

CHAPTER

11

Hospice services

R E C O M M E N D A T I O N

11 The Congress should eliminate the update to the hospice payment rates for fiscal year 2017.

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

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 condition. In 2014, more than 1.3 million Medicare beneficiaries (including about 48 percent of decedents) received hospice services from over 4,000 providers, and Medicare hospice expenditures totaled about \$15.1 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 2014, hospice use increased across almost all demographic and beneficiary groups examined. However, rates of hospice use remained lower for racial and ethnic minorities than for Whites.

- **Capacity and supply of providers**—The number of hospice providers increased by over 4 percent in 2014, due almost entirely to growth in the

In this chapter

- Are Medicare payments adequate in 2016?
- How should Medicare payments change in 2017?

number of for-profit hospices, continuing a more than decade-long trend of substantial market entry by for-profit providers.

- ***Volume of services***—In 2014, the proportion of beneficiaries using hospice services at the end of life continued to grow, while hospice length of stay among decedents changed little. Of the total Medicare beneficiary decedents in 2014, 47.8 percent used hospice, up from 47.3 percent in 2013. Average length of stay among decedents remained at about 88 days in 2014, about the same level as the prior two years. The median length of stay for hospice decedents was 17 days in 2014 and has remained stable at approximately 17 or 18 days for more than a decade.

Quality of care—At this time, we do not have data to assess the quality of hospice care provided to Medicare beneficiaries. The Patient Protection and Affordable Care Act of 2010 mandated that a hospice quality reporting program begin by fiscal year 2014. Beginning in 2013, hospices were required to report data for specified quality measures or face a 2 percentage point reduction in their annual update for the subsequent fiscal year. Beginning July 2014, CMS replaced the initial two quality measures with seven new quality measures. In 2015, CMS implemented a hospice experience-of-care survey for bereaved family members. Public reporting of hospice quality information is unlikely before 2017, according to CMS.

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 7 percent increase in 2014) suggests capital is readily available to them. 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 2013 Medicare margin, which is an indicator of the adequacy of Medicare payments relative to providers' costs, was 8.6 percent, down from 10.0 percent in 2012. In addition, the rate of marginal profit—that is, the rate at which Medicare's payment exceeds providers' marginal cost—was about 12 percent in 2013. The projected aggregate Medicare margin for 2016 is 7.7 percent, which includes the effect of the federal budget sequester.

Because the payment adequacy indicators for which we have data are positive, the Commission believes that hospices can continue to provide beneficiaries with appropriate access to care with no update to the base payment rate in fiscal year 2017. ■

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 condition. 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 2014, more than 1.3 million Medicare beneficiaries received hospice services, and Medicare expenditures totaled about \$15.1 billion.

Beneficiaries receive the Medicare hospice benefit only if they elect to do so; in so doing, 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. 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 any. 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 re-elect hospice for a subsequent period as long as the beneficiary meets the eligibility criteria.

Between 2000 and 2012, Medicare spending for hospice care increased dramatically—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 has been flat at about \$15.1 billion each year. Spending has changed little despite growth in the number of beneficiaries receiving hospice care and positive increases in the base payment rates each year. The flat spending partly reflects the effect of the across-the-board budget cut known as the sequester, which reduced Medicare payments to providers by 2 percent beginning April 2013. Other factors influencing spending in this period include little change in decedents' average length of stay; a small decrease in hospice length of stay for patients not discharged deceased; and a slight shift in the mix of hospice patients served, with hospice decedents making up an increasing share of providers' caseloads.⁴ Medicare is the largest payer of hospice services, covering more than 90 percent of hospice patient days in 2013.

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 prognosis. 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, short-term hospice inpatient care, and other, less frequently used services.

Payments are made according to a fee schedule that has four different levels of care: routine home care (RHC), general inpatient care (GIP), continuous home care (CHC), and inpatient respite care (IRC) (Table 11-1).

**TABLE
11-1**

Medicare hospice payment categories and rates

Category	Description	Base payment rate, FY 2016 ^a	Percent of hospice days, 2014
Routine home care ^b	Home care provided on a typical day: Days 1–60	\$187 per day	97.7%
	Home care provided on a typical day: Days 61+	\$147 per day	
General inpatient care	Inpatient care to treat symptoms that cannot be managed in another setting	\$720 per day	1.7
Continuous home care	Home care provided during periods of patient crisis	\$39 per hour	0.3
Inpatient respite care	Inpatient care for a short period to provide respite for primary caregiver	\$167 per day	0.3

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 (\$39.37 per hour, with a maximum payment per day equal to about \$945) 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. These rates are 2 percentage points lower for hospices that do not submit the required quality data.

^a All rates in this table became effective October 1, 2015, except for the routine home care rates. Separate routine home care base rates for days 1–60 and days 61+ became effective January 1, 2016. From October 1, 2015, through December 31, 2015, a single base rate of \$162 was in effect.

^b For patients receiving routine home care during the last seven days of life, Medicare makes additional payments for registered nurse and social worker visits (\$39 per hour, with up to four hours payable per day during this period).

Source: Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2015. "Update to hospice payment rates, hospice cap, hospice wage index, and the hospice pricer for FY 2016." Manual System Pub 100–04 Medicare Claims Processing, Transmittal 3345, August 4.

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 GIP, CHC, or IRC 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.

CMS has implemented reforms to the hospice payment system in 2016, which represent the first changes to the payment structure since the inception of the benefit in 1983. Historically, RHC has been paid at a single, uniform daily rate. Beginning January 2016, Medicare pays two per diem rates for RHC—a higher rate for the first 60 days of a hospice episode (\$187) and a lower rate for days 61 and beyond (\$147) (Table 11-1). In addition, Medicare pays an additional \$39 per hour for registered nurse and social worker visits that occur during the last seven days of

life (up to four hours will be payable per day) for patients receiving the RHC level of care.

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 2015, 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 has 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 through 2016 and will possibly be required in fiscal years 2017 through 2019 if certain targets for health insurance coverage among the working-age population are met. 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.

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/documents/payment-basics/hospice-services-payment-system-15.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).

To make cost savings more likely, the Congress included in the hospice benefit two limitations, or “caps,” on payments to hospices. 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 to ensure 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 \$27,383 in 2015), it must repay the excess to the program.^{5,6,7} 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 and oscillating in recent years). With rapid growth in Medicare hospice spending 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 2016?

To address whether payments in 2016 are adequate to cover the costs of the efficient delivery of care and how much providers’ payments should change in the coming year (2017), 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. Unlike our assessments of most other providers, our assessment of hospice providers could not use quality of care as a payment adequacy indicator because information on hospice quality is generally not available.

