CHAPTER 9

# Hospice services

## RECOMMENDATION

**9** For fiscal year 2025, the Congress should eliminate the update to the 2024 Medicare base payment rates for hospice.

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

CHAPTER 9

# Hospice services

## Chapter summary

The Medicare hospice benefit covers palliative and support services for beneficiaries who are terminally ill with a life expectancy of six months or less if the illness runs its normal course. When beneficiaries elect to enroll in the Medicare hospice benefit, they agree to forgo Medicare coverage for conventional treatment of their terminal illness and related conditions. Fee-for-service (FFS) Medicare pays for hospice care for beneficiaries enrolled in both traditional FFS Medicare and Medicare Advantage (MA). In 2022, more than 1.7 million Medicare beneficiaries (including almost half of decedents) received hospice services from about 5,900 providers, and Medicare hospice expenditures totaled $23.7 billion.

### Assessment of payment adequacy

The indicators of FFS Medicare payment adequacy for hospices—beneficiaries' access to care, quality of care, provider access to capital, and Medicare payments relative to providers' costs—are positive.

***Beneficiaries' access to care—***In 2022, indicators of beneficiaries' access to care were positive. The number of hospice providers increased substantially, and measures of hospice utilization increased.

## In this chapter

- ***Capacity and supply of providers*—**In 2022, the number of hospice providers increased by about 10 percent as more for-profit hospices entered the market, a trend that has continued for more than a decade.
- ***Volume of services*—**The share of decedents using hospice increased to 49.1 percent in 2022, up from 47.3 percent in 2021. The number of hospice users and total days of hospice care also increased in 2022. For decedents, average lifetime length of stay increased by about 3 days in 2022 to 95.3 days. Between 2021 and 2022, median length of stay was stable, increasing slightly from 17 days to 18 days. On average, beneficiaries in hospice received 3.9 visits per week in 2022, up slightly from 3.8 visits per week in 2021.
- ***FFS Medicare marginal profit*—**In 2021, FFS Medicare payments to hospice providers exceeded marginal costs by 17 percent. This rate of marginal profit suggests that providers have a strong incentive to treat Medicare patients and is a positive indicator of patient access.

***Quality of care*—**Scores on the Hospice Consumer Assessment of Healthcare Providers and Systems® were generally stable in the most recent period. Scores on a composite of seven processes of care at admission increased slightly but were topped out (i.e., scores are so high and unvarying that meaningful distinctions and improvement in performance can no longer be made). The provision of in-person visits at the end of life changed little between 2021 and 2022, but the number was lower than the prepandemic 2019 level.

***Providers' access to capital*—**Hospices are not as capital intensive as other provider types because they do not require extensive physical infrastructure. Continued growth in the number of for-profit providers (an increase of at least 10 percent in 2022) and reports of strong investor interest in the sector suggest that capital is available to these providers. Less is known about access to capital for nonprofit freestanding providers, for which capital may be more limited. Hospital-based and home health–based hospices have access to capital through their parent providers.

***FFS Medicare payments and providers' costs*—**Hospice FFS Medicare margins are presented through 2021 because of the data lag required to calculate cap overpayment amounts. Between 2020 and 2021, average costs per day increased 4.3 percent. The aggregate FFS Medicare margin for 2021 was 13.3 percent, down slightly from 14.2 percent in 2020. If Medicare's share of pandemic-related relief funds is included, the aggregate FFS Medicare margin

for 2021 was about 14.5 percent. Hospice average cost per day increased 3.7 percent in 2022. We project a FFS Medicare aggregate margin for hospices of about 9 percent in 2024.

### How should FFS Medicare payments change in 2025?

Based on the positive indicators of payment adequacy and strong margins, the Commission concludes that current payment rates are sufficient to support the provision of high-quality care without an increase to the payment rates in 2025. The Commission recommends that the Congress eliminate the update to the hospice base payment rates for fiscal year 2025.

### Findings from interviews about nonhospice spending for beneficiaries enrolled in hospice

Medicare's payments to hospices are intended to cover all services that are reasonable and necessary for palliation and management of the terminal condition and related conditions. Services that are unrelated to the terminal condition are covered separately outside of hospice by FFS Medicare for Part A and Part B services or by Part D plans for retail pharmacy drugs. Although CMS has stated that it considers "virtually all" services at the end of life to be related to the terminal condition, and thus would be the responsibility of the hospice provider, the Medicare program spent about $1.5 billion in fiscal year 2022 on services outside of the hospice benefit for hospice enrollees. The issue of nonhospice service use and spending for beneficiaries enrolled in hospice is of interest for several reasons: It may represent duplicate payment by the Medicare program; it may result in increased out-of-pocket costs for beneficiaries; and the fragmented coverage of related and unrelated services may be confusing for beneficiaries, providers, pharmacies, and Part D plans.

In 2022 and 2023, the Commission interviewed hospice providers to better understand issues related to nonhospice spending for beneficiaries enrolled in hospice. The interviews suggest that several factors likely contribute to service use and spending on nonhospice services for hospice beneficiaries, including the following:

- Policy guidance on what services are "related" is broad, and providers vary in their interpretations of what is related.
- Hospices' efforts to educate beneficiaries and families about the hospice benefit can be unsuccessful.
- Hospices report challenges coordinating with other entities (other providers, pharmacies, and Part D plans) and gaps in information flow.

Given the variety of factors contributing to nonhospice service use and spending, a range of policies could be explored to address these issues, including administrative, payment, or penalty approaches. Each approach would raise complicated issues and require further exploration. ■

## Background

The hospice benefit covers palliative and support services for Medicare beneficiaries who are terminally ill with a medical prognosis indicating that the individual's life expectancy is six months or less if the illness runs its normal course. In 2022, more than 1.7 million Medicare beneficiaries received hospice services, and Medicare hospice expenditures totaled about $23.7 billion.

The hospice benefit covers a broad set of services for palliation of the terminal condition and related conditions (e.g., visits by nurses, aides, social workers, physicians, and therapists; drugs, durable medical equipment, and supplies; short-term inpatient care and respite care; bereavement services for the family; and other services for palliation of the terminal condition and related conditions). To receive hospice services, a beneficiary must elect the hospice benefit and agree to forgo Medicare coverage for conventional treatment of the terminal illness and related conditions. Medicare continues to cover items and services unrelated to the terminal illness and its related conditions outside of hospice. Most commonly, hospice care is provided in patients' homes, but hospice services may also be provided in nursing facilities, assisted living facilities, hospice facilities, and other inpatient settings.

Beneficiaries elect hospice for defined benefit periods. When a beneficiary first elects hospice, two physicians—a hospice physician and the beneficiary's attending physician—are required to certify that the beneficiary has a life expectancy of six months or less if the illness runs its normal course.[1] The first hospice benefit period spans up to 90 days. After the first benefit period, the hospice physician can recertify the patient for a second 90-day period and for an unlimited number of 60-day periods after that, as long as the patient's terminal condition continues to engender a life expectancy of 6 months or less. Beneficiaries can disenroll from hospice at any time (referred to as "revoking hospice") and can reelect hospice for a subsequent period as long as they meet the eligibility criteria.

### Medicare payment for hospice services

The Medicare program pays a daily rate to hospice providers. The hospice provider assumes all financial risk for costs and services associated with care for the patient's terminal illness and related conditions. The hospice provider receives payment for every day that a patient is enrolled, regardless of whether the hospice staff visits the patient or otherwise provides a service each day. This payment design is intended to encompass not only the cost of visits but also other costs that a hospice incurs for palliation and management of the terminal condition and related conditions (e.g., on-call services, care planning, and nonvisit services like drugs and medical equipment).

Payments are made according to a fee schedule that has four levels of care. Routine home care (RHC) is the most common level of care, accounting for 98.8 percent of Medicare-covered hospice days in 2022. There are three other specialized levels of care: continuous home care (CHC), which is provided in the home during periods of patient crisis; general inpatient care (GIP), which is provided when symptoms require management in an inpatient setting; and inpatient respite care (IRC), which is provided to enable a short respite for a patient's primary caregiver. In 2022, 90 percent of Medicare hospice patients received some (at least one day of) RHC, 16 percent received some GIP, 3 percent received some IRC, and 2 percent received some CHC (with some patients receiving more than one level of hospice care over the course of their hospice stay). The per diem payment for routine home care is higher during the first 60 days of a hospice episode and reduced for days 61 and beyond. For the other three levels of care, the daily payment rate is higher than for RHC. Medicare also makes additional payments for registered nurse and social worker visits that occur during the last seven days of life for patients receiving RHC.[2]

When the Congress established the hospice benefit, it included a "cap" limiting the aggregate Medicare payments that an individual hospice can receive.[3] The cap is not applied individually to the payments received for each beneficiary, but rather to the total payments across all Medicare patients served by the hospice in the cap year. If a hospice's total Medicare payments exceed the total number of Medicare beneficiaries it served multiplied by the cap amount ($33,494 in 2024), it must repay the excess to the program. Unlike the daily hospice payments, the cap is not adjusted for geographic differences in costs. In 2021, we estimate

that 18.9 percent of hospices (which provided care to about 5 percent of hospice patients) exceeded the cap and were required to return payments to the program. The Commission first recommended in March 2020 that the hospice cap be wage adjusted and reduced by 20 percent as a way to make the cap more equitable across providers and focus payment reductions on providers with long stays and high margins (Medicare Payment Advisory Commission 2023, Medicare Payment Advisory Commission 2020).

Fee-for-service (FFS) Medicare pays for hospice care for beneficiaries enrolled in either traditional FFS Medicare and Medicare Advantage (MA).[4] Once a beneficiary in an MA plan elects hospice care, the beneficiary receives hospice services through a provider paid by FFS Medicare (while Medicare continues paying the MA plan for Part D services and extra benefits, but not Part A and Part B services).[5] In March 2014, the Commission urged that this policy be changed, recommending that hospice be included in the MA benefit package (Medicare Payment Advisory Commission 2014). In January 2021, as part of its value-based insurance design (VBID) models in MA, CMS's Innovation Center launched a demonstration permitting MA organizations to provide hospice and palliative care services for their enrollees to test the effects of adding the hospice benefit to MA (Centers for Medicare & Medicaid Services 2020). According to a CMS contractor evaluation report, 19,065 MA beneficiaries in 2022 received hospice paid for by MA plans (Eibner et al. 2023). As of 2024, 13 MA organizations, comprising 78 plan benefit packages that cover 690 counties in 19 states and Puerto Rico, will furnish hospice benefits under the VBID model (Centers for Medicare & Medicaid Services 2023a, Centers for Medicare & Medicaid Services 2021). In March 2024, CMS announced the hospice component of the MA VBID model would sunset in December 2024. (Centers for Medicare & Medicaid Services 2023a).

The most important benefit of hospice is its effect on patient care. The Medicare hospice benefit was designed to provide beneficiaries with a choice in their end-of-life care, giving them the option to receive care focused on symptom management and to die at home or in another location consistent with their preferences. When the Congress expanded the Medicare benefit to include hospice care in 1983, it was thought that the new benefit would be a less costly alternative to conventional end-of-life care (Government Accountability Office 2004, Hoyer 2007). The literature is mixed on whether hospice has saved the Medicare program money in the aggregate compared with conventional care, with findings varying in part depending on the methodology used. In 2015, a Commission contractor conducted research that examined the literature and carried out a market-level analysis. The contractor concluded that while hospice produces savings for some beneficiaries, such as those with cancer, overall, hospice has not reduced net Medicare program spending and may have even increased it because of very long stays among some hospice enrollees with noncancer diagnoses (Direct Research 2015). Since that research, several additional studies on this topic have had varied results, and there continues to be debate about hospices' effect on Medicare spending.[6] The Commission has additional research underway in this area.

## Are FFS Medicare payments adequate in 2024?

To address whether payments in 2024 are adequate to cover the costs of the efficient delivery of care and how much providers' payments should change in the coming year (2025), we examine several indicators of payment adequacy. Specifically, we assess beneficiaries' access to care by examining the capacity and supply of hospice providers, changes over time in the volume of services provided, quality of care, providers' access to capital, and the relationship between Medicare's payments and providers' costs.

### Beneficiaries' access to care: Hospice supply grew substantially, and utilization increased

Our analysis of access indicators—including trends in the supply of providers, utilization of hospice services, and Medicare marginal profit—shows that beneficiaries' access to care in 2022 was favorable.

#### Capacity and supply of providers: Supply of hospices continued to grow in 2022, driven by an increase in for-profit providers

In 2022, 5,899 hospices provided care to Medicare beneficiaries, a 10 percent increase from the prior year

**TABLE 9-1**

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

| Category | 2018 | 2019 | 2020 | 2021 | 2022* | Average annual percent change 2018–2021 | Percent change 2021–2022* |
|---|---|---|---|---|---|---|---|
| All hospices | 4,639 | 4,840 | 5,058 | 5,358 | 5,899 | 4.9% | 10.1% |
| For profit | 3,234 | 3,436 | 3,691 | 4,008 | 4,414 | 7.4 | 10.1 |
| Nonprofit | 1,245 | 1,255 | 1,220 | 1,195 | 1,169 | –1.4 | –2.2 |
| Government | 159 | 148 | 146 | 143 | 141 | –3.5 | –1.4 |
| Freestanding | 3,701 | 3,936 | 4,189 | 4,511 | 4,919 | 6.8 | 9.0 |
| Hospital based | 453 | 429 | 413 | 396 | 383 | –4.4 | –3.3 |
| Home health based | 463 | 456 | 437 | 434 | 421 | –2.1 | –3.0 |
| SNF based | 22 | 19 | 19 | 17 | 17 | –8.2 | 0.0 |
| Urban | 3,762 | 3,974 | 4,196 | 4,505 | 5,006 | 6.2 | 11.1 |
| Rural | 871 | 859 | 853 | 845 | 827 | –1.0 | –2.1 |

Note: SNF (skilled nursing facility). The providers included in this analysis submitted at least one paid hospice claim in a given year. Some categories do not sum to total because of missing data for some providers. The rural and urban definitions used in this chart are based on updated definitions of the core-based statistical areas (which rely on data from the 2010 census). Type of hospice reflects the type of cost report filed (a hospice files a freestanding hospice cost report or the hospice is included in the cost report of a hospital, home health agency, or skilled nursing facility).
*In 2022, data on ownership status, type of hospice, and rural and urban location are missing for more providers than usual due to a temporary pause in CMS's updating of the Provider of Services file data for hospices in 2022. While the total number of hospices providing care to Medicare beneficiaries in 2022 (5,899) is not affected by this issue, the table may understate the number of hospices in any ownership, hospice type, or urban/rural subgroup in 2022.

