Medicare discharges from LTCHs beginning in fiscal year 2016.
- The total number of skilled nursing facilities rose between 2016 and 2017, then decreased less than 1 percent per year between 2017 and 2019.

Chart 8-2. Medicare fee-for-service spending for post-acute care was relatively stable from 2010 to 2019



Note: These calendar year–incurred data represent program spending only; they do not include beneficiary cost sharing.

Source: CMS Office of the Actuary 2021.

- Aggregate fee-for-service (FFS) spending on post-acute care (PAC) has remained stable since 2012, in part because of expanded enrollment in managed care under Medicare Advantage (Medicare Advantage spending is not included in this chart). However, spending growth has varied by PAC sector.

- 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). Once CMS established that the adjustment it made was too large, it lowered the adjustment, and spending dropped in 2012. Overall, spending on SNF care and home health care was relatively stable between 2012 and 2019, decreasing slightly in the latter part of the period.

- FFS spending on inpatient rehabilitation facilities (IRFs) has increased steadily over the past decade. In all, spending on IRFs increased 36 percent between 2010 and 2019.

- FFS spending on long-term care hospitals (LTCHs) has decreased by 29 percent since 2015, largely due to the implementation of the dual payment-rate system that reduced payments for certain LTCH cases.

Chart 8-3. Freestanding SNFs and for-profit SNFs accounted for the majority of facilities, Medicare stays, and Medicare spending in 2019

Type of SNF	Facilities	Medicare-covered stays	Medicare payments (billions)
Totals	14,923	2,069,107	$25.4
Freestanding	96%	96%	97%
Hospital based	4	4	3
Urban	73	84	85
Rural	27	16	15
For profit	71	71	75
Nonprofit	23	25	22
Government	6	4	3

Note: SNF (skilled nursing facility). The spending amount included here is lower than that reported by the Office of the Actuary, and the count of SNFs is slightly lower than what is reported in CMS Survey and Certification's Quality, Certification, and Oversight reports.

Source: MedPAC analysis of the Provider of Services and Medicare Provider Analysis and Review files from CMS.

- In 2019, freestanding facilities accounted for 96 percent of SNF stays and 97 percent of Medicare's payments to SNFs.
- Urban facilities accounted for 73 percent of facilities, 84 percent of stays, and 85 percent of Medicare payments in 2019.
- In 2019, for-profit facilities accounted for 71 percent of facilities and stays and 75 percent of Medicare payments.

Chart 8-4. SNF admissions and stays continued to decline in 2019

Volume measure	2014	2016	2018	2019	Percent change 2018–2019
Covered admissions per 1,000 FFS beneficiaries	68.3	65.9	62.5	59.5	–4.8%
Covered days per 1,000 FFS beneficiaries	1,843	1,693	1,559	1,475	–5.4
Covered days per admission	27.0	25.7	25.0	24.8	–0.8

Note: SNF (skilled nursing facility), FFS (fee-for-service). Data include 50 states and the District of Columbia.

Source: Calendar year data from CMS, Office of Information Products and Data Analytics, 2021.

- In 2019, 4 percent of beneficiaries enrolled in FFS Medicare used SNF services (data not shown).
- Between 2018 and 2019, covered SNF admissions per 1,000 FFS beneficiaries decreased 4.8 percent. The decline is consistent with a decline in FFS per capita inpatient hospital stays that were three days or longer and therefore qualified for Medicare coverage of SNF care (data not shown).
- During the same period, covered days per admission declined 0.8 percent to 24.8 days, so there were fewer covered days per 1,000 beneficiaries.

Chart 8-5. Freestanding SNF Medicare margins remained high in 2019

	2012	2014	2016	2018	2019
All	14.1%	12.8%	11.6%	10.8%	11.3%
Rural	13.3	10.8	9.7	8.5	9.6
Urban	14.2	13.1	11.9	11.2	11.6
Nonprofit	5.7	4.3	2.6	0.8	0.9
For profit	16.3	15.1	14.1	13.5	14.3

Note: SNF (skilled nursing facility).

Source: MedPAC analysis of freestanding SNF cost reports 2012–2019.

- The aggregate Medicare margin for freestanding SNFs in 2019 exceeded 10 percent for the 20th consecutive year (not all years are shown). After reaching over 21 percent in 2011 (data not shown), the margins have declined primarily because current law requires annual market basket increases to payments to be offset by a productivity adjustment. The Medicare margin in 2019 increased from 2018 because SNFs kept their cost growth below the average increase in per day payments.

