

SECTION

# 11

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## **Other services**

**Dialysis**

**Hospice**

**Clinical laboratory**

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

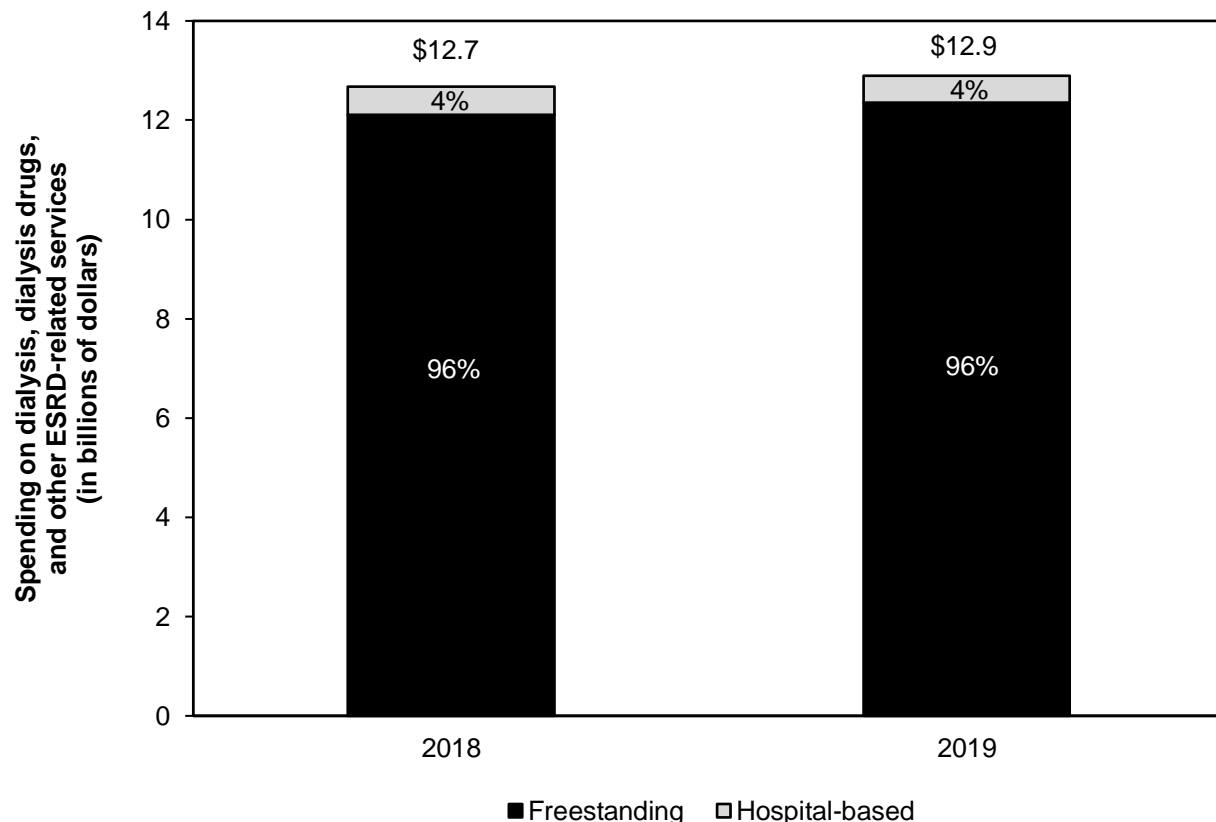
	2019	Average annual percent change	
		2014–2019	2018–2019
Total number of:			
Dialysis facilities	7,657	4%	3%
Hemodialysis stations	134,159	4	3
Mean number of hemodialysis stations per facility	18	–0.1	0.1
	<u>Share of total facilities</u>		
Hospital based	5%	–3	–1
Freestanding	95	3	3
Urban	83	4	3
Rural, micropolitan	10	2	1
Rural, adjacent to urban	4	2	2
Rural, not adjacent to urban	2	1	–2
Frontier	0.4	1	0
For profit	89	4	3
Nonprofit	11	–1	–0.1

Note: “Nonprofit” includes facilities designated as either nonprofit or government. “Average annual percent change” is based on comparing 2014, 2018, and 2019 end-of-year files. Components may not sum to totals due to rounding.

Source: Compiled by MedPAC from the institutional outpatient claims files and the Dialysis Compare files from CMS.