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

In 2014, 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, 47.8 percent used hospice, up from 47.3 percent in 2013 and 22.9 percent in 2000 (Table 11-2). Hospice use varied in 2014 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 use increased across almost all of these groups.

Hospice use is somewhat higher among decedents in MA than in FFS. In 2014, about 47 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 hospice provider paid by Medicare FFS. 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 2014, a smaller proportion of Medicare decedents who were dually eligible for Medicare and Medicaid used hospice compared with the rest of Medicare decedents (about 42 percent and 49 percent, respectively). Hospice use is least prevalent among beneficiaries under age 65 and most prevalent among beneficiaries age 85 and older (about 29 percent vs. 56 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 11-2). As of 2014, Medicare hospice use was highest

among White decedents, followed by Hispanic, African American, North American Native, and Asian American decedents, in that order. Hospice use grew across all these groups between 2013 and 2014, with Asian Americans showing the largest increase (1.7 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 11-2). In 2014, the share of decedents residing in urban counties who used hospice was about 49 percent; in micropolitan counties, 45 percent; in rural counties adjacent to urban counties, 43 percent; in rural nonadjacent counties, 39 percent; and in frontier counties, 32 percent. Use rates for beneficiaries residing in all these areas increased in 2014, with the exception of frontier areas, where the rate was unchanged between 2013 and 2014.

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 2014, 71 percent of Medicare decedents who used hospice had a noncancer diagnosis, compared with 68 percent in 2012 and 48 percent in 2000. As of 2014, the most common noncancer primary diagnoses reported among hospice decedents were heart and circulatory disorders (26 percent) and neurological conditions (24 percent). Effective October 1, 2014, CMS is no longer allowing 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 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 2014, 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 26 percent and for neurological conditions rose from 18 percent to 24 percent.

**TABLE
11-2**

Use of hospice continues to increase

Percent of Medicare decedents who used hospice

	2000	2011	2012	2013	2014	Average annual percentage point change 2000–2013	Percentage point change 2013–2014
All beneficiaries	22.9%	45.2%	46.7%	47.3%	47.8%	1.9	0.5
FFS beneficiaries	21.5	44.2	45.7	46.2	46.7	1.9	0.5
MA beneficiaries	30.9	48.9	50.4	50.6	50.8	1.5	0.2
Dual eligibles	17.5	40.3	41.6	42.1	42.4	1.9	0.3
Nondual eligibles	24.5	46.8	48.4	48.9	49.4	1.9	0.5
Age							
<65	17.0	27.8	29.2	29.2	29.4	0.9	0.2
65–74	25.4	39.3	40.6	40.7	40.7	1.2	0.0
75–84	24.2	46.3	47.8	48.2	48.9	1.8	0.7
85+	21.4	52.0	54.0	55.0	56.0	2.6	1.0
Race/ethnicity							
White	23.8	47.0	48.6	49.2	49.7	2.0	0.5
African American	17.0	35.4	36.8	37.3	37.5	1.6	0.2
Hispanic	21.1	38.3	39.4	40.2	41.3	1.5	1.1
Asian American	15.2	30.0	31.8	32.0	33.7	1.3	1.7
North American Native	13.0	32.4	34.0	34.1	34.7	1.6	0.6
Sex							
Male	22.4	41.3	42.8	43.3	43.7	1.6	0.4
Female	23.3	48.6	50.2	50.9	51.4	2.1	0.5
Beneficiary location							
Urban	24.3	46.6	48.0	48.5	48.9	1.9	0.4
Micropolitan	18.5	41.4	43.4	44.3	44.7	2.0	0.4
Rural, adjacent to urban	17.6	40.2	42.2	42.9	43.2	1.9	0.3
Rural, nonadjacent to urban	15.8	35.9	37.7	38.0	38.7	1.7	0.7
Frontier	13.2	30.7	31.9	32.3	32.3	1.5	0.0

Note: FFS (fee-for-service), MA (Medicare Advantage). Beneficiary location reflects the beneficiary's county of residence. Counties are grouped into four categories (urban, micropolitan, rural adjacent to urban, and rural nonadjacent to urban) based on an aggregation of the urban influence codes. 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.

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 cause of death information is not included in the Medicare claims data. However, a study by Teno and colleagues (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 age 65 or 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.

**TABLE
11-3**

Increase in total number of hospices driven by growth in for-profit providers

Category	2000	2007	2012	2013	2014	Average annual percent change		Percent change 2013-2014
						2000-2007	2007-2013	
All hospices	2,255	3,250	3,727	3,925	4,092	5.4%	3.2%	4.3%
For profit	672	1,676	2,199	2,418	2,590	13.9	6.3	7.1
Nonprofit	1,324	1,337	1,320	1,309	1,302	0.1	-0.4	-0.5
Government	257	237	208	198	200	-1.2	-3.0	1.0
Freestanding	1,069	2,103	2,643	2,844	3,027	10.1	5.2	6.4
Hospital based	785	683	568	553	535	-2.0	-3.5	-3.3
Home health based	378	443	492	503	506	2.3	2.1	0.6
SNF based	22	21	23	25	24	-0.7	2.9	-4.0
Urban	1,424	2,190	2,670	2,885	3,016	6.3	4.7	4.5
Rural	788	1,012	983	992	991	3.6	-0.3	-0.1

Note: SNF (skilled nursing facility). Numbers may not sum to total because of missing data for a small number of providers.

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

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

In 2014, 4,092 hospices provided care to Medicare beneficiaries, a 4.3 percent increase from the prior year, continuing more than 10 years of growth in the number of hospices providing care to Medicare beneficiaries (Table 11-3). For-profit hospices account almost entirely for the growth in the number of hospices. Between 2013 and 2014, the number of for-profit hospices increased by about 7 percent, while the number of nonprofit hospices declined slightly and the number of government hospices increased slightly. As of 2014, about 63 percent of hospices were for profit, 32 percent were nonprofit, and 5 percent were government.

