

SECTION

11

Other services

Dialysis

Hospice

Clinical laboratory

Chart 11-1. Number of dialysis facilities is growing, and most facilities are for profit and freestanding

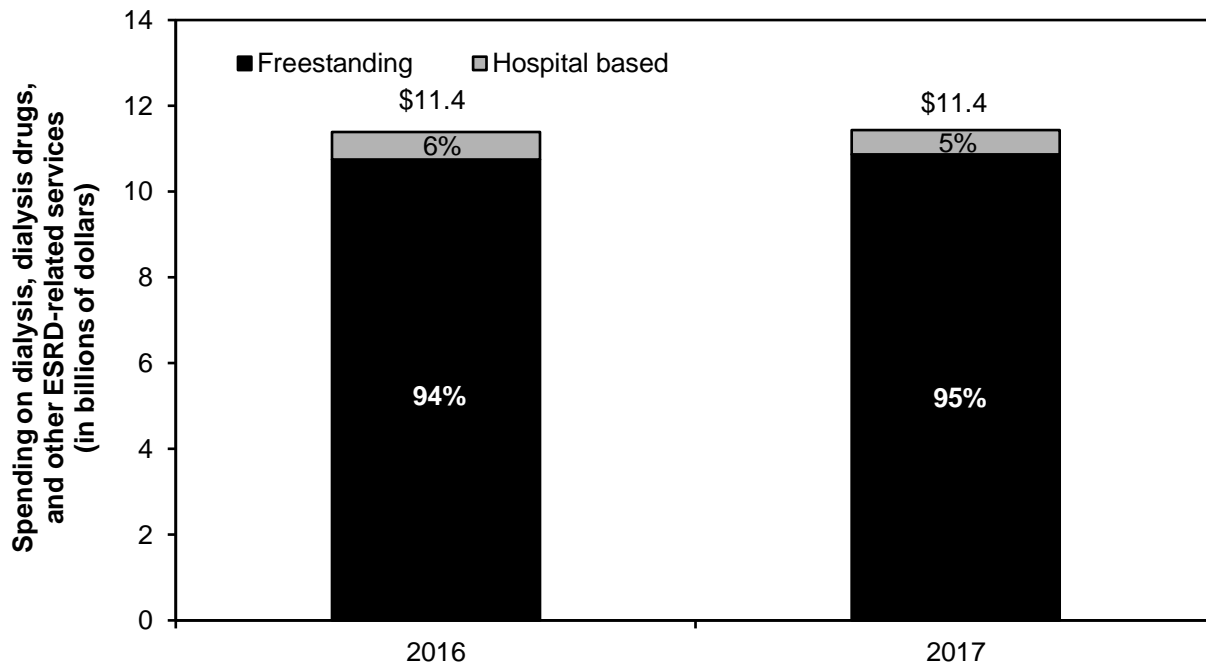
	2017	Average annual percent change	
		2012–2017	2016–2017
Total number of:			
Dialysis facilities	7,014	4%	4%
Hemodialysis stations	120,928	3	3
Mean number of hemodialysis stations per facility			
	17	–0.6	–0.8
<u>Share of total facilities</u>			
Hospital based	6%	–3	–2
Freestanding	94	4	4
Urban	82	4	5
Rural, micropolitan	11	2	1
Rural, adjacent to urban	4	2	2
Rural, not adjacent to urban	2	2	0
Frontier	0.5	3	3
For profit	88	5	5
Nonprofit	12	–1	–2

Note: “Nonprofit” includes facilities designated as either nonprofit or government. “Average annual percent change” is based on comparing 2012, 2016, and 2017 end-of-year files. Components may not sum to totals due to rounding.

Source: Compiled by MedPAC from the 2012, 2016, and 2017 CMS Dialysis Compare end-of-year files. **THIS TABLE COULD NOT BE UPDATED TO REFLECT DIALYSIS FACILITIES THAT WERE CERTIFIED IN CALENDAR YEAR 2018 BECAUSE DATA FROM CMS WERE NOT AVAILABLE.**

- Between 2012 and 2017, the number of facilities has increased, on average, 4 percent per year. The average size of a facility has remained relatively constant, averaging about 17 dialysis treatment stations per facility (17.7 stations in 2012, 17.4 stations in 2016, and 17.2 stations in 2017).
- Since 2012, facilities’ capacity to provide care—as measured by hemodialysis treatment stations—grew 3 percent annually. Capacity at urban facilities grew by 4 percent per year, while capacity at rural facilities grew at a rate of 2 percent per year (data not shown).
- Since 2012, the number of freestanding and for-profit facilities increased, while hospital-based and nonprofit facilities decreased. Freestanding facilities increased from 91 percent to 94 percent of all facilities, and for-profit facilities increased from 85 percent to 88 percent of all facilities.

