CHAPTER 12

Hospice services

RECOMMENDATION

12 The Congress should eliminate the update to the hospice payment rates for fiscal year 2018.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

CHAPTER 12

Hospice services

Chapter summary

The Medicare hospice benefit covers palliative and support services for beneficiaries who are terminally ill with a life expectancy of six months or less if the illness runs its normal course. Beneficiaries may choose to elect the Medicare hospice benefit; in so doing, they agree to forgo Medicare coverage for conventional treatment of their terminal illness and related conditions. In 2015, more than 1.38 million Medicare beneficiaries (including nearly 49 percent of decedents) received hospice services from about 4,200 providers, and Medicare hospice expenditures totaled about $15.9 billion.

Assessment of payment adequacy

The indicators of payment adequacy for hospices, discussed below, are positive.

***Beneficiaries' access to care*—**Hospice use among Medicare beneficiaries has grown substantially in recent years, suggesting greater awareness of and access to hospice services. In 2015, hospice use increased across all demographic and beneficiary groups examined. However, rates of hospice use remained lower for racial and ethnic minorities than for White beneficiaries.

- ***Capacity and supply of providers*—**The number of hospice providers increased by about 2.6 percent in 2015, due almost entirely to growth in the number of for-profit hospices, continuing a more than decade-long trend of substantial market entry by for-profit providers.

In this chapter

- ***Volume of services*—**In 2015, the proportion of beneficiaries using hospice services at the end of life continued to grow, while average length of stay among decedents declined slightly. Of the total Medicare beneficiary decedents in 2015, 48.6 percent used hospice, up from 47.9 percent in 2014. Between 2014 and 2015, average length of stay among decedents declined slightly, from 88.2 days to 86.7 days, as a result of a decrease in length of stay among hospice decedents with the longest stays. The median length of stay for hospice decedents was 17 days in 2015 and has remained stable at approximately 17 or 18 days for more than a decade.

***Quality of care*—**The first aggregate data on hospice quality have recently become available, and the quality scores are generally positive for most hospices and most measures. Since July 2014, hospices have been reporting data on seven measures that gauge the frequency with which hospices perform certain care processes on admission that are considered important aspects of hospice care. These measures focus on pain screening, pain assessment, dyspnea screening, dyspnea treatment, documentation of treatment preferences, addressing beliefs and values if desired by patient, and provision of a bowel regimen for patients treated with an opioid. Initial aggregate data analyzed by a CMS contractor found that most hospices scored high (greater than 90 percent) on six of the seven measures (RTI International 2016). Performance on the pain assessment measure was lower and more varied, with half of hospices scoring between 65 percent (25th percentile) and 92 percent (75th percentile).

***Providers' access to capital*—**Hospices are not as capital intensive as some other provider types because they do not require extensive physical infrastructure. Continued growth in the number of for-profit providers (a 5 percent increase in 2015) suggests capital is available to for-profit providers. Less is known about access to capital for nonprofit freestanding providers, for which capital may be more limited. Hospital-based and home health–based hospices have access to capital through their parent providers.

***Medicare payments and providers' costs*—**The aggregate 2014 Medicare margin, which is an indicator of the adequacy of Medicare payments relative to providers' costs, was 8.2 percent, down slightly from 8.5 percent in 2013. In addition, the rate of marginal profit—that is, the rate at which Medicare payments exceed providers' marginal cost—was roughly 11 percent in 2014. The projected aggregate Medicare margin for 2017 is 7.7 percent.

Because the payment adequacy indicators for which we have data are positive, the Commission recommends eliminating the update to hospice payment rates for fiscal year 2018. ■

Background

Medicare began offering a hospice benefit in 1983, pursuant to the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA). The benefit covers palliative and support services for beneficiaries who are terminally ill, with a medical prognosis that the individual's life expectancy is six months or less if the illness runs its normal course. A broad set of services is included, such as nursing care; physician services; counseling and social worker services; hospice aide (also referred to as home health aide) and homemaker services; short-term hospice inpatient care (including respite care); drugs and biologics for symptom control; supplies; home medical equipment; physical, occupational, and speech therapy; bereavement services for the patient's family; and other services for palliation of the terminal illness and related conditions. Most commonly, hospice care is provided in patients' homes, but hospice services are also provided in nursing facilities, assisted living facilities, hospice facilities, and hospitals. In 2015, about 1.38 million Medicare beneficiaries received hospice services, and Medicare expenditures totaled about $15.9 billion.

Beneficiaries receive the Medicare hospice benefit only if they elect to do so; if they do, they agree to forgo Medicare coverage for conventional treatment of the terminal illness and related conditions. Medicare continues to cover items and services unrelated to the terminal illness and related conditions. For each person admitted to a hospice program, a written plan of care must be established and maintained by an interdisciplinary group (which must include a hospice physician, registered nurse, social worker, and pastoral or other counselor) in consultation with the patient's attending physician, if there is one. The plan of care must identify the services to be provided (including management of discomfort and symptom relief) and describe the scope and frequency of services needed to meet the patient's and family's needs.

Beneficiaries elect hospice for defined benefit periods. The first hospice benefit period is 90 days. For a beneficiary to elect hospice initially, two physicians—a hospice physician and the beneficiary's attending physician—are generally required to certify that the beneficiary has a life expectancy of six months or less if the illness runs its normal course.[1] If the patient's terminal illness continues to engender the likelihood of death within 6 months, the hospice physician can recertify the patient for another 90 days and for an unlimited number of 60-day periods after that, as long as he or she remains eligible.[2] Beneficiaries can disenroll from hospice at any time (referred to as "revoking hospice") and can reelect hospice for a subsequent period as long as the beneficiary meets the eligibility criteria.

Over the last 15 years, hospice spending has grown substantially, increasing at a rapid rate between 2000 and 2012, remaining flat between 2012 and 2014, and growing again in 2015. Between 2000 and 2012, Medicare spending for hospice care increased more than 400 percent, from $2.9 billion to $15.1 billion. That spending increase was driven by greater numbers of beneficiaries electing hospice and by growth in length of stay for patients with the longest stays. Occurring simultaneously since 2000 has been a substantial increase in the number of for-profit providers.[3] Between 2012 and 2014, Medicare spending for hospice services was flat at about $15.1 billion each year. Spending changed little during this period despite growth in the number of beneficiaries receiving hospice care and increases in the base payment rates each year. The flat spending partly reflected the effect of the across-the-board budget cut known as the sequester, which reduced Medicare payments to providers by 2 percent beginning in April 2013. Between 2014 and 2015, Medicare hospice spending increased 5.5 percent. This spending growth reflects an increase in the number of beneficiaries using hospice care as well as an increase in the Medicare base payment rate between 2014 and 2015. Medicare is the largest payer of hospice services, covering more than 90 percent of hospice patient days in 2014.

Medicare payment for hospice services

The Medicare program pays a daily rate to hospice providers. The hospice provider assumes all financial risk for costs and services associated with care for the patient's terminal illness and related conditions. The hospice provider receives payment for every day a patient is enrolled, regardless of whether the hospice staff visited the patient or otherwise provided a service each day. This payment design is intended to encompass not only the cost of visits but also other costs a hospice incurs for palliation and management of the terminal condition and related conditions, such as on-call services, care planning, drugs, medical equipment, supplies, patient transportation between sites of care that are specified in the plan of care, and short-term hospice inpatient care.

TABLE 12–1

Medicare hospice payment categories and rates

Category	Description	Base payment rate, FY 2017	Percent of hospice days, 2015
Routine home care*	Home care provided on a typical day: Days 1–60	$191 per day	97.8%
	Home care provided on a typical day: Days 61+	$150 per day	
Continuous home care	Home care provided during periods of patient crisis	$40 per hour	0.3
Inpatient respite care	Inpatient care for a short period to provide respite for primary caregiver	$171 per day	0.3
General inpatient care	Inpatient care to treat symptoms that cannot be managed in another setting	$735 per day	1.6

Note: FY (fiscal year). Payment rates are rounded in the table to the nearest dollar. Payment for continuous home care (CHC) is an hourly rate ($40.19 per hour, with a maximum payment per day equal to about $965) for care delivered during periods of crisis if care is provided in the home for 8 or more hours within a 24-hour period beginning at midnight. In addition, a nurse must deliver more than half of the hours of this care to qualify for CHC-level payment. The above rates are 2 percentage points lower for hospices that do not submit the required quality data. The base payment rate is adjusted to account for differences in wage rates among markets. *In addition to the daily rate, Medicare pays $40 per hour for registered nurse and social worker visits (up to four hours per day) that occur during the last seven days of life for beneficiaries receiving routine home care.

Source: Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2016. *Update to hospice payment rates, hospice cap, hospice wage index, and the hospice pricer for FY 2017*. Manual System Pub 100–04 Medicare Claims Processing, Transmittal 3559, July 8.

Payments are made according to a fee schedule that has four different levels of care: routine home care (RHC), continuous home care (CHC), inpatient respite care (IRC), and general inpatient care (GIP) (Table 12-1). The four levels of care are distinguished by the location and intensity of the services provided. RHC is the most common level of hospice care, accounting for nearly 98 percent of all hospice days. Other levels of care—GIP, CHC, and IRC—are available to manage needs in certain situations. GIP is provided in a facility on a short-term basis to manage symptoms that cannot be managed in another setting. CHC is intended to manage a short-term symptom crisis in the home and involves eight or more hours of care per day, mostly nursing. IRC is care in a facility for up to five days to provide an informal caregiver a break. Unless a hospice provides CHC, IRC, or GIP on any given day, it is paid at the RHC rate. The level of care can vary throughout a patient's hospice stay as the patient's needs change.

In January 2016, CMS implemented reforms to the hospice payment system that represented the first changes to the payment structure since the benefit's inception in 1983. Formerly, RHC was paid at a single, uniform daily rate. Now, Medicare pays two per diem rates for RHC—a higher rate for the first 60 days of a hospice episode ($191) and a lower rate for days 61 and beyond ($150) (Table 12-1). Medicare pays an additional $40 per hour for registered nurse and social worker visits that occur during the last seven days of life (up to four hours are payable per day) for patients receiving RHC. These payment rates are adjusted for geographic variation in wages across markets.