Between 2013 and 2014, freestanding hospices accounted for most of the growth in the number of providers (Table 11-3). During this period, the number of freestanding providers increased by more than 6 percent, the number of hospital-based hospices declined about 3 percent, and the number of home health-based hospices increased slightly (less than 1 percent).⁸ The number of skilled nursing facility (SNF)-based hospices was small and decreased from 25 to 24. As of 2014, about 74 percent of hospices were freestanding, 13 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 2014 both in urban and rural areas. The number of rural hospices declined modestly since its peak in 2007, but increased in 2013 and changed little in 2014 (Table 11-3). As of 2014, roughly proportionate with the share of Medicare beneficiaries residing in each area, 75 percent of hospices were located in urban areas and 25 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 2014, rapid growth in the number of hospices was concentrated in two states, while other states generally experienced modest changes in the number of providers. Two states—California and Texas—accounted for roughly three-quarters of the increase in hospice providers. California gained 90 hospice providers and Texas gained 38 hospice providers, an increase from the prior year of 22 percent and 9 percent, respectively. That year, Arizona, Georgia, Illinois, Missouri, and Ohio experienced the next largest growth in the raw number of providers (an increase

**TABLE
11-4**

Hospice expenditures and average length of stay were virtually unchanged in 2014

Category	2000	2012	2013	2014	Average annual change, 2000–2012	Percent change, 2012–2013	Percent change, 2013–2014
Number of hospice users (in millions)	0.534	1.274	1.315	1.324	7.5%	3.2%	0.7%
Total spending (in billions)	\$2.9	\$15.1	\$15.1	\$15.1	14.7%	–0.1%	–0.2%
Average length of stay among decedents (in days)	53.5	88.0	87.8	88.2	4.2%	–0.2%	0.5%
Median length of stay among decedents (in days)	17	18	17	17	+1 day	–1 day	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 percentage change is calculated using unrounded data.

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

of six or seven providers per state), while Pennsylvania saw the largest decline (a decrease of four providers).

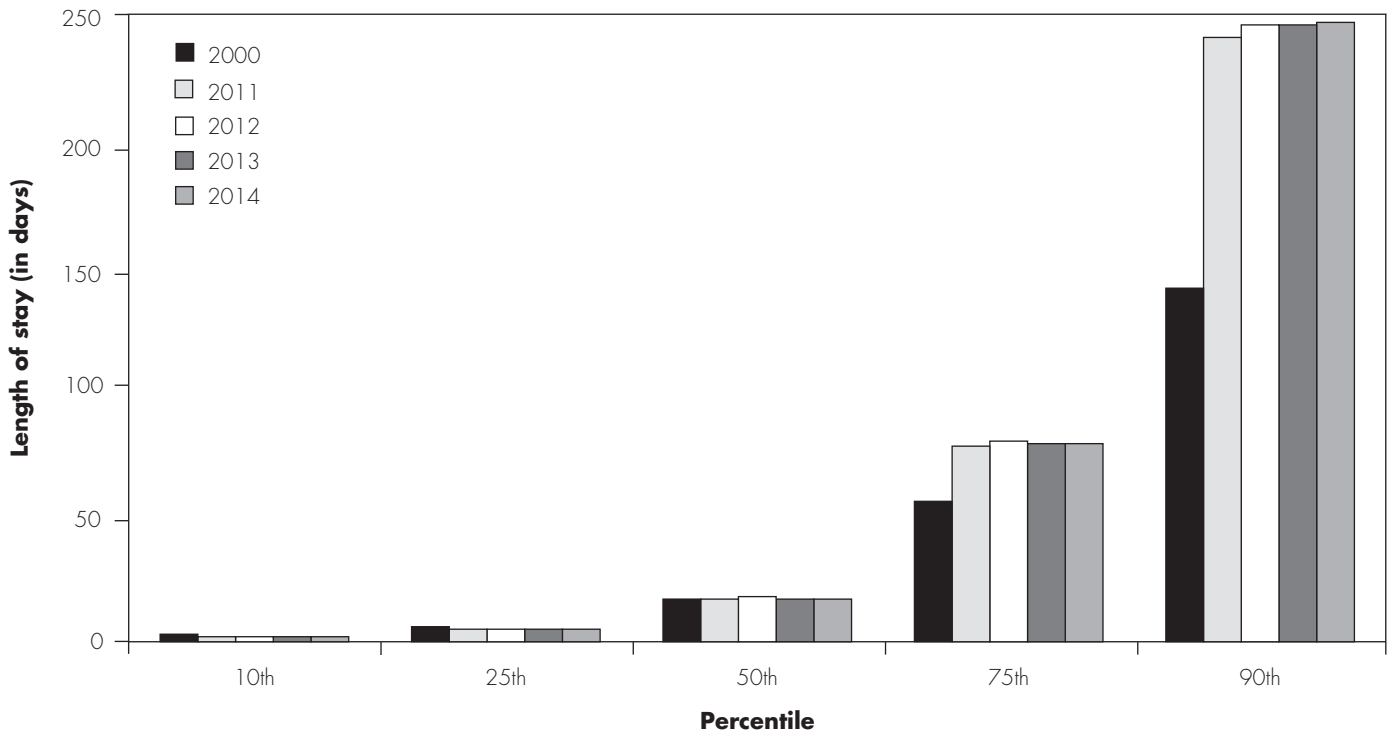
The number of hospice providers is not necessarily an indicator of beneficiary access to hospice because a hospice’s service area may extend beyond the boundaries of the county where it is located. The supply of providers—as measured by the number of hospices per 10,000 Medicare decedents—varies substantially 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 was virtually unchanged in 2014

In 2014, the number of Medicare beneficiaries receiving hospice services continued to increase. More than 1.324 million beneficiaries used hospice services, up slightly (0.7 percent) from about 1.315 million in 2013 (Table 11-4). Underlying this aggregate growth rate are different trends among decedents and nondecedent hospice beneficiaries. Between 2013 and 2014, the number of beneficiaries receiving hospice who were discharged deceased grew by 1.6 percent, while the number of beneficiaries who received hospice but were discharged alive or remained a patient (as of the end of the year) declined 1.7 percent (data not shown).

In 2014, hospice average length of stay among decedents was 88.2 days, about the same as in the prior two years (Table 11-4). The flat average length of stay between 2012 and 2014 followed a long period of growth in average length of stay. Between 2000 and 2012, average length of stay grew from about 54 days to 88 days. The increase in average length of stay observed since 2000 in large part reflects an increase in very long hospice stays, while short stays remained virtually unchanged (Figure 11-1, p. 308). Overall, between 2000 and 2014, hospice length of stay at the 90th percentile grew substantially, increasing from 141 days to 247 days. Growth in very long stays has slowed in recent years. Between 2008 and 2011, the 90th percentile of length of stay grew six days; between 2011 and 2012, it grew five additional days; and between 2012 and 2014 it grew one day. Median length, which has held steady at 17 or 18 days since 2000, was 17 days in 2014, compared with 5 days for the 25th percentile of length of stay—unchanged from the prior year.