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

(Table 9-1). Market entry of for-profit, freestanding providers drove the growth in supply.

An issue of data availability affects our estimates of the number of providers by ownership status, type of hospice, and urban and rural location in 2022.[7] Thus, we may be understating the number of hospices in any of these categories in 2022, although the total number of hospices providing care in 2022 (5,899) is unaffected by this issue.

In 2022, the number of for-profit hospices grew by at least 10 percent (Table 9-1). Between 2021 and 2022, the number of hospices with nonprofit ownership or government ownership appeared to decline, continuing the downward trend observed from 2018 to 2021. In 2022, among the hospices for which we have data, about 77 percent of providers were for profit; however, they furnished care to just over half of Medicare hospice patients because, on average, for-profit providers were smaller than nonprofit providers (latter data not shown). The number of freestanding providers increased at least 9 percent in 2022. The number of home health–based and hospital-based hospices appeared to decline in 2022, while the number of SNF-based providers was unchanged.[8] In 2022, based on available data, we found that about 86 percent of hospices were freestanding, and these hospices furnished care to 87 percent of Medicare hospice patients (latter data not shown).

The number of hospice providers is not necessarily an indicator of beneficiary access to hospice care because the number does not capture the size of providers, their capacity to serve patients, or the size of their service areas. Commission analyses in 2010 and 2019 found that hospice use rates across states appear unrelated to a state's number of hospice providers

per 10,000 beneficiaries (Medicare Payment Advisory Commission 2021).

The number of rural hospices has declined in recent years, falling about 1 percent per year between 2018 and 2021 and declining similarly in 2022 (Table 9-1, p. 267). As of 2022, we estimate 86 percent of hospices were located in urban areas and 14 percent were in rural areas; about 17 percent of Medicare beneficiaries (including beneficiaries in FFS and MA) lived in rural areas in 2022. As noted above, the number of hospices located in rural areas is not reflective of hospice access for rural beneficiaries because it does not capture the size of those hospice providers, their capacity to serve patients, or the size of their service area. Further, some urban hospices provide services in rural areas. Indeed, the share of rural decedents using hospice grew in 2022 (Table 9-2).

In 2022, much of the growth in the number of hospice providers was concentrated in California and Texas. Between 2021 and 2022, the growth in the number of providers in California and Texas combined (about 20 percent) exceeded the growth in the number of providers excluding these two states (about 4 percent). Between 2021 and 2022, California gained 342 hospices and Texas gained 75 hospices, continuing the trend in recent years of substantial market entry by hospice providers in these two states.[9] In our March 2021 report to the Congress, an analysis of new hospices in California and Texas found that these providers tended to be small and had long average lengths of stay, high live-discharge rates, and high rates of exceeding the aggregate cap; nearly all were for profit (Medicare Payment Advisory Commission 2021). In 2022, other states also saw sizable net gains in the number of hospices: 24 in Nevada, 15 in Arizona, 12 in Michigan, 10 in Virginia, 8 in Indiana, 7 in Ohio, and 6 in both Oregon and Wisconsin. The number of hospice providers declined in some states, although these changes were generally modest. The three states with the biggest decline in the number of hospices were Minnesota (four hospices) and Mississippi and Idaho (two hospices each).

The rapid entry of providers in California has led to program integrity efforts by the state. California placed a moratorium on new hospice licenses in 2022 and bolstered its state laws governing hospice referral and patient enrollment practices (California Legislature 2021). In addition, the California state auditor issued a report on hospice care in Los Angeles County, stating that "growth in the number of hospice agencies in Los Angeles County has vastly outpaced the need for hospice services" and identifying "numerous indicators of fraud and abuse" (Tilden 2022).[10]

In summer 2023, CMS also announced a number of steps to increase program integrity efforts for hospice providers overall and specifically in four states (Centers for Medicare & Medicaid Services 2023b). For newly enrolled hospices in Arizona, California, Nevada, and Texas, CMS is implementing a provisional period of enhanced oversight that involves the agency conducting medical review before making payments on these providers' claims. In addition, CMS has indicated it is undertaking a pilot project, not just in the four states mentioned, to review hospice claims following an individual's first 90 days of hospice care.

Nationally, hospice use among Medicare decedents increased in 2022, after declining the prior two years due to the coronavirus pandemic. In 2022, 49.1 percent of Medicare decedents received hospice services, up from 47.3 percent in 2021 (Table 9-2). The hospice use rate, which had increased in the prior decade from 2010 to 2019, declined in 2020 and 2021 due to the pandemic. Between 2010 and 2019, hospice use grew from 43.8 percent to 51.6 percent. With the onset of the coronavirus pandemic, the increase in beneficiary deaths in 2020 outpaced growth in the number of hospice users; the share of decedents using hospice in 2020 declined to 47.8 percent (data not shown). In 2021, the hospice use rate declined slightly to 47.3 percent, as deaths remained elevated near 2020 levels and the number of decedents using hospice declined slightly (data not shown) (Medicare Payment Advisory Commission 2023). In 2022, the share of decedents using hospice grew, increasing nearly 2 percentage points to 49.1 percent, but remained below the prepandemic rate of 51.6 percent in 2019.

The share of decedents using hospice in 2022 continued to be affected by the coronavirus pandemic. We have observed that those months with the highest numbers of deaths during the pandemic had the lowest hospice use rates (Medicare Payment Advisory Commission 2023). This pattern has largely reflected the fact that elderly people who die of COVID-19, similar to those who die of pneumonia and influenza,

**TABLE 9–2**

## In 2022, share of decedents using hospice increased overall and across all beneficiary subgroups

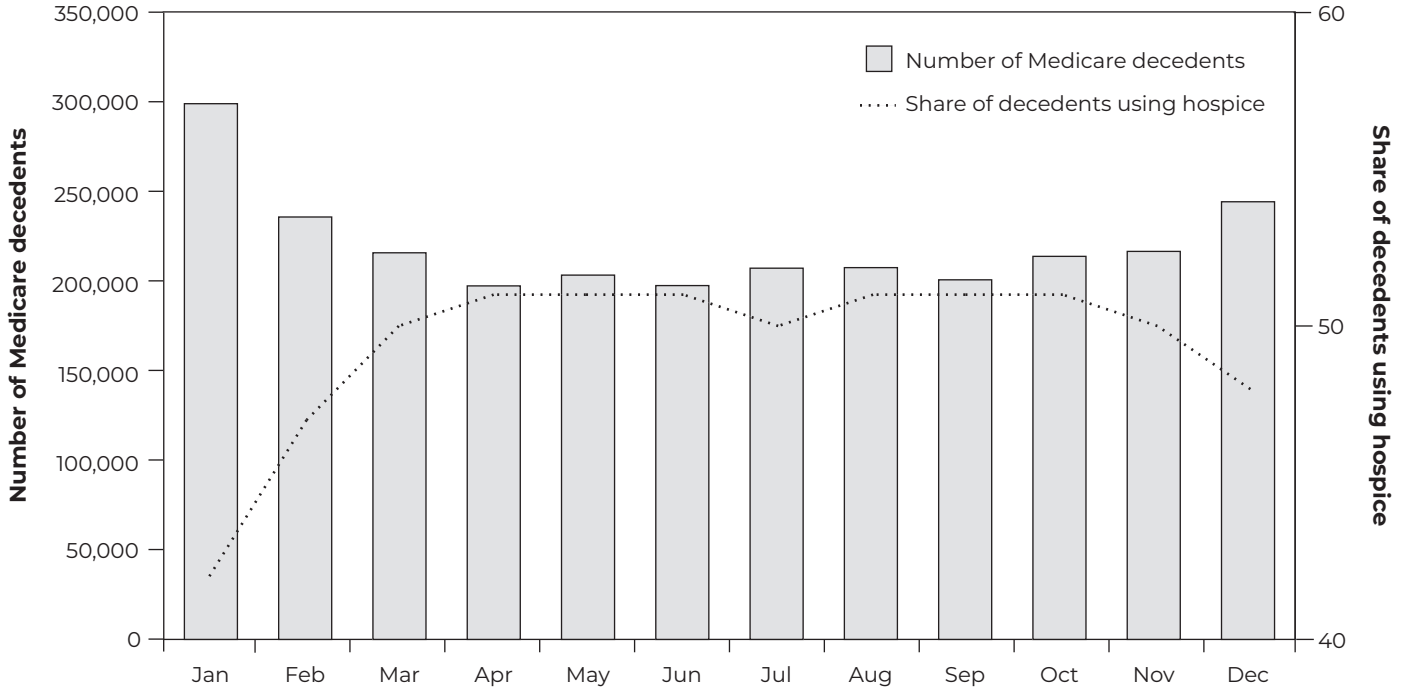
| | Share of Medicare decedents who used hospice | | | | | |
|---|---|---|---|---|---|---|
| | 2010 | 2019 | 2021 | 2022 | Average annual percentage point change 2010–2021 | Percentage point change 2021–2022 |
| All decedent beneficiaries | 43.8% | 51.6% | 47.3% | 49.1% | 0.3 | 1.8 |
| FFS beneficiaries | 42.8 | 50.7 | 47.2 | 49.1 | 0.4 | 1.9 |
| MA beneficiaries | 47.2 | 53.2 | 47.4 | 49.2 | 0.0 | 1.8 |
| Dually eligible for Medicaid | 41.5 | 49.3 | 42.1 | 44.2 | 0.1 | 2.1 |
| Not Medicaid eligible | 44.5 | 52.4 | 49.2 | 50.9 | 0.4 | 1.7 |
| Age | | | | | | |
| < 65 | 25.7 | 29.5 | 25.0 | 26.6 | –0.1 | 1.6 |
| 65–74 | 38.0 | 41.0 | 35.8 | 37.7 | –0.2 | 1.9 |
| 75–84 | 44.8 | 52.2 | 47.9 | 49.4 | 0.3 | 1.5 |
| 85+ | 50.2 | 62.7 | 60.8 | 61.8 | 1.0 | 1.0 |
| Race/ethnicity | | | | | | |
| White | 45.5 | 53.8 | 50.0 | 51.6 | 0.4 | 1.6 |
| Black | 34.2 | 40.8 | 35.6 | 37.4 | 0.1 | 1.8 |
| Hispanic | 36.7 | 42.7 | 34.2 | 38.3 | –0.2 | 4.1 |
| Asian American | 30.0 | 39.8 | 36.2 | 38.1 | 0.6 | 1.9 |
| North American Native | 31.0 | 38.5 | 33.8 | 37.1 | 0.3 | 3.3 |
| Sex | | | | | | |
| Male | 40.1 | 46.7 | 42.1 | 43.8 | 0.2 | 1.7 |
| Female | 47.0 | 56.3 | 52.5 | 54.3 | 0.5 | 1.8 |
| Beneficiary location | | | | | | |
| Urban | 45.6 | 52.8 | 48.5 | 50.2 | 0.3 | 1.7 |
| Micropolitan | 39.2 | 49.7 | 45.1 | 47.2 | 0.5 | 2.1 |
| Rural, adjacent to urban | 39.0 | 49.5 | 44.9 | 47.8 | 0.5 | 2.9 |
| Rural, nonadjacent to urban | 33.8 | 43.8 | 39.9 | 42.1 | 0.6 | 2.2 |
| Frontier | 29.2 | 36.2 | 33.0 | 35.2 | 0.3 | 2.2 |

Note: FFS (fee-for-service), MA (Medicare Advantage). For each demographic group, the share of decedents who used hospice is calculated as follows: The number of beneficiaries in the group who both died and received hospice in a given year is divided by the total number of beneficiaries in the group who died in that year. "Beneficiary location" refers to the beneficiary's county of residence in one of four categories (urban, micropolitan, rural adjacent to urban, or rural nonadjacent to urban) based on an aggregation of the Urban Influence Codes (UICs). This chart uses the 2013 UIC definition. The frontier category is defined as population density equal to or less than six people per square mile and overlaps the categories of residence. Yearly figures presented in the table are rounded, but figures in the columns for percentage point change were calculated using unrounded data. Analysis excludes beneficiaries without Medicare Part A because hospice is a Part A benefit.

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

**FIGURE 9–1**

**Monthly trends in Medicare decedents and hospice use, 2022**




Note: "Share of decedents using hospice" refers to decedents who used hospice in the last calendar year of life. Analysis excludes beneficiaries without Medicare Part A because hospice is a Part A benefit.

