

CHAPTER

# 11

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## **Hospice services**

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

**11** The Congress should update the payment rates for hospice for fiscal year 2013 by 0.5 percent.

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

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*(For additional recommendations on improving the hospice payment system, see text box on pp. 285–287.)*

# Hospice services

## Chapter summary

The Medicare hospice benefit covers palliative and support services for beneficiaries with a life expectancy of six months or less. Beneficiaries must “elect” the Medicare hospice benefit; in so doing they agree to forgo Medicare coverage for intensive conventional treatment for their terminal condition. In 2010, more than 1.1 million Medicare beneficiaries received hospice services from more than 3,500 providers, and Medicare expenditures totaled about \$13 billion.

## Assessment of payment adequacy

The indicators of payment adequacy for hospices, discussed below, are generally 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 2010, hospice use increased across all demographic and beneficiary groups examined. However, hospice use rates remained lower for racial and ethnic minorities than whites.

- **Capacity and supply of providers**—The supply of hospices increased 53 percent between 2000 and 2010, with an increase of almost 3 percent in 2010. For-profit providers accounted for almost the entire increase in the number of hospices, both over the past decade and in the past year.

## In this chapter

- Are Medicare payments adequate in 2012?
- How should Medicare payments change in 2013?

- ***Volume of services***—Use of Medicare hospice services continues to increase, with growth in the number of hospice users and the average length of stay. In 2010, 44 percent of Medicare beneficiaries who died that year used hospice, up from 42 percent in 2009 and 23 percent in 2000. Average length of stay among decedents grew from 54 days in 2000 to 84 days in 2009 to 86 days in 2010. The median length of stay during the same years remained stable at approximately 17 or 18 days. The increase in average length of stay over the past decade mostly reflects longer stays among patients with the longest stays.

***Quality of care***—At this time, we do not have sufficient data to assess the quality of hospice care provided to Medicare beneficiaries, as information on quality of care is very limited. The Patient Protection and Affordable Care Act of 2010 mandates that CMS publish hospice quality measures by 2012. CMS has adopted two quality measures for the first year of reporting. Hospices must report these measures in 2013 (based on data from the last 3 months of calendar year 2012) or face a 2 percent reduction in their annual update for fiscal year 2014.

***Providers' access to capital***—Hospices are not as capital intensive as some other provider types because they do not require extensive physical infrastructure. Continued entry of new for-profit freestanding providers (a 5 percent increase in 2010), and modest (1 percent) growth in the number of nonprofit freestanding providers, suggests that access to capital is adequate. Hospital-based and home-health-based hospices have access to capital through their parent providers.

***Medicare payments and providers' costs***—The aggregate Medicare margin, which is an indicator of the adequacy of Medicare payments relative to costs, was 7.1 percent in 2009, up from 5.1 percent in 2008. The projected 2012 margin is 5.1 percent. These margin estimates exclude nonreimbursable costs associated with bereavement services and volunteers (which if included would reduce margins by at most 1.5 percent and 0.3 percent, respectively). ■

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## Background

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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 terminally ill beneficiaries who have a life expectancy of six months or less if the terminal illness follows its normal course. A broad set of services are 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 inpatient care (including respite care); drugs and biologicals for symptom control; home medical equipment; physical, occupational, and speech therapy; bereavement services for the patient's family; and other services for palliation of the terminal condition. In 2010, more than 1.1 million Medicare beneficiaries received hospice services and Medicare expenditures totaled about \$13 billion.

Beneficiaries must “elect” the Medicare hospice benefit; in so doing, they agree to forgo Medicare coverage for intensive conventional treatment for the terminal illness. 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 the attending physician, the medical director, or another hospice physician and by an interdisciplinary group. 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. Under current policy, the first hospice benefit period is 90 days. For a beneficiary to initially elect hospice, two physicians (a hospice physician and the beneficiary's attending physician, if any) must certify that the beneficiary has a life expectancy of six months or less if the illness runs its normal course. If the patient's terminal illness continues to engender the likelihood of death within six months, the patient can be recertified for another 90 days. After the second 90-day period, the patient can be recertified for an unlimited number of 60-day periods, as long as he or she remains eligible.<sup>1</sup> For recertification, only the hospice physician has to certify that the beneficiary's life expectancy is six months or less. Beneficiaries can transfer from one hospice to another

once during a hospice election period and can disenroll from hospice at any time.

In recent years, Medicare spending for hospice care increased dramatically. Spending reached about \$13 billion in calendar year 2010, more than quadrupling since 2000. This spending increase was driven by greater numbers of beneficiaries electing hospice and by longer stays among hospice patients with the longest stays.

### Medicare payment for hospice services

The Medicare program pays a daily rate to hospice providers for each day a beneficiary is enrolled in hospice. The hospice assumes all financial risk for costs and services associated with care related to the patient's terminal illness. The hospice provider receives payment for every day a patient is enrolled, regardless of whether the hospice staff visited the patient each day. This payment design is intended to encompass not only the cost of visits but also other costs a hospice incurs related to on-call services, care planning, drugs, medical equipment, and supplies related to the patient's terminal condition; patient transportation between sites of care specified in the plan of care; and other less frequently used services.

Payments are made according to a fee schedule that has base payment amounts for four categories of care: routine home care, continuous home care, inpatient respite care, and general inpatient care (Table 11-1, p. 284). A hospice is paid the routine home care rate (\$151 per day in 2012) for each day the patient is enrolled in hospice, unless the hospice provides care under one of the other categories (continuous home care, inpatient respite care, or general inpatient care). Routine home care accounts for more than 95 percent of hospice care days. The payment rates for hospice are updated annually by the inpatient hospital market basket index.<sup>2</sup> The payment methodology and the base rates for hospice care have not been recalibrated since initiation of the benefit in 1983.

The hospice daily payment rates are adjusted geographically to account for differences in wage rates among local markets. Each category of care's base rate has a labor share, which is adjusted by the hospice wage index for the location where care is furnished and the result is added to the nonlabor portion. From 1983 to 1997, Medicare adjusted hospice payments with a 1983 wage index based on 1981 Bureau of Labor Statistics data. In fiscal year 1998, CMS began using the most current hospital wage index to adjust hospice payments and applied a budget-neutrality adjustment each year to make

**TABLE  
11-1**

**Medicare hospice payment categories and rates, FY 2012**

Category	Description	Base payment rate
Routine home care	Home care provided on a typical day	\$151 per day
Continuous home care	Home care provided during periods of patient crisis	\$36.73 per hour
Inpatient respite care	Inpatient care for a short period to provide respite for primary caregiver	\$156 per day
General inpatient care	Inpatient care to treat symptoms that cannot be managed in another setting	\$672 per day

Note: FY (fiscal year). Payment for continuous home care (CHC) is an hourly rate 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. A nurse must deliver more than half of the hours of this care to qualify for CHC-level payment. The minimum daily payment rate at the CHC level is \$294 per day (8 hours at \$36.73 per hour); maximum daily payment at the CHC level is \$881 per day (24 hours at \$36.73 per hour).

Source: CMS Manual System Pub 100-04 Medicare Claims Processing, Transmittal 22260, "Update to Hospice Payment Rates, Hospice Cap, Hospice Wage Index and the Hospice Pricer for FY 2012." July 29, 2011.

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. In fiscal year 2010, CMS began phasing out the budget-neutrality adjustment over seven years. It was reduced by 0.4 percent in 2010 and by an additional 0.6 percent in both 2011 and 2012; it will be reduced by an additional 0.6 percent each subsequent year, until the budget-neutrality adjustment is eliminated entirely in fiscal year 2016.

Beneficiary cost sharing for hospice services is minimal. For prescriptions, hospices may charge 5 percent coinsurance (not to exceed \$5) for each prescription furnished outside the inpatient setting. For inpatient respite care, beneficiaries may be charged 5 percent of Medicare's respite care payment per day. In practice, hospices do not generally charge or collect these copays from Medicare beneficiaries. Given that hospice is one of the only areas in the Medicare program with minimal or no cost sharing and given that hospice length of stay has increased substantially for patients with the longest stays, in the future the Commission may explore the potential for modest cost sharing for the hospice benefit. (For a more complete description of the hospice payment system, see [http://www.medpac.gov/documents/MedPAC\\_Payment\\_Basics\\_11\\_hospice.pdf](http://www.medpac.gov/documents/MedPAC_Payment_Basics_11_hospice.pdf).)

**Commission's prior recommendations**

The Commission's analyses of the hospice benefit in the June 2008 and March 2009 reports found that the structure of Medicare's hospice payment system makes

very long stays in hospice more profitable for providers than shorter stays, which may have led to inappropriate use of the benefit among some hospices (Medicare Payment Advisory Commission 2008, Medicare Payment Advisory Commission 2009). We also found that the benefit lacks adequate administrative and other controls to check the incentives for long stays in hospice and that CMS lacks data vital for effective management of the benefit. In March 2009, the Commission made recommendations to reform the hospice payment system, ensure greater accountability in use of the hospice benefit, and improve data collection and accuracy (see text box). Since that time, additional data have become available on hospice visit patterns across episodes of care. These data confirm prior findings and further support the need for payment system reform. A discussion of our analysis of these additional data sources can be found in the online appendices to the March 2010 and March 2011 reports (<http://www.medpac.gov>).

The Patient Protection and Affordable Care Act of 2010 (PPACA) included a number of provisions related to Medicare hospice services, including several policies consistent with some of the Commission's recommendations, particularly in the areas of greater accountability and data collection. PPACA also gives CMS the authority to revise in a budget-neutral manner the methodology for determining hospice payment rates for routine home care and other services as the Secretary of Health and Human Services determines appropriate beginning no earlier than fiscal year 2014. PPACA includes additional hospice provisions, such as

## March 2009 Commission recommendations on hospice

The Commission's June 2008 and March 2009 reports identified a number of trends and issues that raised concern that the structure of the hospice payment system creates financial incentives for very long stays and that CMS does not have adequate administrative controls to check these incentives or ensure providers' compliance with the benefit's eligibility criteria. The Commission found:

- a substantial increase in the number of hospices, driven almost entirely by growth in for-profit providers;
- a substantial increase in average length of stay due to increased lengths of stay among patients with the longest stays;
- a positive correlation between hospice profit margins and average length of stay (i.e., profitability increases as average length of stay increases);
- anecdotal reports, obtained from a Commission-convened panel of hospice industry experts, that some hospices admit patients who do not meet the Medicare hospice eligibility criteria (a life expectancy of six months or less if the disease runs its normal course); and
- focused efforts by some hospices to enroll nursing home residents, a population that tends to have conditions associated with long hospice stays, as well

as anecdotal reports of questionable relationships between some nursing facilities and hospices.