With growing use of hospice, the 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 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

**FIGURE
11-1****Growth in length of stay among hospice patients with the longest stays has slowed**

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.

days) (Teno et al. 2013). At the same time, the study found other indicators of intensity of care in the last months of life have increased. For example, the percentage of beneficiaries receiving care in an intensive care unit during the last month of life increased (from 24.3 percent in 2000 to 29.2 percent in 2009) and the percentage 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 11-5). As discussed in our March 2009 report, a Commission-convened panel of hospice industry representatives indicated that very short stays in hospice stem largely from factors unrelated to the Medicare hospice payment system: Some physicians are reluctant to have conversations about 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 intensive 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 is launching a

**TABLE
11-5**

Hospice length of stay among decedents by beneficiary and hospice characteristics, 2014

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	130
Neurological conditions	148	3	8	33	170	447
Heart/circulatory	89	2	5	14	79	262
Debility or adult failure to thrive	102	3	6	20	99	307
COPD	121	2	5	25	129	363
Other	48	2	3	7	28	124
Main location of care						
Home	90	4	9	26	86	238
Nursing facility	110	3	6	21	103	329
Assisted living facility	154	5	12	51	187	441
Hospice						
Hospice ownership						
For profit	107	3	6	22	99	314
Nonprofit	67	2	5	13	55	179
Type of hospice						
Freestanding	91	2	5	17	78	257
Home health based	71	2	5	16	63	192
Hospital based	58	2	4	13	49	152

Note: COPD (chronic obstructive pulmonary disease). Length of stay is calculated for Medicare beneficiaries who died in 2014 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 defined as the location where the beneficiary spent the largest share of his/her days while enrolled in hospice. "Diagnosis" reflects primary diagnosis on the beneficiary's last hospice claim.

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

demonstration program (called the Medicare Care Choices Model) that will permit 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.¹⁰ Beginning in 2016, Medicare covers advance care planning conversations for beneficiaries who choose to receive these services. Medicare pays for advance care planning conversations between a beneficiary and his or her physician, advanced practice registered nurse, or physician assistant under the physician fee schedule. 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. (See text box on pages 318–319 for more details on efforts to foster improvements in the quality of end-of-life care.)

**TABLE
11-6****More than half of Medicare hospice spending in 2014 was for patients with stays exceeding 180 days**

	Medicare hospice spending, 2014 (in billions)
All hospice users in 2014	\$15.1
Beneficiaries with LOS > 180 days	8.8
Days 1–180	2.8
Days 181–365	2.8
Days 366+	3.2
Beneficiaries with LOS ≤ 180 days	6.1

Note: LOS (length of stay). "LOS" indicates the beneficiary's lifetime LOS as of the end of 2014 (or at the time of discharge in 2014 if the beneficiary was not enrolled in hospice at the end of 2014). All spending presented in the chart occurred only in 2014. Break-out groups do not sum to total because they exclude about \$0.1 billion in payments to hospices for physician visits.

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

The Commission has also expressed concern about very long hospice stays. In 2014, Medicare spent nearly \$9 billion, more than half of all hospice spending that year, on patients with stays exceeding 180 days (Table 11-6). With the flat per diem payment system, long stays have been more profitable than short stays. This misalignment of the payment system 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 11-5, p. 309). For example, Medicare decedents in 2014 with neurological conditions and chronic obstructive pulmonary disease (COPD) had substantially higher average lengths of stay (148 days and 121 days, respectively) than those with cancer (53 days) and heart or circulatory conditions (89 days). In addition, length of stay varies by the setting where care is provided. In 2014, average length of stay was higher among Medicare decedents whose main care setting was an assisted living facility (ALF) (154 days) or a nursing facility (110 days) rather than home (90 days) (Table

11-5, p. 309). 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.

The differences in length of stay by patient characteristics are reflected in differences in length of stay by provider ownership type (Table 11-5, p. 309). In 2014, average length of stay was substantially higher among for-profit hospices than among nonprofit hospices (107 days compared with 67 days). The higher length 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 176 days among for-profit hospices and 117 days among nonprofits.

One pattern of unusual hospice utilization can be found among the 10.7 percent of hospices that exceed the aggregate payment cap. As shown in prior reports, above-cap hospices have substantially higher lengths of stay and rates of discharging patients alive than other hospices.¹¹ 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 2012 and 2013, the share of hospices exceeding the cap declined slightly from 11.0 percent to 10.7 percent (Table 11-7).¹² Among hospices that exceeded the cap, the average amount over the cap was lower in 2013 than in 2012 (\$460,000 compared with \$510,000). 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. At the extreme, at least one hospice provider in 2012 reportedly closed and reopened as a new hospice to avoid repaying cap overpayments (Waldman 2012). In its 2015 hospice final rule, CMS established a policy that will help facilitate cap overpayment collections in the future. Beginning with cap year 2014, hospices are 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-month to 24-month lag between

**TABLE
11-7**

Hospices that exceeded Medicare’s annual payment cap, selected years

	2002	2010	2011	2012	2013
Percent of hospices exceeding the cap	2.6%	10.1%	9.8%	11.0%	10.7%
Average payments over the cap per hospice exceeding it (in thousands)	\$470	\$426	\$424	\$510	\$460
Payments over the cap as percent of overall Medicare hospice spending	0.6%	1.1%	1.1%	1.4%	1.3%
Total Medicare hospice spending (in billions)	\$4.4	\$13.0	\$13.8	\$15.0	\$15.1

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

Source: MedPAC analysis of the hospice claims standard analytical file, Medicare hospice cost reports, and Medicare Provider of Services file data from CMS. Data on total spending are from the CMS Office of the Actuary or MedPAC analysis.

the cap year’s close and when hospices had to return any overpayments.¹³

Quality of care: Information on hospice quality is limited

We do not have sufficient data to assess the quality of hospice care provided to Medicare beneficiaries because publicly reported information on quality is generally unavailable. PPACA mandated that CMS publish quality measures by 2012. Beginning in fiscal year 2014, hospices that do not report quality data receive a 2 percentage point reduction in their annual payment update. Public reporting of quality data from these initiatives is not expected to be available until at least 2017, according to CMS.

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.¹⁴ These two measures (with small changes) were continued for the second year of the reporting program and affect 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.¹⁵ The seven quality measures are process measures (i.e., 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). Hospices were required to report on these seven measures during the second half of calendar year 2014 to

receive a full payment update in fiscal year 2016. About 7 percent of hospices did not report the required quality data and face 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. Hospices continue to be required to report on the seven measures (with 2015 reporting affecting the 2017 payment update).