- In 2019, on average, urban facilities had higher Medicare margins than rural facilities. For-profit SNFs had considerably higher Medicare margins than nonprofit SNFs, reflecting their larger size and lower cost growth.

- In 2019, the average total margin (the margin across all payers and all lines of business) for freestanding facilities was 0.6 percent, up from –0.3 percent in 2018 (data not shown).

Chart 8-6. Cost and payment differences explain variation in Medicare margins for freestanding SNFs in 2019

Characteristic	Highest margin quartile (*n* = 3,256)	Lowest margin quartile (*n* = 3,255)	Ratio of highest quartile to lowest quartile
Cost measures			
Standardized cost per day	$281	$424	0.66
Standardized cost per discharge	$11,771	$14,926	0.79
Average daily census (patients)	89	63	1.40
Revenue measures			
Medicare payment per day	$544	$470	1.16
Medicare payment per discharge	$23,353	$15,820	1.48
Share of days in intensive therapy	89%	81%	1.10
Share of medically complex days	3	3	1.00
Medicare share of facility revenue	21	11	1.91
Average length of stay (days)	42	34	1.25
Medicaid share of days	68	56	1.20
Patient characteristics			
Case-mix index	1.41	1.32	1.07
Share of dual-eligible beneficiaries	53%	34%	1.56
Share of minority beneficiaries	15	5	3.00
Share of very old beneficiaries	25	33	0.76
Facility mix			
Share for profit	84%	53%	N/A
Share urban	79	71	1.11

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 cost per day" includes Medicare costs adjusted for differences in area wages and the case mix (using the nursing component's relative weights) of Medicare beneficiaries. "Days in intensive therapy" are days classified into ultra-high and very high rehabilitation case-mix groups. "Very old beneficiaries" are 85 years or older. "Medically complex days" are those assigned to clinically complex or special-care case-mix groups. Quartile figures presented in the table are rounded, but the ratio column was calculated using unrounded data.

Source: MedPAC analysis of freestanding SNF claims and cost reports 2019.

- Medicare margins varied widely across freestanding SNFs. One-quarter of SNFs had Medicare margins at or below 0.33 percent, and one-quarter of facilities had Medicare margins at or above 21.4 percent (data not shown).
- High-margin SNFs had lower costs per day (34 percent lower costs than low-margin SNFs), after adjusting for wage and case-mix differences, and higher payment per day (16 percent).
- 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. SNFs' quality measures improved slightly between 2015 and 2019

Measure	2015	2017	2018	2019	Average annual change 2015–2019	Average annual change 2018–2019
Successful discharge to the community						
All SNFs	43.9%	44.4%	44.3%	45.8%	1.1%	3.2%
For profit	43.0	43.6	43.5	44.8	1.0	3.0
Nonprofit	47.2	47.6	47.4	48.7	0.8	2.7
Freestanding	43.4	44.0	44.0	45.4	1.1	3.3
Hospital based	52.9	53.8	52.8	53.8	0.4	2.0
Hospitalizations						
All SNFs	15.1	14.4	14.1	13.7	–2.4	–3.1
For profit	15.7	14.9	14.6	14.2	–2.4	–2.6
Nonprofit	13.3	12.9	12.7	12.3	–2.0	–2.9
Freestanding	15.3	14.6	14.3	13.8	–2.5	–3.0
Hospital based	10.6	10.2	10.6	10.0	–1.5	–5.4

Note: SNF (skilled nursing facility). "Successful discharge to the community" includes beneficiaries discharged to the community (including those discharged to the same nursing home they were in before) who did not have an unplanned hospitalization or die in the 30 days after discharge. The hospitalization measure captures all unplanned hospital admissions, readmissions, and outpatient observation stays that occurred during the SNF stay. Both measures are uniformly defined and risk adjusted across SNFs, home health agencies, inpatient rehabilitation facilities, and long-term care hospitals. Providers with at least 60 stays in the year were included in calculating the average facility rate. The "All SNFs" category includes the performance of government-owned SNFs, which are not displayed separately in the table. The average annual changes were calculate using unrounded annual rates.