Chart 11-2. Medicare spending for outpatient dialysis services furnished by freestanding and hospital-based dialysis facilities, 2016 and 2017



Note: ESRD (end-stage renal disease).

Source: Compiled by MedPAC from the 2016 and 2017 institutional outpatient files from CMS.

- In 2017, total spending for dialysis, dialysis drugs, and ESRD-related clinical laboratory tests was \$11.4 billion. Medicare paid all facilities under a modernized prospective payment system that includes in the payment bundle certain dialysis drugs and ESRD-related clinical laboratory tests that were separately paid before 2011.
- Between 2016 and 2017, total ESRD expenditures increased by 0.4 percent.
- Freestanding dialysis facilities treated most dialysis beneficiaries and accounted for 95 percent of expenditures in 2017.

Chart 11-3. The ESRD population is growing, and most ESRD patients undergo dialysis

	2006		2012		2016	
	Patients (thousands)	Percent	Patients (thousands)	Percent	Patients (thousands)	Percent
Total	506.8	100%	634.7	100%	726.3	100%
Dialysis	356.2	70	444.3	70	511.3	70
In-center hemodialysis	323.6	64	395.1	62	449.0	62
Home hemodialysis*	2.7	0.5	7.7	1	9.0	1
Peritoneal dialysis*	28.3	6	39.8	6	51.1	7
Unknown	1.5	0.3	1.7	0.3	2.3	0.3
Functioning graft and kidney transplants	150.6	30	190.5	30	215.1	30

Note: ESRD (end-stage renal disease). Totals may not equal sum of components due to rounding. Data include both Medicare and non-Medicare patients.
*Home dialysis methods.

Source: Compiled by MedPAC from the United States Renal Data System.

- Persons with ESRD require either dialysis or a kidney transplant to maintain life. The total number of ESRD patients increased by 4 percent annually between 2006 and 2016.
- In hemodialysis, a patient's blood flows through a machine with a special filter that removes wastes and extra fluids. In peritoneal dialysis, the patient's blood is cleaned by using the lining of his or her abdomen as a filter. Peritoneal dialysis is the most common form of home dialysis.
- Most ESRD patients undergo hemodialysis administered in a dialysis facility three times a week. Between 2006 and 2016, the total number of in-center hemodialysis patients grew by 3 percent annually, while the total number of peritoneal dialysis patients increased by about 6 percent annually. Although a smaller proportion of all dialysis patients undergo home hemodialysis, the number of these patients grew 13 percent per year during this period.
- Functioning graft patients are patients who have had a successful kidney transplant. Patients undergoing kidney transplant may receive either a living kidney or a cadaveric kidney donation. In 2016, 28 percent of transplanted kidneys were from living donors and the remainder were from cadaver donors (data not shown).

Chart 11-4. Asian Americans and Hispanics are among the fastest growing segments of the ESRD population

	Share of total in 2016	Average annual percent change 2011–2016
Total (N = 726,331)	100%	3%
Age (years)		
0–17	1	0.2
18–44	15	1
45–64	44	3
65–79	32	6
80+	9	4
Sex		
Male	58	4
Female	42	3
Race/ethnicity		
White	61	3
African American	30	3
Native American	1	2
Asian American	6	6
Hispanic	18	5
Non-Hispanic	80	3
Unknown	2	0.7
Underlying cause of ESRD		
Diabetes	38	4
Hypertension	26	4
Glomerulonephritis	16	2
Other causes	20	3

Note: ESRD (end-stage renal disease). Totals may not equal sum of the components due to rounding. ESRD patients include those who undergo maintenance dialysis and those who have a functioning kidney transplant.

Source: Compiled by MedPAC from the United States Renal Data System.

- Among ESRD patients, 41 percent are over age 65. About 60 percent are White.
- Diabetes is the most common cause of renal failure.
- The number of ESRD patients increased by 3 percent annually between 2011 and 2016. Among the fastest growing groups of patients are patients between the ages of 65 and 79, Asian Americans, and Hispanics.

Chart 11-5. Characteristics of Medicare fee-for-service dialysis patients, 2017

	Share of all FFS dialysis patients
Age (years)	
Under 45	11%
45–64	38
65–74	28
75–84	18
85+	6
Sex	
Male	56
Female	44
Race	
White	48
African American	36
All other	16
Residence	
Urban county	84
Rural county, micropolitan	10
Rural county, adjacent to urban	5
Rural county, not adjacent to urban	2
Frontier county	1
Prescription drug coverage status	
Enrolled in Part D plan or other source of creditable drug coverage	89
LIS	57
Dually eligible for Medicare and Medicaid	48

Note: FFS (fee-for-service), LIS (low-income [drug] subsidy). Urban counties contain a core area with 50,000 or more people, rural micropolitan counties contain at least one cluster of at least 10,000 and fewer than 50,000 people, rural counties adjacent to urban areas do not have a city of 10,000 people in the county, and rural counties not adjacent to urban areas do not have a city of 10,000 people. Frontier counties are counties with six or fewer people per square mile. Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of dialysis claims files and denominator files from CMS.