Beginning in 2015, the hospice quality reporting program has required all 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 will affect payment updates for fiscal year 2017 and beyond.

For the future, CMS has expressed interest in developing a patient-reported pain outcome measure, claims-based quality measures (such as receipt of skilled visits in the last days of life, burdensome transitions of care for

**TABLE
11-8****Rates of hospice live discharge and reported reason for discharge, 2012-2014**

Category	2012	2013	2014
Live discharges as a share of all discharges	18.5%	18.4%	17.2%
Reason for live discharge			
No longer terminally ill	38	42	43
Beneficiary revocation	45	40	39
Transfer hospice providers	10	11	12
Move out of service area	5	5	5
Discharge for cause	2	2	2
Providers' rate of live discharge as a share of all discharges, by percentile			
10th percentile	9.3	9.3	8.5
25th percentile	13.0	13.2	12.3
50th percentile	19.4	19.4	18.7
75th percentile	30.8	30.2	30.1
90th percentile	50.0	47.4	50.0

Note: The information on reason for live discharge for 2012 is based on data reported for the last six months of 2012. Percentages may not sum to 100 due to rounding.

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

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.

As the Commission has stated previously, claims-based quality measures merit further exploration as a promising source of information on the quality of hospice care. CMS's contractor, Abt Associates, has shown that some beneficiaries do not receive skilled visits at the end of life.¹⁶ For example, in fiscal year 2014, about 12.3 percent of hospice decedents who received routine home care did not receive any skilled visits from hospice staff in the last two days of life (Plotzke et al. 2015). The Abt analysis also found that the share of routine home care patients who did not receive a skilled visit in the last two days of life varied across providers. In light of this finding, the Commission intends to explore the development of a quality measure related to end-of-life visits.

The rate at which hospice providers discharge patients alive may also be a signal of quality. It is expected that

hospice providers will have some rate of live discharges because some patients change their mind about the type of care they wish to receive and disenroll from hospice 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.

Between 2013 and 2014, across all Medicare hospice patients, the average rate of live discharge (that is, live discharges as a percentage of all discharges) dropped from 18.4 percent to 17.2 percent (Table 11-8). In 2014, the most frequent reasons for live discharge reported by hospice providers were that the beneficiary was no longer terminally ill (43 percent) and the beneficiary revoked hospice election (39 percent). Other reasons for live discharge were much less common (e.g., beneficiary transferred hospice providers (12 percent), beneficiary

moved out of hospice provider's services area (5 percent), and provider discharged beneficiary for cause (2 percent)). The rate of live discharge varied substantially across providers, with some providers having particularly high rates. In 2014, about 25 percent of providers had a live discharge rate greater than 30 percent, and 10 percent of providers had live discharge rates greater than 50 percent (Table 11-8). These data are based on hospice providers of all sizes.

Table 11-9 displays information on hospice providers whose live discharge rate exceeded double the national average in 2014.¹⁷ We focus on providers with more than 50 total discharges to avoid issues with random variation that can occur with very small populations.¹⁸ In 2014, about 13 percent of these hospice providers had live discharge rates exceeding double the national average, though this was more common in some states than others. The five states with the highest share of their providers with live discharge rates exceeding double the national average were Mississippi (36 percent), South Carolina (31 percent), Nevada (25 percent), Alabama (22 percent), and Arizona (19 percent). Providers with live discharge rates exceeding double the national average were predominantly for profit (87 percent), and many exceeded the aggregate cap (43 percent) or were newer providers who first participated in Medicare in 2010 or later (35 percent).

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

In 2014, the number of for-profit providers grew by about 7 percent, indicating that capital is accessible to these providers. In addition, several publicly traded hospice companies reported favorable performance in their mid-2015 filings, indicating strong admissions growth and increased margins. Information from publicly traded companies and private equity analysts also suggests that the sector is viewed favorably by the investment community. CMS actions to launch the palliative care demonstration (Medicare Care Choices Model) and establish separate payment for advance care planning under the physician fee schedule are often pointed to as

**TABLE
11-9**

Characteristics of hospices with live discharge rates more than twice the national average among hospice providers with more than 50 discharges, 2014

Hospice characteristic

Total number of providers	3,136
Number of providers with a live discharge rate greater than twice the national average	406
Percent of providers with a live discharge rate greater than twice the national average	13%
Percent of a state's providers with a live discharge rate exceeding twice the national average (top 5 states)	
Mississippi	36%
South Carolina	31
Nevada	25
Alabama	22
Arizona	19
Characteristics of providers with a live discharge rate exceeding twice the national average	
For-profit ownership	87%
Exceeded aggregate cap (2013)	43
New provider entering between 2010 and 2014	35

Note: All data are for 2014, except where noted.

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

signs of further growth potential for the hospice industry. In addition, CMS's changes to the hospice payment system for 2016 have been generally well received by the hospice industry.

Among nonprofit freestanding providers, less is known about access to capital, which may be more 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

**TABLE
11-10**

**Hospice costs per day vary
by type of provider, 2013**

	Average	Percentile		
		25th	50th	75th
All hospices	\$147	\$111	\$138	\$173
Freestanding	141	108	132	161
Home health based	161	118	148	188
Hospital based	189	132	172	219
For profit	131	104	127	155
Nonprofit	169	132	159	196
Above cap	125	99	120	148
Below cap	149	113	140	175
Urban	149	113	139	174
Rural	134	106	133	167

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.