- Between 2014 and 2019, the number of facilities increased, on average, 4 percent per year. The average size of a facility has remained relatively constant, averaging nearly 18 dialysis treatment stations per facility.
- Since 2014, facilities’ capacity to provide care—as measured by hemodialysis treatment stations—grew 4 percent annually on average. Capacity at urban facilities grew by 4 percent per year, while capacity at rural facilities grew at a rate of 2 percent per year.
- Since 2014, the number of freestanding and for-profit facilities increased, while hospital-based facilities decreased. Freestanding facilities increased by 3 percent per year to nearly 7,270 facilities while for-profit facilities increased by 4 percent per year to nearly 6,800 facilities.

**Chart 11-2. Medicare spending for outpatient dialysis services furnished by freestanding and hospital-based dialysis facilities, 2018 and 2019**



Note: ESRD (end-stage renal disease).

Source: Compiled by MedPAC from the institutional outpatient claims files from CMS.

- In 2019, total spending for dialysis, dialysis drugs, and ESRD-related clinical laboratory tests was \$12.9 billion. Medicare paid all facilities under a prospective payment system (PPS) that includes in the payment bundle certain dialysis drugs and ESRD-related clinical laboratory tests that were separately paid before 2011.
- Between 2018 and 2019, total ESRD expenditures increased by 2 percent. Ten percent of total spending in 2019 consisted of payments for two calcimimetics paid under the ESRD PPS’s transitional drug add-on payment adjustment; this policy pays providers according to the number of units of a drug and the drug’s average sales price.
- Freestanding dialysis facilities treated most dialysis beneficiaries and accounted for 96 percent of expenditures in 2018 and 2019.

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

	2008		2014		2018	
	Patients (thousands)	Percent	Patients (thousands)	Percent	Patients (thousands)	Percent
Total	550.8	100%	689.1	100%	785.9	100%
Dialysis	386.8	70	488.5	71	556.0	71
In-center hemodialysis	351.6	64	430.5	62	485.1	62
Home hemodialysis*	4.4	0.8	8.5	1	10.4	1
Peritoneal dialysis*	29.1	5	47.2	7	58.6	7
Unknown	1.7	0.3	2.2	0.3	2.0	0.2
Functioning graft and kidney transplant	164.0	30	200.7	29	229.9	29

Note: ESRD (end-stage renal disease). Totals may not equal sum of components due to rounding. Data include both Medicare (fee-for-service and Medicare Advantage) and non-Medicare patients. The “functioning graft and kidney transplant” category includes patients who have a functioning graft at the start of the year in question (i.e., 2008, 2014, or 2018), or who receive a transplant during the year in question.  
\*Home dialysis methods.

Source: Compiled by MedPAC from the U.S. Renal Data System.

- People with ESRD require either dialysis or a kidney transplant to maintain life. The total number of ESRD patients increased by nearly 4 percent annually between 2008 and 2018.
- 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 cleansed by using the lining of his or her abdomen as a filter. Peritoneal dialysis is the most common form of home dialysis.
- Most people with ESRD undergo hemodialysis administered in a dialysis facility three times a week. Between 2008 and 2018, the total number of in-center hemodialysis patients grew by 3 percent annually, while the total number of peritoneal dialysis patients increased by about 7 percent annually. Although a smaller proportion of all dialysis patients undergo home hemodialysis, the number of these patients grew 9 percent per year during this period.
- Patients with functioning grafts have had a successful kidney transplant. Patients undergoing a kidney transplant may receive either a living kidney or a cadaveric kidney donation. In 2018, 29 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 2018	Average annual percent change 2013–2018
Total (N = 785,883)	100%	3%
<b>Age (years)</b>		
0–17	1	2
18–44	14	1
45–64	43	3
65–79	33	5
80+	9	4
<b>Sex</b>		
Male	58	4
Female	42	3
<b>Race/ethnicity</b>		
White	62	4
Black	30	2
Native American	1	2
Asian American	7	6
Hispanic	18	5
Non-Hispanic	80	3
Unknown	2	1
<b>Underlying cause of ESRD</b>		
Diabetes	39	4
Hypertension	26	4
Glomerulonephritis	15	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. Data include both Medicare (fee-for-service and Medicare Advantage) and non-Medicare patients.

Source: Compiled by MedPAC from the U.S. Renal Data System.

- Among patients with ESRD, nearly 42 percent are over age 65. About 62 percent are White.
- Diabetes is the most common cause of renal failure.
- The number of patients with ESRD increased by 3 percent annually between 2013 and 2018. Among the fastest growing groups are patients between the ages of 65 and 79 and patients of Asian and Hispanic origins.