- Compared with all Medicare patients, FFS dialysis patients are disproportionately younger and African American (see Chart 2-5).
- In 2017, about 17 percent of FFS dialysis patients resided in a rural county.
- Nearly half of all dialysis patients were dually eligible for Medicare and Medicaid services.
- Nearly 90 percent of FFS dialysis patients were enrolled in Part D plans or had other sources of creditable drug coverage.

Chart 11-6. Aggregate margins varied by type of freestanding dialysis facility, 2017

Type of facility	Share of freestanding dialysis treatments	Aggregate margin
All facilities	100%	-1.1%
Urban	88	-0.4
Rural	12	-5.5
Treatment volume (quintile)		
Lowest	7	-21.3
Second	12	-10.6
Third	17	-3.4
Fourth	24	0.8
Highest	39	5.4

Note: Margins include payments and costs for composite rate services, injectable drugs, and other end-stage renal disease-related services. Total may not sum to 100 percent due to rounding.

Source: Compiled by MedPAC from 2017 cost reports and the 2017 institutional outpatient file from CMS.

- For 2017, the aggregate Medicare margin for composite rate services and injectable drugs was -1.1 percent.
- Generally, freestanding dialysis facilities' margins vary by the size of the facility; facilities with greater treatment volume have higher margins on average. Differences in capacity and treatment volume explain some of the differences observed between the margins of urban and rural facilities. Urban facilities are larger on average than rural facilities with respect to the number of dialysis treatment stations and Medicare treatments provided. Some rural facilities have benefited from the low-volume adjustment that is included in the new end-stage renal disease payment method that began in 2011.

Chart 11-7. Hospice spending and use increased in 2017

	2000	2016	2017	Average annual change, 2000–2016	Change, 2016–2017
Medicare payments (in billions)	\$2.9	\$16.8	\$17.9	11.6%	6.4%
Beneficiaries in hospice (in millions)	0.534	1.427	1.492	6.3%	4.6%
Number of hospice days for all hospice beneficiaries (in millions)	25.8	101.2	106.3	8.9%	5.1%
Average length of stay among decedents (in days)	53.5	87.8	88.6	3.1%	0.9%
Median length of stay among decedents (in days)	17	18	18	1 day*	0 day*

Note: Average length of stay is calculated for decedents who used hospice at the time of death or before death and reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his/her lifetime. Due to rounding, the percentage change displayed in the chart may not equal the percentage change calculated using the yearly data displayed in the chart.

*This figure reflects the raw change rather than the percentage change.

Source: MedPAC analysis of the denominator file, the Medicare Beneficiary Database, and the 100 percent hospice claims standard analytic file from CMS.

- Total Medicare payments to hospices were about \$17.9 billion in 2017, 6 percent higher than the prior year.
- The number of Medicare beneficiaries receiving hospice services, total number of days of hospice care, and average length of stay continued to grow in 2017.

Chart 11-8. Hospice use increased across beneficiary groups from 2000 to 2017

	Share of decedents using hospice			Average annual percentage point change 2000–2016	Percentage point change 2016–2017
	2000	2016	2017		
All	22.9%	49.7%	50.4%	1.7	0.7%
FFS beneficiaries	21.5	48.7	49.5	1.7	0.8
MA beneficiaries	30.9	51.9	52.4	1.3	0.5
Dual eligibles	17.5	44.1	44.9	1.7	0.8
Non–dual eligibles	24.5	51.5	52.1	1.7	0.6
Age (years)					
<65	17.0	30.1	30.4	0.8	0.3
65–84	24.7	46.8	47.1	1.4	0.3
85+	21.4	59.2	60.3	2.4	1.1
Race/ethnicity					
White	23.8	51.8	52.5	1.8	0.7
Minority	17.3	39.1	39.6	1.4	0.5
Gender					
Male	22.4	45.4	46.0	1.4	0.6
Female	23.3	53.7	54.5	1.9	0.8
Beneficiary location					
Urban	24.2	50.8	51.3	1.7	0.5
Microropolitan	18.3	46.3	47.2	1.8	0.9
Rural, adjacent to urban	17.5	45.7	46.9	1.8	1.2
Rural, nonadjacent to urban	15.0	40.3	41.5	1.6	1.2
Frontier	13.1	33.8	34.4	1.3	0.6

Note: FFS (fee-for-service), MA (Medicare Advantage). “Beneficiary location” refers to the beneficiary’s county of residence. Urban, micropolitan, and rural designations are based on the urban influence codes. This chart uses the 2013 urban influence code definition. The frontier category is defined as population density equal to or less than six persons per square mile.