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

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. We examined margins through the 2013 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 11-10), which is one reason for differences in hospice margins across provider types. In 2013, hospice costs per day across all hospice providers were about \$147 on average, an increase of about 1.3 percent from the previous year.¹⁹ Freestanding hospices had lower costs per day than home health-based hospices and hospital-based hospices. For-profit, above-cap, and rural hospices also had lower 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 2013, 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 those 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 wage rates were higher for parent providers (e.g., hospitals or home health agencies) or if provider-based hospices expended 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, then 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 2007 to 2013, the aggregate hospice Medicare margin ranged from 5.5 percent to 10.0 percent (Table 11-11).²⁰ Between 2012 and 2013, the aggregate hospice Medicare margin dropped from 10.0 percent

**TABLE
11-11**

Hospice Medicare margins by selected characteristics, 2007–2013

Category	Percent of hospices 2013	2007	2008	2009	2010	2011	2012	2013
All	100%	5.8%	5.5%	7.4%	7.4%	8.8%	10.0%	8.6%
Freestanding	72	8.7	8.3	10.2	10.7	11.8	13.3	12.0
Home health based	13	2.3	3.4	5.9	3.2	6.1	5.7	2.2
Hospital based	14	-10.9	-11.3	-12.2	-16.6	-16.0	-16.8	-16.7
For profit (all)	62	10.4	10.3	11.7	12.3	14.8	15.4	14.7
Freestanding	56	11.3	11.5	12.9	13.4	15.9	16.5	15.7
Nonprofit (all)	33	1.6	0.7	3.8	3.0	2.4	3.7	1.2
Freestanding	16	5.6	3.7	6.6	7.6	6.4	7.7	5.2
Patient volume (quintile)								
Lowest	20	-7.9	-8.4	-6.5	-6.5	-4.1	-2.3	-0.3
Second	20	1.0	-0.1	2.0	2.0	2.8	5.9	6.0
Third	20	3.0	4.4	4.5	4.5	7.5	9.7	9.4
Fourth	20	5.8	7.2	6.8	6.8	9.9	11.2	11.2
Highest	20	7.0	6.1	9.0	9.0	9.6	10.6	8.3
Urban	74	6.3	5.9	7.9	7.7	9.1	10.3	8.9
Rural	26	1.4	2.1	3.7	5.2	6.0	7.3	6.1
Below cap	89.3	6.1	5.9	7.9	7.7	9.1	10.4	8.8
Above cap (excluding cap overpayments)	10.7	2.5	1.2	1.4	3.2	4.1	5.2	7.0
Above cap (including cap overpayments)	10.7	20.5	19.0	18.3	17.4	18.4	21.3	20.2

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.

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

to 8.6 percent, in part reflecting the effect of the budget sequester. We estimate that the sequester reduced hospice revenues in the 2013 cost report year by 1.3 percent.²¹ In that year, Medicare margins varied widely across individual hospice providers: -8.9 percent at the 25th percentile, 9.1 percent at the 50th percentile, and 23.0 percent at the 75th percentile of providers (data not shown in table). Our estimates of Medicare margins from 2007 to 2013 exclude overpayments to above-cap hospices and are calculated based on Medicare-allowable, reimbursable costs, consistent with our approach in other Medicare sectors.^{22,23}

We excluded nonreimbursable bereavement costs from our margin calculations. The statute requires that hospices offer bereavement services to family members of deceased Medicare patients. 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 2013 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 excluded 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 2013, freestanding hospices had higher margins (12.0 percent) than home health–based and hospital-based hospices (2.2 percent and –16.7 percent, respectively). As explained above, 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 10 percentage points higher for home health–based hospices and 13 percentage points higher for hospital-based hospices, and the industry-wide aggregate Medicare margin would be about 2 percentage points higher.²⁴

Hospice margins also vary by other provider characteristics, such as type of ownership, patient volume, and urban or rural location. The aggregate Medicare margin was considerably higher for for-profit hospices (14.7 percent) than for nonprofit hospices (1.2 percent). However, freestanding nonprofit hospices, which are not affected by overhead allocation issues, had a higher margin (5.2 percent) than nonprofits overall. Generally, hospices' margins vary by the provider's volume—hospices with more patients have higher margins on average. Overall, hospices in urban areas have a higher aggregate Medicare margin (8.9 percent) than those in rural areas (6.1 percent). The difference between rural and urban margins, while not large, 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, comparing hospice providers based on the share of their patients' stays exceeding 180 days, the average margin ranged from –8.1 percent for hospices in the lowest quintile to 18.1 percent for hospices in the

second highest quintile (Table 11-12). Hospices in the highest length-of-stay quintile 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 20.2 percent. CMS's payment reforms in 2016 are intended to reduce the variation in profitability across hospices with different lengths of stay.

Hospices with a large share of patients in nursing facilities and assisted living facilities also have higher margins than other hospices. For example, in 2013, hospices in the top quartile of share of patients residing in nursing facilities had a margin of nearly 17 percent compared with a margin of roughly 6 percent to 9 percent in the middle quartiles and a nearly 2 percent margin in the bottom quartile (Table 11-12). Margins also vary by the share of a provider's patients in assisted living facilities, with a margin ranging from roughly 2 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 payment rate for hospice routine home care 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).

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:

$$\text{Marginal profit} = (\text{payments for Medicare services} - (\text{total Medicare costs} - \text{fixed building and equipment costs})) / \text{Medicare payments}$$

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 about 12 percent, suggesting that providers have an incentive to treat Medicare patients. This profit margin is a positive indicator of patient access.

Projecting margins for 2016

To project the aggregate Medicare margin for 2016, we model the policy changes that went into effect between 2013 (the year of our most recent margin estimates) and 2016. The policies include:

- a market basket update of 2.5 percent for fiscal year 2014, 2.9 percent for fiscal year 2015, and 2.4 percent for fiscal year 2016;
- a reduction to the market basket update of 0.8 percentage point in each of the three fiscal years from 2014 through 2016 (reflecting a productivity adjustment and an additional adjustment of -0.3 percentage point each year);
- 2.0 percent reduction in payments due to the sequester that began in April 2013;
- years five through seven 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 each of the three fiscal years from 2014 through 2016; and
- additional wage index changes, which reduced payments by -0.1 percentage point in each fiscal year from 2014 through 2016.

We also assume a rate of cost growth in 2015 and 2016 that is higher than the historical rate in light of potentially

**TABLE
11-12**

Hospice Medicare margins by length of stay and patient residence, 2013

Hospice characteristic	Medicare margin
Average length of stay	
Lowest quintile	-8.1%
Second quintile	1.3
Third quintile	12.6
Fourth quintile	17.5
Highest quintile	14.8
Percent of stays > 180 days	
Lowest quintile	-8.1
Second quintile	1.8
Third quintile	12.8
Fourth quintile	18.1
Highest quintile	14.2
Percent of patients in nursing facilities	
Lowest quartile	1.8
Second quartile	6.6
Third quartile	9.0
Highest quartile	16.7
Percent of patients in assisted living facilities	
Lowest quartile	1.6
Second quartile	4.3
Third quartile	9.2
Highest quartile	13.9

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.

higher administrative costs related to implementing several new administrative requirements (e.g., new quality reporting initiatives, a revised cost report, and additional reporting requirements related to patient diagnoses and notices of election).