The new RHC payment structure is intended to better align payments with the costs of providing hospice care throughout an episode. Hospices tend to provide more services at the beginning and end of an episode and fewer in the middle. As a result, under a flat per diem, long stays are more profitable than short stays. The Commission expressed concern that this misalignment of the payment system led to a number of issues (e.g., making the payment system vulnerable to patient selection, spurring some providers to pursue revenue-generation strategies such as enrolling patients likely to have long stays who may not meet the eligibility criteria, and generating wide variation in profit margins across providers based on the length of stay) (Medicare Payment Advisory Commission 2015b, Medicare Payment Advisory Commission 2009). In March 2009, the Commission recommended that Medicare move away from the flat per diem to one that is higher at the beginning and end of an episode and lower in the intervening period. The new payment structure that CMS implemented in 2016 moves in this direction and may begin to address some of the negative consequences resulting from the misalignment of the payment system.

Hospice payment rates are updated annually by the inpatient hospital market basket index. Beginning fiscal year 2013, the market basket index has been reduced by a productivity adjustment, as required by the Patient Protection and Affordable Care Act of 2010 (PPACA). An additional 0.3 percentage point reduction to the market basket update was required in fiscal years 2013 to 2017 and will possibly be required in fiscal years 2018 and 2019 if certain targets for health insurance coverage among the working-age population are met. The Medicare Access and CHIP Reauthorization Act of 2015 modifies the hospice update amount for fiscal year 2018, setting it at 1 percent for that fiscal year. Beginning in fiscal year 2014, hospices that do not report quality data receive a 2 percentage point reduction in their annual payment update.

Daily payment rates for hospice are adjusted to account for geographic differences in wage rates. From 1983 to 1997, Medicare adjusted hospice payments with a 1983 wage index. In 1998, CMS began using the most current hospital wage index to adjust hospice payments and applied a budget-neutrality adjustment each year to make aggregate payments equivalent to what they would have been under the 1983 wage index. This budget-neutrality adjustment increased Medicare payments to hospices by about 4 percent. The budget-neutrality adjustment has been phased out over seven years, with a 0.4 percentage point reduction in 2010 and an additional reduction of 0.6 percentage point in each subsequent year through 2016. Beginning 2017, there are no further reductions to the payment rates associated with this phase-out since it is complete.

Beneficiary cost sharing for hospice services is minimal. Prescription drugs and inpatient respite care are the only services potentially subject to cost sharing. Hospices may charge coinsurance of 5 percent for each prescription provided outside the inpatient setting (not to exceed $5) and for inpatient respite care (not to exceed the inpatient hospital deductible). (For a more complete description of the hospice payment system, see http://www.medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_16_hospice_final.pdf?sfvrsn=0.)

Medicare hospice payment limits ("caps")

The Medicare hospice benefit was designed to give beneficiaries a choice in their end-of-life care, allowing them to forgo conventional treatment (often in inpatient settings) and die at home, with family, according to their personal preferences.

The inclusion of the Medicare hospice benefit in TEFRA was based in large part on the premise that the new benefit would be a less costly alternative to conventional end-of-life care (Government Accountability Office 2004, Hoyer 2007). Studies show that beneficiaries who elect hospice incur less Medicare spending in the last one or two months of life than comparable beneficiaries who do not, but also that Medicare spending for beneficiaries is higher for hospice enrollees in the earlier months before death than it is for nonenrollees. In essence, hospice's net reduction in Medicare spending decreases the longer the patient is enrolled, and beneficiaries with long hospice stays tend to incur higher Medicare spending than those who do not elect hospice (Medicare Payment Advisory Commission 2008). Studies have been mixed on whether hospice has saved the Medicare program money in the aggregate compared with conventional care. Recent research by a Commission contractor examined the literature and conducted a new market-level analysis of hospice's effect on Medicare expenditures. That study found that while hospice may produce savings for some beneficiaries (such as those with cancer), overall, hospice does not appear to have produced aggregate savings for the Medicare program because of very long stays among some hospice enrollees (Direct Research 2015).

When the Congress established the hospice benefit, it included two limitations, or "caps," on payments to hospices in an effort to make cost savings more likely. The first cap limits the number of days of inpatient care a hospice may provide to 20 percent of its total Medicare patient care days. This cap is rarely exceeded; any inpatient days provided in excess of the cap are reimbursed at the routine home care payment rate.

The second, more visible cap limits the aggregate Medicare payments that an individual hospice can receive. This cap was implemented at the outset of the hospice benefit with the goal of ensuring that Medicare payments did not exceed the cost of conventional care for patients at the end of life. Under the cap, if a hospice's total Medicare payments exceed its total number of Medicare beneficiaries served multiplied by the cap amount (about $28,405 in 2017), it must repay the excess to the program.[4,5,6] This cap is not applied individually to the payments received for each beneficiary, but rather to the total payments across all Medicare patients served by the hospice in the cap year. The number of hospices exceeding the payment cap historically has been low, but we have found that increases in the number of hospices and increases in very long stays have resulted in more hospices

exceeding the cap (with the number peaking in 2009 at 12.5 percent and oscillating in recent years). The hospice cap is the only significant fiscal constraint on the growth of program expenditures for hospice care (Hoyer 2007).

Are Medicare payments adequate in 2017?

To address whether payments in 2017 are adequate to cover the costs of the efficient delivery of care and how much providers' payments should change in the coming year (2018), we examine several indicators of payment adequacy. Specifically, we assess beneficiaries' access to care by examining the capacity and supply of hospice providers, changes over time in the volume of services provided, quality of care, providers' access to capital, and the relationship between Medicare's payments and providers' costs. Overall, the Medicare payment adequacy indicators for hospice providers are positive.

Beneficiaries' access to care: Use of hospice continues to increase

In 2015, hospice use among Medicare beneficiaries increased, continuing the trend of a growing proportion of beneficiaries using hospice services at the end of life. Of the Medicare beneficiaries who died that year, 48.6 percent used hospice, up from 47.9 percent in 2014 and 22.9 percent in 2000 (Table 12-2). Hospice use varied in 2015 by beneficiary characteristics—enrollment in traditional fee-for-service (FFS) Medicare or Medicare Advantage (MA); Medicare-only beneficiaries and beneficiaries dually eligible for Medicare and Medicaid; urban or rural residence; and age, gender, and race—but increased in all of these groups.

Hospice use is somewhat higher among decedents in MA than in FFS. In 2015, in rounded figures, 48 percent of Medicare FFS decedents and 51 percent of MA decedents used hospice. MA plans do not provide hospice services. Once a beneficiary in an MA plan elects hospice care, the beneficiary receives hospice services through a provider paid by FFS Medicare. In March 2014, the Commission urged that this policy be changed, recommending that hospice be included in the MA benefits package (Medicare Payment Advisory Commission 2014).

Hospice use varies by other beneficiary characteristics. In 2015, a smaller proportion of Medicare decedents who were dually eligible for Medicare and Medicaid used hospice compared with the rest of Medicare decedents (about 43 percent and 50 percent, respectively). Hospice use was least prevalent among beneficiaries under age 65 and most prevalent among beneficiaries age 85 and older (about 30 percent vs. 57 percent of these decedents used hospice, respectively). Female beneficiaries were also more likely than male beneficiaries to use hospice, which partly reflects the longer average life span for women and greater hospice use among older beneficiaries.

Hospice use also varies by racial and ethnic group (Table 12-2). As of 2015, Medicare hospice use was highest among White decedents, followed by Hispanic, African American, Asian American, and North American Native decedents, in that order. Hospice use grew across all these groups between 2014 and 2015, with Asian Americans showing the largest increase (1.6 percentage points). Since 2000, hospice use has grown substantially for all racial and ethnic groups, but differences persist across these groups in the rates of use. The reasons for these differences are not fully understood. Researchers have cited a number of possible factors such as cultural or religious beliefs, preferences for end-of-life care, socioeconomic factors, disparities in access to care or information about hospice, and mistrust of the medical system (Barnato et al. 2009, Cohen 2008, Crawley et al. 2000).

Hospice use is higher for urban than rural beneficiaries, although use has grown across all area categories (Table 12-2).[7] In 2015, the share of decedents residing in urban counties who used hospice was about 50 percent; in micropolitan counties, 45 percent; in rural counties adjacent to urban counties, 44 percent; in rural nonadjacent counties, 39 percent; and in frontier counties, 34 percent. Utilization rates for beneficiaries residing in all these areas increased in 2015.