Source: MedPAC analysis of data from the denominator file and the Medicare Beneficiary Database from CMS.

- Hospice use grew in all beneficiary groups in 2017, continuing the trend of a growing proportion of beneficiaries using hospice at the end of life.
- Despite this growth, hospice use continued to vary by demographic and beneficiary characteristics. Medicare decedents who were MA enrollees, not dual eligible, older, White, female, or living in an urban area were more likely to use hospice than their respective counterparts.

Chart 11-9. Number of Medicare-participating hospices has increased due to growth in for-profit hospices

	2000	2015	2016	2017
All hospices	2,255	4,199	4,382	4,488
For profit	672	2,729	2,940	3,097
Nonprofit	1,324	1,294	1,274	1,230
Government	257	176	168	160
Freestanding	1,069	3,163	3,369	3,519
Hospital based	785	517	501	471
Home health based	378	494	487	475
SNF based	22	25	25	22
Urban	1,455	3,235	3,474	3,587
Rural	757	920	901	878

Note: SNF (skilled nursing facility). Numbers may not sum to totals because of missing data for a small number of providers. The rural and urban definitions in this chart are based on updated definitions of the core-based statistical areas (which rely on data from the 2010 census).

Source: MedPAC analysis of Medicare cost reports, Provider of Services file, and the standard analytic file of hospice claims from CMS.

- There were 4,488 Medicare-participating hospices in 2017. Almost 70 percent of them were for-profit hospices.
- The number of Medicare-participating hospices grew by roughly 100 providers between 2016 and 2017 and has nearly doubled since 2000. For-profit hospices accounted entirely for the net growth.
- Growth in the number of providers has occurred predominantly among freestanding providers. The number of hospital-based and home health-based providers has declined. The number of SNF-based providers is small and has changed little over the years. (A hospice's status as freestanding versus hospital based, home health based, or SNF based reflects the type of cost report submitted by the provider and does not necessarily reflect the location of care.)
- The number of hospices located in rural areas has declined in the last several years, decreasing about 5 percent between 2015 and 2017. The number of providers located in rural areas is not necessarily an indicator of access to care. The share of rural decedents using hospice has been increasing since 2000 (see Chart 11-8).

Chart 11-10. Hospice cases and length of stay, by diagnosis, 2017

Diagnosis	Share of total cases	Share of cases with length of stay greater than 180 days
Cancer	26%	9%
Alzheimer's, nervous system disorders, organic psychosis	23	34
Circulatory, except heart failure	19	24
Heart failure	9	23
Respiratory disease	6	15
Other	6	15
Chronic airway obstruction, NOS	5	28
Genitourinary disease	3	9
Digestive disease	2	9
All	100	21

Note: NOS (not otherwise specified). Cases include all patients who received hospice care in 2017, not just decedents. "Diagnosis" reflects primary diagnosis on the beneficiary's last hospice claim in 2017. The share of cases with length of stay greater than 180 days reflects the share of hospice patients who received hospice care in 2017 whose lifetime length of hospice stay exceeded 180 days at the end of 2017 (or at the time of death or discharge in 2017 if the beneficiary was not enrolled in hospice at the end of 2017). "Share of total cases" may not sum to 100 percent due to rounding.

Source: MedPAC analysis of 100 percent hospice claims standard analytic file from CMS and the Medicare Beneficiary Database.

- In 2017, the most common primary diagnoses among Medicare hospice patients were cancer (26 percent), neurological conditions (Alzheimer's disease, nervous system disorders, and organic psychosis) (23 percent of cases), circulatory conditions other than heart failure (19 percent), and heart failure (9 percent).
- Length of stay varies by diagnosis. Long hospice stays were most common among patients with Alzheimer's disease and other nervous system disorders, chronic airway obstruction, circulatory conditions, and heart failure. Long hospice stays were least common among beneficiaries with cancer, genitourinary disease, and digestive disease.

Chart 11-11. Hospice average length of stay among decedents increased slightly in 2017

Year	Average length of stay (in days)	Percentiles of length of stay (in days)				
		10th	25th	50th	75th	90th
2000	53.5	3	6	17	56	141
2005	71.3	3	5	17	67	194
2010	86.1	3	5	17	77	240
2011	86.3	2	5	17	78	240
2012	88.0	2	5	18	80	246
2013	87.8	2	5	17	79	246
2014	88.2	2	5	17	79	247
2015	86.7	2	5	17	80	240
2016	87.8	2	5	18	82	244
2017	88.6	2	5	18	82	248

Note: Data reflect hospice length of stay for Medicare decedents who used hospice at the time of death or before death. "Length of stay" reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his or her lifetime.

Source: MedPAC analysis of the denominator file and the Medicare Beneficiary Database from CMS.