The Commission's examination of the hospice payment system has shown that long stays in hospice are more profitable for providers than short stays. Its analyses have found that hospice visits tend to be more frequent at the beginning and end of a hospice episode and less frequent in the intervening period. The Medicare payment rate, which is constant over the course of the episode, does not take into account the different levels of effort that occur during different periods within an episode. As a result, long hospice stays, which generally have a lower average visit intensity over the course of an episode, are more profitable than short stays. The incentives in the current hospice payment system for long stays may have led to inappropriate use of the benefit among some providers. To address these problems, the Commission made recommendations in March 2009 to reform the hospice payment system, to ensure greater accountability in use of the hospice benefit (which included two parts, increased accountability standards for providers and more Office of Inspector General (OIG) investigations), and to improve data collection and accuracy. The Congress and CMS have adopted policies consistent with several of these recommendations.

Several policies to increase provider accountability have been adopted. Effective October 2009, CMS requires that all certifications and recertifications include a brief

*(continued next page)*

a productivity-related adjustment that will reduce the hospice annual update and an additional market basket reduction beginning in fiscal year 2013, a hospice quality data pay-for-reporting program beginning in fiscal year 2014, a pilot project to test a hospice pay-for-performance program to start by January 2016, and a demonstration project to test concurrent hospice and conventional care.

### **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 intensive conventional treatment (often

in inpatient settings) and die at home, with family, and 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). To achieve this outcome, the Congress included in the benefit two limitations, or "caps," on payments to hospices. (For a discussion of the cost of hospice care relative to conventional care at the end of life, see the Commission's June 2008 report.)

## March 2009 Commission recommendations on hospice (cont.)

physician narrative explaining the clinical basis for the patient's prognosis. Effective January 2011, the Patient Protection and Affordable Care Act of 2010 (PPACA) requires a hospice physician or nurse practitioner to have a face-to-face visit with a patient before recertification for the third benefit period (which typically begins after 180 days) and every subsequent benefit period.

In addition, the OIG has completed or has work under way in several of the areas the Commission recommended for study. The OIG recently completed a study on hospices that rely heavily on nursing home patients (Office of Inspector General 2011). The OIG found that these hospices are more likely to be for profit and to treat patients with conditions that typically have longer stays and require less complex care. The OIG recommended that CMS: (1) monitor hospices that rely heavily on nursing home patients and (2) reduce payment rates for hospice services provided in nursing homes. The OIG's 2012 work plan includes additional studies examining hospices' marketing practices and financial relationships with nursing facilities, an examination of the appropriateness of general inpatient hospice care, an analysis to determine whether hospice drugs are double-billed to Part D, and an assessment of Medicare payments when patients are transferred from acute care hospitals to hospice general inpatient care.

In the area of data collection, CMS expanded its data-reporting requirements for hospice claims in January 2010, consistent with the Commission's recommendation to include the length of visits in 15-minute increments as well as additional types of visits such as physical, speech, and occupational therapist visits. PPACA mandated that CMS begin collecting additional data to inform hospice payment system reform as the Secretary of Health and Human Services determines appropriate not later than January 1, 2011.

Some additional steps have been taken on payment reform but the pace and shape of those efforts is unclear at present. Therefore, we are reprinting the payment reform recommendation below. In addition, PPACA included a provision requiring Medicare to review hospice claims exceeding 180 days for hospices with many long-stay patients, consistent with a Commission recommendation. This provision has not been implemented by CMS, so we are reprinting that recommendation as well.

### **The Congress should direct the Secretary to change the Medicare payment system for hospice to:**

- **have relatively higher payments per day at the beginning of the episode and relatively lower payments per day as the length of the episode increases,**

*(continued next page)*

The first cap limits the number of days of inpatient care a hospice may provide to not more than 20 percent of its total Medicare patient care days. This cap is rarely exceeded, and when it is, 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. It 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 multiplied by the cap amount (\$23,014.50 in 2009), it must repay the excess to the program.<sup>3,4</sup> This cap is not applied individually to the payments received for each beneficiary but rather to the total payments across all Medicare patients admitted to the hospice in the cap year. The number of hospices exceeding the average annual 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 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).



## March 2009 Commission recommendations on hospice (cont.)

- include a relatively higher payment for the costs associated with patient death at the end of the episode, and
- implement the payment system changes in 2013, with a brief transitional period.

**These payment system changes should be implemented in a budget-neutral manner in the first year.**

Compared with the current hospice payment system, this payment model would result in a much stronger relationship between Medicare payments and hospices' level of effort in providing care throughout an episode and promote stays of a length consistent with hospice as an end-of-life benefit. It would also have the effect of changing the distribution of payments across providers. Providers with shorter stay patients, which tend to have lower margins, would see an increase in their Medicare payments and providers with longer stay patients, which tend to have higher margins, would see a decrease.

Under PPACA, the Congress gave CMS the authority to revise in a budget-neutral manner the hospice payment system for routine home care and other services as the Secretary determines appropriate not earlier than fiscal year 2014. The statute indicates that such revisions may include adjustments to the per diem payments to reflect changes in the resource intensity of services throughout a hospice episode but does not mandate such an approach. CMS is required to consult with hospices and the Commission on revisions to the payment system.

The Congress should direct the Secretary to:

- require that a hospice physician or advanced practice nurse visit the patient to determine continued eligibility prior to the 180th-day recertification and each subsequent recertification and attest that such visits took place,
- require that certifications and recertifications include a brief narrative describing the clinical basis for the patient's prognosis, and
- require that all stays in excess of 180 days be medically reviewed for hospices for which stays exceeding 180 days make up 40 percent or more of their total cases.

Measures consistent with the Commission's recommendation for increased hospice accountability have been implemented, with the exception of focused medical review. As of January 2011, PPACA requires focused medical review of hospice claims for providers with a very high share of patients with stays in excess of 180 days, consistent with a Commission recommendation. However, this provision has not been implemented by CMS. Hospice length of stay varies considerably across providers, with a subset of providers having much longer stays for patients of similar diagnoses than other providers. Focused medical review of hospices with unusually high rates of long-stay patients would provide greater oversight of the benefit and target that scrutiny toward those providers for whom it is most warranted. ■

### Are Medicare payments adequate in 2012?

To address whether payments for 2012 are adequate to cover the costs efficient providers incur and how much providers' costs should change in the coming year (2013), we examine several indicators of payment adequacy. Specifically, we assess: beneficiaries' access to care by examining the capacity and supply of hospice providers and 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 for other providers, we could not use quality of care as a payment adequacy indicator, as information on hospice quality is generally not available.

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

Hospice use among Medicare beneficiaries has grown substantially in recent years, suggesting increased

**TABLE  
11-2**

**Use of hospice continues to increase**

**Percent of Medicare decedents who used hospice**

	<b>2000</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>Average annual percentage point change 2000-2009</b>	<b>Percentage point change 2009-2010</b>
All beneficiaries	22.9%	38.9%	40.1%	42.0%	44.0%	2.1%	2.0%
FFS beneficiaries	21.5	38.0	39.2	41.0	43.0	2.2	2.0
MA beneficiaries	30.9	42.9	44.0	46.1	47.8	1.7	1.7
Dual eligibles	17.5	34.5	35.9	37.5	39.2	2.2	1.7
Nondual eligibles	24.5	40.3	41.5	43.4	45.5	2.1	2.1
Age (in years)							
<65	17.0	24.5	25.1	26.0	27.2	1.0	1.2
65-74	25.4	35.6	36.2	37.3	38.6	1.3	1.3
75-84	24.2	40.1	41.2	43.1	45.0	2.1	1.9
85+	21.4	43.5	45.4	48.0	50.4	3.0	2.4
Race/ethnicity							
White	23.8	40.5	41.8	43.7	45.8	2.2	2.1
African American	17.0	29.9	30.8	32.6	34.0	1.7	1.4
Hispanic	21.1	32.6	32.9	34.8	37.0	1.5	2.2
Asian American	15.2	22.9	24.5	26.0	28.1	1.2	2.1
Native North American	13.0	28.8	29.8	29.7	30.6	1.9	0.9
Gender							
Male	22.4	35.9	36.8	38.6	40.4	1.8	1.8
Female	23.3	41.5	43.0	45.1	47.1	2.4	2.0
Beneficiary location							
Urban	24.3	40.4	41.7	43.5	45.4	2.1	1.9
Micropolitan	18.5	34.5	35.8	37.5	39.8	2.1	2.3
Rural, adjacent to urban	17.6	33.6	34.7	36.9	38.7	2.1	1.8
Rural, nonadjacent to urban	15.8	30.0	30.5	32.8	34.5	1.9	1.7
Frontier	13.2	26.0	25.7	27.1	30.1	1.5	3.0

Note: FFS (fee-for-service), MA (Medicare Advantage). Beneficiary location reflects the beneficiary's county of residence. The frontier category is defined as population density equal to or less than 6 people per square mile.

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

awareness of and access to hospice services. In 2010, about 44 percent of Medicare beneficiaries who died that year used hospice, up from just under 23 percent in 2000 (Table 11-2). From 2009 to 2010, the proportion of Medicare decedents who used hospice grew from about 42 percent to 44 percent. While hospice use varied by beneficiary characteristics (i.e., enrollment in fee-for-service (FFS) and managed care, dual and nondual

eligibles, age, gender, race, urban and rural residence), it increased substantially across all beneficiary groups between 2000 and 2010.

Use of hospice is slightly more frequent among beneficiaries who had been enrolled in Medicare Advantage than FFS, although differences in hospice use rates have narrowed over time. In 2000, in rounded figures, 22 percent of Medicare FFS decedents used

hospice compared with 31 percent of decedents previously enrolled in Medicare Advantage. By 2010, these use rates rose to 43 percent of Medicare FFS decedents and 48 percent of Medicare Advantage decedents. It is important to note that Medicare Advantage plans do not provide hospice services. Once a beneficiary in a Medicare Advantage plan elects hospice, the beneficiary receives hospice services and any nonhospice Medicare-covered services via the Medicare FFS program.

Hospice use varies by other beneficiary characteristics. In 2010, a smaller proportion (39 percent) of Medicare decedents who were dually eligible for Medicare and Medicaid used hospice compared with the rest of Medicare decedents (46 percent). Hospice use has increased in all age groups but is more prevalent among older beneficiaries. In 2010, the percent of decedents age 85 or older who used hospice grew to just over 50 percent. Female beneficiaries were also more likely than male beneficiaries to use hospice, which partly reflects the longer average life span among women than men and greater hospice use among older beneficiaries.