Taking these factors into account, we project an aggregate Medicare margin for hospices of 7.7 percent in 2016. The 2016 margin projection includes the effect of the budget sequester. This margin projection excludes

Background on efforts to foster improvements in hospice and end-of-life care

The share of Medicare beneficiaries receiving hospice at the end of life has increased dramatically since 2000. The Commission views this trend as a positive sign that beneficiaries are increasingly aware of hospice as an option for end-of-life care and are making choices based on their preferences. Despite this important development, a number of concerns about care for patients with advanced illnesses remain. More than one-quarter of hospice decedents enroll in hospice only in the last week of life, resulting in a length of stay that is commonly thought to be of suboptimal benefit to patients.

Beyond hospice, concerns also exist about the care patients with advanced illnesses or multiple chronic conditions receive more broadly, throughout the health care system. Care for these patients can often be fragmented and may not be consistent with patients' preferences. Recent efforts to address these issues include a new CMS demonstration program, the establishment of payment for advance care planning services under Medicare's physician fee schedule, the Commission's March 2014 recommendation to include hospice in the Medicare Advantage benefits package, and a recent Institute of Medicine report on end-of-life care.

Medicare Care Choices Model demonstration program

CMS has developed a demonstration to test concurrent palliative and conventional care. Under the Medicare Care Choices Model (MCCM) demonstration, beneficiaries who are hospice eligible but not enrolled in hospice will be permitted to enroll in the demonstration and receive palliative and supportive care from a hospice provider while continuing to receive "curative" care from other providers. The demonstration is intended to test whether beneficiaries would be willing to elect supportive palliative care from hospice providers and what the effect is on quality of care, cost of care, and whether beneficiaries will subsequently choose to enroll in the Medicare hospice benefit.

Unlike the hospice benefit, under the MCCM, care will be directed by the nonhospice curative provider who referred the beneficiary to the demonstration, and the hospice provider will play a supportive role. Hospices providing services under the MCCM "are expected to engage in shared decision making, care coordination and case management of the patient, family, and his/her providers; ensure that the patient's pain and symptoms are managed; offer appropriate levels of counseling; and address other care needs based on a comprehensive assessment and plan of care" (Centers for Medicare & Medicaid Services 2014). In-home nursing, aide services, and respite care are also offered under the MCCM. Hospices will be paid \$400 per month (or \$200 per half-month) for each enrollee in the MCCM, and beneficiaries will face no cost sharing for MCCM services.

To be eligible for participation in the demonstration, a fee-for-service (FFS) beneficiary must have had 2 inpatient hospitalizations in the previous 12 months, have certain diagnoses (advanced cancers, chronic obstructive pulmonary disease, congestive heart failure, or HIV/AIDS), live at home (not an assisted living facility or nursing facility), and meet the hospice eligibility criteria (a life expectancy of 6 months or less if the disease runs its normal course). The beneficiary must also be referred to the demonstration by a provider with whom the beneficiary had at least 3 office visits in the preceding 12 months for the diagnosis that qualifies the beneficiary for the demonstration. The referring provider must certify that the beneficiary meets the demonstration eligibility criteria.

The demonstration will span five years, from January 1, 2016, to December 31, 2020. CMS selected about 140 hospice providers to participate and anticipates that up to 150,000 beneficiaries may be able to participate. The demonstration will be implemented in two phases. Half of hospice providers selected for the demonstration will begin participating in January 2016 and the other half will begin in January 2018.

Advance care planning services

Advance care planning can make it easier for interested beneficiaries to create advance directives and physician

(continued next page)

Background on efforts to foster improvements in hospice and end-of-life care (cont.)

or medical orders for life-sustaining treatment and can help facilitate care that is consistent with individual patients' preferences. Beginning in 2016, Medicare will cover advance care planning conversations for beneficiaries who wish to receive these services. Medicare pays for advance care planning conversations between a beneficiary and his or her physician, advanced practice registered nurse, or physician assistant under the physician fee schedule.

The Commission's recommendation to include hospice in the Medicare Advantage benefits package

Currently, hospice is not included in the Medicare Advantage (MA) benefits package. When an MA enrollee elects hospice, the beneficiary typically remains in the MA plan, but hospice services are paid for by FFS Medicare. This carve-out of hospice from MA fragments financial responsibility and accountability for care for MA enrollees who elect hospice.

In March 2014, the Commission recommended that hospice be included in the MA benefits package. This step would give plans responsibility for the full continuum of care and promote integrated, coordinated care, consistent with the goals of the MA program. With the inclusion of hospice in the MA benefits package, plans would have an incentive to use the flexibility inherent in the MA program to develop and test innovative programs aimed at improving end-of-life care and care for patients with advanced illnesses more broadly (e.g., concurrent care or other approaches to provide flexibility in the hospice eligibility criteria, palliative care, and shared decision making).

Institute of Medicine recommendations

The Institute of Medicine (IOM) recently issued a report making recommendations on how to improve end-of-life care in the United States (Institute of Medicine 2014). Several recommendations were in the area of policies and payment systems, including:

- integrating financing of medical and social services;
- instituting public reporting on quality measures, outcomes, and costs of care near the end of life for Medicare and other federally funded health care programs;
- creating financial incentives for medical and social services that reduce emergency department use and acute care services, coordination of care across providers and settings, and improved shared decision making and advance care planning;
- requiring use of interoperable electronic health care records that contain specific information on advance care planning; and
- encouraging states to adopt the Physician Orders for Life-Sustaining Treatment paradigm.

Other IOM recommendations included coverage by government insurers and other payers for comprehensive care for patients with advanced illnesses nearing the end of life, development and adoption of quality measures for clinician–patient conversations and advance care planning, steps to improve palliative care knowledge and skills among medical professionals, and public education and engagement efforts to provide factual information about care options and to encourage advance care planning and informed choices based on individual needs and preferences. ■

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 2017?

Update recommendation

RECOMMENDATION 11

The Congress should eliminate the update to the hospice payment rates for fiscal year 2017.

RATIONALE 11

Our indicators of hospice payment adequacy are generally positive. The number of hospices increased more than 4 percent in 2014 because of continued entry of for-profit providers. The number of beneficiaries enrolled in hospice increased modestly, and average length of stay held steady. Access to capital appears adequate. The projected 2016 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 2017 without an update to the 2016 base payment rate.