- Average length of stay among decedents was 88.6 days in 2017, a slight increase from 2016. Average length of stay grew substantially between 2000 (53.5 days) and 2012 (88.0 days) and has oscillated modestly since then.
- There is wide variation in hospice length of stay. In 2017, hospice length of stay among decedents ranged from 2 days at the 10th percentile to 248 days at the 90th percentile.
- Since 2000, growth in average length of stay among decedents has largely been the result of increases in length of stay for patients with the longest stays. Length of stay at the 90th percentile was more than 100 days greater in 2017 than in 2000.
- Short stays in hospice have changed little since 2000. Among decedents, median length of stay was 18 days in 2017 and has been 17 or 18 days since 2000. Hospice length of stay at the 10th percentile (two days) and 25th percentile (five days) has been unchanged for more than five years.

Chart 11-12. Hospice length of stay among decedents, by beneficiary and hospice characteristics, 2017

	Average length of stay (in days)	Length of stay percentiles (in days)		
		10th	50th	90th
Beneficiary				
Diagnosis				
Cancer	52	3	17	129
Neurological	149	4	36	440
Heart/circulatory	94	2	16	279
COPD	118	2	27	344
Other	54	2	17	148
Site of service				
Home	91	4	26	242
Nursing facility	105	3	20	307
Assisted living facility	153	5	51	436
Hospice				
For profit	109	3	23	319
Nonprofit	67	2	13	181
Freestanding	91	2	18	259
Home health based	68	2	14	186
Hospital based	56	2	12	149

Note: COPD (chronic obstructive pulmonary disease). Average length of stay is calculated for Medicare beneficiaries who died in 2017 and used hospice that year, and it reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his or her lifetime. "Diagnosis" reflects primary diagnosis on the beneficiary's last hospice claim.

Source: MedPAC analysis of 100 percent hospice claims standard analytic file data, Medicare Beneficiary Database, Medicare hospice cost reports, and Provider of Services file data from CMS.

- Hospice average length of stay among decedents varies by both beneficiary and provider characteristics. Most of this variation reflects differences in length of stay among patients with the longest stays (i.e., at the 90th percentile). Length of stay varies much less for patients with shorter stays (i.e., at the 10th or 50th percentile).
- Beneficiaries with neurological conditions and COPD have the longest stays while beneficiaries with cancer have the shortest stays, on average.
- Beneficiaries who receive hospice services in assisted living facilities have longer stays on average than beneficiaries who receive care at home or in a nursing facility.
- For-profit and freestanding hospices have longer average lengths of stay than nonprofit and provider-based (home health-based and hospital-based) hospices.

Chart 11-13. More than half of Medicare hospice spending in 2017 was for patients with stays exceeding 180 days

	Medicare hospice spending, 2017 (in billions)
All hospice users in 2016	\$17.9
Beneficiaries with LOS > 180 days	10.1
Days 1–180	3.4
Days 181–365	3.2
Days 366+	3.6
Beneficiaries with LOS ≤ 180 days	7.8

Note: LOS (length of stay). LOS reflects the beneficiary's lifetime LOS as of the end of 2017 (or at the time of death or discharge in 2017 if the beneficiary was not enrolled in hospice at the end of 2017). All spending reflected in the chart occurred only in 2017. Break-out groups do not sum to total because of rounding.

Source: MedPAC analysis of 100 percent hospice claims standard analytic file data and the common Medicare enrollment file from CMS.

- In 2017, Medicare hospice spending on patients with stays exceeding 180 days was about \$10.1 billion, more than half (56 percent) of all Medicare hospice spending that year.
- About \$3.6 billion, or about 20 percent, of Medicare hospice spending in 2017 was on hospice care for patients who had already received at least one year of hospice.