Table 11-2 also shows differences in hospice use by racial and ethnic groups. As of 2010, hospice use was highest among white Medicare decedents followed by decedents of Hispanic, African American, Native North American, and Asian American ethnicity. Hospice use grew substantially among all these groups between 2000 and 2010. Despite a substantial increase in hospice use over the past decade for all racial and ethnic groups, differences in hospice use across racial and ethnic groups persist but are not fully understood. Researchers examining this issue 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 2000).

Hospice use is more prevalent among beneficiaries residing in urban areas than in rural areas, although use has grown in all types of areas (Table 11-2). In 2010, the share of decedents residing in urban counties who used hospice was 45 percent; in micropolitan counties, 40 percent; in rural counties adjacent to urban counties, 39 percent; in rural nonadjacent counties, 35 percent; and in frontier counties, 30 percent. Use rates for beneficiaries residing in these areas increased between 1.7 percentage points and 3.0 percentage points compared with the prior year, continuing the substantial upward trend in hospice use that has occurred across these areas over the past 10 years.

One driver of increased hospice use over the past decade has been substantial growth in hospice election by patients with noncancer diagnoses, as there has been increased recognition that hospice can appropriately care for such patients. Patients with noncancer diagnoses accounted for 69 percent of all hospice users in 2008, up from 47 percent in 1998 (Centers for Medicare & Medicaid Services 2008). Between 1998 and 2009, the number of hospice users with debility increased from just over 8,500 to nearly 121,000, and the number with Alzheimer's disease or non-Alzheimer's dementia grew from about 28,000 to 181,000 (Centers for Medicare & Medicaid Services 2008, Centers for Medicare & Medicaid Services 2009).

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

The number of hospice providers has grown substantially over the past decade. From 2000 to 2010, the total number of hospices increased 53 percent, from just over 2,300 to more than 3,500 (Table 11-3, p. 290). The most rapid growth occurred between 2003 and 2007, with an average annual growth rate of about 7 percent. The number of providers grew at an average rate of about 3 percent per year from 2007 to 2010, with growth of 2.7 percent in the most recent year (2010). The somewhat slower growth in the past few years may in part be influenced by guidance CMS issued in 2007 to state survey and certification agencies that placed surveys of hospices applying to be new Medicare providers (and surveys of certain other providers) in the lowest tier of their workload priorities.<sup>5</sup>

For-profit hospices accounted for most of the growth in the number of hospices. Overall, the number of for-profit hospices grew 150 percent from 2000 to 2010, while the number of nonprofits declined 1 percent and hospices with government or other ownership structures increased 27 percent over this period.<sup>6</sup> The number of for-profit hospices grew at an average rate of about 15 percent per year from 2003 to 2007 and at an average rate of 5 percent per year from 2007 to 2010. In comparison, during the same periods, the number of nonprofit hospices increased at average annual rates of 0.3 percent and 0.4 percent, respectively. Among nonprofit hospices, the number of freestanding providers (not classified separately in Table 11-3, p. 290) increased modestly over the past decade, with average growth of 1.4 percent per year from 2002 to 2009 and 1.2 percent in 2010. As of 2010, about 54 percent of hospices were for profit, 33 percent were

**TABLE  
11-3**

**Total number of hospices rose substantially between 2000 and 2010, driven by growth in for-profit hospices**

Category	2000	2003	2007	2008	2009	2010	Average annual percent change		
							2000–2003	2003–2007	2007–2010
All hospices	2,318	2,350	3,249	3,372	3,462	3,555	2.0%	7.2%	3.0%
For profit	756	835	1,646	1,751	1,833	1,915	6.8	15.2	5.2
Nonprofit	1,176	1,132	1,147	1,154	1,158	1,162	-1.2	0.3	0.4
Government/other	376	383	456	467	471	478	1.7	3.7	1.6
Freestanding	1,214	1,304	2,158	2,288	2,385	2,477	5.2	11.2	4.7
Home health based	545	502	550	549	546	556	-2.6	2.2	0.4
Hospital based	547	531	525	518	513	503	-0.7	-0.5	-1.4
SNF based	12	13	16	17	18	19	0.0	7.5	5.9

Note: SNF (skilled nursing facility).

Source: MedPAC analysis of data from CMS Providing Data Quickly system, <https://pdq.cms.hhs.gov>, accessed November 1, 2011.

nonprofit, and 13 percent were government or other ownership structures.

Growth in the number of hospices occurred predominantly among freestanding providers. Between 2000 and 2010, the number of freestanding hospices grew 104 percent. The number of home-health-based and hospital-based hospices changed only modestly. The number of home-health-based hospices fluctuated between 2000 and 2010, resulting in a 2 percent net increase in the number of providers over this period. From 2000 to 2010, the number of hospital-based hospices declined about 8 percent overall, with a decline of less than 1 percent per year before 2007 and an average decline of 1.4 percent per year from 2007 to 2010. From 2000 to 2010, skilled nursing facility (SNF)-based hospices grew from 12 providers to 19 providers.<sup>7</sup> As of 2010, 70 percent of hospices were freestanding, 16 percent were home health based, 14 percent were hospital based, and fewer than 1 percent were SNF based.<sup>8</sup>

The increase in the supply of hospices over the past decade occurred in both rural and urban areas. Between 2000 and 2009, the number of hospices located in urban areas grew 62 percent; in rural areas, the increase was about 31 percent (not shown in Table 11-3). The number of hospices in rural areas dipped slightly (1 percent) between 2009 and 2010, while the number in urban areas

increased 5 percent during this period. Hospice location does not provide a full picture of access to services because a hospice's service area may extend beyond the boundaries of the county where it is located. In our urban and rural margin analysis later in the chapter, hospices are categorized by predominant type of county served based on the beneficiaries' county of residence. That analysis shows that the predominant type of county served is urban for 70 percent of hospices, micropolitan for 18 percent of hospices, rural adjacent for 6 percent of hospices, and rural nonadjacent for 6 percent of hospices as of 2009. In addition, 4 percent of hospices had beneficiaries residing in frontier counties, accounting for more than 10 percent of their caseload.

Growth in the number of hospices by state between 2000 and 2010 varied, with some states experiencing extremely robust growth (more than double in Louisiana, Mississippi, Nevada, South Carolina, Texas, and Utah) and other states experiencing no growth (South Dakota) or small declines in the number of hospice providers (Arkansas, Kentucky, Maryland, New York, and North Dakota).<sup>9</sup> Four states with the highest share of hospices exceeding the aggregate payment cap in 2009 (Alabama, Mississippi, South Carolina, and Arizona) had above-average growth in the number of hospices between 2000 and 2009, with increases in the number of providers ranging from about 78 percent to more than 150 percent

**TABLE  
11-4**

**Volume of hospice use increased substantially between 2000 and 2010**

Category	2000	2009	2010	Annual change, 2000-2009	Change, 2009-2010
Number of hospice users	513,000	1,090,000	1,159,000	8.7%*	6.3%
Total spending (in billions)	\$2.9	\$12.1	\$13.0	17.2*	7.2
Average length of stay among decedents (in days)	54	84	86	5.0*	2.1
Median length of stay among decedents (in days)	17	17	18	0 days	1 day

Note: Average length of stay is calculated for decedents who used hospice at the time of death or before death and reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his/her lifetime.  
\*Average annual change.

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

during that time. However, more hospice providers does not necessarily translate into more access to care. Our March 2010 report showed that hospice enrollment rates (as measured by the percent of Medicare decedents who used hospice) were unrelated to a state’s supply of hospice providers (as measured by the number of hospices per 1,000 decedents) (Medicare Payment Advisory Commission 2010). Furthermore, between 2009 and 2010, hospice use among decedents increased, even in states that experienced a decline in the number of hospice providers in 2010.

**Volume of services: Growth in the number of hospice users and average length of stay have increased Medicare hospice spending substantially**

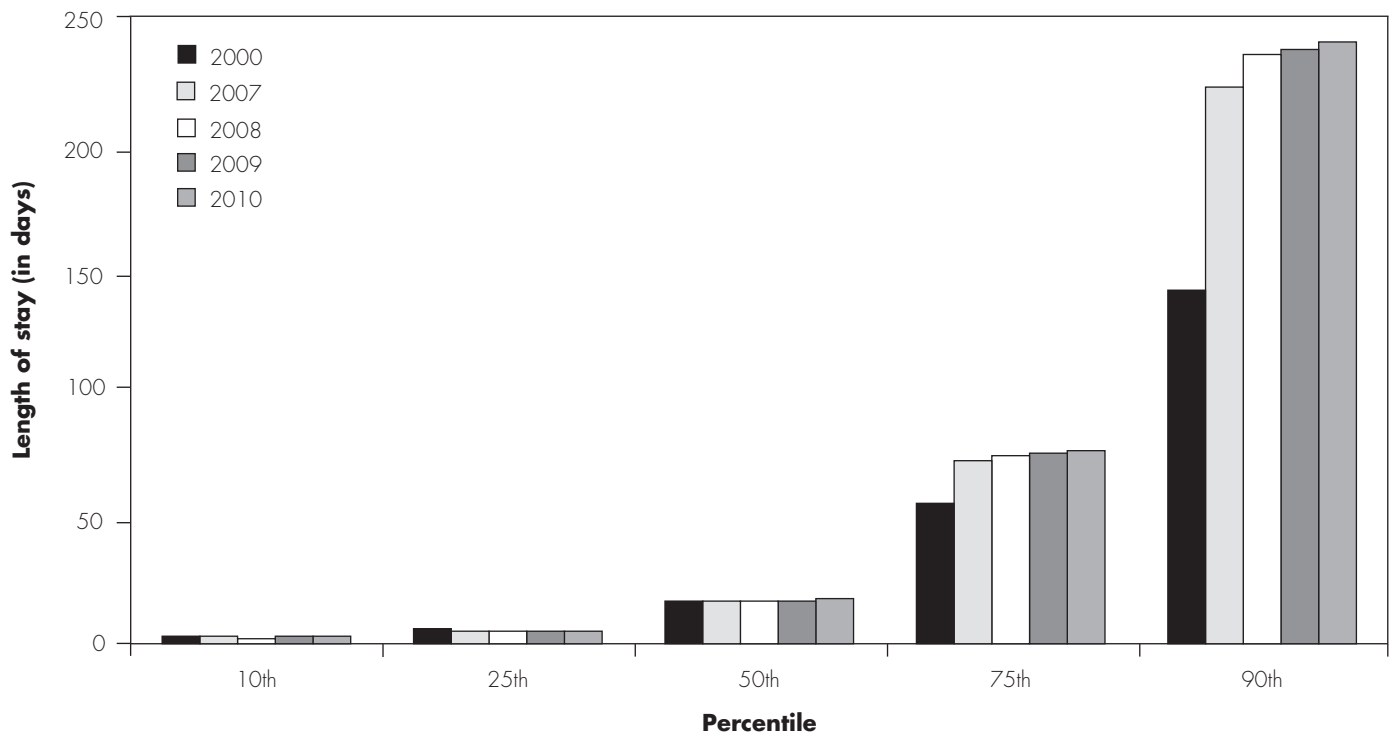
The number of Medicare beneficiaries receiving hospice services increased rapidly in the past decade, more than doubling between 2000 and 2010. In 2010, more than 1.1 million beneficiaries used hospice services, up from just over 0.5 million in 2000 (Table 11-4). Between 2000 and 2009, the number of hospice users increased at an average annual rate of 8.7 percent per year. The number of hospice users continued to grow in 2010 by 6.3 percent.