One driver of increased hospice use over the past decade has been growing use by patients with noncancer diagnoses, owing to increased recognition that hospice can care for such patients. In 2015, 72 percent of Medicare decedents who used hospice had a noncancer diagnosis, compared with 71 percent in 2014 and 48 percent in 2000. As of 2015, the most common noncancer primary diagnoses reported among hospice decedents were heart and circulatory disorders (28 percent) and neurological conditions (22 percent). Effective October 1, 2014, CMS no longer allows debility, adult failure to thrive, and certain neurological codes to be reported as the primary hospice diagnosis. If patients with these diagnoses have a life expectancy of six months or less, they still qualify

TABLE 12–2

Use of hospice continues to increase

	Percent of Medicare decedents who used hospice						
	2000	2012	2013	2014	2015	Average annual percentage point change 2000–2014	Percentage point change 2014–2015
All beneficiaries	22.9%	46.7%	47.3%	47.9%	48.6%	1.8	0.7
FFS beneficiaries	21.5	45.7	46.2	46.8	47.6	1.8	0.8
MA beneficiaries	30.9	50.4	50.6	50.9	51.1	1.4	0.2
Dual eligibles	17.5	41.6	42.1	42.6	43.1	1.8	0.5
Nondual eligibles	24.5	48.4	48.9	49.6	50.3	1.8	0.7
Age							
<65	17.0	29.2	29.2	29.5	29.9	0.9	0.4
65–74	25.4	40.6	40.7	40.8	41.2	1.1	0.4
75–84	24.2	47.8	48.2	49.0	49.5	1.8	0.5
85+	21.4	54.0	55.0	56.1	57.1	2.5	1.0
Race/ethnicity							
White	23.8	48.6	49.2	49.8	50.5	1.9	0.7
African American	17.0	36.8	37.3	37.6	38.3	1.5	0.7
Hispanic	21.1	39.4	40.2	41.4	41.9	1.5	0.5
Asian American	15.2	31.8	32.0	33.8	35.4	1.3	1.6
North American Native	13.0	34.0	34.1	34.8	35.0	1.6	0.2
Sex							
Male	22.4	42.8	43.3	43.9	44.5	1.5	0.6
Female	23.3	50.2	50.9	51.5	52.3	2.0	0.6
Beneficiary location							
Urban	24.2	48.0	48.5	49.1	49.7	1.8	0.6
Micropolitan	18.3	42.6	43.6	44.1	44.9	1.8	0.8
Rural, adjacent to urban	17.5	42.3	42.8	43.4	44.4	1.9	1.0
Rural, nonadjacent to urban	15.0	36.9	37.3	38.1	38.8	1.7	0.7
Frontier	13.1	31.7	32.3	32.5	33.8	1.4	1.3

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, and rural nonadjacent to urban) based on an aggregation of the urban influence codes. This chart uses the 2013 urban influence code definition. In prior reports, this chart has used the 2003 urban influence codes definitions. The frontier category is defined as population density equal to or less than six people per square mile.

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

for hospice, but the hospice must report a more specific primary diagnosis. As would be expected, the reported diagnosis mix of hospice patients changed in response to the new requirement. For example, between 2013 and 2015, the primary diagnosis of debility and adult failure to thrive dropped from 9 percent to 1 percent, while primary diagnoses for heart and circulatory conditions rose from 19 percent to 28 percent.

Although hospice use has grown over time across patients with a wide range of conditions, hospice use rates continue to vary by diagnosis or cause of death. Identifying use rates by cause of death is difficult because that information is not included in the Medicare claims data. However, a

TABLE 12–3 **Increase in total number of hospices driven by growth in for-profit providers**

Category	2000	2007	2013	2014	2015	Average annual percent change 2000–2007	Average annual percent change 2007–2014	Percent change 2014–2015
All hospices	2,255	3,250	3,925	4,092	4,199	5.4%	3.3%	2.6%
For profit	672	1,676	2,418	2,588	2,715	13.9	6.4	4.9
Nonprofit	1,324	1,337	1,309	1,305	1,293	0.1	–0.3	–0.9
Government	257	237	198	199	185	–1.2	–2.5	–7.0
Freestanding	1,069	2,103	2,844	3,024	3,138	10.1	5.3	3.8
Hospital based	785	683	553	535	523	–2.0	–3.4	–2.2
Home health based	378	443	503	510	514	2.3	2.0	0.8
SNF based	22	21	25	23	24	–0.7	1.3	4.3
Urban	1,455	2,237	2,932	3,102	3,235	6.3	4.8	4.3
Rural	757	965	945	944	920	3.5	–0.3	–2.5

Note: SNF (skilled nursing facility). Some categories do not sum to total because of missing data for some providers. The rural and urban definitions used in this chart are based on updated definitions of the core-based statistical areas (which rely on data from the 2010 census). In prior reports, this chart has used rural and urban definitions based on the 2000 census.

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

study by Teno et al. (2013) estimated hospice use rates by diagnosis based on diagnosis information that appears in Medicare claims for the last 180 days of life. That study found that, in 2009, about 42.2 percent of all Medicare decedents ages 65 and older died in hospice that year, with this rate varying by diagnosis. The hospice use rate was higher than the national average rate for beneficiaries with cancer (59.5 percent) and dementia (48.3 percent) and lower than the national average for beneficiaries with chronic obstructive pulmonary disease (39.0 percent) in 2009.

Capacity and supply of providers: Supply of hospices continues to grow, driven by growth in for-profit providers

In 2015, 4,199 hospices provided care to Medicare beneficiaries, a 2.6 percent increase from the prior year, continuing more than 10 years of growth in the number of hospices providing care to Medicare beneficiaries (Table 12-3). For-profit hospices account almost entirely for the increase in the number of hospices. Between 2014 and 2015, the number of for-profit hospices increased by about 5 percent, while the number of nonprofit hospices declined about 1 percent, and the number of government hospices declined 7 percent. About one-third of the decline in government hospices reflects a change in the type of ownership reported by the hospice—from government ownership reported in prior years to nonprofit ownership reported in 2015. As of 2015, about 65 percent of hospices were for profit, 31 percent were nonprofit, and 4 percent were government.

Between 2014 and 2015, freestanding hospices accounted for most of the growth in the number of providers (Table 12-3). During this period, the number of freestanding providers increased by about 4 percent, the number of hospital-based hospices declined about 2 percent, and the number of home health–based hospices increased by about 1 percent.[8] The number of skilled nursing facility (SNF)–based hospices was small and increased from 23 to 24. As of 2015, about 75 percent of hospices were freestanding, 12 percent were hospital based, 12 percent were home health based, and less than 1 percent were SNF based.

Overall, the supply of hospices increased substantially between 2000 and 2015 in both urban and rural areas. The number of rural hospices has declined since its peak

TABLE 12–4

Number of hospice users and hospice spending increased while average length of stay declined slightly in 2015

Category	2000	2013	2014	2015	Average annual change, 2000–2013	Percent change, 2013–2014	Percent change, 2014–2015
Number of hospice users (in millions)	0.534	1.315	1.324	1.381	7.2%	0.7%	4.3%
Total spending (in billions)	$2.9	$15.1	$15.1	$15.9	13.5%	–0.3%	5.5%
Average length of stay among decedents (in days)	53.5	87.8	88.2	86.7	3.9%	0.5%	–1.7%
Median length of stay among decedents (in days)	17	17	17	17	0 days	0 days	0 days

Note: Average 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 number of hospice users, total spending, and average length of stay displayed in the table are rounded; the percent change for number of users and total spending is calculated using unrounded data.

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

in 2007, with a 2.5 percent decline in 2015 (Table 12-3). As of 2015, 78 percent of hospices were located in urban areas and 22 percent were located in rural areas. The number of hospices located in rural areas is not necessarily reflective of hospice access for rural beneficiaries, as demonstrated by the increase in the share of rural decedents using hospice over this period.[9]

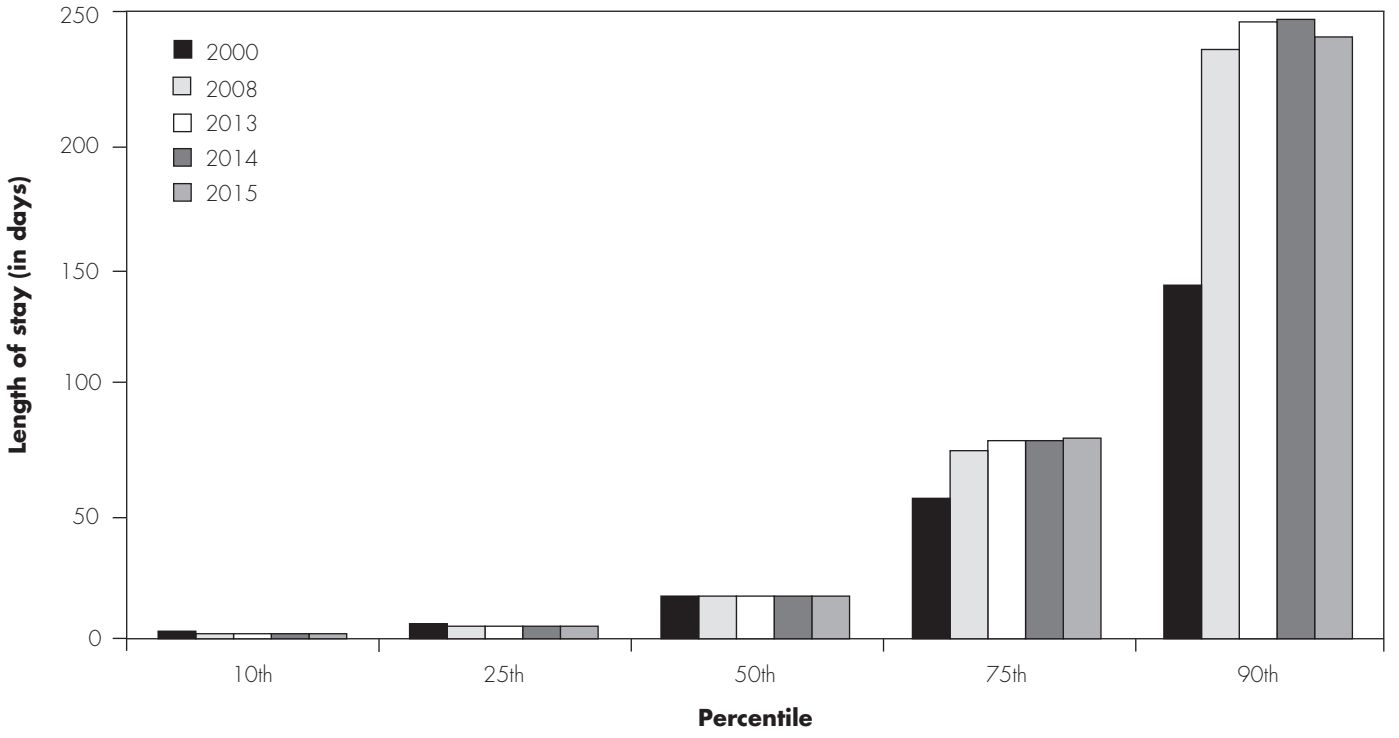
In 2015, substantial changes in the number of hospices were concentrated in a few states, while other states generally experienced modest changes. For example, in 2014, California and Texas saw the largest growth in the number of hospices in 2015. California, which gained 90 hospices in 2014 (a 22 percent increase), gained another 101 hospices in 2015 (an additional 20 percent increase). Texas, which gained 38 hospices in 2014 (a 9 percent increase), gained an additional 24 hospices in 2015 (an additional 5 percent increase). In 2015, Georgia and Michigan experienced the next largest growth in the raw number of providers (an increase of 6 or 7 providers per state), while Mississippi and New Mexico saw the largest decline (a decrease of 10 and 6 providers, respectively). All of these states with the largest change in the number of hospice providers (except Michigan) had an above-average number of hospices per 100,000 Medicare decedents.