## Chart 11-5. Characteristics of Medicare fee-for-service dialysis patients, 2019

	Share of all FFS dialysis patients
<b>Age (years)</b>	
Under 45	10%
45–64	37
65–74	28
75–84	18
85+	6
<b>Sex</b>	
Male	56
Female	44
<b>Race</b>	
White	47
Black	35
All other	18
<b>Residence</b>	
Urban county	83
Rural county, micropolitan	10
Rural county, adjacent to urban	5
Rural county, not adjacent to urban	2
Frontier county	1
<b>Prescription drug coverage status</b>	
Enrolled in Part D plan or other source of creditable drug coverage	89*
LIS	58
<b>Dually eligible for Medicare and Medicaid</b>	52

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.  
\*Part D enrollment data for 2018.

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

- Compared with all Medicare patients, FFS dialysis patients are disproportionately younger and Black (see Chart 2-5).
- In 2019, about 17 percent of FFS dialysis patients resided in a rural county.
- More than half of all dialysis patients were dually eligible for Medicare and Medicaid services.
- In 2018, 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, 2019

Type of facility	Share of freestanding dialysis treatments	Aggregate margin
All facilities	100%	8.4%
Urban	88	9.0
Rural	12	5.0
Treatment volume (quintile)		
Lowest	7	-14.4
Second	13	-1.4
Third	18	6.4
Fourth	24	10.4
Highest	39	15.2

Note: Margins include payments and costs for dialysis services commonly provided under treatment, including injectable drugs and laboratory tests that were separately paid before 2011. Totals may not sum to 100 percent due to rounding. The Commission's longstanding approach to calculating the Medicare end-stage renal disease (ESRD) prospective payment system (PPS) margin uses only Medicare-allowable costs for ESRD services. Such an approach is consistent with the methods we use to calculate the Medicare margin for other fee-for-service sectors. Our ESRD margin analysis relies on the cost data that freestanding dialysis facilities report on the cost reports that they submit to CMS. In 2019, there was an anomalous increase in non-ESRD drug costs compared with prior years. Consistent with our longstanding approach, non-ESRD drug costs are not included in the Commission's analysis of ESRD PPS costs incurred by freestanding dialysis facilities or in our calculation of the ESRD PPS margin.

Source: Compiled by MedPAC from 2019 cost reports and the 2019 institutional outpatient file from CMS.

- For 2019, the aggregate Medicare margin for dialysis-related services, including ESRD-related drugs and laboratory tests that were separately paid before 2011, was 8.4 percent.
- Between 2018 and 2019, the aggregate Medicare margin increased (from 2.1 percent to 8.4 percent) due to the profitability of the drugs paid under the transitional drug add-on payment adjustment (TDAPA) policy. Excluding the payments and costs of the drugs paid under the TDAPA (calcimimetics), we estimate that the 2019 aggregate Medicare margin would have been about 0.5 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 facilities versus 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 ESRD prospective payment system's low-volume adjustment.



## Chart 11-7. Dialysis quality of care: Some measures show progress, others need improvement, 2013–2018

Outcome measure	2013	2017	2018
Share of in-center hemodialysis patients:			
Receiving adequate dialysis	97%	98%	98%
Dialyzed with an AV fistula	62	N/A*	66
Share of peritoneal dialysis patients receiving adequate dialysis	91	93	92
Share of all dialysis patients managing anemia			
Mean hemoglobin <10 g/dL	26	28	29
Mean hemoglobin 10 to <12 g/dL	69	67	66
Mean hemoglobin ≥12 g/dL	5	5	5
Share of all dialysis patients wait-listed for a kidney	17.5	14.1	13.5
Renal transplant rate per 100 patient years	3.5	3.5	3.6
Annual mortality rate per 100 patient years**	16.9	16.6	16.4
Total hospital admissions per patient year**	1.8	1.7	1.7
Hospital days per patient year**	11.5	11.3	11.3

Note: AV (arteriovenous), g/dL (grams per deciliter [of blood]). The rate per patient year is calculated by dividing the total number of events by the fraction of the year that patients were followed. Data on dialysis adequacy, anemia management, and fistula utilization represent the share of patients meeting CMS's clinical performance measures. The U.S. Renal Data System (USRDS) adjusts hospitalization and mortality measures by age, gender, race, and primary diagnosis of end-stage renal disease.

\*Data on 2017 AV fistula use not available from USRDS.

\*\*Lower values suggest higher quality.

Source: All measures except for share of patients receiving adequate dialysis and anemia management compiled by MedPAC using data from the USRDS. Measure of share of patients receiving adequate dialysis and anemia management compiled by MedPAC using data from CMS's 100 percent institutional outpatient files.