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

are much more likely to die in the hospital and less likely to die at home or in a nursing facility than elderly people who die of other illnesses. The number of deaths among Medicare beneficiaries was elevated in January 2022, corresponding to a surge in the pandemic, reaching about 300,000 decedents; the share who used hospice that month was 42 percent (Figure 9-1). As the number of deaths declined after January, oscillating from approximately 195,000 to 215,000 deaths per month from March through November 2022, hospice use rates were higher, approximately 50 percent to 51 percent each month in that period (Figure 9-1).

In 2022, the share of decedents using hospice increased across all subgroups examined (Table 9-2, p. 269). While hospice use rates rose for all groups, hospice use remained more common among decedents who were older, female, White, residents of urban areas, and not dually eligible for Medicaid and Medicare. Hospice use among beneficiaries with end-stage renal disease, a group that has lower-than-average hospice use, increased slightly to 29 percent in 2022, up from 28 percent in 2021 (data not shown).

Between 2021 and 2022, hospice use rates increased among all racial or ethnic groups—White, Black, Hispanic, Asian American, and North American Native beneficiaries. Nevertheless, hospice use rates continued to be lower for non-White decedents (Table 9-2, p. 269). The reasons for these differences are not fully understood. Researchers have cited a number of possible factors, such as cultural or religious beliefs, preferences for end-of-life care, disparities in access to care or information about hospice, socioeconomic factors, and mistrust of the medical system (Barnato et

al. 2009, Cohen 2008, Crawley et al. 2000, LoPresti et al. 2016, Martin et al. 2011).

In 2022, hospice use rates increased in both rural and urban areas. Although a greater share of urban decedents than rural decedents have used hospice, that difference shrunk between 2010 and 2022 across counties with different degrees of rurality (Table 9-2, p. 269). Hospice use is lowest among beneficiaries in frontier counties, although hospice use in these areas has also grown.

In 2022, hospice use rates were similar for FFS and MA decedents, and use rates grew for both groups in 2022. Historically, a greater share of decedents in MA than in FFS have used hospice, although the difference has shrunk in recent years. Growth in the share of newly eligible, younger beneficiaries choosing to enroll in MA plans rather than traditional FFS Medicare has contributed to the shrinking difference in hospice use rates between FFS and MA decedents (because younger decedents are less likely to enroll in hospice than older decedents) (Table 9-2, p. 269).

### Volume of services: Measures of hospice use increased in 2022

In 2022, measures of hospice use for all hospice enrollees (not just decedents) increased. That year, 1.72 million Medicare beneficiaries received hospice services, a slight increase (0.4 percent) from 2021. The number of hospice days furnished also increased 2 percent to about 130 million days (Table 9-3, p. 272).[11]

Hospice length of stay increased in 2022 (Table 9-3, p. 272). Average lifetime length of stay among decedents was 95.3 days, up from 92.1 days in 2021. Median length of stay increased slightly to 18 days from 17 days in 2021. Most hospice decedents have short stays, but some have very long stays (Figure 9-2, p. 273). Between 2021 and 2022, length of stay among decedents with the shortest stays remained the same (2 days at the 10th percentile and 5 days at the 25th percentile), and it increased among those with longer stays (from 79 days to 84 days at the 75th percentile and from 264 days to 275 days at the 90th percentile) (Figure 9-2; 2021 data not shown). Hospice length of stay among hospice decedents in MA and FFS is generally similar, except the longest stays are slightly longer among beneficiaries in FFS than in MA.[12]

Length of stay has implications for our broader assessment of payment adequacy because patients' length of stay affects provider profitability. Hospices furnish more services at the beginning and end of a hospice episode and fewer services in the middle, making long stays more profitable for providers than short stays (Medicare Payment Advisory Commission 2013). Hospice lengths of stay vary by observable patient characteristics—such as patient diagnosis and location—so hospice providers can identify and enroll patients who are likely to have long (more profitable) stays if they so choose. For example, in 2022, average lifetime length of stay was longer among decedents with neurological conditions and chronic obstructive pulmonary disease (159 days and 135 days, respectively) than among decedents with cancer (52 days). Length of stay was also longer among patients in assisted living facilities (165 days) or nursing facilities (109 days) compared with patients at home (98 days).[13]

For-profit hospices have substantially longer average lengths of stay than nonprofit hospices (114 days compared with 72 days, respectively, in 2022). For-profit hospices have more patients with diagnoses that tend to have longer stays, but they also have patients with longer stays than nonprofit hospices for all types of diagnoses. For example, among hospice decedents with neurological conditions, average length of stay was 181 days for for-profit hospices and 128 days for nonprofit hospices.[14] These differences in patient mix and length of stay contribute to the variation observed among providers' profit margins, discussed below.

Although most patients have short hospice stays, long stays account for the majority of Medicare spending on hospice. In 2022, Medicare spent just over $14 billion, nearly 60 percent of hospice spending that year, on patients with stays exceeding 180 days (Table 9-4, p. 274). Over $5 billion of that spending was on additional hospice care for patients who had already received at least one year of hospice services (which is already twice the presumptive eligibility period for the hospice benefit).

Among the hospices with very long stays are those that exceed the hospice aggregate cap. In 2021, we estimate that about 18.9 percent of hospices exceeded the aggregate payment cap, similar to the prior year (18.6 percent in 2020) (Table 9-5, p. 275).[15] On average, above-cap hospices exceeded the cap by about

**TABLE 9–3**

## Hospice use increased in 2022

| | | | | | Average annual percent change | | Percent change |
|---|---|---|---|---|---|---|---|
| | 2010 | 2019 | 2021 | 2022 | 2010–2019 | 2019–2021 | 2021–2022 |
| **Hospice use among Medicare decedents** | | | | | | | |
| Number of Medicare decedents (in millions) | 1.99 | 2.32 | 2.73 | 2.64 | 1.7% | 8.4% | –3.5% |
| Number of Medicare decedents who used hospice (in millions) | 0.87 | 1.20 | 1.29 | 1.30 | 3.6 | 3.9 | 0.2 |
| Average lifetime length of stay among decedents (in days) | 87.0 | 92.5 | 92.1 | 95.3 | 0.7 | –0.2 | 3.5 |
| Median lifetime length of stay among decedents (in days) | 18 | 18 | 17 | 18 | 0 days | –0.5 days | 1 day |
| **Medicare use and spending for all hospice users (not limited to decedents)*** | | | | | | | |
| Total spending (in billions) | $12.9 | $20.9 | $23.1* | $23.7* | 5.5 | 5.1* | 2.7* |
| Number of Medicare hospice users (in millions) | 1.15 | 1.61 | 1.71* | 1.72* | 3.8 | 3.2* | 0.4* |
| Number of hospice days for all hospice beneficiaries (in millions) | 81.6 | 121.8 | 127.6* | 130.2* | 4.6 | 2.4* | 2.0* |

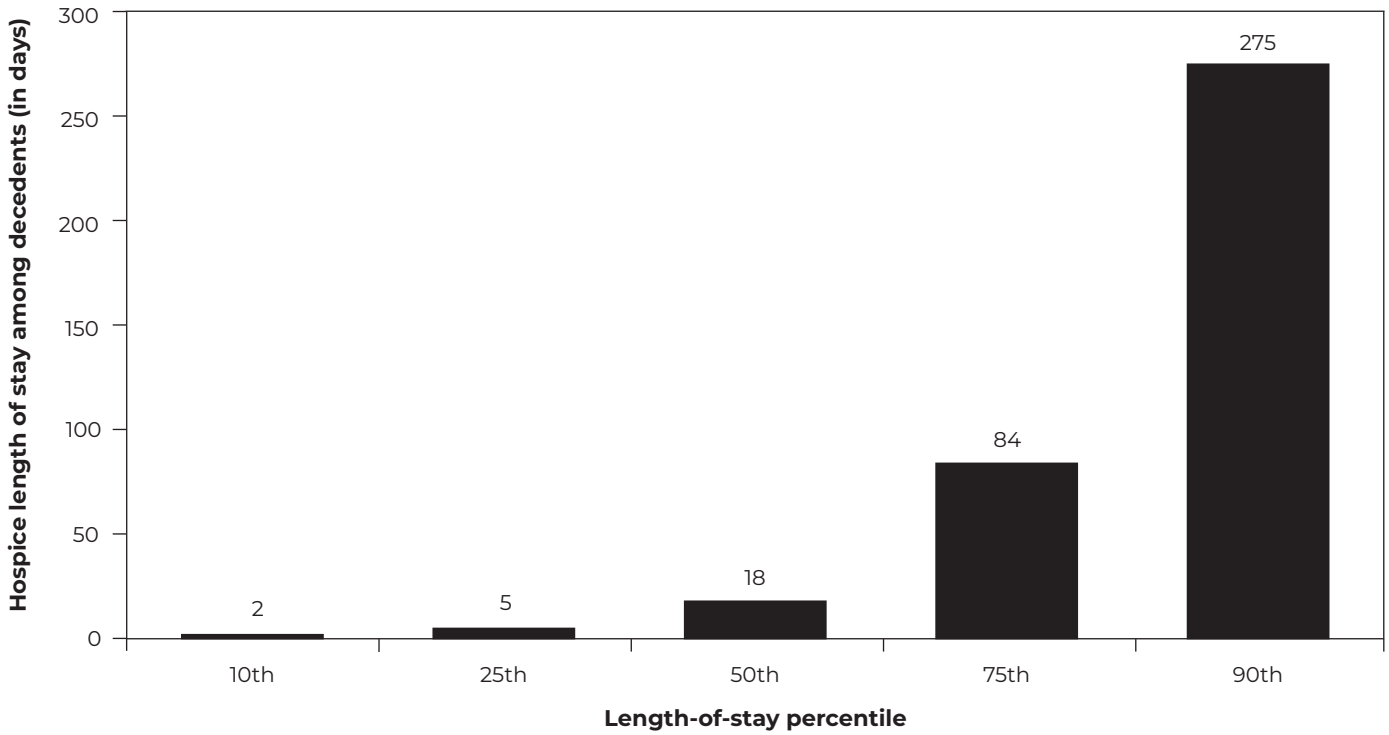
Note: Lifetime length of stay is calculated for decedents who were using hospice at the time of death or before death and reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during their lifetime. Total spending, number of hospice users, number of hospice days, and average length of stay displayed in the table are rounded; the percentage change columns for number of hospice users and total spending are calculated using unrounded data.
*These estimates are based on Medicare-paid hospice claims, which exclude hospice care paid for by Medicare Advantage (MA) plans participating in the Center for Medicare & Medicaid Innovation hospice MA value-based insurance design hospice model beginning 2021. According to CMS contractor evaluation reports, 9,630 MA beneficiaries in 2021 and 19,065 MA beneficiaries in 2022 received hospice paid for by MA plans (Eibner et al. 2023, Khodyakov 2022).

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

$451,000 in 2021, up from $422,000 in 2020. Above-cap hospices have fewer patients per year, on average, than below-cap hospices and are more likely to be for profit, freestanding, recent entrants to the Medicare program, and located in urban areas (Medicare Payment Advisory Commission 2022). Above-cap hospices have substantially longer stays than below-cap hospices, even for patients with similar diagnoses. Above-cap hospices also have substantially higher rates than other hospices of discharging patients alive, even when we compare patients with similar diagnoses. As the Commission has noted in past reports, these length-of-stay and live-discharge patterns suggest that above-cap hospices are admitting patients who do not meet the hospice eligibility criteria, which merits further investigation by the Office of Inspector General and CMS.

**FIGURE 9–2**

**Most hospice decedents had relatively short stays, but some had very long stays, 2022**




Note: Lifetime length of stay is calculated for decedents who were using hospice at the time of death or before death and reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during their lifetime.

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

## In-person hospice visits increased slightly in 2022 but did not reach prepandemic levels

In 2022, in-person hospice visits increased slightly to 3.9 visits per week on average, up from an average of about 3.8 visits per week in 2021 (Table 9-6, p. 275). This increase resulted from a slight uptick in the average number of nurse, aide, and social worker visits per week.

However, the average number of in-person visits per week remained below prepandemic levels. Some of these visits may have been replaced by telehealth visits. Through the end of the public health emergency (May 11, 2023), hospices were given the flexibility to provide RHC visits via telecommunications technology if it was feasible and appropriate to do so. We lack data on telehealth visits provided by hospices except for social worker phone calls, which has limited our ability to determine the extent to which telehealth visits were used to supplement in-person visits in 2022 (and in 2020 and 2021).

Another measure of access is whether providers have a financial incentive to expand the number of Medicare beneficiaries they serve. In considering whether to treat a patient, a provider with excess capacity compares the marginal revenue it will receive (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If Medicare payments are

**TABLE 9–4**

**Nearly 60 percent of Medicare hospice spending was for patients with stays exceeding 180 days, 2022**

| | Medicare hospice spending, 2022 (in billions) |
|---|---|
| All hospice users in 2022 | $23.7 |
| Beneficiaries with LOS > 180 days | 14.1 |
| Days 1–180 | 4.5 |
| Days 181–365 | 4.3 |
| Days 366+ | 5.3 |
| Beneficiaries with LOS ≤ 180 days | 9.6 |

Note: LOS (length of stay). "LOS" reflects the beneficiary's lifetime days with hospice as of the end of 2022 (or at the time of discharge in 2022 if the beneficiary was not enrolled in hospice at the end of 2022). All spending reflected in the table occurred only in 2022. Breakout groups do not sum to totals because of rounding.