Source: MedPAC analysis of SNF claims and linked inpatient hospital stays 2015 through 2019 for fee-for-service beneficiaries.

- Rates of successful discharge to the community improved between 2015 and 2019. A greater share of beneficiaries was discharged to the community (45.8 percent compared with 43.9 percent). This pattern held across ownership groups and facility type.
- The rates of hospitalization during the SNF stay improved (decreased) between 2015 and 2019. A smaller share of beneficiaries was hospitalized during a SNF stay (13.7 percent compared with 15.1 percent). This pattern held across ownership groups and facility types.

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

	2011	2019	Percent change 2011–2019 Annual average	Percent change 2011–2019 Cumulative
Number of users (in millions)	3.4	3.3	–0.5%	–4.3%
Share of FFS beneficiaries who used home health care	9.4%	8.6%	–1.1	–8.7
Episodes (in millions)	6.8	6.1	–1.3	–11.0
Episodes per home health patient	2.0	1.9	–0.9	–7.0
Visits per home health episode	17.2	16.4	–0.6	–4.7
Visits per home health patient	34.2	30.4	–1.3	–11.1
Average payment per episode	$2,916	$3,167	1.0	8.6

Note: FFS (fee-for-service). Yearly figures presented in the table are rounded, but the percent-change columns were calculated using unrounded data. Average payment per episode excludes payments for low-use episodes (those with fewer than five visits). Other measures of utilization include low-use episodes.

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

- Between 2011 and 2019, episode volume declined by 11.0 percent and the number of users dropped 4.3 percent.
- The number of visits per patient decreased between 2011 and 2019. This decline was a consequence of two other utilization declines in this period: a decline in average number of episodes per home health patient and a decline in the average number of visits per episode.
- The average payment per full episode was $3,167 in 2019, an increase of 8.6 percent relative to 2011. Throughout the 2011 to 2019 period, Medicare implemented a number of policies to reduce or slow the growth of home health payments. However, despite these reductions, the margins of freestanding home health agencies averaged in excess of 15 percent in this period, indicating that payments remain well in excess of costs despite these policies (data not shown).

Chart 8-9. Most home health episodes are not preceded by hospitalization or PAC stay

	Number of episodes (in millions)		Percent change 2011–2019	
	2011	2019	Annual average	Cumulative
Episodes preceded by a hospitalization or PAC stay	2.2	2.1	–0.4%	–3.3%
Episodes not preceded by a hospitalization or PAC stay	4.6	4.0	–1.5	–12.8
Share of episodes not preceded by a hospitalization or PAC stay	68%	66%	–0.3	–2.7
Total	6.8	6.1	–1.3	–11.1

Note: PAC (post-acute care). "Episodes preceded by a hospitalization or PAC stay" refers to episodes that occurred less than 15 days after a stay in a hospital (including a long-term care hospital), skilled nursing facility, or inpatient rehabilitation facility. "Episodes not preceded by a hospitalization or PAC stay" refers to episodes for which there was no hospitalization or PAC stay in the previous 15 days.

Source: MedPAC analysis of 2019 home health standard analytic file, 2019 Medicare Provider and Analysis Review file, and 2019 skilled nursing facility standard analytic file from CMS.

- Most home health episodes are not preceded by a hospitalization or institutional PAC stay, and these episodes accounted for about two-thirds of PAC stays in 2011 through 2019. During this period, the number of home health episodes not preceded by a hospitalization or PAC stay declined 12.8 percent, while the number of episodes preceded by a hospitalization or PAC stay decreased 3.3 percent.

- Before the 2011 through 2019 period, there was large growth in the number and share of episodes not preceded by a hospital or institutional PAC stay (data not shown). In 2001, episodes not preceded by a hospital or institutional PAC stay accounted for 53 percent of volume; by 2011, those episodes had increased to 67 percent of total episodes. Over the same period, the share of episodes preceded by a hospitalization or institutional PAC stay declined from 47 percent in 2001 to 33 percent in 2011 (data not shown). The shares of episode volume accounted for by these two categories have not changed substantially since 2011.

- Beneficiaries for whom the majority of home health episodes were preceded by a hospitalization or PAC stay had different characteristics from community-admitted beneficiaries (those who had no prior hospitalization or PAC stay) (data not shown). Community-admitted beneficiaries were more likely to be dually eligible for Medicare and Medicaid, to have more home health episodes, and to have more episodes with a high share of home health aide services compared with other home health users coming from a hospitalization or other PAC stay. Community-admitted users generally had slightly fewer chronic conditions, tended to be older, and were more likely to have dementia or Alzheimer's disease.