Spending

- Under current law, hospices would receive an update in fiscal year 2017 equal to the hospital market basket index (currently estimated at 3.0 percent), less an adjustment for productivity (currently estimated at 0.5 percent). Hospices may also face an additional 0.3 percentage point reduction in the fiscal year 2016 update, depending on whether certain targets for health insurance coverage among the working-age population are met. As a result, hospices would receive a net update of 2.2 percent or 2.5 percent (based on current estimates). Our recommendation to eliminate the payment update in fiscal year 2017 would decrease federal program spending relative to the statutory update by between \$250 million and \$750 million over one year and between \$1 billion and \$5 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 2014, about 63 percent of hospices were for profit, 32 percent were nonprofit, and 5 percent were government.
- 4 Hospice decedents in 2014 (i.e., beneficiaries who received hospice care in 2014 and died in 2014) had substantially fewer days of hospice care than hospice nondecedents (i.e., beneficiaries who received hospice care in 2014 but did not die in 2014).
- 5 The cap year spans November 1 through October 31 (i.e., cap year 2012 spanned November 1, 2011, to October 31, 2012). Medicare 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).
- 6 This 2015 cap threshold was equivalent to an average length of stay of 172 days of routine home care for a hospice with a wage index of 1.
- 7 Action by the Congress and CMS will result in some changes to the cap calculation in future years. First, the Improving Medicare Post-Acute Care Transformation Act of 2014 (IMPACT) changed the annual update factor applied to the hospice aggregate cap for accounting years that end after September 30, 2016. Currently, the aggregate cap is 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). Second, CMS in its 2016 hospice rulemaking finalized a policy to align the cap year with the federal fiscal year beginning cap year 2018.
- 8 Type of hospice reflects the type of cost report filed (i.e., 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 The terms *curative care* and *conventional care* are often used interchangeably to describe treatments intended to be disease modifying.
- 11 Above-cap hospices are more likely to be for-profit, freestanding providers and to have smaller patient counts than below-cap hospices.
- 12 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 elected to remain with the original method. For estimation purposes, we assume that the CMS contractors used the alternative methodology for cap year 2012. Estimates for cap years 2011 and earlier assumed that the original cap methodology was used.
- 13 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 by 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.
- 14 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).
 - 15 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.
 - 16 Abt Associates defined skilled visits as visits by a nurse, therapist, social worker, or hospice physician. Their measure does not include visits by a hospice aide, spiritual counselor, or volunteer.
 - 17 Our analysis uses the broadest measure of live discharges—live discharges that are initiated by the hospice and live discharges that are initiated by the beneficiary. Some stakeholders argue that certain live discharges initiated by the beneficiary—those in which the beneficiary revokes his or her hospice enrollment—should not be included in a live-discharge measure because they reflect beneficiary preferences and are not in the control of the hospice. Because there are a wide range of reasons a beneficiary may choose to revoke hospice, some of which could be linked to the hospice provider’s business practices or quality of care, we have included those live discharges in our measure. Since our analysis focuses on hospices with unusual live-discharge patterns, the inclusion of revocations in our measure would affect the results only to the extent that a hospice provider has an unusual amount of revocations compared with its peers. Analysis of claims data indicates that there are some providers with unusually high live-discharge rates, in which most (and in some cases almost all) of the live discharges are revocations. Providers with this pattern of live discharges would be missed if revocations were excluded from the live-discharge measure.
 - 18 While it may be difficult to interpret high live-discharge rates for individual providers with small patient populations, the aggregate live-discharge rate (based on combined data for similarly sized hospices) is higher for small hospice providers than large providers. In 2014, the aggregate live-discharge rate for providers with 50 or fewer discharges annually was about 34 percent compared with 17 percent for larger providers.
 - 19 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* reflects 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.
 - 20 The aggregate Medicare margin is calculated as follows: $((\text{sum of total payments to all providers}) - (\text{sum of total costs to all providers}) / (\text{sum of total payments to all providers}))$. 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 2013 for several reasons. Cost reporting year 2013 is the most recent period for which we have a complete set of claims data. For some hospices, cost reporting year 2013 includes part of calendar year 2014. Our margin estimates also exclude cap overpayments to providers. To calculate this exclusion accurately, we need the next year’s claims data (e.g., the 2013 cap overpayment calculation requires 2014 claims data).
 - 21 Across all providers, about two-thirds of hospice revenues during cost reporting year 2013 occurred while the sequester was in effect.
 - 22 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.
 - 23 Our margin estimates also do not take into account revenues or costs from fundraising and donations.
 - 24 These estimates are adjusted to account for differences in patient volume across freestanding and provider-based hospices.

References

- Barnato, A. E., D. L. Anthony, J. Skinner, et al. 2009. Racial and ethnic differences in preferences for end-of-life treatment. *Journal of General Internal Medicine* 24, no. 6 (June): 695–701.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2014. Medicare program; FY 2015 hospice wage index and payment rate update; hospice quality reporting requirements and process and appeals for Part D payment for drugs for beneficiaries enrolled in hospice. *Federal Register* 79, no. 63 (August 22): 50451–50510.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2011. Medicare program; hospice wage index for fiscal year 2012. Notice of CMS ruling. *Federal Register* 76, no. 89 (May 9): 26731–26735.
- Cohen, L. L. 2008. Racial/ethnic disparities in hospice care: A systematic review. *Journal of Palliative Medicine* 11, no. 5 (June): 763–768.
- Crawley, L., R. Payne, J. Bolden, et al. 2000. Palliative and end-of-life care in the African American community. *Journal of the American Medical Association* 284, no. 19 (November 15): 2518–2521.
- Government Accountability Office. 2004. *Medicare hospice care: Modifications to payment methodology may be warranted*. GAO–05–42. Washington, DC: GAO.
- Hoyer, T. 2007. The future of hospice. *Caring*, November 6–8.
- Institute of Medicine. 2014. *Dying in America: Improving quality and honoring individual preferences near the end of life*. Washington, DC: The National Academies Press.
- Medicare Payment Advisory Commission. 2015. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2014. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2013. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2012. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2010. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2009. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2008. *Report to the Congress: Reforming the delivery system*. Washington, DC: MedPAC.
- Plotzke, M., T. J. Christian, E. Axelrod, et al. 2015. Medicare hospice payment reform: Analysis of how the Medicare hospice benefit is used. Prepared under contract to the Centers for Medicare & Medicaid Services. Cambridge, MA: Abt Associates Inc.
- Teno, J. M., P. L. Gozalo, J. P. W. Bynum, et al. 2013. Change in end-of-life care for Medicare beneficiaries: Site of death, place of care, and health care transitions in 2000, 2005, and 2009. *Journal of the American Medical Association* 309, no. 5: 470–477.
- Waldman, P. 2012. Hospices dump patients: Escape millions owed. *Bloomberg News*, February 14.