- Quality of dialysis care is mixed. Performance has improved on some measures, but performance on others remains unchanged or has declined.
- Between 2013 and 2018, overall adjusted mortality rates decreased from 16.9 percent to 16.4 percent. During this period, the proportion of hemodialysis patients receiving adequate dialysis remained high, and rates of hospitalization have held steady.
- All hemodialysis patients require vascular access—the site on the patient's body where blood is removed and returned during dialysis. Use of arteriovenous fistulas, considered the best type of vascular access, has modestly increased from 62 percent to 66 percent of hemodialysis patients between 2013 and 2018.
- Other measures suggest that improvements in dialysis quality are still needed. We look at access to kidney transplantation because it is widely believed to be the best treatment option for individuals with end-stage renal disease. Between 2013 and 2018, the share of dialysis patients accepted on the kidney transplant waiting list declined from 17.5 to 13.5, and the renal transplant rate per 100 dialysis-patient years remained relatively constant at 3.6.

## Chart 11-8. Hospice spending and use increased in 2019

	2010	2018	2019	Average annual change, 2010–2018	Change, 2018–2019
Medicare payments (in billions)	\$12.9	\$19.2	\$20.9	5.1%	8.5%
Beneficiaries in hospice (in millions)	1.15	1.55	1.61	3.8%	3.7%
Number of hospice days for all hospice beneficiaries (in millions)	81.6	113.5	121.8	4.2%	7.3%
Average length of stay among decedents (in days)	87.0	90.3	92.6	0.5%	2.5%
Median length of stay among decedents (in days)	18	18	18	0 days	0 days

Note: Lifetime length of stay is calculated for decedents who were using 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 or her lifetime. Total spending, number of hospice users, number of hospice days, and average length of stay displayed in the table are rounded; the percentage change for number of users and total spending is calculated using unrounded data. The length-of-stay estimates in this table may differ from those published in prior data books because this analysis uses the data from the Common Medicare Enrollment file instead of the denominator file (which was used in past years) and because we have made some refinements to our methodology (e.g., beneficiaries residing in U.S. territories are included in this table, whereas they were not in prior reports).

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

- Total Medicare payments to hospices were about \$20.9 billion in 2019, about 8.5 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 2019.

**Chart 11-9. Hospice use increased across beneficiary groups from 2010 to 2019**

	Share of decedents using hospice			Average annual percentage point change	Percentage point change
	2010	2018	2019	2010–2018	2018–2019
All	43.8%	50.6%	51.6%	0.9	1.0%
FFS beneficiaries	42.8	49.7	50.7	0.9	1.0
MA beneficiaries	47.2	52.3	53.2	0.6	0.9
Dual eligible	41.5	47.5	49.2	0.8	1.7
Non-dual eligible	44.5	51.5	52.3	0.9	0.8
<b>Age (years)</b>					
<65	25.7	28.8	29.4	0.4	0.6
65–84	42.1	46.5	47.3	0.6	0.8
85+	50.2	61.1	62.7	1.4	1.6
<b>Race/ethnicity</b>					
White	45.5	52.7	53.8	0.9	1.1
Non-White	33.9	40.0	40.9	0.8	0.9
<b>Gender</b>					
Male	40.1	45.9	46.7	0.7	0.8
Female	47.0	55.0	56.1	1.0	1.2
<b>Residence</b>					
Urban county	45.6	51.8	52.7	0.8	0.9
Rural county, micropolitan	39.2	48.2	49.7	1.1	1.5
Rural county, adjacent to urban	39.0	47.9	49.5	1.1	1.5
Rural county, nonadjacent to urban	33.8	42.4	43.8	1.2	1.4
Frontier county	29.2	35.3	36.2	1.1	1.6

Note: FFS (fee-for-service), MA (Medicare Advantage). Beneficiary location reflects the beneficiary's county of residence in one of four categories (urban, micropolitan, rural adjacent to urban, or rural nonadjacent to urban) based on an aggregation of the Urban Influence Codes (UICs). This chart uses the 2013 UIC definition. The frontier category is defined as population density equal to or less than six people per square mile and overlaps with the beneficiary county of residence categories. Yearly figures presented in the table are rounded, but figures in the percentage point change columns were calculated using unrounded data. The estimates in this table may differ from those published in prior data books because this analysis uses the data from the Common Medicare Enrollment file instead of the denominator file (which was used in past years) and because we have made some refinements to our methodology (e.g., beneficiaries residing in U.S. territories are included in this table, whereas they were not in prior reports).

Source: MedPAC analysis of data from the Common Medicare Enrollment file and hospice claims data from CMS.