Average length of stay also increased substantially in the past decade. Medicare decedents in 2010 who used hospice had an average stay of 86 days (over the course of their lifetime), compared with 54 days for Medicare decedents in 2000. Growth in length of stay has slowed some in the past few years. Average length of stay among Medicare decedents for the 3 years between 2008 and 2010 increased from 83 days to 84 days to 86 days, respectively.<sup>10</sup>

The increased average length of stay reflects in large part an increase in very long hospice stays, while short stays remained virtually unchanged (Figure 11-1, p. 292). Between 2000 and 2010, hospice length of stay at the 90th percentile grew substantially, increasing from 141 days to 240 days. Growth in very long stays slowed somewhat in the 3 years between 2008 and 2010, as the 90th percentile grew by 5 days over this period, from 235 days to 237 days to 240 days, respectively. Median length of stay, which held steady at 17 days for most of the decade, edged upward to 18 days in 2010. The 25th percentile was 5 days in 2010, unchanged from the prior year.

Both the increase in length of stay for patients with the longest stays and the persistence of very short stays are concerns. With very long stays, the concern is that incentives in the payment system may be spurring some providers to pursue business models that maximize profit by taking on very-long-stay patients who may not meet the hospice eligibility criteria. At the extreme, some providers may be offering hospice as a long-term care benefit rather than as an end-of-life benefit.

With very short hospice stays, the concern is that patients enter hospice too late to fully benefit from all that hospice has to offer. 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, such as reluctance among physicians, patients, and their families to recognize a terminal situation and the financial incentives of acute care

**FIGURE  
11-1****Very long hospice stays have grown longer while short stays remained virtually unchanged**

Note: Length of stay is calculated for decedents who used hospice at the time of death or before death and reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his/her lifetime.

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

providers to continue treating a terminal patient (Medicare Payment Advisory Commission 2009).

Some point to the requirement that beneficiaries forgo intensive conventional care to enroll in hospice as a factor that contributes to short hospice stays. PPACA mandates a three-year demonstration at 15 sites to test the effect on quality and cost of allowing concurrent hospice and conventional care. A few private insurers are experimenting with this approach among the commercially insured, working age, managed care population. One insurer has reported that its concurrent care program resulted in more hospice enrollment, less use of intensive services, and lower costs (Krakauer et al. 2009). It is uncertain whether this type of approach would yield savings in a Medicare FFS environment with the absence of health plan utilization management and an elderly population with a greater prevalence of noncancer diagnoses, which tend to result in longer hospice stays.

The increase in long hospice stays is partly the result of the enrollment of more beneficiaries with noncancer diagnoses, for whom it may be more difficult to predict life expectancy. For example, average length of stay among Medicare decedents in 2009 was 53 days for beneficiaries with cancer, compared with 132 days for beneficiaries with neurological conditions (Table 11-5). Over the past decade, with increased recognition that hospice can care for patients with noncancer diagnoses, the share of the hospice population with noncancer diagnoses has grown (now constituting two-thirds of hospice patients) and average length of stay has grown. But other factors are also at work. Over the past decade, average length of stay has grown substantially in all diagnosis categories (except cancer), and this growth accounts for most of the overall growth in average length of stay. Part of the growth in within-diagnosis length of stay reflects the rapid entry of for-profit providers, whose patients on average have longer stays than those of nonprofit providers overall and within diagnosis groups. For example, average length of

stay among decedents served by for-profit and nonprofit providers, respectively, was 100 days and 69 days across all diagnoses and 151 days and 113 days for decedents with a neurological diagnosis. Average length of stay also varies by site of service. Among Medicare decedents in 2009, average length of stay in hospice was shortest (14 days) among patients whose main location of care was a hospice facility or hospital. Average length of stay was longest for decedents whose main location of care was an assisted living facility (143 days), followed by a nursing facility (107 days) and the patient's home (87 days). Differences in the diagnosis profile of patients residing in assisted living facilities and nursing facilities explain some of the differences in average length of stay compared with patients at home. The markedly longer stays among assisted living facility residents (who currently constitute about 8 percent of hospice patients) compared with nursing facility residents is not understood and bears further monitoring and examination.

It may also be worthwhile to consider providing physicians who refer patients to hospice with summary feedback on the length of stay of patients they refer. If referring physicians have information about the outcome of their referrals, it might help them gauge the timing of their conversations with patients about hospice and might have the potential to lower the prevalence of very short stays and very long stays. Of course, there will always be some very short and very long stays in hospice because of uncertainty in predicting life expectancy and unforeseen events. But, to the extent that some of the very short and very long stays occur because physicians lack information about what occurs after a hospice referral, this type of feedback might have the potential to influence referrals to hospice and help promote lengths of stay that are sufficient to benefit patients and that are consistent with an end-of-life benefit.

Some providers, particularly those that exceed the aggregate payments cap, have a higher average length of stay across all diagnoses. The percent of hospices that exceeded the cap in 2009 is estimated to be about 12.5 percent (Table 11-6, p. 294). Medicare hospice payments over the cap represented just under 1.7 percent of total hospice payments in 2009. Because of refinements to our methodology for calculating cap overpayments in 2008 and 2009 (due to changes in data availability and efforts to match as closely as possible the CMS claims processors' cap calculation methodology), our cap estimates across time are not entirely comparable. Nevertheless, on the basis of additional analyses we performed, we believe that

**TABLE  
11-5**

**Hospice average length of stay among decedents by beneficiary and hospice characteristics, 2009**

Characteristic	Average length of stay among decedents (in days)
<b>Beneficiary</b>	
Diagnosis	
Cancer	53
Neurological conditions	132
Heart/circulatory	76
Debility	98
COPD	107
Other	85
Main location of care	
Home	87
Nursing facility	107
Assisted living facility	143
Hospice facility or hospital	14
<b>Hospice</b>	
Hospice ownership	
For profit	100
Nonprofit	69
Type of hospice	
Freestanding	87
Home health based	70
Hospital based	62

Note: COPD (chronic obstructive pulmonary disease). Average length of stay is calculated for Medicare beneficiaries who died in 2009 and used hospice that year and reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his/her lifetime. Main location is defined as the location where the beneficiary spent the largest share of days while enrolled in hospice.

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

the percent of hospices exceeding the cap increased each year from 2002 through 2009, while the percent of total hospice payments over the cap and the average amount of the overpayment per above-cap hospice has declined since 2006.

CMS released a final rule in 2011 concerning the cap calculation that has implications for cap overpayment estimates in 2009 and future years. As discussed in more detail in the text box (pp. 296-297), CMS established an

**TABLE  
11-6**

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

	2002	2004	2006	2008*	2009*
Percent of hospices exceeding the cap	2.6%	5.8%	9.4%	10.2%	12.5%
Average payments over the cap per hospice exceeding the cap (in thousands)	\$470	\$749	\$731	\$571	\$485
Payments over the cap as percent of overall Medicare hospice spending	0.6%	1.7%	2.4%	1.7%	1.7%
Total Medicare hospice spending (in billions)	\$4.4	\$6.6	\$8.8	\$11.4	\$12.0

Note: The cap year is defined as the period beginning November 1 and ending October 31 of the following year.  
 \*Due to a change in data availability and refinements in the estimation methodology, the estimates in 2008 and 2009 are not entirely comparable to the prior year estimates.

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

alternative methodology for calculating cap overpayments. This new methodology (“the proportional methodology”) modifies how beneficiaries who receive services in more than one cap year from the same hospice figure into the cap calculation. CMS has given hospices a choice of which methodology is used. For the 2012 cap year and beyond, the new “proportional” methodology will be used unless a hospice elects to remain with the current “streamlined” methodology. For cap years before 2012, the current streamlined methodology will be used, except for hospices that file a valid appeal or lawsuit concerning their cap overpayments, in which case the proportional methodology will be used to calculate their overpayments for the appealed year going forward. Hospices have up to 180 days after the date of the cap overpayment demand letter received from the CMS claims processing contractor to file an appeal. Some hospices are still within the window to appeal the 2009 cap calculations. Therefore, uncertainty exists about which cap formula will be used to calculate cap overpayments for 2009 for individual providers. In light of this uncertainty, for estimation purposes we have assumed that the current streamlined methodology is used for the 2009 cap calculation for all hospices. This is a conservative approach and likely results in our overstating the amount of cap overpayments and understating our margin estimates slightly.

Above-cap hospices are more likely to be for profit, freestanding providers and to have smaller patient loads than below-cap hospices.<sup>11</sup> While above-cap hospices treat more patients with conditions that tend to have longer lengths of stay (e.g., Alzheimer’s disease and other neurological conditions), within each diagnosis group,

above-cap hospices had longer stays than below-cap hospices. For example, 46 percent of hospice patients with chronic obstructive pulmonary disease in 2009 had stays beyond 180 days in above-cap hospices, compared with 25 percent of patients in below-cap hospices (Table 11-7).