The number of hospice providers is not necessarily an indicator of beneficiary access to hospice because a hospice's service area may extend beyond the boundaries of the county in which it is located. The supply of providers—as measured by the number of hospices per 10,000 Medicare decedents—varies substantially across states. In the past, we have concluded that there is no relationship between the supply of hospice providers and the rate of hospice use across states (Medicare Payment Advisory Commission 2010).

Volume of services: The number of hospice users grew and average length of stay among decedents declined slightly in 2015

In 2015, the number of Medicare beneficiaries receiving hospice services continued to increase. More than 1.38 million beneficiaries used hospice services, up 4.3 percent from about 1.32 million in 2014 (Table 12-4). To look more closely at growth in the number of beneficiaries receiving hospice care, we divide the population into hospice users who were discharged deceased and those who were not discharged deceased (i.e., either discharged alive or were still patients as of the end of the year). Between 2014 and 2015, we observe similar growth rates among decedents and nondecedent hospice beneficiaries. The number of beneficiaries receiving hospice who were discharged deceased grew by 4.3 percent, while the number of beneficiaries who received hospice but were discharged alive or remained a patient (as of the end of the year) increased 4.5 percent (data not shown).[10] Among hospice beneficiaries not discharged deceased in 2015, the share discharged alive declined and the share still a patient as of the end of the year increased.

FIGURE 12–1 **Length of stay among hospice patients with the longest stays declined slightly in 2015**



Note: 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.

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

In 2015, hospice average length of stay among decedents was 86.7 days, down slightly from 88.2 days in the prior year (Table 12-4, p. 325). The decline in average length of stay resulted from a decrease in length of stay among hospice patients with the longest stays. Between 2014 and 2015, length of stay at the 90th percentile decreased from 247 days to 240 days (Figure 12-1). In contrast, during that period, length of the stay in the lower half of the distribution was unchanged (at the 10th, 25th, and 50th percentiles) and increased by one day at the 75th percentile (Figure 12-1).

The decrease in length of stay among decedents with the longest stays follows a period of substantial growth in very long stays (Figure 12-1). Between 2000 and 2008, hospice length of stay at the 90th percentile grew rapidly, increasing from 141 days to 238 days. Growth in the 90th percentile slowed between 2008 and 2014, increasing from 238 days to 247 days over that period, and then decreasing to 240 days in 2015. In contrast, the length of shorter stays has changed little since 2000. Median length has held steady at 17 or 18 days since 2000 and was 17 days in 2015. In 2015, length of stay at the 25th percentile was 5 days, the same level it has been for the prior 10 years.

Hospice length of stay is generally similar for hospice decedents in FFS Medicare and MA. The most significant difference is that very long stays in hospice are slightly shorter in MA than FFS (236 days for MA and 242 days for FFS at the 90th percentile as of 2015). There are also slight differences at the median (18 days for MA and 17 days for FFS) and 75th percentile (78 days for MA and 80 days for FFS).

With growing use of hospice, rates of patients dying in the hospital have declined, but evidence is mixed on the extent to which the decline has been accompanied by a reduction in the overall intensity of care in the last months

TABLE 12–5

Hospice length of stay among decedents by beneficiary and hospice characteristics, 2015

Characteristic	Average length of stay (in days)	Percentile of length of stay				
		10th	25th	50th	75th	90th
Beneficiary						
Diagnosis						
Cancer	53	3	6	18	53	131
Neurological conditions	147	3	8	33	164	437
Heart/circulatory	91	2	5	15	83	267
COPD	116	2	5	24	120	339
Other	51	2	3	8	32	134
Main location of care						
Home	89	4	9	26	86	233
Nursing facility	105	3	6	20	96	308
Assisted living facility	152	5	12	51	182	432
Hospice						
Hospice ownership						
For profit	105	3	6	21	97	304
Nonprofit	65	2	5	13	55	176
Type of hospice						
Freestanding	89	2	5	17	77	248
Home health based	69	2	5	15	61	187
Hospital based	55	2	4	12	48	145

Note: COPD (chronic obstructive pulmonary disease). Length of stay is calculated for Medicare beneficiaries who died in 2015 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. "Main location" is the location 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 the 100 percent hospice claims standard analytical file, Medicare Beneficiary Database, Medicare hospice cost reports, and Provider of Services file data from CMS.

of life. One study found that between 2000 and 2009, the share of Medicare decedents ages 65 and older dying in the hospital declined (from 32.6 percent to 24.6 percent), and the average number of hospital days in the last 30 days of life also declined (from 4.9 days to 4.6 days) (Teno et al. 2013). At the same time, the study found that other indicators of intensity of care in the last months of life have increased. For example, the percent of beneficiaries receiving care in an intensive care unit during the last month of life increased between 2000 and 2009 (from 24.3 percent to 29.2 percent), and the percent of beneficiaries with 3 or more hospitalizations in the last 90 days of life increased slightly (from 10.3 percent to 11.5 percent) (Teno et al. 2013). This increase in the intensity of some aspects of end-of-life care may in part reflect referrals to hospice occurring only in the last few days of life for some beneficiaries.

The Commission has previously expressed concern about very short hospice stays. More than one-quarter of hospice decedents enroll in hospice only in the last week of life, a length of stay which is commonly thought to be of less benefit to patients than enrolling somewhat earlier. Very short hospice stays occur across a wide range of diagnoses (Table 12-5). These very short stays stem largely from factors unrelated to the Medicare hospice payment system: Some physicians are reluctant to have conversations about

TABLE 12–6

More than half of Medicare hospice spending in 2015 was for patients with stays exceeding 180 days

	Medicare hospice spending, 2015 (in billions)
All hospice users in 2015	$15.9
Beneficiaries with LOS > 180 days	9.2
Days 1–180	3.0
Days 181–365	2.9
Days 366+	3.3
Beneficiaries with LOS ≤ 180 days	6.5

Note: LOS (length of stay). "LOS" indicates the beneficiary's lifetime LOS as of the end of 2015 (or at the time of discharge in 2015 if the beneficiary was not enrolled in hospice at the end of 2015). All spending presented in the chart occurred only in 2015. Break-out groups do not sum to total because they exclude about $0.1 billion in payments to hospices for physician visits and because of rounding.

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

hospice or tend to delay such discussions until death is imminent; some patients and families have difficulty accepting a terminal prognosis; and financial incentives in the FFS system encourage increased volume of clinical services (compared with palliative care) (Medicare Payment Advisory Commission 2009). In addition, some point to the requirement that beneficiaries forgo conventional care to enroll in hospice as a factor that contributes to deferring hospice care, resulting in short hospice stays.

A number of initiatives seek to address concerns about potentially late hospice enrollments and the quality of end-of-life care more generally. CMS has launched a demonstration program (called the Medicare Care Choices Model) that permits certain FFS beneficiaries who are eligible for hospice (but not enrolled in the Medicare hospice benefit) to enroll in the demonstration and receive palliative and supportive care from a hospice provider while continuing to receive "curative" care from other providers.[11] Beginning in 2016, Medicare covers advanced care planning conversations for beneficiaries who choose to receive these services. Under the physician fee schedule, Medicare pays for advanced care planning conversations between a beneficiary and his or her physician, advanced-practice registered nurse, or physician assistant. In March 2014, the Commission recommended that hospice be included in the Medicare Advantage benefits package, which would give plans greater incentives to develop and test new models aimed at improving end-of-life care and care for beneficiaries with advanced illnesses (Medicare Payment Advisory Commission 2014). The Institute of Medicine also recently issued a report on end-of-life care in the United States, reviewing the challenges and making recommendations for changes (Institute of Medicine 2014).

The Commission has also expressed concern about very long hospice stays. In 2015, Medicare spent over $9 billion, more than half of all hospice spending that year, on patients with stays exceeding 180 days (Table 12-6). With the flat per diem payment system (which was in effect until 2016), long stays have been more profitable than short stays, which may have led some hospices to pursue revenue-generation strategies by focusing on patients with long stays, some of whom may not meet the eligibility criteria.

Hospice lengths of stay vary by observable patient characteristics, such as patient diagnosis and location, which has made it possible for providers to focus on more profitable patients (Table 12-5, p. 327). For example, Medicare decedents in 2015 with neurological conditions and chronic obstructive pulmonary disease had substantially higher average lengths of stay (147 days and 116 days, respectively) than those with cancer (53 days). In addition, length of stay varies by the setting where care is provided. In 2015, average length of stay was higher among Medicare decedents whose main care setting was an assisted living facility (ALF) (152 days) or a nursing facility (105 days) compared with home (89 days) (Table 12-5, p. 327). In particular, hospice patients in ALFs had markedly longer stays compared with other settings, even for the same diagnosis, which warrants further monitoring and investigation in CMS's medical review efforts.

Differences in length of stay by patient characteristics are also reflected in differences in length of stay by provider ownership type (Table 12-5, p. 327). In 2015, average length of stay was substantially higher among for-profit hospices than among nonprofit hospices (105 days compared with 65 days). The reason for higher length

TABLE 12–7 **Hospices that exceeded Medicare's annual payment cap, selected years**

	2002	2011	2012	2013	2014
Percent of hospices exceeding the cap	2.6%	9.8%	11.0%	10.7%	12.2%
Average payments over the cap per hospice exceeding it (in thousands)	$470	$424	$510	$460	$370
Payments over the cap as percent of overall Medicare hospice spending	0.6%	1.1%	1.4%	1.3%	1.2%
Total Medicare hospice spending (in billions)	$4.4	$13.8	$15.0	$15.1	$15.9

Note: The cap year is defined as the period beginning November 1 and ending October 31 of the following year.