- Hospice use grew across beneficiary groups in 2019, 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 not dual eligible, who were MA enrollees, older, White, female, or living in an urban area were more likely to use hospice than their respective counterparts.

**Chart 11-10. Number of Medicare-participating hospices has increased due to growth in for-profit hospices**

	2010	2017	2018	2019
All hospices	3,498	4,488	4,639	4,840
For profit	1,958	3,101	3,233	3,437
Nonprofit	1,316	1,226	1,246	1,248
Government	224	161	159	150
Freestanding	2,401	3,525	3,699	3,932
Hospital based	609	470	454	433
Home health based	465	471	464	456
SNF based	23	22	22	19
Urban	2,485	3,603	3,760	3,952
Rural	950	879	872	859

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 4,840 Medicare-participating hospices in 2019. About 71 percent of them were for-profit hospices.
- The number of Medicare-participating hospices grew by about 200 providers between 2018 and 2019 and has increased about 38 percent since 2010. For-profit hospices accounted for almost all of the net growth in providers between 2018 and 2019.
- Growth in the number of providers has occurred predominantly among freestanding providers. Between 2010 and 2019, the number of hospital-based providers declined substantially while the number of home health–based providers has oscillated over the period and declined in the last few years. 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 2 percent between 2017 and 2019. 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 2010 (see Chart 11-9).

## Chart 11-11. Hospice cases by diagnosis, 2019

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Diagnosis	Share of total cases
Cancer	25%
Alzheimer's, nervous system disorders, organic psychosis	24
Circulatory, except heart failure	21
Heart failure	9
Other	6
Respiratory disease	6
Chronic airway obstruction, NOS	5
Genitourinary disease	2
Digestive disease	2
All	100

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Note: NOS (not otherwise specified). Cases include all patients who received hospice care in 2019, not just decedents. "Diagnosis" reflects primary diagnosis on the beneficiary's last hospice claim in 2019.

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

- In 2019, the most common primary diagnoses among Medicare hospice patients were cancer (25 percent), neurological conditions (Alzheimer's disease, nervous system disorders, and organic psychosis) (24 percent of cases), circulatory conditions other than heart failure (21 percent), and heart failure (9 percent).

## Chart 11-12. Hospice average length of stay among decedents increased slightly in 2019

Year	Average length of stay (in days)	Percentiles of length of stay (in days)				
		10th	25th	50th	75th	90th
2010	87.0	3	6	18	78	242
2017	89.3	2	5	18	80	251
2018	90.3	2	5	18	82	255
2019	92.6	2	5	18	85	266

Note: Lifetime length of stay is calculated for decedents who were using 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 or her lifetime. The length-of-stay estimates in this table may differ from those published in prior data books because this analysis uses the data from the Common Medicare Enrollment file instead of the denominator file (which was used in past years) and because we have made some refinements to our methodology (e.g., beneficiaries residing in U.S. territories are included in this table, whereas they were not in prior reports).

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

- Average length of stay among decedents was 92.6 days in 2019, an increase from 2018 of about two days.
- There is wide variation in hospice length of stay. In 2019, hospice length of stay among decedents ranged from 2 days at the 10th percentile to 266 days at the 90th percentile.
- Between 2010 and 2019, 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 grew from 78 days to 85 days at the 75th percentile and from 242 days to 266 days at the 90th percentile.
- Short stays in hospice have changed little since 2000. For example, among decedents, median length of stay was 18 days in 2019 and 2010. Hospice length of stay at the 25th percentile was 5 days in 2019 and 6 days in 2010.

**Chart 11-13. Hospice length of stay among decedents, by beneficiary and hospice characteristics, 2019**

	Average length of stay (in days)	Length-of-stay percentiles (in days)		
		10th	50th	90th
<b>Beneficiary</b>				
Diagnosis				
Cancer	52	3	17	129
Neurological	155	4	40	459
Heart/circulatory	99	2	18	297
COPD	124	2	30	362
Other	57	2	8	158
Site of service				
Home	95	4	27	257
Nursing facility	109	3	22	324
Assisted living facility	161	5	56	457
<b>Hospice</b>				
For profit	112	3	24	332
Nonprofit	71	2	14	195
Freestanding	95	2	19	275
Home health based	72	2	15	199
Hospital based	59	2	12	163

Note: COPD (chronic obstructive pulmonary disease). Length of stay is calculated for Medicare beneficiaries who died in 2019 and used hospice that year and reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his or her lifetime. This year, we made some refinements to our methodology (e.g., beneficiaries residing in U.S. territories are included in this table, whereas they were not in prior reports), which makes the numbers not fully comparable with those in past reports. The location categories reflect where the beneficiary spent the largest share of his or her days while enrolled in hospice. "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 11-14. More than half of Medicare hospice spending in 2019 was for patients with stays exceeding 180 days