One other facet of hospice care we examined is the frequency with which hospice providers’ patients do not remain in hospice until death. While some patients improve while under hospice care (often referred to as the “hospice effect”) and revoke their election or choose to withdraw from hospice and return to conventional care for other reasons, unusually high rates of patients’ being discharged alive among some providers raises concerns that some hospices may be pursuing business models that seek patients likely to have long stays who may not meet the hospice eligibility criteria and then discharge them when they incur substantial cap liabilities. It is also possible that in some cases unusually high live discharge rates could be an indicator of hospice patients’ dissatisfaction with the quality of care furnished by an individual hospice provider. In 2009, just under 18 percent of discharges were live discharges across all hospice providers. Similar to our findings in the March 2010 report, above-cap hospices had substantially higher rates of patients discharged alive from hospice. In 2009, about 44 percent of discharges in above-cap hospices involved patients who were discharged alive compared with 16 percent of discharges in below-cap hospices (Table 11-8). This pattern holds true when comparing patients with similar diagnoses. For example, among patients with heart and circulatory conditions discharged from hospice



**TABLE 11-7**

**Hospice length of stay by diagnosis for above-cap and below-cap hospices, 2009**

**Percent of stays beyond 180 days among hospice users**

Diagnosis	Above-cap hospices	Below-cap hospices
All	42%	19%
Cancer	17	9
Neurological conditions	50	30
Heart/circulatory	44	18
Debility	43	23
COPD	46	25
Other	49	23

Note: COPD (chronic obstructive pulmonary disease). Data reflect the percent of hospice users in 2009 whose hospice stay was beyond 180 days.

Source: MedPAC analysis of 100 percent hospice claims standard analytical file data from CMS.

in 2009, 48 percent of discharges by above-cap hospices were live discharges compared with 14 percent in below-cap hospices. Between 2008 and 2009, there was almost no change in the hospice live discharge rate overall and in above-cap and below-cap hospices.

The longer stays and higher frequency of patients being discharged alive from hospice among above-cap hospices compared with other hospices suggest that above-cap hospices may be admitting patients who do not meet the hospice eligibility criteria. A pattern of certain providers enrolling hospice patients who may not meet eligibility criteria for long periods of time and then discharging them back to traditional Medicare is disruptive for these beneficiaries and may result in them not receiving the most appropriate services for their condition, which may translate into poor quality of care. It also raises fiscal concerns for the Medicare program if some hospices do not comply with the benefit's eligibility criteria and merits further investigation by the Office of Inspector General (OIG) and CMS.

Some hospices have asserted that Medicare's aggregate cap impedes access to hospice care. As shown in previous reports, the hospice cap is unrelated to the prevalence of hospice use across states (Medicare Payment Advisory Commission 2010, Medicare Payment Advisory Commission 2011). In 2009, 6 of the top 10 states with

the highest rates of hospice enrollment among Medicare decedents had very few (3 percent or less) or no hospices exceed the cap. In addition, hospice use rates vary substantially across the states that have a relatively high share of hospices over the cap. Among the five states with the largest share of hospice providers over the cap, the percent of decedents who used hospice ranged from substantially below the national average in one state to about average in two states to slightly above average in one state and substantially above average in another state. These data demonstrate that exceeding the cap does not reflect high hospice enrollment rates.

**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, as publicly reported information on quality is generally not available. PPACA mandates that CMS publish hospice quality measures by 2012. Beginning in fiscal year 2014, hospices that do not report quality data will receive a 2 percentage point reduction in their annual payment update.

CMS has adopted two quality measures for the first year of the pay-for-reporting program. Hospices must report these measures in 2013 (based on data from the last three months of calendar year 2012) or face a 2 percent reduction in their payments for fiscal year 2014. The first measure endorsed by the National Quality Forum (NQF)

**TABLE 11-8**

**Hospice live discharges as a percent of all hospice discharges, by diagnosis, for above- and below-cap hospices, 2009**

Diagnosis	Hospices	
	Above cap	Below cap
All	44%	16%
Cancer	21	10
Neurological conditions	35	17
Heart/circulatory	48	14
Debility	49	20
COPD	51	20
Other	57	25

Note: COPD (chronic obstructive pulmonary disease).

Source: MedPAC analysis of 100 percent hospice claims standard analytical file data and the denominator file from CMS.

## Hospice cap

The Medicare hospice payment system includes an aggregate cap that effectively limits the average annual payment per beneficiary that a hospice provider can receive. The hospice cap is established in statute (Section 1814(i)(2) of the Social Security Act). The methodology CMS has historically used to operationalize the hospice cap (now referred to as “the streamlined methodology”) has been a source of controversy. Some above-cap hospices challenged the methodology in court. In the fiscal year 2011 hospice final rule, CMS established an alternative methodology (“proportional methodology”) for operationalizing the cap. Below is a summary of the two methodologies, the time frame for their use, and a discussion of operational aspects of the new methodology that will be important for ensuring that overpayments are fully collected.

**General cap formula.** For each cap year (November 1 through October 31 of the following year), if total payments to a hospice for that year exceed the hospice’s total number of patients for that year multiplied by the cap amount (\$23,014.50 in 2009), the hospice must repay the difference to the government.

The difference between the streamlined and proportional approach to the cap calculation relates to how beneficiaries who receive care in more than one cap year from the same hospice are treated in the beneficiary count of the cap calculation.

**Streamlined methodology.** An individual who receives care from only one hospice is included in the beneficiary count for the cap calculation the first year the beneficiary is enrolled in hospice. If that beneficiary

is enrolled in hospice for more than one cap year, the beneficiary is included in the beneficiary count only for the year of admission. For beneficiaries who receive care from more than one hospice, the beneficiary is reflected as a fraction in the beneficiary count for a provider in each year the beneficiary receives hospice care from that provider. The fraction reflects the number of days of hospice care in a cap year the beneficiary received care from that hospice as a percent of all days of hospice care received by that beneficiary from all hospices in all years.

**Proportional methodology.** The beneficiary is reflected as a fraction in the beneficiary count for a provider in each year the beneficiary receives hospice care from that provider, regardless of the number of hospices from which the beneficiary received care. This fraction is calculated using the same method as used under the streamlined methodology for beneficiaries who change hospices.

CMS has given hospices a choice of methodology. The general time frames for implementation of the methodologies are as follows.

**2011 cap year and earlier.** Streamlined methodology will be used unless the hospice has filed or files a valid appeal or lawsuit, in which case the proportional approach is used from that point going forward. Hospices have 180 days from the date of the overpayment demand letter received from the CMS claims processing contractors to file an appeal.

**2012 cap year and after.** Proportional methodology will be used unless the hospice elects to remain with

*(continued next page)*

focuses on pain management (i.e., the share of patients who reported being uncomfortable because of pain at admission whose pain was brought to a comfortable level within 48 hours—commonly referred to as the National Hospice and Palliative Care Organization’s comfortable dying measure). The second measure is process related and is designed to assist with the development of future quality measures. Hospices will report whether they are tracking at least three measures focused on patient care

and what those measures are, which CMS indicated will help with the identification of feasible quality measures in the future. At the time of publication, NQF was considering endorsement of additional quality measures in the areas of palliative care and end-of-life care, which may be a source of additional quality measures for hospice in the future.

In November 2011, we convened a technical panel of hospice clinicians, researchers, quality experts, and

## Hospice cap (cont.)

the streamlined methodology. Hospices that elect to remain with the streamlined methodology have the option of electing the proportional methodology once in the future, at which point they must remain with the proportional methodology going forward.

**Implementation of the new methodology.** Both the original and new cap methodologies are calculated based on the most recent data available at the time the calculation is made. How far after the close of the cap year the calculation is performed affects the amount of overpayments estimated for both calculations but more so for the new proportional methodology. Under both methodologies, when prorating a beneficiary's hospice use, the beneficiary is reflected in the beneficiary count of the cap formula for a particular hospice and cap year as a fraction that reflects the number of days of hospice care provided by that hospice in that cap year as a percent of the beneficiary's total hospice days in all years and across all hospices. The longer after the close of the cap year the calculation is done, the more complete the view of hospice care beyond the cap year at issue will be, and thus the calculation of the beneficiary fraction will be more accurate. Under the proportional methodology, this fractional approach occurs for all beneficiaries who receive hospice care in more than one year or from more than one provider, whereas under the streamlined methodology it occurs only for those who switched hospices. Consequently, when the cap calculation is done soon after the close of the cap year, the proportional methodology generates substantially lower overpayments in the aggregate than the streamlined methodology. CMS has noted the potential for the proportional methodology to understate a hospice's cap liabilities because only a

partial view of future hospice use is available at the time of the cap calculation for those beneficiaries who continue receiving hospice in future cap years (CMS 2011). CMS has stated that it has the ability to reopen the overpayment calculation for a cap year up to three years after the cap determination for that year is made (CMS 2011).

Commission analysis highlights the importance of that reopening process for the proportional methodology. At the individual hospice level, whether a hospice has more overpayments under one formula versus the other depends on the individual circumstances of the hospice. But at the aggregate level summing across all hospices, we find that the new proportional methodology generally produces lower overpayments than the streamlined methodology, particularly when the calculation is done soon after the close of the cap year. Modeling the streamlined methodology versus the proportional methodology, we find that the proportional methodology yields overpayments amounting to less than 50 percent of the overpayments estimated by the streamlined methodology when calculated 2 months after the close of the cap year, with this percentage approaching 80 percent at 10 months and about 90 percent at 22 months. Also, the number of hospices exceeding the cap increases the longer the lag between the close of the cap year and when the calculation is performed. These results illustrate the importance of establishing a national standard time frame for initially performing the cap calculation and a national standard process for reopening that calculation in future years to ensure that all hospices that exceed the cap for a given cap year are identified and overpayments are fully collected. ■

other stakeholders to provide input on hospice quality measurement. Panelists provided feedback on what they thought were the most important indicators of hospice quality and related issues.

### Measures

Panelists discussed the challenges of hospice quality measurement. The purpose of hospice care—to provide comfort care and psychosocial and other supports to

patients and their caregivers near the end of life—makes quality measurement inherently challenging. Because of the nature of hospice care, there may be limited ability to identify outcome measures. The NQF pain measure CMS adopted for the first year of reporting is one; more work is needed to develop others. Panelists noted that a combination of structure, process, and survey measures, combined with the NQF pain measure, may be the best gauge of quality at this time.

## Symptom management

Panelists generally agreed that quality measures that gauge the effectiveness of symptom management where feasible, or whether hospices have appropriate processes in place to screen for and manage symptoms, are an important piece of quality measurement. One panelist noted that in considering what types of symptoms are good initial candidates for quality measurement, policies might best focus on symptoms that affect the largest share of patients and where there is strong knowledge of how to address those symptoms. This panelist pointed to pain and dyspnea as two symptoms that best fit those criteria and a number of panelists agreed that they are important areas. Psychological symptoms such as anxiety and depression were viewed as important but harder targets for quality measurement because less is known about effective management of these symptoms at the end of life. One panelist suggested that possible measures in this area could be whether a hospice screened for these psychological symptoms and identified whether a plan was in place to address them (without specifying the type of plan).