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

of stay among for-profit hospices has two components: (1) for-profit hospices have more patients with diagnoses that tend to have longer stays, and (2) for-profit hospice beneficiaries have longer stays for all diagnoses than those of nonprofit hospices. For example, among decedents with a neurological diagnosis, the average length of stay was 174 days among for-profit hospices and 115 days among nonprofits (data not shown).

One pattern of unusual hospice utilization can be found among the 12.2 percent of hospices that exceeded the aggregate payment cap in 2014. As shown in prior reports, above-cap hospices have substantially higher lengths of stay and rates of discharging patients alive than other hospices.[12] This statistic may suggest that above-cap hospices are admitting patients who do not meet the hospice eligibility criteria, which merits further investigation by the Office of Inspector General and CMS.

Between 2013 and 2014, the estimated share of hospices exceeding the cap rose from 10.7 percent to 12.2 percent (Table 12-7).[13] While more hospices exceeded the cap, the average amount by which above-cap hospices exceeded the cap declined. On average, above-cap hospices exceeded the cap by about $370,000 in 2014, down from $460,000 in 2013. While above-cap hospices are required to return payments that exceed Medicare's cap, the government's ability to obtain repayment from hospices that close in subsequent years has been uncertain. Beginning with cap year 2014, CMS is implementing a policy it established that will help facilitate cap overpayment collections. Hospices are now required to perform their own cap overpayment calculation within three to five months of the cap year's close and pay Medicare back for the calculated overpayments at that time or their payments will be suspended (Centers for Medicare & Medicaid Services 2014). Before this rule, there was typically a 16- to 24-month lag between the cap year's close and when hospices had to return any overpayments.[14]

With the variation in practice patterns across hospices and concerns about potential for some hospices to focus on patients likely to have long stays and high profitability, the Commission has advocated over the years for a targeted approach to auditing hospice providers, focusing the most resources on providers for which such scrutiny is warranted. In March 2009, the Commission recommended that CMS conduct medical reviews of all hospice stays exceeding 180 days among those hospice providers for which these long stays exceeded a specified share of the provider's caseload. Similarly, in this report and prior reports, the Commission has expressed concern about very long hospice stays in ALFs, among some hospice providers, and long stays and high live-discharge rates among above-cap hospices. The Commission has suggested that more program integrity scrutiny is warranted in those areas.

Another targeted auditing approach that could be considered is to focus on providers that receive a high share of their payments for hospice patients before the last year of life. The hospice benefit is intended for beneficiaries with a life expectancy of six months or less if the disease runs its normal course. Because of the

TABLE 12–8

Percent of hospice payments for care before the last year of life by level of care and provider percentile, 2014

	All levels of care	Routine home care	Continuous home care	Inpatient respite care	General inpatient care
Providers' share of payments for care before the last year of life, by percentile					
10th percentile	18%	19%	0%	0%	0%
25th percentile	25	26	0	2	0
50th percentile	33	35	0	23	3
75th percentile	43	44	3	41	11
90th percentile	55	55	14	63	27

Source MedPAC analysis of hospice claims and denominator file data from CMS.

unpredictability of life expectancy, it is not surprising that hospices furnish care to some patients before the last six months of life. However, if some providers have an unusually high share of their payments derived from care furnished to patients earlier in the disease trajectory—for example, before the last year of life—that could signal questionable admitting practices and warrant further program integrity scrutiny of those providers. In 2014, about one-third of hospice payments (more than $5 billion) were for care provided to hospice beneficiaries before the last year of life (data not shown).[15] There is substantial variation across hospice providers in the share of payments they receive for care provided to beneficiaries before the last year of life (Table 12-8). For example, focusing on routine home care, the median hospice received 35 percent of its payments for care furnished before the last year of life. In comparison, 10 percent of hospices (90th percentile) received 55 percent or more of their routine home care payments for care before the last year of life. Although it is difficult to know without more information whether these providers with the highest share of routine home care payments before the last year of life are adhering to the hospice eligibility criteria, this payment pattern could be an indicator to help CMS target its program integrity scrutiny.

While a provider-level measure of routine home care payments before the last year of life may have the most utility because it encompasses the most dollars and the longest stays, similar measures could be constructed for general inpatient care, continuous home care, and respite care. These levels of care are provided less often before the last year of life; thus, for providers that are significant outliers in terms of providing these services before the last year of life, additional program scrutiny is warranted (Table 12-8).

Quality of care: Limited quality data are now available

CMS has had a hospice quality reporting program underway for several years. Although public reporting of data for individual hospices has not yet occurred, the first aggregate data from the quality reporting program are now available through a CMS contractor report. That report finds that most hospices scored high on six of the seven measures, while performance is lower and more varied across hospices on a measure related to pain assessment.

Hospice quality reporting program

In accord with PPACA, beginning in fiscal year 2014, hospices that do not report quality data received a 2 percentage point reduction in their annual payment update. For the first year of data reporting, CMS established two quality measures. The first measure tracked pain management, and the second was a process measure designed to help develop future quality measures.[16] These two measures (with small changes) were continued for the second year of the reporting program and affected the payment update for fiscal year 2015.

In July 2014, CMS replaced the two initial quality measures with seven new quality measures collected using a standardized instrument (referred to as the Hospice Item Set).[17] These seven are process measures that address important aspects of care for patients newly admitted to

TABLE 12–9

Distribution of hospice-level scores on seven quality measures

		Percentile		
	Average	25th	50th	75th
Treatment preferences	98.3%	98.7%	100.0%	100.0%
Dyspnea screening	97.6	94.5	99.2	100.0
Dyspnea treatment	94.4	93.4	97.6	99.8
Pain screening	93.9	92.5	97.1	99.2
Bowel regimen	93.6	91.4	96.8	100.0
Beliefs and values	93.0	92.7	97.9	99.9
Pain assessment	75.4	64.5	79.5	91.8

Note: The numbers in the chart refer to the percent of the time a hospice appropriately performed a process measure. Numbers have been rounded from the RTI International report.

Source: RTI International analysis of hospice item set data from April 2015 through March 2016.

hospice (i.e., pain screening, pain assessment, dyspnea screening, dyspnea treatment, documentation of treatment preferences, addressing beliefs and values if desired by patient, and provision of a bowel regimen for patients treated with an opioid). Hospices were required to report on these measures during the second half of calendar year 2014 to receive a full payment update in fiscal year 2016.[18] Hospices continue to be required to report on these measures in future years.

CMS has added two measures to the seven collected through the Hospice Item Set effective beginning in April 2017. The first new measure consists of a pair of indicators related to hospices' provision of visits when death is imminent: (1) percent of patients receiving a registered nurse, physician, nurse practitioner, or physician assistant visit in the last three days of life and (2) percent of patients receiving at least two visits from a social worker, chaplain or spiritual counselor, licensed practical nurse, or hospice aide in the last seven days of life. The second measure is a composite measure that gauges the share of patients who received all seven of the original process measures on admission to hospice.

In 2015, the hospice quality reporting program began requiring hospice providers (except very small providers) to participate in a Consumer Assessment of Healthcare Providers and Systems® (CAHPS®) hospice survey. Hospices are required to contract with a CMS-approved vendor to administer the survey. The survey gathers information from the patient's informal caregiver (typically a family member) after the patient's death. The survey addresses aspects of hospice care that are thought to be important to patients and for which informal caregivers are positioned to provide information. In particular, the survey collects information on how the hospice performed in the following areas: communicating, providing timely care, treating patients with respect, providing emotional support, providing help for symptom management, providing information on medication side effects, and training family or other informal caregivers in the home setting. Participation in the CAHPS hospice survey and the Hospice Item Set will affect payment updates for fiscal year 2017 and beyond.[19]

CMS has indicated that it will publicly report quality data for individual hospices in spring or summer 2017. In addition, CMS has stated that it intends to create star ratings for hospice providers in the longer run, similar to those established for other providers.

Initial quality findings A CMS contractor report provides a first look at hospices' performance on the seven quality measures collected through the Hospice Item Set between April 2015 and March 2016 (RTI International 2016). Overall, performance by most hospices on six of the seven measures was high (Table 12-9). For all measures except pain assessment, at least three-quarters of hospices performed the process appropriately more than 91 percent of the time. Performance was extremely high on a few measures (documenting treating preferences and dyspnea screening), with scores averaging 98 percent across

TABLE 12–10 **Rates of hospice live discharge and reported reason for discharge, 2013–2015**

Category	2013	2014	2015
Live discharges as a share of all discharges, by reason for live discharge			
All live discharges	18.4%	17.2%	16.7%
No longer terminally ill	7.8	7.3	6.9
Beneficiary revocation	7.3	6.6	6.3
Transfer hospice providers	2.0	2.0	2.1
Move out of service area	0.9	0.9	1.0
Discharge for cause	0.4	0.3	0.3
Providers' overall rate of live discharge as a share of all discharges, by percentile			
10th percentile	9.3	8.5	8.4
25th percentile	13.2	12.3	12.0
50th percentile	19.4	18.7	18.4
75th percentile	30.2	30.2	29.6
90th percentile	47.2	50.0	50.0

Note: Percentages may not sum to total due to rounding.

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

hospices. For several of the other process measures—addressing beliefs and values, dyspnea treatment, pain screening, and provision of a bowel regimen for patients receiving opioids—hospices' scores averaged 93 percent to 94 percent. Performance on a pain assessment process measure—which indicates the percent of patients who received a comprehensive pain assessment within one day of screening positive for pain—was lower and more varied. Scores on the pain assessment measure ranged from about 65 percent at the 25th percentile to almost 92 percent at the 75th percentile.

While the high scores for most hospices on most of the quality measures is encouraging, these are process measures, and it is uncertain how much they affect quality from the perspective of patients and families. In addition, the high scores raise questions about the extent to which these measures can differentiate quality across hospice providers. The composite quality measure that CMS recently adopted (which aggregates performance across the seven measures) is expected to show more variation across hospice providers. CMS has expanded the types of quality measures it is fielding by adding measures of hospice visits when death is imminent and by conducting the CAHPS survey.