Chart 11-14. Hospice aggregate Medicare margins, 2012–2016

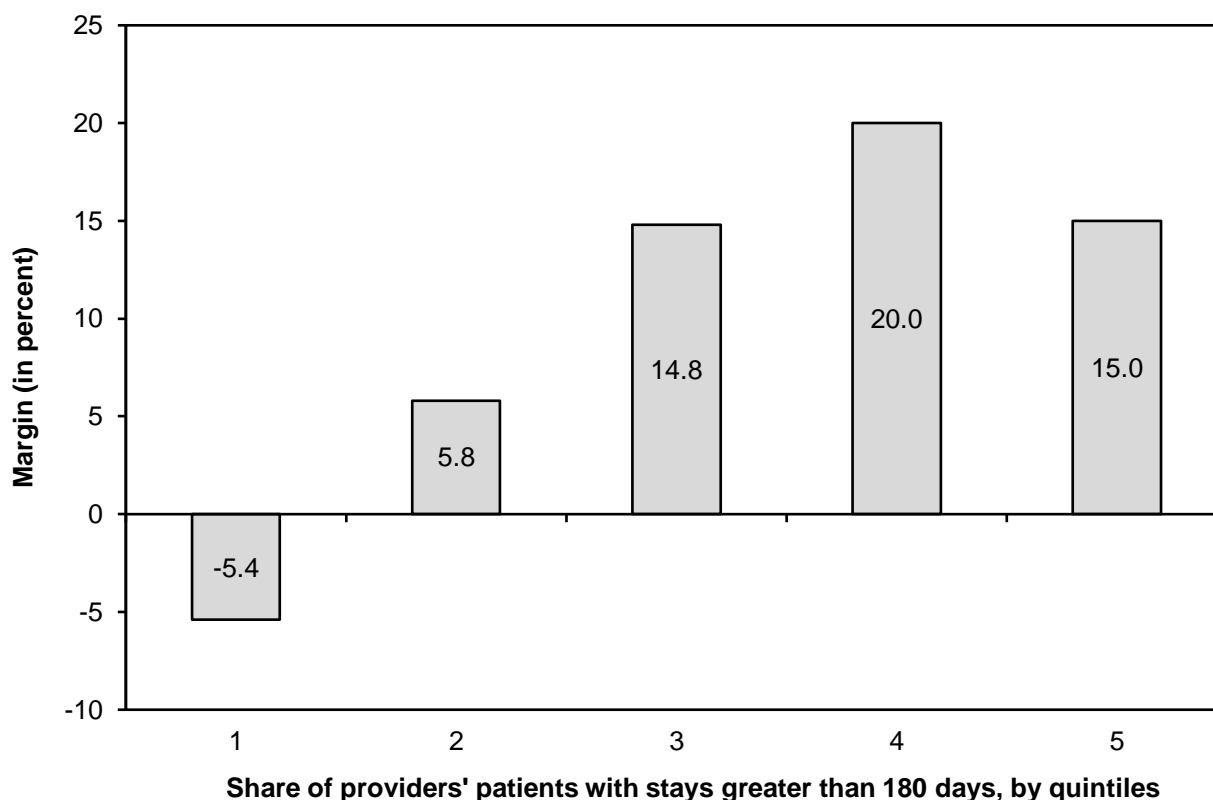
	Share of hospices (2016)	Medicare margin				
		2012	2013	2014	2015	2016
All	100%	10.0%	8.5%	8.2%	9.9%	10.9%
Freestanding	77	13.3	12.0	11.6	13.8	13.9
Home health based	11	5.5	2.5	3.7	3.3	6.2
Hospital based	11	-17.1	-17.4	-20.8	-23.8	-16.7
For profit	67	15.4	14.7	14.6	16.5	16.8
Nonprofit	29	3.6	0.9	-0.9	0.1	2.7
Government	4	N/A	N/A	N/A	N/A	N/A
Urban	79	10.3	8.8	8.7	10.4	11.4
Rural	21	7.3	5.9	3.3	4.8	6.2
Below cap	87.3	10.3	8.6	8.4	9.9	10.7
Above cap	12.7	5.2	7.0	6.0	9.8	12.6
Above cap (including cap overpayments)	12.7	21.3	20.1	18.8	21.4	20.2

Note: N/A (not available). Margins for all provider categories exclude overpayments to above-cap hospices except where specifically indicated. Margins are calculated based on Medicare-allowable, reimbursable costs. The percentages of freestanding and provider-based (home health–based and hospital-based) hospices do not sum to 100 percent because skilled nursing facility–based hospices are not broken out separately.

Source: MedPAC analysis of Medicare hospice cost reports, 100 percent hospice claims standard analytic file, and Medicare Provider of Services data from CMS.

- The aggregate Medicare margin was 10.9 percent in 2016, up from 9.9 percent in 2015.
- In 2016, freestanding hospices had higher margins (13.9 percent) than home health–based (6.2 percent) and hospital-based hospices (–16.7 percent).
- The 2016 margin among for-profit hospices was high at 16.8 percent. Nonprofit hospices as a group had a margin of 2.7 percent in 2016, but the subset of nonprofit hospices that were freestanding had a higher margin, 6.4 percent (latter figure not shown in chart).
- The aggregate 2016 margin was higher for urban hospices (11.4 percent) than rural hospices (6.2 percent).
- Hospices that exceeded the cap (Medicare’s aggregate average per beneficiary payment limit) had a 2016 margin of about 20 percent before the return of the cap overpayments.

Chart 11-15. Medicare margins were higher among hospices with more long stays, 2016



Note: Margins exclude overpayments to hospices that exceeded the cap on the average annual Medicare payment per beneficiary. Margins are calculated based on Medicare-allowable, reimbursable costs. For hospice providers in the lowest (first) quintile, the share of stays greater than 180 days was less than 12.9 percent; it was between 12.9 percent and 20.0 percent in the second quintile; it was between 20.0 percent and 26.5 percent in the third quintile; it was between 26.5 percent and 34.1 percent in the fourth quintile; and it was greater than 34.1 percent in the highest (fifth) quintile.