Overall, panelists supported the pain measure adopted by CMS for the first year of the quality reporting (i.e., the percentage of patients uncomfortable because of pain at the initial assessment who are comfortable within 48 hours), although they expressed concern about certain issues. Some panelists noted that for some patients there is a trade-off between pain control and cognitive awareness and that some patients choose awareness over pain control. Some expressed concern that this pain measure does not allow for patient preferences in this type of situation. Several panelists, however, noted that this measure's focus on a patient's perception of comfort rather than on a numeric pain scale was important because it did not impose on patients an outside judgment of the level at which their pain should be. At the same time, some panelists noted that there would be value in having a pain measure based on the patient's definition of comfort and another measure using a numeric pain scale. Other issues discussed include concerns about whether hospices would follow the protocol for the pain measure correctly and the exclusion of patients who are not able to self-report. Some panelists pointed out that there may be variability across hospices in the types of patients they consider unable to self-report or in extreme cases some may exclude certain types of patients from the protocol, which could affect the results. Panelists thought it was important to have information on the number of patients for whom an individual hospice had missing data as a gauge of potential issues.

**Bereaved family member surveys** Many panelists believe data from bereaved family member surveys are valuable indicators of hospice quality. Some noted that the unit of care for hospice is the patient and the caregiver, so information about how the hospice meets caregivers' needs for information and support (e.g., the degree to which caregivers have the information they need about administering medications, the degree to which caregivers feel prepared about what to expect during the dying process) are indicators of a hospice's performance. Other panelists noted that with patients generally unable to report on the experience of care, family members are in the closest proximity to report such information (such as whether the patient was respected and perceptions of the overall quality of care received). A panelist also noted that the perspective of bereaved family members on the care a hospice provides resonates with potential patients and families as they select a hospice. From a practical perspective, panelists pointed out that many hospices conduct a postdeath survey of bereaved family members so they should be familiar with the general process. However, a standard survey instrument would have to be selected if it were to become part of CMS's quality reporting program. One survey, the National Hospice and Palliative Care Organization's Family Evaluation of Hospice Care, has NQF endorsement. While panelists believe such surveys provide valuable information, they also noted that the responses tend to be skewed positive and that survey measures would need to be accompanied by other types of quality measures to provide a full picture of quality.

**Staffing and service measures** A number of panelists thought measures related to hospice staff and the services they provide are important gauges of quality. Examples of indicators of quality according to some panelists include staff contact hours, staff caseload, certification of staff, and staff turnover. Some panelists also noted that there is variation across hospices in the breadth of services they offer, which may reflect quality (e.g., whether they serve patients with expensive needs, whether they provide alternative therapies, and the level of their responsiveness on nights and weekends).

**Claims-based measures of poor quality** Several panelists indicated that Medicare claims data might be a potential source of indicators of poor quality care. For example, hospices observed in the claims data to provide few visits in the last days of life, to provide no higher acuity hospice care (general inpatient care or continuous home care) to

any patients, or to have unusually high live discharge rates might be a flag for poor quality and bear further scrutiny. We intend to explore these types of data in the future.

### **Other issues**

**Patient assessment instrument** Hospice does not have a uniform patient assessment instrument. Panelists had varied views on the need for such an instrument. Several panelists believe the only way to obtain consistent data across hospices is to adopt a patient assessment instrument. Others have concerns about such an instrument, particularly what items to include and whether it would result in hospices focusing on the items in the instrument to the detriment of other aspects of hospice care. Some panelists pointed to the psychosocial and spiritual aspects of hospice care as being the most difficult to reflect in an assessment instrument.

**Short-stay patients** A number of quality indicators used in CMS's Hospice Assessment Intervention and Measurement project that are being considered for NQF endorsement exclude patients with a length of stay of less than seven days. Panelists thought it was important that this short-stay population be included in quality measures; that is, hospices should be accountable for quality standards regardless of length of stay.

**Surveys and accreditation** Panelists discussed perceived variation in the sophistication and quality of care across hospice providers, including concerns that a small subset of providers may provide substandard care. Panelists had varied opinions about what should be done if hospices exhibited indicators of poor quality. Some believed they should be subject to immediate survey (inspection) by a state survey agency. Others indicated that the survey and certification process was not necessarily strong enough to pick up deficiencies. Some panelists believed that requiring accreditation of hospices might be an avenue to explore but noted that the accreditation process for hospices, while perceived to be stronger than the survey process, also needed strengthening.

### **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 adequate.

Some freestanding hospices are part of large publicly traded chain providers. Recent financial reports for these hospices have generally been favorable and they appear to have adequate access to capital. Two publicly traded companies have reported strong revenue growth and increases in average length of stay, and they have invested in new hospice agencies or (in the case of one company) inpatient units. Another publicly traded hospice company, which recently merged with another large multisector health care provider, reported a decline in hospice admissions and indicated that efforts are under way to reduce costs and grow volume. This firm is substantially leveraged, but it is reflective of the costs of the recent merger and not an indicator of Medicare payment adequacy for hospice.

Less information is available on access to capital for privately held freestanding providers. Among private equity groups, the number of merger and acquisition transactions for hospice providers is up in the first half of 2011 compared with the same period in 2010 (Braff Group 2011). The continued influx of for-profit freestanding providers and modest growth in the number of nonprofit freestanding providers suggest that capital is accessible. Hospital-based and home-health-based hospices have access to capital through their parent providers, which also appear to have adequate access to capital.

### **Medicare payments and providers' costs**

As part of the update framework, we assess the relationship between Medicare payments and providers' costs by considering whether current costs approximate what efficient providers are expected to spend on delivering high-quality care. Medicare margins illuminate the relationship between Medicare payments and providers' costs. We examined margins through the 2009 cost-reporting year, the latest period for which cost report data and claims data are available.<sup>12</sup> 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 11-9, p. 300). This variation is one reason why we observe differences in hospice margins across provider types in our margin analyses. In 2009, hospice costs per day were \$142 on average across all hospice providers, a very slight increase from \$141 per day in 2008.<sup>13</sup> Freestanding hospices had lower costs per day than home-health-based hospices and hospital-based

**TABLE  
11-9**

**Hospice costs per day vary  
by type of provider, 2009**

	Percentile			
	Average	25th	50th	75th
All hospices	\$142	\$109	\$133	\$168
Freestanding	137	107	128	157
Home health based	146	111	137	171
Hospital based	178	120	156	201
For profit	130	103	123	152
Nonprofit	156	121	149	181
Above cap	114	97	114	135
Below cap	146	112	137	172
Urban	145	112	136	171
Rural	127	102	126	160

Note: Data reflect aggregate cost 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 the case mix or wages across hospices.

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

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 the Medicare cost report data indicates that, across all hospice types, those with longer average lengths of stay 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. A few examples of indirect costs are management and administrative costs, accounting and billing, and capital costs. In 2009, indirect costs made up 34 percent of total costs for freestanding hospices, compared with 38 percent of total costs for home-health-based hospices and 43 percent of total costs for hospital-based hospices. The higher indirect costs among provider-based hospices suggest that their costs may be inflated because of the allocation of overhead costs from the parent provider.<sup>14</sup>

**Hospice margins**

From 2003 to 2009, the aggregate hospice Medicare margin oscillated from as low as 4.6 percent to as high as 7.1 percent (Table 11-10, p. 302). As of 2009, the aggregate hospice Medicare margin was 7.1 percent, up from 5.1 percent in 2008. Margins varied widely across individual hospice providers. In 2009, the Medicare margin was -13.7 percent at the 25th percentile, 5.3 percent at the 50th percentile, and 20.2 percent at the 75th percentile. Our estimates of Medicare margins from 2003 to 2009 exclude overpayments to above-cap hospices and are calculated based on Medicare-allowable, reimbursable costs consistent with our approach in other Medicare sectors.<sup>15,16</sup>

We excluded nonreimbursable bereavement costs from our margin calculations. The statute requires that hospices offer bereavement services to family members of their deceased Medicare patients. 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 2009 aggregate Medicare margin by at most 1.5 percentage points.<sup>17</sup> As discussed in more detail in our March 2011 report, this estimate of 1.5 percent is likely an overestimate of the bereavement costs associated with Medicare hospice patients. Some hospices report the cost of bereavement services provided to the families of hospice and nonhospice patients combined on the Medicare cost report, and we are not able to separately identify the bereavement costs related to hospice patients.

We also excluded nonreimbursable volunteer costs from our margin calculations. By statute, Medicare hospice providers are required to utilize some volunteers in the provision of hospice care. (For background on this requirement, see text box.) 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 types of 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.<sup>18</sup>

## Hospice volunteer requirement

When the hospice benefit was established, the Congress included in the statute a requirement that a hospice use “volunteers in its provision of care and services in accordance with standards set by the Secretary, which standards shall ensure a continuing level of effort to utilize such volunteers” (Section 1861(dd)(2)(E) of the Social Security Act). In addition, the statute requires that hospices keep records on the use of volunteers, including documenting the resulting cost savings and service expansions achieved. According to the regulation implementing the Medicare hospice benefit, the intent of the volunteer requirement was to ensure that the establishment of the hospice benefit “did not diminish the voluntary spirit of hospices” (Health Care Financing Administration 1983). When the requirement was established, virtually all hospice providers were “voluntary” or charitable organizations; today, more than half are for-profit providers.

To implement the volunteer requirement, the Secretary established that hospices must use volunteers to provide patient care and administrative services (e.g., clerical work) equal to at least 5 percent of total patient care hours provided by paid staff or contractors. While volunteers may provide cost savings for hospices to the extent that they substitute for care or services that otherwise would be provided by paid staff, hospices do incur costs in recruiting and training volunteers.

According to survey data published in 2012 by the National Hospice and Palliative Care Organization, hospices relied on 458,000 volunteers in 2010, with the majority (about 59 percent) providing assistance to patients and their families averaging about 47 hours of service per volunteer per year (National Hospice and Palliative Care Organization 2012). About 19 percent of volunteers provided clinical support (e.g., clerical work) and another 22 percent provided general support (e.g., fundraising or board of directors).<sup>19</sup> Volunteers provided 5.2 percent of clinical staff hours in hospices in 2010. A few examples of services volunteers provide are visiting with patients socially, helping patients and caregivers with errands, and staying with patients so caregivers can have a few hours of respite. Some hospices also use volunteers to sit vigil with patients who do not have family in the last hours or days of life so that these patients do not die alone.