In December 2016, CMS released the first hospice CAHPS data. These data indicate the national average performance scores in the hospice CAHPS domains (Centers for Medicare & Medicaid Services 2016). On average, hospices scored highest in the areas of treating family members with respect (90 percent) and providing emotional and religious support (89 percent). The national average scores were lowest in the areas of giving hospice care training to family members (72 percent) and getting help for symptoms (75 percent). Data on individual provider performance are not yet available.

For the future, CMS has also expressed interest in developing a patient-reported pain outcome measure, claims-based quality measures (such as burdensome transitions of care for patients in and out of hospice and rates of live discharge), measures of hospice responsiveness to patient and family needs, and measures of hospice team communication and care coordination.

With quality measurement in general, it has been the Commission's view that outcome measures would be preferable to process measures. Although outcome measures for hospice are particularly challenging, the Commission believes outcome measures such as patient-reported pain and other symptom management measures merit further exploration. Rate of live discharge is another measure that in some ways could be considered an outcome measure. The rate at which hospice providers discharge patients alive could signal quality issues. Hospice providers are expected to have some rate of live discharges because some patients change their mind about using the hospice benefit and revoke their hospice enrollment, or their condition improves and they no longer meet the hospice eligibility criteria. However, analyses showing providers with substantially higher rates of live discharge than their peers signal a potential problem with quality of care or program integrity. An unusually high rate of live discharges could indicate that a hospice provider is not meeting the needs of patients and families or is admitting patients who do not meet the eligibility criteria.

Live discharges occur for patients with short and long stays. In our June 2013 report, we conducted an analysis of patients discharged alive in 2010 and followed them through the next year. Among patients discharged alive, 18 percent were discharged after a stay of 14 days or less, 22 percent after a 15- to 60-day stay, 32 percent after a 61- to 180-day stay, and 29 percent after a stay greater than 180 days (Medicare Payment Advisory Commission 2013). Patients discharged alive after a long hospice stay were more likely to be alive 180 days after discharge and to have lower average Medicare spending per day posthospice discharge than those discharged after a short hospice stay.

In the last few years, the rate of live discharge has declined, although some hospices continue to have unusually high live-discharge rates. Since 2013, across all hospices, the average rate of live discharge (that is, live discharges as a percent of all discharges) has dropped from 18.4 percent in 2013 to 17.2 percent in 2014 to 16.7 percent in 2015 (Table 12-10). Hospice providers report the reason for live discharge on claims. Looking at rates of live discharge by reason, we observe that the decline in the overall live-discharge rate reflects a decline in the rate of beneficiaries discharged alive because they are no longer terminally ill and a decline in the rate of beneficiaries revoking the hospice benefit (Table 12-10).

Although the overall live-discharge rate has declined, some providers have unusually high live-discharge rates. In 2015, about 25 percent of providers had a live-discharge rate greater than 29 percent, and 10 percent of providers had live-discharge rates of 50 percent or more (Table 12-10). As discussed in our March 2016 report, hospices with very high live-discharge rates are disproportionately for profit, recent entrants to the Medicare program (entered in 2010 or after), and have an above-average prevalence of exceeding the hospice aggregate cap (Medicare Payment Advisory Commission 2016).

Our analysis focuses on the broadest measure of live discharges, including live discharges that are initiated by the hospice (because the beneficiary is no longer terminally ill or because the beneficiary is discharged for cause) and live discharges that are initiated by the beneficiary (because the beneficiary revokes his or her hospice enrollment, the beneficiary transfers hospice providers, or the beneficiary moves out of the area). Some stakeholders contend that live discharges initiated by the beneficiary—such as when the beneficiary revokes his or her hospice enrollment—should not be included in a live-discharge measure because, they assert, these live discharges reflect beneficiary preferences and are not in control of the hospice. However, we include revocations in our analysis because beneficiaries may revoke hospice for a variety of reasons, which in some cases may be related to the hospice provider's business practices or quality of care. A CMS contractor, Abt Associates, found that rates of live discharges, both beneficiary revocations and discharges because beneficiaries are no longer terminally ill, increase as hospice providers approach or surpass the aggregate cap (Plotzke et al. 2015). The Abt report suggests that investigation is needed to determine whether provider concern about aggregate cap liabilities has led to potentially inappropriate live discharges or hospice-encouraged revocations. The inclusion of revocations in our live discharge analysis should not be interpreted as suggesting that all live discharges of any type are inappropriate. Rather, our analysis suggests that hospice providers with unusually high rates of live discharge, regardless of the reported reason for discharge, merit further scrutiny.[20]

Providers' access to capital: Access to capital appears to be adequate

Hospices in general are not as capital intensive as other provider types because they do not require extensive physical infrastructure (although some hospices have built their own inpatient units, which require significant

TABLE 12–11

Hospice costs per day vary by type of provider, 2014

		Percentile		
	Average	25th	50th	75th
All hospices	$149	$114	$142	$178
Freestanding	143	112	135	166
Home health based	158	122	153	195
Hospital based	197	139	180	238
For profit	134	108	130	161
Nonprofit	173	137	168	205
Above cap	130	103	128	158
Below cap	151	116	144	180
Urban	150	115	143	178
Rural	139	111	140	179

Note: Data reflect aggregate costs per day for all types of hospice care combined (routine home care, continuous home care, general inpatient care, and inpatient respite care). Data are not adjusted for differences in case mix or wages across hospices. The rural and urban definitions used in this chart are based on updated definitions of the core-based statistical areas (which rely on data from the 2010 census). In prior reports, this chart has used rural and urban definitions based on the 2000 census.

Source: MedPAC analysis of Medicare hospice cost reports and Medicare Provider of Services data from CMS.

capital). Overall, access to capital for hospices appears adequate, given the continued entry of for-profit providers into the Medicare program.

In 2015, the number of for-profit providers grew by about 5 percent, indicating that capital is accessible to these providers. In addition, most publicly traded hospice companies reported favorable performance in their mid-2016 filings, with strong admissions and revenue growth. According to private equity analysts, hospice mergers and acquisitions slowed in 2015 and 2016, but investors remain interested in the sector. In particular, some analysts report that post-acute care providers and hospitals are interested in acquiring or developing joint ventures with hospice providers. In addition, CMS's changes to the hospice payment system for 2016 have been viewed as modest by financial analysts, which some see as a sign of the sector's stable regulatory environment.

Among nonprofit freestanding providers, less is known about access to capital, which may be limited. Hospital-based and home health–based nonprofit hospices have access to capital through their parent providers, which currently appear to have adequate access to capital in both sectors.

Medicare payments and providers' costs

As part of our assessment of payment adequacy, we examine the relationship between Medicare payments and providers' costs by considering whether current costs approximate what providers are expected to spend on the efficient delivery of high-quality care. Medicare margins illuminate the relationship between Medicare payments and providers' costs. Specifically, we examined margins through the 2014 cost reporting year, the latest period for which cost report and claims data are available. To understand the variation in margins across providers, we also examined the variation in costs per day across providers.

Hospice costs

Hospice costs per day vary substantially by type of provider (Table 12-11), which is one reason for differences in hospice margins across provider types. In 2014, hospice costs per day across all hospice providers were about $149 on average, an increase of about 1.3 percent from the previous year.[21] Freestanding hospices had lower costs per day than provider-based hospices (i.e., home health–based hospices and hospital-based hospices). For-profit, above-cap, and rural hospices also had lower average costs per day than their respective counterparts.

The differences in costs per day among freestanding, home health–based, and hospital-based hospices largely reflect differences in average length of stay and indirect costs. Our analysis of Medicare cost report data indicates that, across all hospice types, those with longer average stays have lower costs per day. Freestanding hospices have longer stays than provider-based hospices, which accounts for some, but not all, of the difference in costs per day.

Another substantial factor is the higher level of indirect costs among provider-based hospices. Indirect costs include, among others, management and administrative costs, accounting and billing, and capital costs. In 2014, indirect costs made up 32 percent of total costs for freestanding hospices, compared with 40 percent for home health–based hospices and 42 percent for hospital-based hospices. In general, hospices with a larger volume of patients have lower indirect costs as a share of total costs. However, while patient volume explains some of the

difference in indirect costs across providers, freestanding hospices have lower indirect costs than provider-based hospices, even among providers with similar patient volumes.

Several factors likely drive the higher indirect costs among provider-based hospices. The structure of the cost report for provider-based hospices likely results in some overallocation of overhead costs that are not actually related to the hospices' operations or management. It is also possible that provider-based hospices have higher indirect costs for certain overhead activities. For example, provider-based hospices might have higher indirect costs than freestanding providers if administrative staff wages are higher for parent providers (e.g., hospitals or home health agencies) or if provider-based hospices expend more administrative resources coordinating with their parent provider.

Regardless of the source of the higher indirect costs among provider-based hospices, the Commission believes payment policy should focus on the efficient delivery of services to Medicare's beneficiaries. If freestanding hospices are able to provide high-quality care at a lower cost than provider-based hospices, payment rates should be set accordingly, and the higher indirect costs of provider-based hospices should not be a reason for increasing Medicare payment rates.

Hospice margins

From 2008 to 2014, the aggregate hospice Medicare margin ranged from 5.3 percent at the lowest to 10.0 percent at the highest (Table 12-12, p. 336).[22] Between 2013 and 2014, the aggregate hospice Medicare margin declined slightly from 8.5 percent to 8.2 percent. In 2014, Medicare margins varied widely across individual hospice providers: –12.6 percent at the 25th percentile, 7.6 percent at the 50th percentile, and 21.8 percent at the 75th percentile of providers (data not shown in table). Our estimates of Medicare margins from 2008 to 2014 exclude overpayments to above-cap hospices and are calculated based on Medicare-allowable, reimbursable costs consistent with our approach in other Medicare sectors.[23,24]

We excluded nonreimbursable bereavement costs from our margin calculations. The statute requires that hospices offer bereavement services to family members of their deceased Medicare patients (Section 1861(dd)(2)(A)(i) of the Social Security Act). However, the statute prohibits Medicare payment for bereavement services (Section 1814(i)(1)(A) of the Social Security Act). Hospices report the costs associated with bereavement services on the Medicare cost report in a nonreimbursable cost center. If we included these bereavement costs from the cost report in our margin estimate, it would reduce the 2014 aggregate Medicare margin by at most 1.4 percentage points. This estimate is likely an overestimate of the bereavement costs associated with Medicare hospice patients because we are not able to separately identify the bereavement costs related to hospice patients from the costs of community bereavement services provided to the family and friends of decedents not enrolled in hospice. Also, hospices may fund bereavement services through donations. Hospice revenues from donations are not included in our margin calculations.