	Medicare hospice spending, 2019 (in billions)
All hospice users in 2019	\$20.9
Beneficiaries with LOS > 180 days	12.3
Days 1–180	4.1
Days 181–365	3.8
Days 366+	4.3
Beneficiaries with LOS ≤ 180 days	8.6

Note: LOS (length of stay). LOS reflects the beneficiary's lifetime LOS as of the end of 2019 (or at the time of death or discharge in 2019 if the beneficiary was not enrolled in hospice at the end of 2019). All spending reflected in the chart occurred only in 2019. Break-out groups do not sum to total because of rounding.

Source: MedPAC analysis of 100 percent hospice claims standard analytical file and an Acumen LLC data file on hospice lifetime length of stay (which is based on an analysis of historic claims data).

- In 2019, Medicare hospice spending on patients with stays exceeding 180 days was about \$12.3 billion, nearly 60 percent of all Medicare hospice spending that year.
- About \$4.3 billion, or about 20 percent, of Medicare hospice spending in 2019 was on hospice care for patients who had already received at least one year of hospice.



**Chart 11-15. Hospice aggregate Medicare margins, 2014–2018**

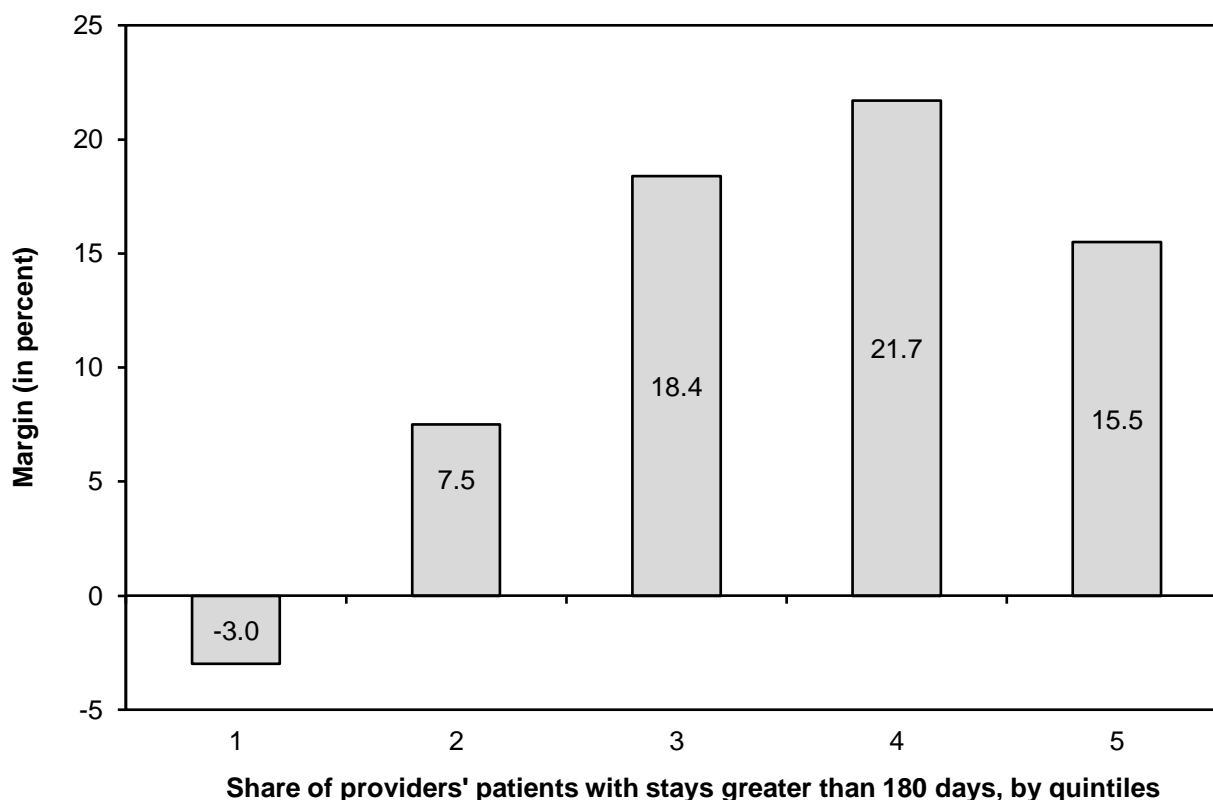
	Share of hospices (2018)	Medicare margin				
		2014	2015	2016	2017	2018
All	100%	8.2%	9.9%	10.9%	12.5%	12.4%
Freestanding	80	11.6	13.8	14.0	15.3	15.1
Home health based	10	3.5	3.3	6.2	8.1	8.4
Hospital based	10	-20.8	-23.8	-16.7	-13.8	-16.5
For profit	70	15.3	17.7	17.9	20.0	19.0
Nonprofit	27	-0.4	0.1	2.2	2.5	3.8
Government	3	N/A	N/A	N/A	N/A	N/A
Urban	81	8.7	10.4	11.4	12.9	12.6
Rural	19	3.3	4.8	6.3	8.9	10.3
Below cap	83.7	8.4	9.9	10.7	12.6	12.5
Above cap	16.3	6.0	9.8	12.6	12.1	10.1
Above cap (including cap overpayments)	16.3	18.8	21.4	20.2	21.9	21.8