This volunteer requirement is unique to hospice providers. No other type of Medicare provider is required to utilize volunteers. This practice raises questions about the role the volunteer requirement plays in hospice care and whether hospices should have the flexibility to determine what level of volunteers, if any, they utilize. ■

Freestanding, for-profit, and urban hospices have higher margins than their counterparts. In 2009, freestanding hospices had an aggregate Medicare margin of 10.0 percent, compared with home-health-based hospices at 5.2 percent and hospital-based hospices at -12.8 percent. The aggregate Medicare margin was considerably higher among for-profit hospices (11.4 percent) than among nonprofit hospices (3.4 percent). Among nonprofit hospices, freestanding and home-health-based hospices had substantially higher margins than hospital-based hospices. In 2009, the aggregate Medicare margin was 6.2 percent for freestanding nonprofit hospices and 7.4 percent for home-health-based hospices compared with -11.4 percent for hospital-based hospices (provider-based nonprofit margins are not broken out in Table 11-10). Generally, hospices’ margins vary by the size of the provider; hospices with more patients have higher

margins on average. Overall, hospices in urban areas have a higher aggregate Medicare margin (7.6 percent) than those in rural areas (3.1 percent), although this finding is not consistent by type of hospice. Freestanding hospices in urban areas have higher margins than those in rural areas. In contrast, home-health-based and hospital-based hospices in rural areas have higher margins than their counterparts in urban areas. A later section of this chapter examines margins of hospice providers based on the predominant type of county served (urban, micropolitan, rural adjacent, rural nonadjacent, and frontier).

Hospice financial performance also varies by length of stay (Table 11-11, p. 303). In 2009, hospices with longer stays had higher margins (with margins dropping somewhat for hospices in the longest stay category because some hospices in that category exceeded the cap

**TABLE  
11-10**

**Hospice Medicare margins by selected characteristics, 2003–2009**

Category	Percent of hospices 2009	2003	2004	2005	2006	2007	2008	2009
All	100%	6.6%	5.0%	4.6%	6.4%	5.8%	5.1%	7.1%
Freestanding	69	10.9	8.3	7.2	9.7	8.7	8.0	10.0
Home health based	16	3.9	3.1	3.1	3.8	2.3	2.7	5.2
Hospital based	15	-14.0	-11.6	-9.1	-12.8	-10.7	-12.2	-12.8
For profit (all)	54	15.7	11.8	9.9	12.0	10.4	10.0	11.4
Freestanding	47	16.6	12.3	10.3	12.7	11.3	11.3	12.8
Nonprofit (all)	33	1.1	0.3	1.0	1.5	1.7	0.2	3.4
Freestanding	16	5.6	3.7	3.8	5.8	5.6	3.2	6.2
Urban	70	7.4	5.9	5.1	7.1	6.3	5.6	7.6
Rural	30	0.1	-2.3	0.2	0.8	1.4	1.3	3.1
Patient volume (quintile)								
Lowest	20	-2.2	-6.1	-6.6	-5.5	-8.0	-9.6	-8.1
Second	20	-4.1	-1.2	-1.6	0.3	1.0	-1.4	1.0
Third	20	1.6	1.1	1.9	2.4	3.1	3.9	3.5
Fourth	20	3.3	2.8	4.4	5.8	5.8	6.2	6.5
Highest	20	9.6	7.2	5.9	8.1	7.1	6.0	8.9
Below cap	87.5	6.7	5.6	5.1	7.0	6.1	5.5	7.6
Above cap (excluding cap overpayments)	12.5	3.5	-3.4	-0.8	0.3	2.5	1.0	1.3
Above cap (including cap overpayments)	12.5	23.9	18.9	20.7	20.7	20.5	19.0	18.3

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, 100 percent hospice claims standard analytical file, and Medicare Provider of Services data from CMS.

and our estimates assume the return of cap overpayments by these hospices). As noted previously, the higher profitability of long stays reflects a mismatch between the Medicare payment system and hospices' level of effort throughout an episode. Hospice visits tend to be more intense at the beginning and end of the episode and less intense in the intervening period, but Medicare makes a flat payment per day. The Commission's recommendation to revise the hospice payment system to have relatively higher payments per day at the beginning and end of the episode (near the time of the patient's death) and lower payments in the intervening period would better align payments and costs and would likely reduce the variation in profitability across hospices and patients.

In addition, hospices with a high share of patients in nursing facilities and assisted living facilities have higher margins than other hospices. For example, in 2009

hospices in the top quartile in terms of the percent of their patients residing in nursing facilities had a 13.8 percent margin compared with a margin of 6 percent to 7 percent in the middle quartiles and a margin of -0.6 percent in the bottom quartile. Margins also vary by the share of a provider's patients in assisted living facilities, with the margin ranging from 1.0 percent among providers in the lowest quartile to 11.5 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, when comparing hospices with similar lengths of stay, those with more nursing facility patients have higher margins, which may reflect efficiencies in the nursing facility setting, possibly from treatment of patients in a centralized location (e.g., lower mileage costs and staff time required for travel when a hospice treats more



patients in a single location), and reduction in workload due to overlap in aide services and supplies provided by the hospice and nursing facility. The Commission recommended that the OIG study hospice care provided in nursing facilities. The OIG recently completed a report on hospices that have a large share of their patients in nursing facilities and found that these providers are more likely to be for profit, have longer lengths of stay, and treat patients with diagnoses that require less complex care (Office of Inspector General 2011). They also noted an overlap in payments provided to hospices and nursing facilities for aide services. The OIG recommended that CMS monitor hospices that focus on nursing facility patients and reduce payments for hospice care in nursing facilities. In the Commission's October 2011 letter to the Congress on repeal of the sustainable growth rate and possible offsets, the Commission included a placeholder policy to operationalize the OIG's recommendation for a reduction in hospice rates in nursing homes (see [http://www.medpac.gov/documents/10142011\\_MedPAC\\_SGR\\_letter.pdf](http://www.medpac.gov/documents/10142011_MedPAC_SGR_letter.pdf)).

Differences in margins across freestanding, home-health-based, and hospital-based hospices are in part due to differences in indirect costs (e.g., general and administrative expenses, capital costs), which are higher for provider-based hospices and are likely inflated because of the allocation of overhead costs from the parent provider. 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 5 percentage points higher for home-health-based hospices and 12 percentage points higher for hospital-based hospices, and the industry-wide aggregate Medicare margin would be about 1.8 percentage points higher.<sup>20</sup> We intend to continue to examine the differences in the levels of indirect costs across providers and consider whether issues with the allocation of overhead from the parent provider warrant the exclusion of provider-based hospices from our margin calculations.

### Urban and rural margins

Overall, the aggregate Medicare margin is higher for hospices that provide services predominantly in urban counties than for those that predominantly provide services in rural counties. To examine hospice margins by degree of rurality, we categorized hospices based on the type of county (i.e., urban, micropolitan, rural adjacent, rural nonadjacent based on the urban influence codes) in which the largest share of its patients live, and we excluded above-cap hospices.<sup>21</sup> Hospices that

**TABLE  
11-11**

### Hospice Medicare margins by length of stay and patient residence, 2009

Hospice characteristic	Medicare margin
Average length of stay	
Lowest quintile	-8.6%
Second quintile	2.8
Third quintile	8.7
Fourth quintile	14.2
Highest quintile	8.9
Percent of stays > 180 days	
Lowest quintile	-9.0
Second quintile	3.5
Third quintile	8.6
Fourth quintile	14.4
Highest quintile	8.3
Percent of patients in nursing facilities	
Lowest quartile	-0.6
Second quartile	6.1
Third quartile	6.7
Highest quartile	13.8
Percent of patients in assisted living facilities	
Lowest quartile	1.0
Second quartile	2.3
Third quartile	7.6
Highest quartile	11.5

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, 100 percent hospice claims standard analytical file, and Medicare Provider of Services data from CMS.

predominantly serve urban counties had a margin of 8.0 percent compared with 3.7 percent for hospices that predominantly serve nonurban counties (Table 11-12, p. 304). However, the higher margins for hospices serving urban counties compared with rural counties is not consistent across types of hospices. Margins are more favorable for freestanding hospices predominantly serving urban counties rather than rural counties. For home-health-based hospices, margins are slightly better for those serving rural counties rather than urban ones. For hospital-based hospices,

**TABLE  
11-12****Aggregate Medicare margins  
for below-cap hospices by  
type of county served, 2009**

Hospice provider by pre-dominant type of county served	Aggregate Medicare margin	Percent of hospices
Urban	8.0%	70%
Rural	3.7	30
Micropolitan	3.1	18
Rural, adjacent to urban	3.5	6
Rural, nonadjacent to urban	6.5	6
Frontier*	8.8	4

Note: Excludes above-cap hospices. Predominant county served is determined using the beneficiary's address registered with Social Security and reflects the type of county that accounts for the largest share of the provider's caseload. Frontier is defined as a county with a population density of 6 people per square mile or less.

\*Providers with more than 10 percent of patients residing in frontier counties.

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

margins are negative for those serving urban and rural counties, with rural hospices overall having slightly better margins. Among hospices predominantly serving rural counties, margins are higher for hospices serving more remote counties. Margins were relatively similar for hospices predominantly serving micropolitan counties or rural adjacent counties (3.1 percent and 3.5 percent, respectively), while margins were higher for those predominantly serving rural nonadjacent counties (6.5 percent). This result largely reflects differences in margins among hospital-based hospices. Freestanding hospices have relatively similar margins across the three different types of rural counties. Hospital-based hospices have positive margins for those serving rural adjacent counties and negative margins for those serving other types of counties (rural and urban). We also examined margins for the 4 percent of hospices that have more than 10 percent of their patients residing in frontier counties (defined as a population density of six or fewer per square mile). These hospices had a higher aggregate margin (8.8 percent) than other hospices, although the median is near zero and margins vary widely across this small group of providers. Overall, these data suggest that while hospices serving rural areas in the aggregate have

lower margins than those serving urban areas, margins do not appear to decrease as the degree of rurality increases. Furthermore, some hospices that provide services to beneficiaries in remote areas, such as frontier counties, do so with favorable margins.

Differences in patient volume explain some of the overall difference observed in margins between hospices predominantly serving urban and rural counties. For below-cap hospices serving urban and rural areas, margins generally increase as patient volume increases (Table 11-13). Rural hospices are much more likely to be very small and much less likely to be very large than their urban counterparts, which contributes to the overall differences in profitability between hospices predominantly operating in rural versus urban counties. Volume accounts for some, but not all, of the difference in margins between urban and rural hospices. Comparing hospices in the same quintile in terms of Medicare patient volume, hospices serving urban areas have a somewhat higher aggregate margin than those serving rural areas, with the exception of one quintile (Table 11-13).