Source: MedPAC analysis of Medicare hospice claims data and an Acumen LLC data file on hospice lifetime length of stay (which is based on an analysis of historical claims data).

larger than the marginal costs of treating an additional beneficiary, a provider has a financial incentive to increase its volume of Medicare patients. In contrast, if payments do not cover the marginal costs, the provider could have a disincentive to care for Medicare beneficiaries.[16] We found that the 2021 Medicare marginal profit for hospice providers was roughly 17 percent, suggesting that providers with the capacity to do so had a strong incentive to treat Medicare patients.

## Quality of care is difficult to assess but appears generally stable

Scores on available quality metrics, based on the most recent available quality data, were generally stable. Scores on the Consumer Assessment of Healthcare Providers and Systems® (CAHPS®) survey were stable in the most recent period. Scores on a composite of seven processes of care at admission increased slightly in 2022 but are generally topped out. The provision of in-person visits at the end of life increased slightly in 2022 but remained below 2019 levels.[17]

### Consumer Assessment of Healthcare Providers and Systems

The Hospice Quality Reporting Program requires hospice providers to participate in a CAHPS hospice survey. The survey gathers information from the patient's informal caregiver (typically a family member) after the patient's death. The survey addresses aspects of hospice care that are thought to be important to patients and for which informal caregivers are positioned to provide information. Areas of focus include how the hospice performed on the following measures: communicating, providing timely care, treating patients with respect, providing emotional support, providing help for symptom management, providing information on medication side effects, and training family or other informal caregivers in the home setting. Respondents are also asked to rate the hospice on a scale of 1 to 10 and to say whether they would recommend the hospice. In August 2022, CMS began reporting star ratings for hospices based on the CAHPS scores.

CAHPS scores—as measured by the share of caregivers who reported the "top box," meaning the most positive, survey response in eight domains—were generally stable in the most recent period (January 2021 to December 2022) compared with the prior period (July 2019 to December 2021, excluding the first half of 2020). Similar to the prior period, 81 percent of caregivers in the most recent period rated the hospice a 9 or 10, and 84 percent would definitely recommend the hospice. Caregivers most frequently gave top ratings on measures of providing emotional support and treating patients with respect (90 percent of caregivers chose the most positive response in those areas). Roughly three-quarters of caregivers gave hospices top ratings for providing help for pain and symptoms, providing timely care, and training caregivers (with 74 percent to 77 percent of caregivers reporting the most positive responses in those areas) (Table 9-7, p. 276). The share of respondents giving a top rating declined slightly (1 percentage point) on four measures: treating patients with respect, help for pain and symptoms, providing timely help, and caregiver training in the most recent period. CMS has recently begun reporting star ratings for hospices as a way to summarize performance across the hospice CAHPS measures. In terms of star ratings, among providers with ratings, most providers scored 3 stars or 4 stars (36 percent and 39 percent, respectively), while some

**TABLE 9–5**

**Hospices that exceeded Medicare's annual payment cap, 2017–2021**

| Year* | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| Estimated share of hospices exceeding the cap | 14.0% | 16.3% | 19.0% | 18.6% | 18.9% |
| Average payments over the cap per hospice exceeding it (in thousands) | $273 | $334 | $384 | $422 | $451 |
| Payments over the cap as share of overall Medicare hospice spending | 1.0% | 1.3% | 1.7% | 1.8% | 2.0% |

Note: The aggregate cap statistics reflect the Commission's estimates and may differ from CMS claims processing contractors' estimates. Our estimates assume all hospices use the proportional methodology and rely on claims data through 15 months after the end of each cap year. The claims processing contractors may reopen the hospice cap calculation for up to three years; the reopening process and timing vary across contractors.
*Spending in cap year 2017 reflects an 11-month period from November 1, 2016, to September 30, 2017. Beginning in 2018, the cap year is aligned with the federal fiscal year (October 1 to September 30 of the following year).

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

providers scored higher (11 percent received 5 stars) or lower (12 percent received 2 stars, and 2 percent received 1 star). However, star ratings were available for less than half of providers (2,046 hospices).[18]

Another way to consider quality performance is to examine the frequency with which caregivers report poor experiences. Two fundamental purposes of hospice are to manage a patient's symptoms in accord with the patient's preferences and to provide timely help; thus, it could be informative to examine how frequently poor performance occurs in these areas.

For example, looking at the distribution of caregiver responses across providers on the CAHPS survey in the most recent period, the median hospice had 10 percent of patients' informal caregivers give the bottom rating on help for pain and symptoms (i.e., reported the patient sometimes or never got the help they needed for pain or symptoms) and the bottom rating on providing timely help (i.e., reported that the hospice team sometimes or never provided timely help). Across providers, the share of caregivers choosing the bottom rating on these two measures ranged from 6 percent at the 10th percentile to 15 percent at the 90th percentile.

**TABLE 9–6**

**Average number of in-person hospice visits per patient per week increased slightly in 2022 but did not reach prepandemic levels**

| | Average number of visits per patient per week | | | | Percent change 2021–2022 |
|---|---|---|---|---|---|
| | 2019 | 2020 | 2021 | 2022 | |
| Total visits | 4.3 | 3.6 | 3.8 | 3.9 | 1.8% |
| Nurse visits | 1.8 | 1.6 | 1.7 | 1.7 | 1.4 |
| Aide visits | 2.2 | 1.7 | 1.8 | 1.8 | 1.6 |
| Social worker visits | 0.3 | 0.2 | 0.3 | 0.3 | 7.0 |

Note: "Visits" refers to in-person visits only. Nurse visits include both registered nurse and licensed practical nurse visits. Components of visits may not sum to total visits due to rounding.

Source: MedPAC analysis of Medicare hospice claims data from CMS.

**TABLE 9–7**

**Scores on hospice CAHPS® quality measures and hospice star ratings**

| | National performance | |
|---|---|---|
| | **Prior period (July 2019 – December 2019; July 2020 – December 2021)** | **Most recent period (January 2021 – December 2022)** |
| Share of caregivers rating the hospice a 9 or 10 | 81% | 81% |
| Share of caregivers who would definitely recommend the hospice | 84 | 84 |
| Share of caregivers who give top ratings on: | | |
| Providing emotional support | 90 | 90 |
| Treating patients with respect | 91 | 90 |
| Help for pain and symptoms | 75 | 74 |
| Hospice team communication | 81 | 81 |
| Providing timely help | 78 | 77 |
| Caregiver training | 76 | 75 |

Note: CAHPS® (Consumer Assessment of Healthcare Providers and Systems®). The CAHPS scores in the eight listed domains reflect the share of respondents who reported the "top box," meaning the most positive, survey response across all providers. The "previous period" covers July 2019 to December 2021, excluding the first half of 2020, when hospices' quality reporting requirement was suspended due to the coronavirus pandemic.

Source: CAHPS data from CMS.

In 2024, CMS will begin implementing the new Hospice Special Focus Program (mandated by the Consolidated Appropriations Act, 2021), which will identify providers with the poorest performance based on selected quality indicators (Centers for Medicare & Medicaid Services 2023e). Under this program, CMS will identify the poorest-performing hospices based on an algorithm that reflects the following quality indicators: condition-level deficiencies identified in surveys, substantiated complaint allegations, a claims-based measure of outlier patterns of care, and performance on the hospice CAHPS survey. The CAHPS scores incorporated into the algorithm include the share of caregivers who gave bottom ratings for pain and symptom management, getting timely help, and overall rating of the hospice, as well as the share who would not recommend the hospice. CMS will select from among the 10 percent of hospices with the poorest perfomance on the algoritm for inclusion in the Special Focus Program. Hospices selected for the Special Focus Program will be subject to more frequent surveys, every 6 months over an 18-month period. These providers could face termination from the Medicare program if they are found to have additional serious deficiencies or complaints that meet certain criteria while being surveyed during the Special Focus Program. CMS plans to publicly report the 10 percent of hospice providers that have the lowest performance on the algorithm and the subset of those providers selected for the Special Focus Program.

### Process measures

Hospices are required to report data on seven processes of care that are important for patients newly admitted to hospice. These processes include pain screening, pain assessment, dyspnea screening, dyspnea treatment, documentation of treatment preferences, addressing beliefs and values if desired by the patient, and provision of a bowel regimen for patients treated with an opioid. CMS has a composite measure that reflects the share of admitted patients for whom the hospice performed all seven activities

appropriately (or appropriately performed all the activities relevant to the patient). Hospice providers' scores on the composite measure are very high and increased slightly in the most recent period. The provider-level median score was 96.2, up from 95.3 percent in the previous period. The consistently high scores on the composite measure suggest that it has topped out.

In August 2022, CMS added two new claims-based process measures to public reporting.[19] One is the Hospice Care Index, which identifies providers with outlier patterns of care based on hospice providers' performance across 10 indicators. These indicators include four related to the provision of visits to hospice patients, four related to aspects of live discharge, one that reflects Medicare hospice spending per beneficiary, and one that gauges whether the provider furnished any high-intensity care (continuous home care or general inpatient care). In the most recent reporting period, from January 2021 to December 2022, 15 percent of providers with data were outliers on at least 3 of 10 measures, and 2 percent were outliers on at least half of the measures.

The second new claims-based process measure in the public reporting program focuses on visits by hospice nurses and social workers at the end of life. Measures of these visits are thought to be indicators of quality because patients' and caregivers' need for symptom management and support tends to increase in the last week of life. The measures calculate the share of hospice decedents who received in-person nurse or social worker visits on at least two of the last three days of life. Provider performance varied substantially on this measure. Among providers with at least 20 patients who died during the reporting period and met criteria for inclusion in the measure, scores ranged from 40 percent at the 25th percentile to 70 percent at the 75th percentile, similar to the prior reporting period.[20]

The Commission has also used claims data to examine the aggregate trend from 2019 to 2022 in nurse and social worker in-person visits in the last seven days of life. After a modest decline in 2020 in the frequency and length of these visits in the last seven days of life, provision of these visits was generally stable in 2021 and 2022 but has not rebounded to the prepandemic level (Table 9-8, p. 278). The share of days with a visit was stable or increased slightly in 2021 and in 2022, while the average length of visits declined slightly in these years, resulting in very small overall change in the average amount of visit time.

### Future quality measures

The Commission consistently maintains that, with quality measurement in general, outcome measures are preferable to process measures. Although outcome measures for hospice are particularly challenging, the Commission believes that outcome measures such as patient-reported pain and other symptom management measures warrant further exploration. In the hospice final rule for fiscal year (FY) 2022, CMS indicated that, as part of the hospice patient assessment instrument currently under development (referred to as the Hospice Outcomes & Patient Evaluation (HOPE)), CMS has been working with a technical expert panel to explore three candidate outcome measures related to symptom management: timely reduction of pain impact, reduction in pain severity, and timely reduction of symptoms. In addition, CMS indicated in the FY 2024 hospice final rule that the agency intends to develop at least two process and outcome measures from the HOPE when it is implemented: timely reassessment of pain impact and timely reassessment of nonpain symptom impact (Abt Associates 2022). CMS is also working with a technical expert panel to develop health-equity structural composite measures for hospice and home health (Centers for Medicare & Medicaid Services 2022).

### High rates of live discharge from hospice could signal problems

As the Commission has noted over the years, high rates of live discharge may signal poor quality or program integrity issues. Hospice providers are expected to have some live discharges because patients may change their mind about using the hospice benefit and disenroll from hospice or their condition may improve such that they no longer meet the hospice eligibility criteria. However, substantially higher rates of live discharge relative to other hospices could indicate a problem, such as a hospice provider not meeting the needs of patients and families or admitting patients who do not meet the eligibility criteria.

In 2022, the aggregate rate of live discharge (that is, live discharges as a share of all discharges) was 17.3 percent, close to the 2021 rate of 17.2 percent. As in prior years, hospice claims data show "beneficiary revocation" and

**TABLE 9–8**

**Measure of in-person nurse and social worker visits during the last seven days of life was generally stable in 2022, but down from 2019 levels**

| | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|
| **Nurse visits in last 7 days of life** | | | | |
| Share of days with visit | 66% | 62% | 63% | 63% |
| Average length of each visit (in 15-minute increments) | 4.44 | 4.37 | 4.23 | 4.20 |
| Average visit time per day (in 15-minute increments) | 2.94 | 2.70 | 2.68 | 2.64 |
| **Social worker visits in last 7 days of life** | | | | |
| Share of days with visit | 10% | 7% | 9% | 9% |
| Average length of visits (in 15-minute increments)` | 4.01 | 3.79 | 3.78 | 3.63 |
| Average visit time per day (in 15-minute increments) | 0.42 | 0.28 | 0.32 | 0.33 |

Note: "Nurse visits" includes both registered nurse and licensed practical nurse visits.

Source: MedPAC analysis of Medicare hospice claims data from CMS.

"beneficiary not terminally ill" as the most common reasons for live discharge (each accounting for 6.1 percent of hospice discharges in 2022).[21] Among providers with more than 30 discharges, the median live-discharge rate was about 19 percent, but 10 percent of providers had live-discharge rates of 50 percent or more in 2022. Hospices with very high live-discharge rates were disproportionately for profit and recent entrants to the Medicare program (entered in 2010 or after) and had an above-average rate of exceeding the aggregate payment cap. For example, our comparison of above- and below-cap hospices in 2021 found that the live-discharge rate among cancer patients was 10 percent for below-cap hospices and 26 percent for above-cap hospices; the live-discharge rate among heart failure patients was 19 percent for below-cap hospices and 57 percent for above-cap hospices.