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.

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 12.4 percent in 2018, similar to 12.5 percent in 2017.
- In 2018, freestanding hospices had higher margins (15.1 percent) than home health–based (8.4 percent) and hospital-based hospices (–16.5 percent).
- The 2018 margin among for-profit hospices was high at 19.0 percent. Nonprofit hospices as a group had a margin of 3.8 percent in 2018, but the subset of nonprofit hospices that were freestanding had a higher margin, 7.6 percent (latter figure not shown in chart).
- The aggregate 2018 margin was slightly higher for urban hospices (12.6 percent) than rural hospices (10.3 percent).
- Hospices that exceeded the cap (Medicare’s aggregate average per beneficiary payment limit) had a 2018 margin of about 22 percent before the return of the cap overpayments.

**Chart 11-16. Medicare margins were higher among hospices with more long stays, 2018**



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 12.4 percent; it was between 12.4 percent and 20.0 percent in the second quintile; it was between 20.0 percent and 26.7 percent in the third quintile; it was between 26.7 percent and 34.9 percent in the fourth quintile; and it was greater than 34.9 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 2018. Hospices in the lowest length-of-stay quintile had a margin of -3.0 percent compared with a 21.7 percent margin for hospices in the second highest length-of-stay quintile.
- Margins were somewhat lower in the highest length-of-stay quintile (15.5 percent) compared with the second highest quintile (21.7 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 22 percent before the return of overpayments (see Chart 11-15).

## Chart 11-17. Hospices that exceeded Medicare’s annual payment cap, 2014–2018

	2014	2015	2016	2017	2018
Share of hospices exceeding the cap	12.1%	12.3%	12.7%	14.0%	16.3%
Average payments over the cap per hospice exceeding the cap (in thousands)	\$370	\$316	\$295	\$273	\$334
Payments over the cap as a share of overall Medicare hospice spending in cap year	1.2%	1.0%	1.0%	1.0%	1.3%

Note: The aggregate cap statistics reflect the Commission’s estimates and may differ from the CMS claims processing contractors. Spending in cap year 2017 reflects an 11-month period from November 1, 2016, to September 30, 2017. For years before 2017, the cap year was defined as the period beginning November 1 and ending October 31 of the following year. Beginning 2018, the cap year is aligned with the federal fiscal year (October 1 to September 30 of the following year).

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 or MedPAC estimates.

- The share of hospices exceeding the aggregate cap was 16.3 percent in 2018, up from 14.0 percent in 2017.
- On average, above-cap hospices exceeded the cap by about \$334,000 per provider in 2018, up from about \$273,000 per provider in 2017.
- Medicare payments over the cap represented 1.3 percent of total Medicare hospice spending in 2018.