Chart 8-10. Medicare margins for freestanding home health agencies, 2018 and 2019

	2018	2019	Share of agencies 2019
All	15.3%	15.8%	100%
Geography			
Mostly urban	15.7	16.1	83
Mostly rural	12.6	13.9	17
Type of control			
For profit	16.8	17.2	87
Nonprofit	10.1	11.0	13
Volume quintile (lowest to highest)			
First	10.4	9.8	20
Second	11.0	11.5	20
Third	13.8	13.3	20
Fourth	14.4	14.3	20
Fifth	16.7	17.4	20

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

Source: MedPAC analysis of 2018–2019 Medicare Cost Report files from CMS.

- In 2019, freestanding home health agencies (HHAs) (87 percent of all HHAs) had an aggregate margin of 15.8 percent. HHAs that served mostly urban patients in 2019 had an aggregate margin of 16.1 percent; HHAs that served mostly rural patients had an aggregate margin of 13.9 percent. The 2019 margin is consistent with the historically high margins the home health industry has experienced since the prospective payment system (PPS) was implemented in 2000. The margins from 2001 to 2018 averaged 16.2 percent (data not shown), indicating that most agencies have been paid well in excess of their costs under the PPS.

- For-profit agencies in 2019 had an average margin of 17.2 percent, and nonprofit agencies had an average margin of 11.0 percent.

- Agencies with higher episode volumes had higher margins. The agencies in the lowest volume quintile in 2019 had an aggregate margin of 9.8 percent, while those in the highest quintile had an aggregate margin of 17.4 percent.

Chart 8-11. Since 2015, home health agencies have reported a modest improvement in the rate of successful discharge from home health care to the community, but the rate of hospitalization has increased

Measure	2015	2016	2017	2018	2019
Successful discharge to community	68.3%	69.2%	69.6%	70.4%	72.2%
Hospitalization during home health stay	20.6%	20.8%	21.4%	21.5%	21.4%

Note: "Successful discharge to the community" includes beneficiaries discharged to the community (including those discharged to the same nursing home) who did not have an unplanned hospitalization or die in the 30 days after discharge. The hospitalization measure captures all unplanned hospital admissions and readmissions and outpatient observation stays that occur during the stay. Both measures are uniformly defined and risk adjusted across the four post-acute care settings. Providers with at least 60 stays in the year (the minimum count to meet a reliability threshold of 0.7) were included in calculating the average facility rate.

Source: MedPAC analysis of Medicare Provider Analysis and Review and home health standard analytic files from CMS.

- Over the five years between 2015 and 2019, the share of patients successfully discharged from home health care to the community rose from 68.3 percent to 72.2 percent (higher rates indicate better performance). In this period, the share of patients hospitalized during their care increased slightly from 20.6 percent to 21.4 percent (higher rates indicate worse performance).

- In general, hospital-based home health agencies (HHAs), HHAs located in urban areas, and nonprofit HHAs performed better than their counterparts on these measures (data not shown). Performance varied across providers; for example, the HHA at the 25th percentile of the distribution for hospitalization had a rate of 17.3 percent, while the agency at the 75th had a rate of 25.4 percent.

Chart 8-12. Number of FFS IRF cases increased in 2019

	2010	2015	2018	2019	Average annual percent change 2010–2019	Percent change 2018–2019
Number of IRF cases	365,095	393,475	408,038	409,059	1.3%	0.3%
Cases per 10,000 FFS beneficiaries	101.3	103.4	105.7	106.9	0.6	1.6
Payment per case	$16,814	$18,527	$20,124	$20,417	2.2	1.5
Average length of stay (in days)	13.1	12.7	12.7	12.6	–0.4	–0.5

Note: FFS (fee-for-service), IRF (inpatient rehabilitation facility). 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.