### Very short hospice stays signal opportunities for quality improvement

For many years, a significant share of hospice stays have been very short. More than one-quarter of hospice decedents enroll in hospice only in the last week of life, a length of stay that is commonly thought to benefit patients less than enrolling earlier. Very short hospice stays occur across a wide range of diagnoses, often stemming from broader issues in the health care delivery system that precede the hospice referral (Medicare Payment Advisory Commission 2022). These short stays are generally unrelated to the adequacy of Medicare's hospice payment rates. For example, some physicians are reluctant to have conversations about hospice or tend to delay such discussions until death is imminent; some patients or families may prefer to exhaust all other treatment options before enrolling in hospice; and financial incentives in the FFS system may encourage increased volume of clinical services (compared with palliative care furnished by hospice providers) (Medicare Payment Advisory Commission 2009). The requirement that beneficiaries forgo intensive conventional care to enroll in hospice, some analysts point out, may also contribute to deferring hospice care, resulting in short hospice stays.

Initiatives are underway that seek to address concerns about potentially late hospice enrollment and to

improve the quality of end-of-life care more generally. Since 2016, under the physician fee schedule, Medicare has paid for advance care planning conversations between beneficiaries and their physicians, advanced practice registered nurses, or physician assistants. In 2016, CMS also launched a demonstration program (called the Medicare Care Choices Model (MCCM)) that permitted certain FFS beneficiaries who were eligible for hospice (but not enrolled in the Medicare hospice benefit) to enroll in the demonstration and receive palliative and supportive care from a hospice provider while continuing to receive "curative" care from other providers.[22] An evaluation of the MCCM reported that participants were more likely to enroll in hospice before death and to do so earlier than the comparison group of decedents. The evaluation also reported that MCCM enrollees were more likely to receive better quality end-of-life care (i.e., they were less likely to receive aggressive procedures, surgeries, or diagnostic tests in the last 30 days of life and spent more days at home on average than the matched comparison group). The final evaluation found, based on the experience of 5,153 MCCM enrollees who enrolled between January 2016 and June 2021 and died before December 2021, that the MCCM was associated with a 13 percent net reduction in Medicare expenditures for these beneficiaries relative to a matched comparison group due to greater hospice use and lower acute care costs at the end of life (Kranker et al. 2023). The report cautioned against broadly extrapolating from these findings because the model involved a very small number of beneficiaries and hospice providers.[23]

In March 2014, the Commission recommended that hospice be included in the MA benefit package, which would give plans greater incentive to develop and test new models aimed at improving end-of-life care and care for beneficiaries with advanced illnesses (Medicare Payment Advisory Commission 2014). As noted earlier, CMMI launched a VBID demonstration in January 2021 that tests the inclusion of hospice services in the MA benefit. Participating plans may also offer enrollees palliative care outside the hospice benefit, transitional concurrent hospice and curative care, and hospice supplemental benefits (e.g., waiver of hospice cost sharing for drugs and respite care or additional in-home caregiver support).

In the first two years of the VBID hospice model, MA plans were financially responsible for hospice care for about 9,630 beneficiaries in 2021 and 19,065 beneficiaries in 2022 (Eibner et al. 2023, Khodyakov et al. 2022). A CMS contractor evaluation report using data from 2019 (two years prior to the model) and 2021 (the first year of the model) found that hospice use and patterns of hospice care did not appear to be significantly affected by the VBID model in its first year (Khodyakov et al. 2022). In the first two years of the model, the report indicated that the provision of transitional concurrent care, hospice supplemental benefits, and nonhospice palliative care was lower than expected. Of beneficiaries who elected hospice in VBID plans in 2022, less than 1 percent received transitional concurrent care, and 6.5 percent received hospice supplemental benefits. According to the report, MA plans and hospice providers indicated some implementation challenges (e.g., related to adapting information technology systems, data reporting burden, and communications). In March 2024, CMS announced the hospice component of the MA VBID model would sunset in December 2024.

In addition to MA plans, accountable care organizations (ACOs)—which are accountable for total spending for a defined Medicare population, including their end-of-life care and hospice—are entities that could provide hospice care and potentially reduce costs by implementing policies that would facilitate beneficiaries' use of end-of-life care in a way that is consistent with their preferences. Research on the effect of ACOs on patterns of end-of-life care and hospice use are nascent, but several studies that examined experience through 2015 had mixed findings. Gilstrap et al. (2018) did not find evidence of differential growth in hospice use among decedents in ACOs compared with other decedents. Lam et al. (2022) found hospice use rates were higher among cancer patients who were not in ACOs than among those in ACOs. In contrast, Kaufman et al. (2019) found higher hospice enrollment rates among stroke patients who were in ACOs than stroke patients who were not in ACOs.

Several of CMS's alternative payment models include an option for the participating entity to offer concurrent care to beneficiaries who enroll in hospice. Entities in these payment approaches generally take on financial risk for the total cost of care, which creates incentives for judicious use of services. Under CMS's ACO REACH

(Realizing Equity, Access, and Community Health) model, one benefit enhancement that ACOs can offer is concurrent care for beneficiaries who elect hospice. Out of 132 ACOs in 2023, 46 chose to offer the concurrent care benefit enhancement.[24] Under the Kidney Care Choices Model, clinicians who take on financial risk for the total cost of care can also offer concurrent dialysis and hospice to a patient with end-stage renal disease (Vossel 2023b).

For beneficiaries with dementia, CMS's Innovation Center is launching an eight-year model beginning in mid-2024, referred to as the Guiding an Improved Dementia Experience (GUIDE) model, to test whether the provision of supportive services can improve quality of life for beneficiaries and their caregivers and delay preventable nursing home admissions (Centers for Medicare & Medicaid Services 2023c). Under GUIDE, an interdisciplinary team (consisting of a clinician and nurse navigator and other staff) will furnish care coordination and management services, caregiver education and support (including a 24/7 telephone help line), and (for beneficiaries meeting certain criteria) caregiver respite services. The GUIDE model excludes beneficiaries in hospice because it offers overlapping services; however, it may represent an option for beneficiaries earlier in the disease trajectory or for those who do not elect hospice.

### Providers' access to capital: Hospices have good access to capital

Hospices in general require less capital than many other provider types because they do not need extensive physical infrastructure (although some hospices have built their own inpatient units, requiring significant capital). Overall, access to capital for hospices appears adequate, given the continued entry of for-profit providers in the Medicare program.

In 2022, the number of for-profit providers grew by at least 10 percent, indicating that these providers have been able to access capital. Although the coronavirus pandemic affected hospice providers' operations in a number of ways, large publicly traded hospice companies had strong financial performance through the third quarter of 2023 (Addus 2023, Amedisys 2023, Chemed 2023, Enhabit 2023). After the public health emergency ended in May 2023, companies have varied in the extent to which average daily census and cost growth rates have returned to prepandemic levels, but, overall, companies report this process is underway. Changes in average daily census between 2022 and 2023 varied across companies, ranging from decreases to little change to large increases (Addus 2023, Amedisys 2023, Chemed 2023, Enhabit 2023). Among large publicly traded companies, staffing shortages and hiring challenges, which were reportedly pronounced in the first half of 2022, were reported to have resolved or eased in 2023. For example, two companies reported success in hiring new staff and no longer relying on contract personnel to fill vacancies (Chemed 2023, Enhabit 2023). Reports also suggest that growth in hospice cost per day may be moderating. Two publicly traded companies reported a decline in cost per day in the third quarter of 2023 compared with the same quarter of the prior year, and one company reported a substantial increase in cost per day in 2023 but no increase expected for 2024 (Amedisys 2023, Chemed 2023, Enhabit 2023). In 2023, publicly traded companies' aggregate hospice margins continued to be strong. Furthermore, the hospice sector continues to garner substantial investment interest from other health care companies and private equity firms and investors. For example, in 2023, an insurer, UnitedHealth Group, acquired LHC Group and announced a pending agreement to acquire Amedisys (two large home health and hospice companies) (Parker 2023). Private equity acquisitions of hospice providers slowed in 2023 following several years of increased activity, but the sector continues to be viewed favorably by investors (Vossel 2023a). Among nonprofit freestanding providers, less is known about access to capital, which may be limited. Hospital-based and home health–based nonprofit hospices have access to capital through their parent providers.

A provider's all-payer total margin—which reflects how its total revenues compare with its total costs for all lines of business and all payers—can influence a provider's ability to obtain capital. Irregularities in the way some hospices report their total revenue and total expense data on cost reports prevent us from calculating a reliable estimate of all-payer total margins for hospices. Among hospice payers, however, Medicare accounts for about 90 percent of hospice days, and hospices' Medicare margins are strong.

## Medicare payments and costs: Aggregate payments exceed costs

Hospice costs per day increased 3.7 percent between 2021 and 2022. These costs vary substantially by providers' average length of stay: Hospices with longer stays have lower costs per day on average. Hospice margins are presented through 2021 because of the data lag required to calculate cap overpayment amounts. Average cost per day increased 4.3 percent between 2020 and 2021, which contributed to the small decline in the FFS Medicare aggregate margin to 13.3 percent, from 14.2 percent the prior year.

### Medicare's payments to hospice providers

Between 2010 and 2022, Medicare's spending for hospice grew substantially, increasing 5.2 percent per year on average, from $12.9 billion to $23.7 billion. Between 2021 and 2022, Medicare hospice spending increased 2.7 percent (which was largely the result of a 2.0 percent update in the 2022 hospice base payment rates), a 2 percent increase in total days of care in 2022, which was partially offset by the reinstatement of the sequester (1 percent beginning April 2022 and 2 percent beginning July 2022). Not included in the payment totals are the coronavirus pandemic–related federal relief funds for some providers. According to the Medicare cost reports, in cost report years 2021 and 2022, these relief payments for freestanding hospice providers totaled about $340 million and $150 million, respectively. Although the intent of these funds was to provide relief broadly to support care for all patients regardless of payer, the vast majority of hospice patients are Medicare beneficiaries (accounting for more than 90 percent of all hospice patient days in 2021). On a per day basis, Medicare's average payment to hospice providers was about $182 in 2022, up 0.7 percent from 2021.

### Hospice costs

In 2022, hospice costs per day across all levels of care for hospice providers with cost report data averaged about $162, rising 3.7 percent from 2021. Between 2020 and 2021 (the year of our margin estimate), hospice costs per day grew 4.3 percent.

Hospice costs per day vary substantially by type of provider (Table 9-9), which is one reason for differences in hospice margins across provider types. In 2022, freestanding hospices had lower average costs per day than provider-based hospices (i.e., home health–based and hospital-based hospices). For-profit and rural hospices also had lower average costs per day than their respective counterparts. Many factors contribute to variation in hospice costs across providers. One factor is length of stay. Hospices with longer stays have lower costs per day on average. Freestanding and for-profit hospices have substantially longer stays than other hospices and thus have lower costs per day (Medicare Payment Advisory Commission 2022). Another factor is overhead costs. Included in the costs of provider-based hospices are overhead costs allocated from the parent provider, which contributes to provider-based hospices' higher costs compared with freestanding providers. The Commission maintains that payment policy should focus on the efficient delivery of services and that if freestanding hospices are able to provide high-quality care at a lower cost than provider-based hospices, payment rates should be set accordingly; the higher costs of

**TABLE 9–9** **Total hospice costs per day varied by type of provider, 2022**

| | Average total cost per day |
|---|---|
| All hospices | $162 |
| Freestanding | 155 |
| Home health based | 180 |
| Hospital based | 251 |
| For profit | 143 |
| Nonprofit | 195 |
| Urban | 163 |
| Rural | 149 |

Note: Data reflect aggregate costs per day for all types of hospice care combined (routine home care, continuous home care, general inpatient care, and inpatient respite care) for all payers. "Day" reflects the total number of days for which the hospice is responsible for care of its patients, regardless of whether the patient received a visit on a particular day. Data are not adjusted for differences in case mix or wages across hospices.

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

provider-based hospices should not be a reason for increasing Medicare payment rates.

### Hospice margins

In 2021, the FFS Medicare aggregate margin for hospice providers was 13.3 percent, down slightly from 14.2 percent in 2020 (Table 9-10).[25] FFS Medicare aggregate margins varied widely across individual hospice providers: −5.7 percent at the 25th percentile, 12.6 percent at the 50th percentile, and 26.5 percent at the 75th percentile (data not shown). Our estimates of FFS Medicare aggregate margins exclude overpayments to above-cap hospices and are calculated based on Medicare-allowable, reimbursable costs, consistent with our approach used in other Medicare sectors.[26] In addition, these margin estimates do not include federal pandemic relief funds that were received by hospice providers in 2021. However, if a portion of these relief funds received by freestanding hospice providers in 2021 were included in our margin estimates, the FFS Medicare aggregate margin would have been about 14.5 percent (compared with our estimated 13.3 percent).[27]

Hospice margins vary by provider characteristics, such as type of hospice (freestanding or provider based), type of ownership (for profit or nonprofit), patient volume, and urban or rural location (Table 9-10). In 2021, freestanding hospices had higher FFS Medicare aggregate margins (15.5 percent) than home health–based (10.9 percent) or hospital-based hospices (–15.6 percent) (Table 9-10). Provider-based hospices typically have lower FFS Medicare aggregate margins than freestanding hospices for several reasons, including their shorter stays and the allocation of overhead costs from the parent provider to the provider-based hospice. In 2021, the Medicare aggregate margin was considerably higher for for-profit hospices (19.2 percent) than for nonprofit hospices (5.2 percent). The FFS Medicare aggregate margin for freestanding nonprofit hospices was higher (8.5 percent; data not shown) than the margin for nonprofit hospices overall. Generally, hospices' FFS Medicare aggregate margins vary by the provider's volume: Hospices with more patients have higher margins on average. Hospices in urban areas had a slightly higher overall FFS Medicare aggregate margin (13.4 percent) than those in rural areas (12.3 percent).