We also exclude nonreimbursable volunteer costs from our margin calculations. As discussed in our March 2012 report, the statute requires Medicare hospice providers to use some volunteers in the provision of hospice care. Costs associated with recruiting and training volunteers are generally included in our margin calculations because they are reported in reimbursable cost centers. The only volunteer costs that would be excluded from our margins are those associated with nonreimbursable cost centers. It is unknown what costs are included in the volunteer nonreimbursable cost center. If nonreimbursable volunteer costs were included in our margin calculation, it would reduce the aggregate Medicare margin by 0.3 percentage point.

In 2014, freestanding hospices had higher margins (11.5 percent) than home health–based and hospital-based hospices (3.8 percent and –20.3 percent, respectively) (Table 12-12, p. 336). Provider-based hospices have lower margins than freestanding providers partly because of their higher indirect costs. If home health–based and hospital-based hospices had indirect cost structures similar to those of freestanding hospices, we estimate that the aggregate Medicare margin would be about 9 percentage points higher for home health–based hospices and 14 percentage points higher for hospital-based hospices, and the industry-wide aggregate Medicare margin would be about 2 percentage points higher.[25,26] In addition to their higher indirect costs, hospital-based hospices also have higher patient care costs than freestanding hospices, which may be partly due to their shorter length of stay and their smaller number of patients served.

TABLE 12–12

Hospice Medicare margins by selected characteristics, 2008–2014

Category	Percent of hospices 2014	2008	2009	2010	2011	2012	2013	2014
All	100%	5.3%	7.4%	7.4%	8.7%	10.0%	8.5%	8.2%
Freestanding	74	8.3	10.2	10.7	11.8	13.3	12.0	11.5
Home health based	12	3.2	6.2	3.4	6.1	5.5	2.5	3.8
Hospital based	13	–12.4	–12.7	–17.1	–17.0	–17.1	–17.4	–20.3
For profit (all)	63	10.2	11.8	12.3	14.7	15.4	14.7	14.5
Freestanding	58	11.4	12.9	13.4	15.9	16.5	15.7	15.3
Nonprofit (all)	32	0.5	3.6	2.9	2.3	3.6	0.9	–0.7
Freestanding	15	3.7	6.6	7.6	6.4	7.7	5.2	3.4
Patient volume (quintile)								
Lowest	20	–8.9	–6.2	–4.8	–3.8	–2.3	–0.4	–4.7
Second	20	0.0	2.0	4.1	2.7	5.8	5.9	2.3
Third	20	4.0	4.2	6.8	7.6	9.7	9.3	9.6
Fourth	20	6.2	6.6	7.0	9.3	11.1	10.6	10.0
Highest	20	6.2	9.1	8.2	9.6	10.5	8.2	8.4
Urban	77	5.7	7.9	7.7	9.0	10.3	8.8	8.7
Rural	23	1.9	3.2	4.6	5.2	7.3	5.9	3.6
Below cap	87.8	5.7	7.9	7.6	8.9	10.3	8.6	8.4
Above cap (excluding cap overpayments)	12.2	1.2	1.5	3.2	4.1	5.2	7.0	6.0
Above cap (including cap overpayments)	12.2	19.1	18.4	17.3	18.4	21.3	20.1	18.8

Note: 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 rural and urban definitions used in this chart are based on updated definitions of the core-based statistical areas (which rely on data from the 2010 census). In prior reports, this chart has used rural and urban definitions based on the 2000 census.

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

Hospice margins also vary by other provider characteristics, such as type of ownership, patient volume, and urban or rural location (Table 12-12). The aggregate Medicare margin in 2014 was considerably higher for for-profit hospices (14.5 percent) than for nonprofit hospices (–0.7 percent). While the overall margin for nonprofits was negative in 2014, the margin for freestanding nonprofit hospices, which are not affected by overhead allocation issues, was positive (3.4 percent). Generally, hospices' margins vary by the provider's volume; hospices with more patients have higher margins on average. In 2014, hospices in urban areas have a higher overall aggregate Medicare margin (8.7 percent) than those in rural areas (3.6 percent). The difference between rural and urban margins may partly reflect differences in volume.

Hospice profitability is closely related to length of stay. Hospices with longer lengths of stay have higher margins. For example, in an analysis of hospice providers based on the share of their patients' stays exceeding 180 days, the average margin ranged from –8.9 percent for hospices in the lowest quintile to 18.1 percent for hospices in the second highest quintile (Table 12-13). Hospices in the quintile with the greatest share of their patients exceeding 180 days had a 14.2 percent average margin after the return of cap overpayments, but without the hospice aggregate cap, these providers' margins would have averaged 19.5 percent (latter figure not shown in table).

Hospices with a large share of patients in nursing facilities and assisted living facilities also have higher margins than other hospices (Table 12-13). For example,

in 2014, hospices in the top quartile of share of patients residing in nursing facilities had a margin of about 15 percent compared with a margin of roughly 7 percent to 9 percent in the middle quartiles and a margin near zero in the bottom quartile. Margins also vary by the share of a provider's patients in assisted living facilities, with a margin ranging from –1.8 percent in the lowest quartile to almost 14 percent in the highest quartile. Some of the difference in margins among hospices with different concentrations of nursing-facility and assisted living–facility patients is driven by differences in the diagnosis profile and length of stay of patients in these hospices.

However, hospices may find caring for patients in facilities more profitable than caring for patients at home for reasons in addition to length of stay. As discussed in our June 2013 report, there may be efficiencies in treating hospice patients in a centralized location in terms of mileage costs and staff travel time, as well as facilities serving as referral sources for new patients. Nursing facilities may also be a more efficient setting for hospices to provide care because of the overlap in responsibilities between the hospice and the nursing facility. Analyses in our June 2013 report suggest that a 3 percent to 5 percent reduction in the hospice routine home care payment rate for patients in nursing facilities may be warranted because of the overlap in responsibilities between the hospice and the nursing facility (Medicare Payment Advisory Commission 2013).

CMS's payment reforms in 2016 are expected to modestly reduce the variation in profitability across hospices. In its final rule on the new hospice payment structure, CMS simulated the revenue effect on different categories of hospice providers for fiscal year 2016 (Centers for Medicare & Medicaid Services 2015). The new payment system was in effect beginning January 2016—that is, for three out of four quarters of fiscal year 2016. The effect of the payment system on revenues over a full year of implementation is expected to be about 33 percent greater than CMS's estimates for fiscal year 2016. CMS projected that under the new payment structure, hospice revenues for fiscal year 2016 would increase 1.1 percent for nonprofit hospices, 1.5 percent for provider-based hospices, and 0.3 percent for rural hospices in aggregate. Fiscal year 2016 payments were projected to decline by –0.8 percent for for-profit hospices, –0.2 percent for freestanding hospices, and change little for urban hospices, due to the payment system changes.[27] CMS also projected the effect of the new payment system on hospices with different shares of their patients in nursing facilities, with the effect ranging from a revenue increase of 0.4 percent for the quartile of hospices with the lowest share of patients in nursing facilities to a decrease of 0.4 percent for the quartile of hospices with the highest share of patients in nursing facilities. The projected revenue changes for the various provider categories are largely the result of differences in length of stay across these groups. As the Commission noted in its comment letter on the 2016 hospice proposed rule, the initial changes to the hospice payment system are projected to be modest and leave room for additional changes in future years based on further data and

TABLE 12–13

Hospice Medicare margins by length of stay and patient residence, 2014

Hospice characteristic	Medicare margin
Average length of stay	
Lowest quintile	–9.7%
Second quintile	1.8
Third quintile	11.5
Fourth quintile	17.7
Highest quintile	14.6
Percent of stays > 180 days	
Lowest quintile	–8.9
Second quintile	1.2
Third quintile	12.1
Fourth quintile	18.1
Highest quintile	14.2
Percent of patients in nursing facilities	
Lowest quartile	0.2
Second quartile	6.8
Third quartile	8.7
Highest quartile	15.1
Percent of patients in assisted living facilities	
Lowest quartile	–1.8
Second quartile	4.4
Third quartile	9.0
Highest quartile	13.8

Note: Margins for all provider categories exclude overpayments to above-cap hospices. Margins are calculated based on Medicare-allowable, reimbursable costs.

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

experience (Medicare Payment Advisory Commission 2015a). Beginning next year, as claims and cost report data on experience with the new payment system become available, the Commission intends to examine the effects of the new payment system and consider whether additional changes are needed.

Another consideration in evaluating the adequacy of payments is whether providers have a financial incentive to expand the number of Medicare beneficiaries they serve. In considering whether to treat a patient, the provider compares the marginal revenue it will receive (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If Medicare payments are larger than the marginal costs of treating an additional beneficiary, a provider has a financial incentive to increase its volume of Medicare patients. On the other hand, if marginal payments do not cover the marginal costs, the provider may have a disincentive to treat Medicare beneficiaries. To operationalize this concept, we compare payments for Medicare services with marginal costs, which is approximated as:

Marginal profit = (payments for Medicare services – (total Medicare costs – fixed building and equipment costs)) / Medicare payments

This formula gives a lower bound on the marginal profit because we ignore any potential labor costs that are fixed. For hospice providers, we find that Medicare payments exceed marginal costs by roughly 11 percent, suggesting that providers have an incentive to treat Medicare patients. This profit margin is a positive indicator of patient access.