## Chart 11-18. Hospice live-discharge rates, 2017–2019

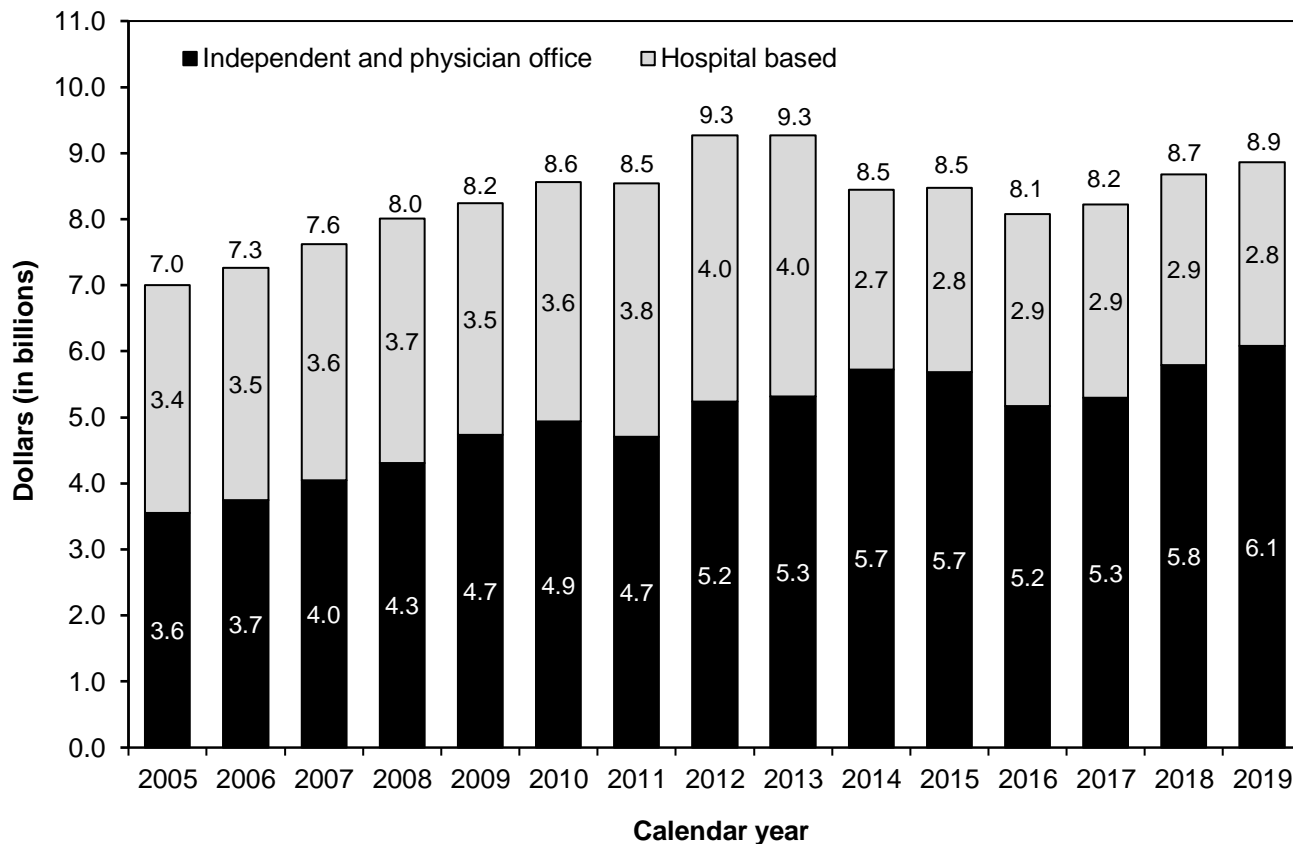
	2017	2018	2019
Live discharge as a share of all discharges, by reason for live discharge			
All live discharges	16.7%	17.0%	17.4%
No longer terminally ill	6.5	6.3	6.5
Beneficiary revocation	6.4	6.6	6.5
Transfer hospice providers	2.1	2.2	2.3
Move out of service area	1.4	1.6	1.7
Discharge for cause	0.3	0.3	0.3
Providers' overall rate of live discharge as a share of all discharges, by percentile (for providers with more than 30 discharges)			
10th percentile	8.5	8.5	8.6
25th percentile	12.2	12.0	12.3
50th percentile	18.1	17.9	18.9
75th percentile	27.1	27.8	29.5
90th percentile	41.4	42.5	46.6

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

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

- In 2019, the overall live-discharge rate was 17.4 percent and has been on a slight upward trend since 2017.
- The most common reasons for live discharge were the beneficiary no longer being terminally ill and the beneficiary revoking the hospice benefit, each accounting for 6.5 percent of all discharges in 2019. Less frequent reasons for live discharges included a beneficiary transferring hospice providers, a beneficiary moving out of the service area, and a beneficiary being discharged for cause.
- Among providers with more than 30 discharges, 10 percent of providers had live-discharge rates in excess of 46 percent in 2019.
- Small hospices as a group have substantially higher live-discharge rates than larger hospices. In 2019, the aggregate live-discharge rate was 45 percent for hospices with 30 or fewer discharges (data not shown).

**Chart 11-19. Medicare spending for clinical laboratory services, 2005–2019**



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 2020.

- Medicare spending for clinical laboratory services in all settings grew by an average of 3.6 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 decreased 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 2019, Medicare spending for lab services grew by an average of 3.8 percent per year.