In 2021, above-cap hospices had a high FFS aggregate margin before the return of overpayments but still had a positive margin after the return of overpayments (Table 9-10). In 2021, the FFS Medicare aggregate margin for above-cap hospices was 21.8 percent before the return of overpayments and 2.5 percent after the return of overpayments. The FFS Medicare aggregate margin for below-cap hospices was 14.0 percent.

Hospice profitability is closely related to length of stay. Hospices with longer stays have higher margins. For example, in an analysis of hospice providers based on the share of their patients' stays exceeding 180 days, the FFS Medicare aggregate margin ranged from 0 percent for hospices in the lowest quintile to 22.2 percent for hospices in the second-highest quintile (Table 9-10). Hospices in the quintile with the greatest share of patients exceeding 180 days had a 9.7 percent FFS Medicare aggregate margin after the return of cap overpayments, but without the hospice aggregate cap, these providers' margins would have averaged 21.8 percent (latter figure not shown in table).

Hospices with a large share of patients in nursing facilities and assisted living facilities have higher FFS Medicare aggregate margins than other hospices (Table 9-10). For example, in 2021, the 50 percent of hospices with the highest share of patients residing in nursing facilities and assisted living facilities had a FFS Medicare aggregate margin that was more than double the margin for providers with fewer patients residing in facilities (17.6 percent versus 7.1 percent). The higher margin among hospices treating more facility-based patients is driven in part by the diagnosis profile and length of stay of patients residing in facilities. In addition, treating hospice patients in a centralized location may create efficiencies in terms of mileage costs and staff travel time, as well as facilities serving as referral sources for new patients. Nursing facilities can also be a lower-cost setting for hospices to provide care because of the overlap in responsibilities between the hospice and the nursing facility.

### Projected 2024 FFS Medicare aggregate margin

To project the 2024 FFS Medicare aggregate margin, we model the policy changes that went into effect between 2021 (the year of our most recent margin estimates) and 2024. The policies include annual payment updates in 2022, 2023, and 2024 of 2.0 percent, 3.8 percent, and 3.1 percent, respectively. The updates for these years reflect the market basket update and a productivity adjustment. In addition, our margin projection reflects

**TABLE 9–10**

**Hospice providers' FFS Medicare aggregate margins by selected characteristics, 2017–2021**

| Category | Share of hospices 2021 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| All | 100% | 12.5% | 12.4% | 13.4% | 14.2% | 13.3% |
| Freestanding | 84 | 15.3 | 15.1 | 16.2 | 16.7 | 15.5 |
| Home health based | 7 | 8.1 | 8.4 | 9.7 | 11.2 | 10.9 |
| Hospital based | 8 | –13.8 | –16.5 | –18.4 | –18.2 | –15.6 |
| For profit | 75 | 20.0 | 19.0 | 19.2 | 20.5 | 19.2 |
| Nonprofit | 22 | 2.5 | 3.8 | 6.1 | 5.8 | 5.2 |
| Urban | 84 | 12.9 | 12.6 | 13.6 | 14.3 | 13.4 |
| Rural | 16 | 8.9 | 10.3 | 11.5 | 13.5 | 12.3 |
| Patient volume (quintile) | | | | | | |
| Lowest | 20 | –1.1 | –3.1 | –4.5 | –2.1 | –4.4 |
| Second | 20 | 6.7 | 5.6 | 6.2 | 4.9 | 3.1 |
| Third | 20 | 13.8 | 13.8 | 13.5 | 14.2 | 13.3 |
| Fourth | 20 | 15.2 | 14.0 | 15.8 | 17.9 | 15.5 |
| Highest | 20 | 12.5 | 12.7 | 13.9 | 14.4 | 14.0 |
| Below cap | 81 | 12.6 | 12.6 | 13.8 | 14.8 | 14.0 |
| Above cap (excluding cap overpayments) | 19 | 12.1 | 10.3 | 10.0 | 7.7 | 2.5 |
| Above cap (including cap overpayments) | 19 | 21.9 | 21.8 | 22.5 | 22.8 | 21.8 |
| Share of stays > 180 days | | | | | | |
| Lowest quintile | 20 | –4.5 | –3.0 | –2.5 | –0.4 | 0.0 |
| Second quintile | 20 | 7.0 | 8.5 | 10.3 | 11.8 | 11.1 |
| Third quintile | 20 | 17.1 | 16.8 | 19.9 | 20.0 | 20.5 |
| Fourth quintile | 20 | 22.1 | 20.8 | 22.8 | 24.1 | 22.2 |
| Highest quintile | 20 | 17.8 | 17.6 | 13.4 | 13.4 | 9.7 |
| Share of patients in nursing facilities and assisted living facilities | | | | | | |
| Lowest half | 50 | 6.3 | 6.1 | 6.6 | 7.5 | 7.1 |
| Highest half | 50 | 18.1 | 17.3 | 18.7 | 18.9 | 17.6 |

Note: FFS (fee-for-service). Margins for all provider categories exclude overpayments to above-cap hospices, except where specifically indicated. Medicare aggregate margins are calculated based on Medicare-allowable, reimbursable costs. Margin by hospice ownership status is based on hospices' ownership designation from the Medicare cost report. The rural and urban definitions used in this chart are based on updated definitions of the core-based statistical areas (which rely on data from the 2010 census).

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

reinstatement of the 2 percent sequester beginning in July 2022. (The sequester was suspended from May 2020 to March 2022 and was reinstated at 1 percent from April to June 2022.) It also reflects the penalty providers face for not reporting quality data, which increases in 2024 to 4 percent. We assume a rate of cost growth equal to 3.7 percent in 2022 (the observed rate for that year). For 2023 and 2024, we assume cost

growth remains above historical trends, but to a lesser extent than for 2021 and 2022. Taking these factors into account, we project a FFS Medicare aggregate hospice margin of about 9 percent for 2024.

## How should FFS Medicare payments change in 2025?

Under current law, Medicare's base payment rates for hospice care are increased annually based on the projected increase in the hospice market basket, less an amount for productivity improvement. The final update for 2025 will not be set until summer 2024; however, using CMS's third-quarter 2022 projections of the market basket (3.1 percent) and productivity adjustment (0.3 percent) would increase hospice payment rates by 2.8 percent.

Our indicators of payment adequacy for hospices—beneficiary access to care, quality of care, provider access to capital, and Medicare payments relative to providers' costs—are positive. The Commission has concluded that current payment rates are sufficient to support the provision of high-quality care without an increase to the base payment rates in 2025.

### RECOMMENDATION 9

**For fiscal year 2025, the Congress should eliminate the update to the 2024 Medicare base payment rates for hospice.**

### RATIONALE 9

Our indicators of access to care are positive, and there are signs that the aggregate level of payment for hospice care exceeds the level needed to furnish high-quality care to beneficiaries. In 2022, the number of providers increased by 10 percent. The share of Medicare decedents using hospice, the total number of beneficiaries receiving hospice care, and the total days of hospice care also increased. Among decedents, average length of stay and median length of stay increased. The 2021 FFS Medicare marginal profit was about 17 percent. Access to capital appears adequate: The number of for-profit providers increased by at least 10 percent, and financial reports suggest that the sector is viewed favorably by investors. The 2021 FFS Medicare aggregate margin was 13.3 percent (14.5 percent if pandemic relief funds are included). The projected 2024 FFS Medicare aggregate margin is about 9 percent.

### IMPLICATIONS 9

**Spending**

- This recommendation would decrease federal program spending relative to current law by $250 million to $750 million over one year and by $1 billion to $5 billion over 5 years.

**Beneficiary and provider**

- We do not expect this recommendation to have adverse effects on beneficiaries' access to hospice care. Given the current level of payments, we do not expect the recommendation to affect providers' willingness or ability to care for Medicare beneficiaries.

## Nonhospice spending for beneficiaries enrolled in hospice

Coverage of the services hospice patients receive is fragmented. Medicare's payments to hospices are intended to cover all services that are reasonable and necessary for palliation and management of the terminal condition and related conditions. Services that are unrelated to the terminal condition are covered separately outside of hospice by Medicare FFS for Part A and Part B services or by Part D plans for retail pharmacy drugs.

Although CMS has stated that it considers "virtually all" services at the end of life to be related to the terminal condition and thus the responsibility of the hospice provider, significant spending occurs outside of the hospice benefit during hospice elections. CMS reported that Medicare spending on nonhospice services for hospice enrollees was about $1.5 billion in FY 2022 (Centers for Medicare & Medicaid Services 2023g).[28] Medicare paid hospice providers approximately $23 billion in FY 2022; thus, Medicare spent roughly an additional 6 percent on nonhospice service for beneficiaries enrolled in hospice. CMS estimates that:

- Medicare spending on Part A and Part B services outside of hospice was $883 million in 2022, up nearly 29 percent from 2019. Nearly half of that amount was for physician services ($472 million), and about a third was for outpatient services

($150 million) and hospital inpatient services ($145 million) combined. In addition, hospice beneficiaries spent $197 million on Part A and Part B cost sharing outside of hospice in 2022.

- Medicare Part D spending for beneficiaries in hospice totaled $623 million in 2022, a 26 percent increase from 2019. Beneficiaries paid at least $68 million in cost sharing for Part D drugs while in hospice in 2022. According to CMS, there has been an increase in Part D–paid prescriptions for maintenance drugs furnished to hospice enrollees. Examples of maintenance drugs include those for high blood pressure, heart disease, asthma, and diabetes.

The issue of nonhospice service use and spending for beneficiaries enrolled in hospice is of interest for several reasons. If some services intended to be covered under the hospice benefit are furnished outside of hospice, the Medicare program is paying twice for those services. Beneficiaries' out-of-pocket costs may also increase because nonhospice services generally involve cost sharing while hospice services do not. In addition, the fragmented coverage of related and unrelated services may be confusing to beneficiaries, their families, hospices, other providers, pharmacies, and Part D plans.

To better understand what factors contribute to service use and spending on nonhospice services for hospice enrollees, Commission staff and a contractor conducted interviews with clinical and administrative personnel from 12 hospice providers in 2022 and 2023. The providers we interviewed varied by ownership type, size, and location (including whether the provider served rural or urban areas or both).

## Hospices' determinations of services that are related or unrelated

We asked hospice representatives about how they determined whether services are related to the beneficiary's terminal condition and related conditions (hereafter referred to as "related"). Most respondents described a similar general approach: considering any conditions that contribute to the terminal prognosis as related, rather than basing it on a single diagnosis. Some providers indicated that some determinations are more difficult to make (e.g., long-term stable chronic conditions or dialysis).

Providers varied in their interpretation of "related" when discussing certain specific services. For example, interviewees varied in how they classified diabetes medicines, ranging from a few providers reporting that they are usually unrelated to one provider indicating that they are almost always related.[29] Treatments for injuries from patients' falls are another example of varied interpretations. One hospice viewed treatments for falls as unrelated, though stated that it would depend on the circumstances. In contrast, another said that treatments for falls might be considered related because the fall occurred due to an underlying condition or medication or because such treatments helped alleviate patient discomfort.

We asked hospices if there were any services that were typically unrelated. Several hospices identified treatment for ocular issues (e.g., glaucoma, cataracts, and macular degeneration) and thyroid disease as generally unrelated. At least one interviewee mentioned a number of other conditions as typically unrelated (e.g., osteoporosis, gastroesophageal reflux disease, autoimmune disorders, allergies, vitamin deficiencies, longstanding depression and other mental illnesses, podiatry conditions, dental disease, high cholesterol, dermatology, and rheumatology).[30]

Some interviewees reported that some hospice or nonhospice providers may inappropriately classify some services as unrelated. For example, some hospice providers indicated that they broadly categorize services as related and take financial responsibility for those services, but they expressed the view that not all hospice providers take this approach. A few respondents expressed concern about independent wound care companies that specifically market services as unrelated in situations where the hospice views the services as related. In such cases, wound care companies may seek to classify their services as unrelated so they can bill Medicare FFS, while Medicare would be double-paying for these services if they are actually related.

## Hospices' efforts to educate patients and families

All respondents noted the importance of educating patients and families about the hospice benefit. That process begins at the initial meeting, where the hospice staff discuss the services included in the hospice plan

of care and explain that the hospice is responsible for furnishing the patient's care and the patient or family should call the hospice before calling 911 or seeking outside services. To facilitate this education, hospices reported using a variety of tools (e.g., handbooks, stickers, posters, or a large card to go on the refrigerator) to ensure that the hospice's phone number is immediately accessible to the patient or caregiver. Hospices also indicated that their nurses continue to educate patients, families, and caregivers (including training and supporting caregivers on what to do in an emergency) during in-person visits throughout the hospice episode. Hospices mentioned that these efforts were not always successful; they may sometimes find out that a patient went to the hospital or an outside doctor or filled a nonhospice prescription only after the fact—when hospice staff next visit the patient's home, or in some cases not at all.