- After a period of relative stability from 2015 to 2017, the number of Medicare FFS cases increased 3.0 percent between 2017 and 2018, growing to about 408,000 cases in 2018 (not all data shown). From 2018 to 2019, the number of cases grew slightly by 0.3 percent to about 409,000 cases.
- In 2019, the number of IRF cases per 10,000 FFS beneficiaries grew to 106.9, up 1.6 percent from the previous year. Relatively few Medicare beneficiaries use IRF services because, to qualify for Medicare coverage, IRF patients must be able to tolerate and benefit from rehabilitation therapy that is intensive, which is usually interpreted to mean at least three hours of therapy a day for at least five days a week. Yet, compared with all Medicare beneficiaries, those admitted to IRFs in 2019 were disproportionately over age 85 (data not shown).
- With the increase in the number of IRF cases per FFS beneficiary, FFS Medicare's share of IRF discharges remains high at 58 percent of total discharges (data not shown).
- From 2018 to 2019, the average length of stay in an IRF decreased slightly, by 0.5 percent, to 12.6 days.

Chart 8-13. Most common types of FFS inpatient rehabilitation facility cases, 2019

Type of case	Share of cases
Stroke	19.8%
Other neurological conditions	14.4
Debility	12.3
Brain injury	11.0
Fracture of the lower extremity	10.0
Other orthopedic conditions	8.1
Cardiac conditions	6.1
Spinal cord injury	4.9
Major joint replacement of lower extremity	3.7
All other	10.0

Note: FFS (fee-for-service). "Other 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. All Medicare FFS inpatient rehabilitation facility cases with valid patient assessment information were included in this analysis.

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

- In 2019, the most frequently occurring case type among FFS beneficiaries admitted to inpatient rehabilitation facilities (IRFs) was stroke, which accounted for 19.8 percent of Medicare FFS cases.
- Between 2018 and 2019, we observed disproportionate growth in the number of cases with debility: The share of these cases rose from 11.6 percent to 12.3 percent of FFS IRF cases (2018 data not shown).
- The distribution of case types differs by type of IRF (data not shown). For example, in 2019, only 16 percent of cases in freestanding for-profit IRFs were admitted for rehabilitation following a stroke, compared with 26 percent of cases in hospital-based nonprofit IRFs. Likewise, 20 percent of cases in freestanding for-profit IRFs were admitted with "other neurological conditions," about twice the share admitted to hospital-based nonprofit IRFs. Cases with other orthopedic conditions also made up a higher share of cases in freestanding for-profit facilities than in all other IRFs.

Chart 8-14. Inpatient rehabilitation facilities' Medicare margins by type of facility, 2010–2019

	2010	2012	2014	2016	2017	2018	2019
All IRFs	8.6%	11.2%	12.2%	13.3%	13.9%	14.7%	14.3%
Hospital based	–0.5	0.7	0.6	0.9	1.5	2.5	2.1
Freestanding	21.4	24.0	25.2	25.9	25.6	25.4	24.6
Urban	9.0	11.6	12.6	13.6	14.2	15.0	14.7
Rural	4.9	6.7	6.5	9.2	8.4	10.1	8.6
Nonprofit	2.1	2.1	1.7	1.6	2.1	2.4	1.2
For profit	19.6	23.1	23.9	24.6	24.3	24.7	24.2

Note: IRF (inpatient rehabilitation facility).

Source: MedPAC analysis of cost report data from CMS.

- In 2019, the aggregate IRF Medicare margin decreased slightly to 14.3 percent.
- 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, one-quarter of hospital-based IRFs had Medicare margins greater than 12 percent (data not shown), indicating that many hospitals can manage their IRF units profitably. Further, despite comparatively low average margins in hospital-based IRFs, evidence suggests that these units make a positive financial contribution to their parent hospitals. For example, aggregate inpatient Medicare margins for hospitals are consistently higher for hospitals with IRF units versus hospitals without IRF units (1.0 percentage point higher in 2019; data not shown).

Chart 8-15. Low standardized costs led to high margins for both hospital-based and freestanding IRFs, 2019

Characteristic	Lowest cost quartile	Highest cost quartile
Median cost per discharge		
All	$12,162	$21,593
Hospital based	12,717	21,648
Freestanding	11,803	21,109
Median Medicare margin		
All	29.6%	−19.7%
Hospital based	25.4	−19.8
Freestanding	31.2	−19.0
Median		
Number of beds	50	18
Occupancy rate	76%	55%
Share of facilities in the quartile that are:		
Hospital based	35%	94%
Freestanding	65	6
Nonprofit	24	71
For profit	72	14
Government	4	15
Urban	96	74
Rural	4	26

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 50 in the lowest cost quartile compared with 18 in the highest cost quartile. In addition, IRFs with the lowest costs had a higher median occupancy rate (76 percent vs. 55 percent, respectively). These results suggest that low-cost IRFs benefit from economies of scale.
- Low-cost IRFs were disproportionately freestanding and for profit. Still, 35 percent of IRFs in the lowest cost quartile were hospital based and 24 percent were nonprofit. By contrast, in the highest cost quartile, 94 percent were hospital based and 71 percent were nonprofit.