Source: MedPAC analysis of Medicare hospice cost reports and 100 percent hospice claims standard analytic file from CMS.

- Medicare's per diem payment system for hospice has provided an incentive for longer lengths of stay.
- Hospices with more patients who had stays greater than 180 days generally had higher margins in 2016. Hospices in the lowest length-of-stay quintile had a margin of -5.4 percent compared with a 20.0 percent margin for hospices in the second highest length-of-stay quintile.

(Chart continued next page)

Chart 11-15. Medicare margins were higher among hospices with more long stays, 2016 (continued)

- Margins were somewhat lower in the highest length-of-stay quintile (15.0 percent) compared with the second highest quintile (20.0 percent) because some hospices in the highest quintile exceeded Medicare's aggregate payment cap and were required to repay the overage. Hospices exceeding the cap had a margin of about 20 percent before the return of overpayments (see Chart 11-14).
- The 2016 margin estimates reflect hospices' financial performance in the first year of the new payment system, which began January 2016. (Because some providers' cost report years begin before January, the 2016 margins include some payments made under the old payment system. However, we estimate about 90 percent of payments reflected in the 2016 margins were made under the new payment system.)
- The 2016 payment reforms modestly reduced the variation in profitability by length of stay. In 2015, there was a 29 percentage point spread in the margins between the lowest length of stay quintile (-8.9 percent) and the second highest length of stay quintile (20.4 percent) (data not shown). In 2016, the difference in margins between those length of stay quintiles narrowed slightly to 25 percentage points, as shown in the chart.

Chart 11-16. Hospices that exceeded Medicare’s annual payment cap, selected years

	2002	2013	2014	2015	2016
Share of hospices exceeding the cap	2.6%	10.7%	12.2%	12.3%	12.7%
Average payments over the cap per hospice exceeding the cap (in thousands)	\$470	\$460	\$370	\$320	\$295
Payments over the cap as a share of overall Medicare hospice spending	0.6%	1.3%	1.2%	1.0%	1.0%

Note: The cap year is defined as the period beginning November 1 and ending October 31 of the following year. These estimates of hospices that exceeded the aggregate cap are based on the Commission’s analyses. While the estimates are intended to approximate those of the Medicare claims-processing contractors, they are not necessarily identical to the contractors’ estimates because of differences in available data and methodology.

Source: MedPAC analysis of 100 percent hospice claims standard analytic file data, Medicare hospice cost reports, Provider of Services file data from CMS, and CMS Providing Data Quickly system. Data on total spending for each fiscal year are from the CMS Office of the Actuary.

- The share of hospices exceeding the aggregate cap was 12.7 percent in 2016, up slightly from 2015.
- Medicare payments over the cap represented 1.0 percent of total Medicare hospice spending in 2016.
- On average, above-cap hospices exceeded the cap by about \$295,000 per provider in 2016, down from about \$320,000 per provider in 2015.