When hospices are developing the patient's hospice plan of care, an issue that sometimes arises concerns services that are related to the terminal condition but not medically necessary. Hospices are required to cover all services that are reasonable and necessary for palliation of the terminal condition and related conditions. If the hospice determines a service is not reasonable and necessary, the beneficiary would be financially liable for the service if they choose to receive it (instead of the hospice, FFS Medicare, or a Part D plan being responsible). Hospices typically talk with the patient and family about any related medicines or treatments that they believe are no longer beneficial and should be discontinued.[31] Hospices reported that patients and families are sometimes reluctant to discontinue treatments that are no longer beneficial. In such situations, some hospice respondents said they might include the treatment in the hospice care plan while others said that they would explain that the patient would be liable for the treatment's cost if they chose to receive it. One hospice provider noted that, even if families are informed that the patient would be liable for the cost of certain medicines, some of these prescriptions may wind up being filled under Part D.

### Efforts to work with providers and pharmacies to facilitate correct billing

CMS has mechanisms to permit nonhospice providers and pharmacies to bill for unrelated services for hospice enrollees. For Part A or Part B services, the nonhospice provider can bill FFS Medicare by placing a modifier on the claim to indicate that the service is unrelated and receive payment. If a Part D drug is unrelated, the pharmacy can bill Part D. There are four classes of medicines that CMS has said are usually related to hospice care (analgesics, antiemetics, anxiolytics, and laxatives) and for which CMS has encouraged Part D plans to implement prior authorization edits. CMS does not expect Part D plans to place special prior authorization edits on drugs for hospice patients outside of those four classes (Centers for Medicare & Medicaid Services 2023g). Hospices do not generally receive information from CMS on what services their individual patients receive outside of hospice that are paid for by Part D or FFS, unless there is an audit.

When services are related, the provider or pharmacy is expected to bill the hospice instead of FFS Medicare or Part D. Hospices reported various efforts to facilitate correct billing when patients receive services outside of hospice. Some reported putting a sleeve on patients' Medicare cards or giving patients a separate wallet card to be presented at the emergency department or other medical care locations to inform the health care provider that the patient is in hospice. Several respondents said their hospice sends information to relevant medical providers or pharmacies to inform them of patients who have been admitted to hospice and how to bill. However, some respondents reported that these efforts had mixed success because documents may get lost or may not reach the appropriate staff.

One issue that arises when a hospice patient seeks care at a hospital is whether the hospice has a contract with the hospital. A few hospices stated that if they do not have a contract with the hospital, they discharge the patient from hospice, in which case FFS Medicare pays the cost of the hospital care. At least one hospice indicated they did not contract with hospitals. In contrast, other hospices reported strong relationships with hospitals.

Interviewees indicated that billing issues can occur for hospice enrollees receiving pharmacy services. Sometimes a hospice identifies a billing error, for example, by finding a newly filled outside prescription

in a beneficiary's home. One respondent said that outreach by a nurse to the pharmacy makes it "fairly easy" to resolve the issue by asking the pharmacy to "unbill" the Part D plan and bill the hospice. However, another respondent noted that they have sometimes encountered issues getting a pharmacy to unbill Part D if the pharmacy has already been paid. Another hospice respondent noted that Part D plans conduct routine postpayment audits, which may lead to batch notices indicating patients for whom the hospice owes money. The hospice will review these cases to determine the appropriate actions. One challenge is that audits may lag one to two years after the drugs were dispensed (often long after the patient has died).

### Current policy approaches aimed at addressing inappropriate billing

The Program for Evaluating Payment Patterns for Electronic Report (PEPPER) provides hospices with statistics on their performance in areas vulnerable to improper payments, including the number of Part D claims paid for their patients compared with national, state, and local benchmarks (Centers for Medicare & Medicaid Services 2023d).[32] Respondents said that PEPPER statistics were helpful to gauge their performance relative to peers, but the data do not include information that might help identify the source of issues (such as the types of drugs paid by Part D).

Beginning in FY 2021, CMS requires that, upon request, hospices furnish patients and families with an addendum (referred to as the Patient Notification of Hospice Non-Covered Items, Services, and Drugs) that lists any items, drugs, or services that the hospice deems unrelated and consequently not covered by the hospice. CMS implemented this addendum to enhance coverage transparency in response to anecdotal reports that some hospices were inappropriately deeming services unrelated (Centers for Medicare & Medicaid Services 2019). Most interviewees viewed the addendum as having little impact, stating that patients or families rarely request it. Some interviewees also noted a gap in the addendum, pointing out that it does not include services that the hospice considers related but not medically necessary, information that might be of interest to patients and families since the beneficiary may bear financial liability for such services if they choose to receive them.

### Policies to address nonhospice spending for beneficiaries in hospice

The interviews suggest that several factors likely contribute to service use and spending on nonhospice services for hospice beneficiaries. Policy on what services are related is not specific, and we heard differing interpretations across hospices for certain types of services. Hospices also indicated that their efforts to educate beneficiaries and families about the hospice benefit are not always successful. They also noted challenges in coordinating with other providers and gaps in information flow. For example, in some situations, a provider may not realize that a beneficiary is enrolled in hospice or a hospice may not know that a beneficiary sought care outside the benefit. Given the variety of factors contributing to nonhospice service use and spending, a range of policies could be explored to address these issues, including administrative, payment, or penalty approaches. Each approach would raise complicated issues and require further exploration.

Administrative approaches could be considered to clarify financial responsibility for services and promote information flow. For example, the definition of "related services" could be made more concrete. As noted previously, CMS has identified four categories of Part D drugs that are usually related. CMS could consider this approach for additional types of Part D drugs or other services. Administrative efforts could be considered to improve information flow across providers, pharmacies, and Part D plans. Hospice interviewees articulated a desire for real-time information to alert nonhospice providers of patients' hospice status and alert hospices when one of their patients receives care outside of the benefit. For example, CMS has a pilot project underway that seeks to more quickly inform a Part D plan that their enrollee has elected hospice (National Council for Prescription Drug Programs 2022).

A payment approach could be explored that would expand the bundle of services for which hospices are responsible to include services unrelated to the terminal condition, with an increase to the hospice base payment rates to account for the additional services. Hospices we interviewed had mixed reactions to this approach. Some were concerned about the

effect on small providers who might not have the patient volume to absorb high-cost hospital stays or other services. Another respondent expressed concern that some hospices might stint on care. Other respondents supported the idea of including unrelated services in the bundle and thought it would simplify things for providers and beneficiaries. Some respondents thought it would be simpler to include Part D drugs in the hospice bundle than unrelated Part A and Part B services, partly because hospices already provide many drugs to beneficiaries. Including unrelated Part A and Part B services raised complexities for some providers, particularly with respect to hospital care that can be high cost and may require hospices to have more extensive relationships with hospitals than some currently do.

Another policy approach that could be considered is a payment penalty (Medicare Payment Advisory Commission 2022). Hospice providers with nonhospice spending above a specified threshold could be subject to a penalty that would reduce their hospice payments by a certain amount. A penalty policy would place some financial risk on providers, but less risk than a bundled policy. Nonetheless, a penalty might help counter financial incentives for some providers to shift services from hospice to FFS Medicare or a Part D plan. ■

## Endnotes

1 When a beneficiary first elects hospice, if they do not have an attending physician, the certification can be done by the hospice physician alone. For subsequent benefit periods, only the hospice physician is required to certify the patient's eligibility (even if the patient has a separate attending physician).

2 For a more complete description of the hospice payment system, see https://www.medpac.gov/wp-content/uploads/2022/10/MedPAC_Payment_Basics_23_hospice_FINAL_SEC.pdf.

3 The Congress also established a second cap, which limits the share of inpatient care days that a hospice can provide to 20 percent of its total Medicare patient care days. This cap is rarely exceeded; any inpatient days provided in excess of the cap are paid at the routine hospice care payment rate.

4 Throughout this chapter, we use the term "FFS Medicare" or "traditional Medicare" as equivalents for the CMS term "Original Medicare." Collectively, we distinguish the payment model represented by these terms from other models such as Medicare Advantage or advanced alternative payment models that may use FFS mechanisms but are designed to create different financial incentives.

5 When an MA enrollee elects hospice, the beneficiary remains in the MA plan for Part D drugs and extra benefits. If an MA beneficiary is discharged alive from hospice, any Part A or Part B services that the beneficiary receives following the live discharge through the end of that calendar month will be paid by FFS. At the beginning of the next month, responsibility for all Part A, Part B, and Part D services for the beneficiary reverts to the MA plan.

6 Several studies provide examples of the recent mixed findings in the literature on hospice's effect on Medicare spending. A recent working paper found that for-profit hospice enrollment led to large savings for some beneficiaries with dementia (Gruber et al. 2023). A recent industry-sponsored study reported that hospice saved 3 percent in the last year of life, with savings for long stays across all diagnoses (NORC at the University of Chicago 2023). However, several other studies that looked at spending in the last 6 or 12 months of life had more mixed results, finding that hospice was associated with higher Medicare spending or no difference in Medicare spending for beneficiaries with dementia (Aldridge et al. 2023, Zuckerman et al. 2016), lower Medicare spending for beneficiaries with cancer (Hung et al. 2020, Zuckerman et al. 2016), higher spending for beneficiaries with noncancer diagnoses and stays exceeding 30 days (Hung et al. 2020), and higher spending for beneficiaries residing in nursing facilities (Gozalo et al. 2015).

7 We determine provider ownership status, hospice type, and rural and urban location based on Medicare cost report data, and if those data are unavailable, we rely on the Provider of Services file. However, CMS paused updates to the Provider of Services file as of October 2022, due to the agency's migration of Provider of Services data for hospices to a cloud-based environment.

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

9 From 2018 to 2022, California on average gained about 185 hospices each year, and Texas gained 57 hospices on average each year.

10 The California auditor's report stated: "The fraud indicators we found particularly in Los Angeles County include the following: A rapid increase in the number of hospice agencies with no clear correlation to increased need. Excessive geographic clustering of hospices with sometimes dozens of separately licensed agencies located in the same building. Unusually long durations of hospice services provided to individual patients. Abnormally high rates of still-living patients discharged from hospice care. Hospice agencies using possibly stolen identities of medical personnel" (Tilden 2022).

11 This comparison of hospice use across years is based on paid Medicare claims. These data slightly understate hospice use in 2021 and 2022 because they exclude about 9,630 beneficiaries in 2021 and 19,065 beneficiaries in 2022 who received hospice care that was paid for by MA plans participating in the hospice VBID demonstration.

12 In 2022, hospice lifetime length of stay among Medicare decedents who received hospice services was 96.3 days for FFS beneficiaries and 94.1 days for MA beneficiaries. This difference in length of stay was driven by the longest stays. Length of stay at the 90th percentile was 279 days for FFS beneficiaries and 270 days for MA beneficiaries, while length of stay was similar for shorter stays (at the 10th, 25th 50th, and 75th percentiles) among these two populations.

13 In 2022, hospice patients in assisted living had markedly longer stays compared with those in other settings, even for the same diagnosis, which warrants further monitoring and investigation in CMS's medical review efforts.

14 The difference in length of stay for hospice decedents with neurological conditions treated by for-profit and nonprofit hospices is particularly pronounced for patients with the longest stays. In 2022, the 75th percentile length of stay for hospice decedents with dementia who were treated by for-profit hospices was 221 days compared with 137 days at nonprofit hospices; the 90th percentile length of stay was 536 days at for-profit hospices and 379 days at nonprofit hospices.

15 The share of hospices exceeding the cap is based on the Commission's estimates. While our estimates are intended to approximate CMS claims processing contractors' calculations, differences in available data, methodology, and the timing of the calculations can lead to different estimates. Our estimates assume all hospices use the proportional methodology and rely on claims data through 15 months after the end of each cap year. The claims processing contractors may reopen the hospice cap calculation for up to three years; the reopening process and timing may vary across contractors.

16 If we approximate marginal cost as total Medicare costs minus fixed building and equipment costs, then marginal profit can be calculated as follows: Marginal profit = (payments for Medicare services – (total Medicare costs – fixed building and equipment costs)) / Medicare payments. This comparison is a lower bound on the marginal profit because we do not consider any potential labor costs that are fixed.

17 Recently enacted legislation has increased the penalty for hospices that do not report quality data. Beginning in fiscal year 2024, nonreporters face a 4 percent payment penalty, per the Consolidated Appropriations Act, 2021. In the fiscal year 2024 hospice final rule, CMS estimated that the increase in the penalty from 2 percent to 4 percent in 2024 would reduce hospice spending by about $41 million (Centers for Medicare & Medicaid Services 2023f).

18 Hospices must have at least 75 CAHPS survey responses in a reporting period to have a published star rating.

19 For both of the new claims-based quality measures, the public reporting program uses an eight-quarter reference period, with the aim of increasing the sample size at the provider level to enable CMS to report data on as many providers as possible.

20 Estimates are based on providers that care for at least 20 patients who died during the reporting period and met criteria for inclusion in the measure. In the prior reporting period covering April 2019 through September 2021 (excluding the first half of 2020) and using these same inclusion criteria, scores ranged from 39 percent at the 25th percentile to 70 percent at the 75th percentile.

21 Our analysis focuses on the broadest measure of live discharge, including live discharges initiated by the hospice (because the beneficiary is no longer terminally ill or because the beneficiary is discharged for cause) and live discharges initiated by the beneficiary (because the beneficiary revokes hospice enrollment, transfers hospice providers, or moves out of the area). Some stakeholders argue that live discharges initiated by the beneficiary are outside the hospice's control and should not be included in a live-discharge measure. Because beneficiaries choose to revoke hospice for a variety of reasons, which in some cases are related to the hospice provider's business practices or quality of care, we include revocations in our analysis. A CMS contractor found that rates of live discharge—due to beneficiary revocations and to beneficiaries no longer being terminally ill—increase as hospice providers approach or surpass the aggregate cap (Plotzke et al. 2015). The contractor's report suggested that this pattern could reflect hospice-encouraged revocations or inappropriate live discharges and thus merit further investigation.