Chart 8-16. Risk-adjusted quality indicators for IRFs held steady or improved slightly from 2015 to 2019

Measure	2015	2016	2017	2018	2019
All-condition hospitalizations within an IRF stay	7.9%	7.7%	7.9%	7.7%	7.8%
Successful discharge to community	64.6	64.6	64.8	65.1	65.5

Note: IRF (inpatient rehabilitation facility). The all-condition hospitalization measure captures all unplanned hospital admissions and readmissions and outpatient observation stays that occur during the stay. Successful discharge to the community includes beneficiaries discharged to the community (including those discharged to the same nursing home) who did not have an unplanned hospitalization or die in the 30 days after discharge. Both measures are uniformly defined and risk adjusted across the four post-acute care settings. Providers with at least 60 stays in the year (the minimum count to meet a reliability of 0.7) were included in calculating the average facility rate. High rates of hospitalizations within a stay indicate worse quality. High rates of successful discharge to the community indicate better quality.

Source: Analysis of Medicare claims data and Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS.

- From 2015 through 2019, the two quality measures we examined were steady or improved.
- The national average rate of risk-adjusted all-condition hospitalizations within an IRF stay slightly declined from 7.9 percent in 2015 to 7.8 percent in 2019 (lower rates are better). The national average rate of risk-adjusted successful discharge to community improved slightly from 64.6 percent in 2015 to 65.5 percent in 2019.

Chart 8-17. Twenty-five MS–LTC–DRGs accounted for more than 70 percent of LTCH discharges in 2019

MS–LTC–DRG	Description	Discharges	Share of cases
189	Pulmonary edema and respiratory failure	18,650	20.5%
207	Respiratory system diagnosis with ventilator support 96+ hours	11,995	13.2
871	Septicemia without ventilator support 96+ hours with MCC	4,999	5.5
208	Respiratory system diagnosis with ventilator support <96 hours	2,464	2.7
166	Other respiratory system OR procedures with MCC	2,092	2.3
949	Aftercare with CC/MCC	1,983	2.2
981	Extensive OR procedure unrelated to principal diagnosis with MCC	1,788	1.9
177	Respiratory infections and inflammations with MCC	1,709	1.9
539	Osteomyelitis with MCC	1,630	1.8
291	Heart failure and shock with MCC	1,508	1.7
682	Renal failure with MCC	1,508	1.7
4	Tracheostomy with ventilator support 96+ hours or primary diagnosis except face, mouth, and neck without major OR	1,315	1.4
314	Other circulatory system diagnoses with MCC	1,268	1.4
592	Skin ulcers with MCC	1,181	1.3
559	Aftercare, musculoskeletal system and connective tissue with MCC	1,153	1.3
862	Postoperative and post-traumatic infections with MCC	1,132	1.2
919	Complications of treatment with MCC	1,112	1.2
853	Infectious and parasitic diseases with OR procedure with MCC	982	1.1
637	Diabetes with MCC	935	1.0
870	Septicemia with ventilator support 96+ hours	921	1.0
638	Diabetes with CC	860	0.9
56	Degenerative nervous system disorders with MCC	834	0.9
560	Aftercare, musculoskeletal system and connective tissue with CC	764	0.8
689	Kidney and urinary tract infections with MCC	727	0.8
193	Simple pneumonia and pleurisy with MCC	708	0.8
371	Major gastrointestinal disorders and peritoneal infections with MCC	708	0.8
	Top 25 MS–LTC–DRGs	64,926	71.2
	Total	91,147	100.0

Note: MS–LTC–DRG (Medicare severity long-term care diagnosis related group), LTCH (long-term care hospital), MCC (major complication or comorbidity), OR (operating room), CC (complication or comorbidity). MS–LTC–DRGs are the case-mix system for LTCHs. Shares for each MS–LTC–DRGs presented in the table are rounded, but the sum of the top 25 was calculated using unrounded values.