Chart 11-17. Hospice live-discharge rates, 2013–2017

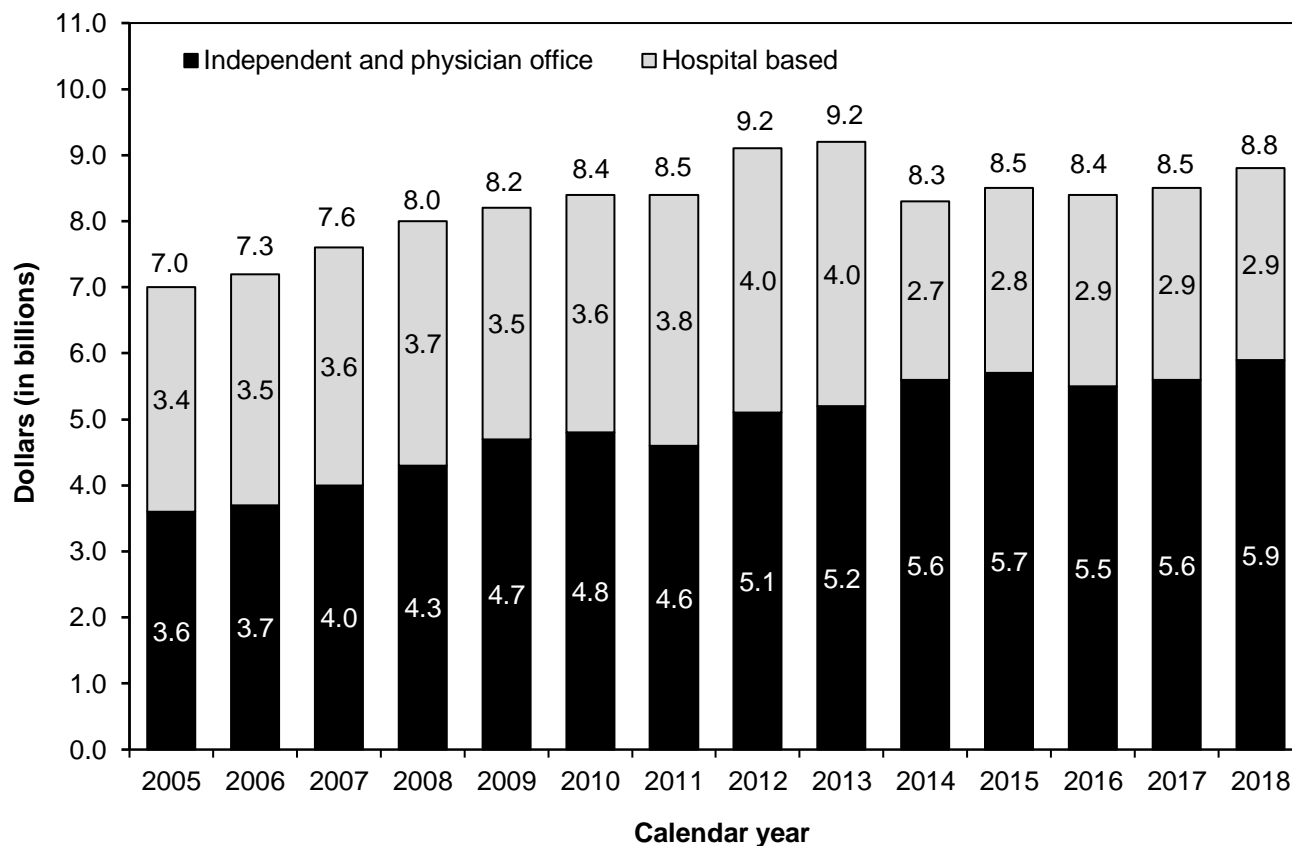
	2013	2015	2016	2017
Live discharge as a share of all discharges, by reason for live discharge				
All live discharges	18.4%	16.7%	16.9%	16.7%
No longer terminally ill	7.8	6.9	6.8	6.5
Beneficiary revocation	7.3	6.3	6.4	6.4
Transfer hospice providers	2.0	2.1	2.1	2.1
Move out of service area	0.9	1.0	1.2	1.4
Discharge for cause	0.4	0.3	0.3	0.3
Providers' overall rate of live discharge as a share of all discharges, by percentile				
10th percentile	9.3	8.4	8.3	8.3
25th percentile	13.2	12.0	12.2	12.6
50th percentile	19.4	18.4	19.1	19.3
75th percentile	30.2	29.6	31.3	31.8
90th percentile	47.2	50.0	53.3	53.0

Note: Percentages may not sum to totals due to rounding. "All discharges" includes patients discharged alive or deceased.

Source: MedPAC analysis of 100 percent hospice claims standard analytic file.

- In 2017, the overall live-discharge rate was 16.7 percent, and has changed little since 2015.
- The most common reasons for live discharge were the beneficiary no longer being terminally ill and the beneficiary revoking the hospice benefit, with each accounting for just over 38 percent of live discharges, and about 6.5 percent of all discharges. Less frequent reasons for live discharges were: a beneficiary transferring hospice providers, a beneficiary moving out of the service area, and a beneficiary being discharged for cause.
- Live discharges accounted for more than half of total discharges for the 10 percent of hospices with the highest live-discharge rates (i.e., the 90th percentile) in 2017.

Chart 11-18. Medicare spending for clinical laboratory services, 2005–2018



Note: Spending is for services paid under the clinical laboratory fee schedule. Hospital-based services are furnished in labs owned or operated by hospitals. The components of each bar may not sum to the total at the top of each bar due to rounding. The spending data include only program payments; there is no beneficiary cost sharing for clinical lab services.

Source: The annual report of the Boards of Trustees of the Medicare trust funds, 2015 and 2019.

- Medicare spending for clinical laboratory services in all settings grew by an average of 3.4 percent per year between 2005 and 2013.
- From 2013 to 2014, Medicare spending for lab services declined by about 9 percent because, beginning in 2014, many lab tests provided in hospital outpatient departments are no longer paid separately under the clinical lab fee schedule. Instead, many of these tests are packaged with their associated visits or procedures under the hospital outpatient prospective payment system.
- Medicare spending for lab services increased by an average of 0.9 percent per year from 2014 to 2017.
- Beginning in 2018, clinical laboratory fee schedule payment rates are based on private sector rates. From 2017 to 2018, Medicare spending for lab services grew 3.4 percent.