Projecting margins for 2017

To project the aggregate Medicare margin for 2017, we model the policy changes that went into effect between 2014 (the year of our most recent margin estimates) and 2017. The policies include:

- a market basket update of 2.9 percent for fiscal year 2015, 2.4 percent for fiscal year 2016, and 2.7 percent for fiscal year 2017;
- a reduction to the market basket update of 0.8 percentage point in 2015, 0.8 percentage point in 2016, and 0.6 percentage point in 2017 (reflecting a productivity adjustment and an additional adjustment of –0.3 percentage point each year);
- year 6 and year 7 of the seven-year phase-out of the wage index budget-neutrality adjustment factor, which reduced payments to hospices by 0.6 percentage point in fiscal years 2015 and 2016; and
- additional wage index changes, which reduced payments by 0.1 percentage point in 2015 and 2016.

We also assume a rate of cost growth in 2015 through 2017 that is higher than the historical rate in light of potentially higher administrative costs related to implementing several new administrative requirements (i.e., new quality reporting initiatives, a revised cost report, and additional diagnosis reporting requirements).

Taking these factors into account, we project an aggregate Medicare margin for hospices of 7.7 percent in 2017. This margin projection excludes nonreimbursable costs associated with bereavement services and volunteers (which, if included, would reduce margins by at most 1.4 percentage points and 0.3 percentage point, respectively). The margin projection also does not include any adjustment to remove the effect of the higher indirect costs observed among hospital-based and home health–based hospices (which, if such an adjustment were made, would increase the overall aggregate Medicare margin by up to 2 percentage points).

How should Medicare payments change in 2018?

RECOMMENDATION 12

The Congress should eliminate the update to the hospice payment rates for fiscal year 2018.

RATIONALE 12

Our payment indicators for hospice are generally positive. The number of hospices increased about 2.6 percent in 2015 because of the entry of for-profit providers. The number of beneficiaries enrolled in hospice increased by more than 4 percent. Average length of stay declined slightly because of a decrease among patients with the longest stays. Access to capital appears adequate. Limited quality data are now available. The projected 2017 aggregate Medicare margin is 7.7 percent. Based on our

assessment of the payment adequacy indicators, hospices should be able to accommodate cost changes in 2018 without an update to the 2017 base payment rate.

IMPLICATIONS 12

Spending

- Under current law, hospices would receive an update in fiscal year 2018 equal to 1 percent because of a provision of the Medicare Access and CHIP Reauthorization Act of 2015. Our recommendation to eliminate the payment update in fiscal year 2018 would decrease federal program spending relative to the statutory update by between $50 million and $250 million over one year and less than $1 billion over five years.

Beneficiary and provider

- We do not expect this recommendation to have adverse effects on beneficiaries' access to care. This recommendation is not expected to affect providers' willingness and ability to care for Medicare beneficiaries. ■

Endnotes

1 If a beneficiary does not have an attending physician, the beneficiary can initially elect hospice based on the certification of the hospice physician alone.

2 When first established under TEFRA, the Medicare hospice benefit limited coverage to 210 days of hospice care. The Medicare Catastrophic Coverage Repeal Act of 1989 and the Balanced Budget Act of 1997 eased this limit.

3 In 2000, 30 percent of hospice providers were for profit, 59 percent were nonprofit, and 11 percent were government. As of 2015, about 65 percent of hospices were for profit, 31 percent were nonprofit, and 4 percent were government.

4 The 2017 cap year spans from October 1, 2016, to September 30, 2017. (Before cap year 2017, the cap year spanned from November to October). Payments for the cap year reflect the sum of payments to a provider for services furnished in the cap year. The calculation of the beneficiary count for the cap year is more complex, involving two alternative methodologies. For a detailed description of the two methodologies and when they are applicable, see our March 2012 report (Medicare Payment Advisory Commission 2012).

5 This 2017 cap threshold is equivalent to an average length of stay of 173 days of routine home care for a hospice with a wage index of 1.0.

6 The Improving Medicare Post-Acute Care Transformation Act of 2014 (IMPACT) changed the annual update factor applied to the hospice aggregate cap for cap years 2017 through 2025. Previously, the aggregate cap was updated annually based on the percentage increase in the medical care expenditure category of the consumer price index for all urban consumers. As a result of IMPACT, the aggregate cap will be updated annually by the same factor as the hospice payment rates (market basket net of productivity and other adjustments).

7 Our hospice analyses in this report that break out data for rural and urban beneficiaries or rural and urban providers may differ from data in prior reports because we are using updated rural and urban definitions based on more recent population data for all years of analysis presented in this chapter.

8 The type of hospice reflects the type of cost report filed (a hospice files a freestanding hospice cost report or is included in the cost report of a hospital, home health agency, or skilled nursing facility). The type of cost report does not necessarily reflect the location where patients receive care. For example, all hospice types may serve some nursing facility patients.

9 The number of rural hospices is not necessarily reflective of hospice access for rural beneficiaries for several reasons. A count of the number of rural hospices does not capture the size of those hospice providers, their capacity to serve patients, or the size of their service area. Furthermore, a count of hospices located in rural areas does not take into account hospices with offices in urban areas that also provide services in rural areas.

10 This pattern contrasts with the one we observed in the prior two-year period between 2013 and 2014, when the number of hospice beneficiaries who were discharged deceased grew 1.6 percent and the number of hospice patients discharged alive or still a patient (as of the end of the year) declined 1.7 percent.

11 The terms *curative care* and *conventional care* are often used interchangeably to describe treatments intended to be disease modifying.

12 Above-cap hospices are more likely to be for-profit, freestanding providers and to have smaller patient counts than below-cap hospices.

13 The estimates of hospices over the cap are based on the Commission's analysis. While the estimates are intended to approximate those of the CMS claims processing contractors, differences in available data and methodology have the potential to lead to different estimates. An additional difference between our estimates and those of the CMS contractors relates to the alternative cap methodology that CMS established in the hospice final rule for 2012 (Centers for Medicare & Medicaid Services 2011). Based on that regulation, for cap years before 2012, hospices that challenged the cap methodology in court or made an administrative appeal had their cap payments calculated from the challenged year going forward using a new, alternative methodology. For cap years from 2012 onward, all hospices will have their cap liability calculated using the alternative methodology unless they elect to remain with the original method. For estimation purposes, we assume that the CMS contractors used the alternative methodology for cap year 2012 onward. Estimates for cap years 2011 and earlier assumed that the original cap methodology was used.

14 This policy—which requires a hospice to estimate its cap liability within three to five months of the cap year's close and remit the calculated overpayments to CMS at that time or face suspension of their payments—should create greater awareness of cap overpayment liabilities among providers and make it more likely that Medicare will collect at least a portion of the overpayments from all above-cap hospices. Because of how the aggregate cap calculation is structured,

the amount a hospice owes when the calculation is performed three to five months after the cap year's close will be less than the full amount the hospice owes when the Medicare contractor reconciles the calculation at a later date with more complete claims data. Thus, this policy should ensure that hospices pay a portion of their cap overpayments up front and be liable for the remainder of the overpayments at a later date.

15 To do this analysis, we identified hospice spending that occurred during or before the last year of life using hospice claims data and information on dates of death from the Medicare denominator file. For example, we determined for each person and each day of hospice care in 2014 whether that day was within or before that person's last 365 days of life using date of death information in the 2014 and 2015 denominator files.

16 The initial two quality measures were (1) the share of patients who reported being uncomfortable because of pain at admission whose pain was brought to a comfortable level within 48 hours and (2) whether the hospice tracked at least 3 quality measures focused on patient care (and what those measures were).

17 CMS discontinued collection of the pain outcome measure it adopted in the first year of the reporting program because a high rate of patient exclusion made the measure unstable and because the measure was inconsistently administered across providers.

18 About 7 percent of hospices did not report the required quality data and faced a 2 percentage point reduction in their update for fiscal year 2016. Nonreporters were generally small providers, and it is possible that some of them are no longer operating.

19 About 11 percent of hospices did not report CAHPS and/or Hospice Item Set data in 2015 and faced a 2 percentage point reduction in their update for fiscal year 2017.

20 We have identified hospices with unusually high live-discharge rates for which most (and in some cases nearly all) of the live discharges are revocations. Hospices with this pattern of live discharges would be missed if revocations were excluded from the live-discharge analysis.

21 The cost per day calculation reflects aggregate costs for all types of hospice care (routine home, continuous home, general inpatient, and inpatient respite care). Days reflect the total number of days the hospice is responsible for care for its patients, regardless of whether the patient received a visit on a particular day. The cost per day estimates are not adjusted for differences in case mix or wages across hospices and are based on data for all patients, regardless of payer.

22 The aggregate Medicare margin is calculated as follows: ((sum of total payments to all providers) – (sum of total costs of all providers) / (sum of total payments to all providers)). Estimates of total Medicare costs come from providers' cost reports. Estimates of Medicare payments and cap overpayments are based on Medicare claims data. We present margins for 2014 for several reasons. Cost reporting year 2014 is the most recent period for which we have a complete set of claims data. For some hospices, cost reporting year 2014 includes part of calendar year 2015. Our margin estimates also exclude cap overpayments to providers. To calculate this exclusion accurately, we need the next year's claims data (i.e., the 2014 cap overpayment calculation requires 2015 claims data).

23 Hospices that exceed the Medicare aggregate cap are required to repay the excess to Medicare. We do not consider the overpayments to be part of hospice revenues in our margin calculation.

24 Our margin estimates also do not take into account revenues or costs from fund-raising and donations.

25 These estimates are adjusted to account for differences in patient volume across freestanding and provider-based hospices.

26 If we were to adjust our margin estimates to include nonreimbursable bereavement and volunteer costs and to exclude the higher indirect costs associated with provider-based hospices, the effect of these two actions would roughly offset each other and the aggregate margin would be similar to the margin we report without these adjustments.

27 These revenue changes are for provider groups in the aggregate; the effect on revenues for individual hospices would vary depending on the length-of-stay distribution for an individual provider's patients.

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