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 2019, the top 25 MS–LTC–DRGs accounted for over 71 percent of LTCH Medicare cases.
- Consistent with 2016 through 2018, the two most frequent diagnoses in LTCHs in 2019 were pulmonary edema and respiratory failure and a respiratory system diagnosis with ventilator support for more than 96 hours.
- Respiratory conditions continue to grow as a share of LTCH cases. More than 43 percent of all cases were respiratory conditions in 2019, an increase of 3 percentage points over 2018.

Chart 8-18. Total Medicare FFS LTCH cases decreased by over 10 percent, and cases meeting the LTCH-qualifying criteria decreased by 2 percent from 2016 and 2019

		2016	2017	2018	2019	Average annual change 2016–2019
Cases	All	125,586	116,424	102,288	91,147	–10.1%
	Meeting criteria	72,318	74,666	71,916	67,987	–2.0
	Share meeting criteria	58%	64%	70%	75%	8.6
Cases per 10,000 FFS beneficiaries	All	32.5	30.1	26.5	23.8	–9.8
	Meeting criteria	18.7	19.3	18.6	17.8	–1.7
Payment per case	All	$40,656	$38,253	$40,105	$41,448	0.6
	Meeting criteria	$46,223	$46,127	$46,789	$46,800	0.4
Length of stay (in days)	All	26.8	26.3	26.6	26.8	–0.1
	Meeting criteria	27.9	27.9	28.0	28.0	0.1

Note: FFS (fee-for-service), LTCH (long-term care hospital). "Meeting criteria" refers to Medicare cases that meet the criteria specified in the Pathway for SGR Reform Act of 2013 for payment under the LTCH prospective payment system. All counts are for stays covered by FFS Medicare and do not include those in private plans.

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS and the annual report of the Boards of Trustees of the Medicare trust funds.

- Beginning in fiscal year 2016, only certain LTCH cases qualify for the higher standard LTCH prospective payment system (PPS) rate pursuant to changes made in the Pathway to SGR Reform Act of 2013. Cases that do not meet LTCH-qualifying criteria are paid a lower site-neutral rate—the lower of (1) an amount based on Medicare's inpatient hospital PPS rate or (2) 100 percent of the cost of the case.

- The number of LTCH cases per 10,000 FFS beneficiaries declined by 9.8 percent between 2016 and 2019. The number of cases meeting the criteria for the LTCH PPS rate decreased by just 1.7 percent during the same period.

- Changes in payment per case from 2016 through 2019 reflect a lower payment rate for cases that did not meet the LTCH-qualifying criteria and offsetting increases in the share of cases that qualified for the standard LTCH PPS rate.

- The average length of stay for all LTCH cases and for cases meeting the criteria for the standard LTCH PPS rate have remained relatively stable since 2016.

Chart 8-19. The aggregate LTCH Medicare margin decreased in 2019

Type of LTCH	Share of discharges in 2019	Medicare margin				
		2015	2016	2017	2018	2019
All	100%	4.7%	3.9%	–2.2%	–0.5%	–1.6%
Nonprofit	14	–5.9	–5.7	–13.0	–11.7	–12.2
For profit	84	6.5	5.5	–0.3	1.3	0.4

Note: LTCH (long-term care hospital). Nonprofit and for-profit rows sum to 98 percent of stays because margins for government-owned facilities, which account for 2 percent of stays, are not shown.

Source: MedPAC analysis of cost report data from CMS.

- In fiscal year 2016, CMS began implementing a dual payment-rate system under which LTCH cases not meeting criteria specified in law are paid a lower site-neutral rate—the lower of an amount based on (1) Medicare's inpatient hospital prospective payment system rate or (2) 100 percent of the cost of the case. As a result, the aggregate Medicare margin fell to –2.2 percent in 2017. LTCH Medicare margins have since increased but remained negative.

- The aggregate Medicare margin for for-profit LTCHs (which accounted for 84 percent of all Medicare discharges in 2019) decreased from 6.5 percent in 2015 to 0.4 percent in 2019. The aggregate margin for nonprofit LTCHs decreased from –5.9 percent in 2015 to –12.2 percent in 2019.