**Projecting margins for 2012**

To project the aggregate Medicare margin for 2012, we model the policy changes that went into effect between 2009 (the year of our most recent margin estimates) and 2012. The policies include:

- a market basket update of 2.1 percent for fiscal year 2010, 2.6 percent for fiscal year 2011, and 3.0 percent for fiscal year 2012;
- the first three years of the seven-year phase-out of the wage index budget-neutrality adjustment factor, which reduced payments to hospices by 0.4 percent in fiscal year 2010 and by an additional 0.6 percent in each fiscal year 2011 and 2012;
- additional wage index changes, which reduced payments in fiscal years 2010 and 2011 and increase payments in fiscal year 2012;<sup>22</sup> and
- additional net costs beginning in 2011 associated with the face-to-face visit requirement for recertification of patients in the third benefit period and in subsequent benefit periods.

Taking these policy changes into account and assuming that hospice costs generally grow at a rate similar to forecasted input price growth, we project an aggregate Medicare margin for hospices of 5.1 percent in fiscal

year 2012. This margin projection excludes the nonreimbursable costs associated with bereavement services and volunteers (which would lower the aggregate margin at most by 1.5 and 0.3 percentage points, respectively). It also does not include any adjustment for the higher indirect costs observed among hospital-based and home-health-based hospices (which would increase the overall aggregate Medicare margin by as much as 1.8 percentage points).

In considering the 2012 margin projection as an indicator of the adequacy of current payment rates for 2013, one policy of note is the continued phase-out of the wage index budget-neutrality adjustment. Our 2012 margin projection reflects the first three years (through 2012) of the seven-year phase-out of the wage index budget-neutrality adjustment. In 2013, the fourth year of this phase-out will result in an additional 0.6 percentage point reduction in payments.

## How should Medicare payments change in 2013?

Our indicators of payment adequacy in 2012 are generally positive. The Commission believes hospices can operate within the Medicare payment system with a modest update in fiscal year 2013.

### Update recommendation

#### RECOMMENDATION 11

**The Congress should update the payment rates for hospice for fiscal year 2013 by 0.5 percent.**

#### RATIONALE 11

Our payment indicators for hospice are generally positive. The number of hospices has increased in recent years because of the entry of for-profit providers. The number of beneficiaries enrolled in hospice, average length of stay, and total hospice payments have also increased. Access to capital appears adequate. The projected 2012 aggregate Medicare margin is 5.1 percent.

#### IMPLICATIONS 11

### Spending

- Under current law, hospices would receive an update in fiscal year 2013 equal to the hospital market basket index (currently estimated at 2.9 percent) less an

**TABLE  
11-13**

### Aggregate Medicare margins for below-cap hospices by Medicare patient volume and predominant type of county served, 2009

Number of Medicare patients	Aggregate Medicare margin		Percent of hospices	
	Urban	Rural	Urban	Rural
Quintile				
Lowest	1.8%	-5.9%	11.5%	35.3%
Second	4.1	2.3	15.5	27.4
Third	3.8	4.0	19.2	19.7
Fourth	6.6	4.4	24.4	13.4
Highest	9.1	7.1	29.5	4.2
All	8.0	3.7	100	100

Note: Excludes above-cap hospices. Predominant county served is determined using the beneficiary's address registered with Social Security and reflects the type of county that accounts for the largest share of the provider's caseload.

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

adjustment for productivity (currently estimated at 0.9 percent) and less an additional 0.3 percentage point, for a net update of 1.7 percent (based on current estimates). Our recommendation for a 0.5 percent update in fiscal year 2013 would decrease federal program spending by between \$50 million and \$250 million over one year and by less than \$1 billion over five years. The spending implication of this recommendation is based on Medicare spending projections that were made prior to a sequester, as the recommendation was developed and voted on before the sequester was triggered and became current law. If a Medicare sequester does occur, it will change the spending implication of the recommendation.

### Beneficiary and provider

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

## Endnotes

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- 1 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.
- 2 The Patient Protection and Affordable Care Act of 2010 (PPACA) makes changes to the annual update to hospice payments. Hospice payments will continue to be updated based on the hospital market basket, subject to certain adjustments stipulated by PPACA. Beginning in fiscal year 2013, a productivity adjustment will be applied to the market basket update. The market basket also will be reduced by an additional 0.3 percentage point in fiscal year 2013 and potentially an additional 0.3 percentage point in each fiscal year from 2014 to 2019 if certain targets for health insurance coverage among the working age population are met.
- 3 The average annual payment cap is calculated for the period November 1 through October 31 each year.
- 4 The most recent cap threshold for cap year ending October 31, 2011, is \$24,527.69.
- 5 In late 2007, CMS issued guidance to state survey and certification agencies indicating that surveys of new hospices applying to be Medicare providers (as well as other types of providers that have the option of obtaining Medicare status through accreditation rather than state surveys) should be in the lowest tier of their workload priorities.
- 6 The government and other ownership structure category is an aggregation of three ownership types: (1) government ownership, (2) combination government and nonprofit ownership, and (3) other. The 27 percent increase in hospices with government and other ownership structures is driven by growth in hospices reporting other ownership structures, which increased more than 50 percent between 2000 and 2010. The number of government providers decreased about 10 percent and the number of providers with a combination of government and nonprofit ownership increased by less than 5 percent over this period.
- 7 This count of SNF-based hospices does not include freestanding hospices that are owned by a company that also owns nursing facilities. While we do not have an estimate of the number of freestanding hospices that are part of these types of joint ownership arrangements, joint ownership relationships exist among some hospice and nursing home chains.
- 8 The number of hospital-based hospices may be understated and the number of home-health-based hospices may be overstated, because some hospices that are part of hospital-based home health agencies may report being home health based rather than hospital based.
- 9 Not mentioned in the text, Alaska and Nevada also experienced substantial growth in the number of hospices in percentage terms (more than doubling) but a modest increase in the raw number of providers (from 1 in 2000 to 5 in 2010 for Alaska and from 7 in 2000 to 20 in 2010 for Nevada).
- 10 Average length of stay reported in this chapter is calculated based on data for Medicare decedents. Length of stay for beneficiaries discharged alive or who remained patients at the end of the year is much higher than average length of stay among decedents but appears to have declined modestly between 2009 and 2010.
- 11 In 2009, hospices that exceeded the aggregate cap had the following characteristics. About 87 percent were for profit, 8 percent were nonprofit, and 5 percent had “other” ownership structures. More than 90 percent of above-cap hospices were freestanding providers. The median caseload per year for above-cap hospices was nearly 50 percent less than the median caseload for below-cap hospices.
- 12 The aggregate Medicare margin is calculated by the following formula:  $[(\text{sum of total payments to all providers}) - (\text{sum of total costs to all providers}) / (\text{sum of total payments to all providers})]$ . Data on total costs come from the Medicare cost reports. Data on total Medicare payments and total cap overpayments come from Medicare claims data. We present margins for 2009 (rather than 2010 like other sectors) because of time lags in the claims data. We have complete claims data for all hospices only for the 2009 cost-reporting year (which for some hospices includes part of calendar year 2010).
- 13 In the cost-per-day calculation, costs reflect aggregate costs for all types of hospice care combined (routine home care, continuous home care, general inpatient care, and inpatient respite care). Days reflect the total number of days the hospice is responsible for care for Medicare 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.
- 14 In general, hospices with a larger volume of patients have lower indirect costs as a share of total costs. While patient volume explains some of the difference in indirect costs across providers, freestanding hospices still have lower indirect costs than provider-based hospices when providers with similar patient volumes are compared.

- 15 Hospices that exceed the Medicare aggregate cap must repay the excess to Medicare. We do not consider the overpayments to be hospice revenues in our margin calculation.
- 16 The margin estimates for the period 2002–2005 in this report differ from the estimates for the same period in our June 2008 report. The margin estimates in this report exclude overpayments to above-cap providers and exclude Medicare nonreimbursable costs, whereas the prior margin estimates did not.
- 17 Bereavement costs are generally similar across most types of hospices; however, nonprofits report higher costs than for profits (2.0 percent and 1.2 percent of total costs, respectively).
- 18 Fundraising costs are also considered nonreimbursable and are not included in our margin calculations. These costs amounted to 1.5 percent of total costs in 2009.
- 19 Volunteers engaged in general support services (e.g., fundraising or board of directors) do not count toward the requirement that hospice volunteers provide services equal to at least 5 percent of patient care provided by paid staff or contractors.
- 20 These estimates are adjusted to account for differences in patient volume across freestanding and provider-based hospices.
- 21 Above-cap hospices are excluded because they have a disproportionate effect on the margins for certain types of rural areas. Above-cap hospices have unusually long stays, high discharge-alive rates, and artificially low margins due to the return of cap overpayments. They are not reflective of an efficient provider and have been excluded to not skew the comparisons across types of rural areas.
- 22 Hospices' payments increase or decrease slightly from one year to the next because of the annual recalibration of the hospital wage index. The annual wage index recalibration was expected to reduce Medicare hospice payments by 0.3 percent in 2010 and 0.2 percent in 2011 and to increase payments by 0.1 percent in 2012, according to estimates in the CMS final rules or notices establishing the hospice payment rates for those years.

## References

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- 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: 695–701.
- Braff Group. 2011. Perspectives: 2011 second quarter. <http://www.thebraffgroup.com/Articles/articlespdfs/perspectives/Q22011.pdf>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2008. *Hospice data, 1998–2008*. Baltimore, MD: CMS. <http://www.cms.hhs.gov/center/hospice.asp>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2009. *Hospice data, 1998–2009*. Baltimore, MD: CMS. <http://www.cms.hhs.gov/center/hospice.asp>.
- 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 systemic review. *Journal of Palliative Medicine* 11, no. 5: 763–768.
- Crawley, L. 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.
- Health Care Financing Administration, Department of Health and Human Services. 1983. Medicare program; hospice care; proposed rule. *Federal Register* 48, no. 163: 38146–38175.
- Hoyer, T. 2007. The future of hospice. *Caring* (November): 6–8.
- Krakauer, R., C. M. Spettel, L. Reisman, et al. 2009. Opportunities to improve the care for advanced illness. *Health Affairs* 28, no. 5: 1357–1359.
- Medicare Payment Advisory Commission. 2008. *Report to the Congress: Reforming the delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2009. *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. 2011. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- National Hospice and Palliative Care Organization. 2012. *NHPCO facts and figures on hospice care*. Alexandria, VA: NHPCO. January. [http://www.nhpco.org/files/public/Statistics\\_Research/2011\\_Facts\\_Figures.pdf](http://www.nhpco.org/files/public/Statistics_Research/2011_Facts_Figures.pdf).
- Office of Inspector General, Department of Health and Human Services. 2011. *Medicare hospices that focus on nursing facility residents*. OEI–02–10–00070. Washington, DC: OIG. July.