22 The term "curative care" is often used interchangeably with "conventional care" to describe treatments intended to be disease modifying.

23 Eligibility for the MCCM was limited to beneficiaries with a life expectancy of 6 months or less who had certain diagnoses, utilization history, and location of care (diagnoses of cancer, congestive heart failure, chronic obstructive pulmonary disease, or HIV/AIDS; at least 1 hospital encounter and at least 3 office visits in the last 12 months; no election of hospice in the last 30 days; lived in a traditional home continuously for the last 30 days). The report stated that "Although our evaluation results are promising, they might not generalize from MCCM to other hospice providers or beneficiaries. . . . A small percentage of all hospices nationwide volunteered to participate in MCCM, with only five hospices enrolling about half the beneficiaries. Further, the beneficiaries enrolled in MCCM represent a small percentage of the beneficiaries who, according to Medicare claims and enrollment data, lived near a participating hospice during model implementation and satisfied the model eligibility criteria but were neither referred to the model nor enrolled. The enrollees were also notably different from nonparticipating beneficiaries before matching, more often having cancer and high rates of Medicare expenditures

and service use before enrollment. Voluntary selection into the model by hospices and beneficiaries limits the generalizability of the evaluation findings to a broader population of Medicare beneficiaries with less than six months to live" (Kranker et al. 2023).

24 Based on MedPAC analysis of CMS's Accountable Care Organization Realizing Equality, Access, and Community Health (ACO REACH) Performance Year 2023 Participant Overview data (available at: https://www.cms.gov/priorities/innovation/media/document/aco-reach-py23-participants).

25 The aggregate FFS Medicare margin is calculated as follows: ((sum of total Medicare payments to all providers) – (sum of total Medicare costs of all providers) / (sum of total Medicare payments to all providers)). Estimates of total Medicare costs come from providers' cost reports. Estimates of Medicare payments and cap overpayments are based on Medicare claims data. Although we refer to this margin as the FFS Medicare margin, it incorporates hospices' payments and costs for MA beneficiaries whose hospice care is paid for by FFS Medicare. FFS Medicare pays for hospice care for most MA enrollees, with the exception of those who are in MA plans that are participating in the VBID hospice component.

26 Hospices that exceed the Medicare aggregate cap are required to repay the excess to Medicare. We do not consider the overpayments as part of hospice revenues in our margin calculation. We also exclude from our calculation the nonreimbursable bereavement and volunteer costs, which are reported in nonreimbursable cost centers on the Medicare cost report. Statute requires that hospices offer bereavement services to family members of deceased Medicare patients (Section 1861(dd)(2)(A)(i) of the Social Security Act); however, the statute prohibits Medicare payment for these services (Section 1814(i)(1)(A)). Including nonreimbursable bereavement and volunteer costs in our margin calculation would reduce the aggregate Medicare margin for 2021 by at most 1.3 percentage points and 0.3 percentage points, respectively.

27 Because federal relief funds were intended to help cover lost revenue and payroll costs—including lost revenue from Medicare patients and the cost of staff who help treat these patients—this alternate margin estimate includes a portion of these relief funds (based on the amount of relief funds received by each provider in cost report year 2021 multiplied by the provider's 2019 ratio of hospice days for Medicare patients to hospice days for all patients). Using this method, the alternate margin calculation allocates about 90 percent of federal relief funds that freestanding hospices reported on their 2021 cost reports toward hospices' care of Medicare beneficiaries in 2020.

28 Estimates of nonhospice spending during a hospice election exclude the first day of the hospice episode and the day of a live discharge (Centers for Medicare & Medicaid Services 2023g).

29 A few other hospices said they viewed diabetes medicines as related, unless the patient's terminal illness was completely unrelated (citing cancer or Parkinson's disease as examples where it may be unrelated).

30 Because interviewees were asked an open-ended question about what services they typically consider unrelated, it is uncertain whether interviewees who did not mention these items would find them typically related or unrelated.

31 One hospice gave as an example a cholesterol medication (i.e., a statin) that a patient may have taken for many years but no longer benefits from due to the stage of their disease.

32 Beginning fiscal year 2022, CMS added two measures of Part B claims per hospice enrollee, one for beneficiaries at home and one for beneficiaries residing in an assisted living facility, skilled nursing facility, or nursing facility. The interviews focused on the Part D PEPPER data.

# References


Abt Associates, Department of Health and Human Services. 2022. *2021 Technical expert panel meetings: Hospice quality reporting program summary report.* Report by Abt Associates for the Centers for Medicare & Medicaid Services. Rockville, MD: Centers for Medicare and Medicaid Services. https://www.cms.gov/files/document/2021-hqrp-tep-summary-reportfinal.pdf.

Addus. 2023. Addus HomeCare Corporation Q3 2023 earnings call.

Aldridge, M. D., L. J. Hunt, K. L. Harrison, et al. 2023. Health care costs associated with hospice use for people with dementia in the U.S. *Health Affairs* 42, no. 9 (September): 1250–1259.

Amedisys. 2023. Quarterly report (Form 10–Q) for the quarterly period ended September 30, 2023. Filing submitted to the U.S. Securities and Exchange Commission. https://s2.q4cdn.com/960461372/files/doc_financials/2023/q3/acfeb534-4f02-4caf-84dc-b7ed7379ee84.pdf.

Barnato, A. E., D. L. Anthony, J. Skinner, et al. 2009. Racial and ethnic differences in preferences for end-of-life treatment. *Journal of General Internal Medicine* 24, no. 6 (June): 695–701.

California Legislature. 2021. AB-1280: California Hospice Licensure Act of 1990. https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB1280.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2023a. Calendar year 2024 participation in the Medicare Advantage value-based insurance design model: Innovating to meet person-centered needs. https://www.cms.gov/newsroom/fact-sheets/calendar-year-2024-participation-medicare-advantage-value-based-insurance-design-model-innovating.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2023b. CMS is taking action to address benefit integrity issues related to hospice care. https://www.cms.gov/blog/cms-taking-action-address-benefit-integrity-issues-related-hospice-care.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2023c. Guiding an improved dementia experience: Request for applications, version 1. https://www.cms.gov/files/document/guide-rfa.pdf.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2023d. *Hospice Program for Evaluating Payment Patterns Electronic Report: User's guide.* Twelfth edition.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2023e. Medicare program; calendar year (CY) 2024 home health (HH) prospective payment system rate update; HH quality reporting program requirements; HH value-based purchasing expanded model requirements; home intravenous immune globulin items and services; hospice informal dispute resolution and special focus program requirements, certain requirements for durable medical equipment prosthetics and orthotics supplies; and provider and supplier enrollment requirements. Final rule. *Federal Register* 88, no. 217 (November 13): 77676–77880.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2023f. Medicare program; FY 2024 hospice wage index and payment rate update, hospice conditions of participation updates, hospice quality reporting program requirements, and hospice certifying physician provider enrollment requirements. Final rule. *Federal Register* 88, no. 147 (August 2): 51164–51199.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2023g. Medicare program; FY 2024 hospice wage index and payment rate update, hospice conditions of participation updates, hospice quality reporting program requirements, and hospice certifying physician provider enrollment requirements. Proposed rule. *Federal Register* 88, no. 64 (April 4): 20022–20057.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2022. Technical Expert Panel (TEP) charter. https://www.cms.gov/files/document/hqrp-hh-qrp-health-equity-tep-charter08july2022final.pdf.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2021. Medicare Advantage value-based insurance design model calendar year 2022 model participation. Fact sheet. https://www.cms.gov/newsroom/fact-sheets/medicare-advantage-value-based-insurance-design-model-calendar-year-2022-model-participation.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2020. Medicare Advantage value-based insurance design model calendar year 2021 model participation. Fact sheet. https://www.cms.gov/newsroom/fact-sheets/medicare-advantage-value-based-insurance-design-model-calendar-year-2021-model-participation.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2019. Medicare program; FY 2020 hospice wage index and payment rate update and hospice quality reporting requirements. Proposed rule. *Federal Register* 84, no. 80 (April 25): 17570–17618.

Chemed. 2023. Chemed Corporation third quarter 2023 earnings call.

Cohen, L. L. 2008. Racial/ethnic disparities in hospice care: A systematic review. *Journal of Palliative Medicine* 11, no. 5 (June): 763–768.

Crawley, L., R. Payne, J. Bolden, et al. 2000. Palliative and end-of-life care in the African American community. *Journal of the American Medical Association* 284, no. 19 (November 15): 2518–2521.

Direct Research. 2015. *Spending in the last year of life and the impact of hospice on Medicare outlays (updated August 2015).* Report prepared by Direct Research for the Medicare Payment Advisory Commission. Washington, DC: Medicare Payment Advisory Commission.

Eibner, C., D. Khodyakov, E. A. Taylor, et al. 2023. *Evaluation of phase II of the Medicare Advantage value-based insurance design model test: First three years of implementation (2020–2022).* Report prepared for the Centers for Medicare & Medicaid Services, Center for Medicare & Medicaid Innovation. Santa Monica, CA: RAND Health Care. September. https://www.cms.gov/priorities/innovation/data-and-reports/2023/vbid-2nd-eval-report.

Enhabit. 2023. Enhabit, Inc. Q3 2023 earnings call.

Gilstrap, L. G., H. A. Huskamp, D. G. Stevenson, et al. 2018. Changes in end-of-life care in the Medicare Shared Savings Program. *Health Affairs* 37, no. 10 (October): 1693–1700.

Government Accountability Office. 2004. *Medicare hospice care: Modifications to payment methodology may be warranted.* GAO–05–42. Washington, DC: GAO.

Gozalo, P., M. Plotzke, V. Mor, et al. 2015. Changes in Medicare costs with the growth of hospice care in nursing homes. *New England Journal of Medicine* 372, no. 19 (May 7): 1823–1831.

Gruber, J., D. H. Howard, J. Leder-Luis, et al. 2023. *Dying or lying? For-profit hospices and end of life care*. NBER working paper no. 31035. Cambridge, MA: National Bureau of Economic Research.

Hoyer, T. 2007. The future of hospice. *Caring*, November 6–8.

Hung, P., S. H. Hsu, and S. Y. Wang. 2020. Associations between end-of-life expenditures and hospice stay length vary by clinical condition and expenditure duration. *Value Health* 23, no. 6 (June): 697–704.

Kaufman, B. G., B. S. Spivack, S. C. Stearns, et al. 2019. Impact of accountable care organizations on utilization, care, and outcomes: A systematic review. *Medical Care Research and Review* 76, no. 3 (June): 255–290.

Khodyakov, D., C. Eibner, E. A. Taylor, et al. 2022. *Evaluation of phase II of the Medicare Advantage value-based insurance design model test: First two years of implementation (2020–2021).* Report prepared for the Center for Medicare and Medicaid Innovation, Centers for Medicare & Medicaid Services. Santa Monica, CA: RAND Health Care. https://innovation.cms.gov/data-and-reports/2022/vbid-1st-report-2022.

Kranker, K., B. Gilman, M. Niedzwieck, et al. 2023. *Evaluation of the Medicare Care Choices Model: Fifth and final annual evaluation report.* Washington, DC: Center for Medicare & Medicaid Innovation. November. https://www.cms.gov/priorities/innovation/data-and-reports/2023/mccm-fifth-annrpt.

Lam, M. B., T. H. Friend, P. Erfani, et al. 2022. ACO Spending and utilization among Medicare patients at the end of life: An observational study. *Journal of General Internal Medicine* 37, no. 13 (October): 3275–3282.

LoPresti, M. A., F. Dement, and H. T. Gold. 2016. End-of-life care for people with cancer from ethnic minority groups: A systematic review. *American Journal of Hospice and Palliative Care* 33, no. 3 (April): 291–305.

Martin, M. Y., M. Pisu, R. A. Oster, et al. 2011. Racial variation in willingness to trade financial resources for life-prolonging cancer treatment. *Cancer* 117, no. 15 (August 1): 3476–3484.

Medicare Payment Advisory Commission. 2023. *Report to the Congress: Medicare payment policy.* Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2022. *Report to the Congress: Medicare payment policy.* Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2021. *Report to the Congress: Medicare payment policy.* Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2020. *Report to the Congress: Medicare payment policy.* Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2014. *Report to the Congress: Medicare payment policy.* Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2013. *Report to the Congress: Medicare and the health care delivery system.* Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2009. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

National Council for Prescription Drug Programs. 2022. Hospice election status NCPDP/CMS pilot. Webinar. https://ncpdp.org/NCPDP/media/Video/Hospice-Election-Status-NCPDP-CMS-Pilot_1.mp4.

NORC at the University of Chicago. 2023. *Value of hospice in Medicare*. Report prepared by staff from NORC at the University of Chicago for the National Association for Home Care & Hospice and National Hospice and Palliative Care Organization. Chicago, IL: NORC.

Parker, J. 2023. Optum closes $5.4 billion LHC Group acquisition. *Hospice News*, February 22. https://hospicenews.com/2023/02/22/unitedhealth-group-closes-5-5-billion-lhc-group-acquisition/#:~:text=The%20UnitedHealth%20Group%20(NYSE%3A%20UNH,be%20trading%20on%20the%20NASDAQ.

Plotzke, M., T. J. Christian, E. Axelrod, et al. 2015. *Medicare hospice payment reform: Analysis of how the Medicare hospice benefit is used*. Report prepared for the Centers for Medicare & Medicaid Services. Cambridge, MA: Abt Associates.

Tilden, M. 2022. *California hospice licensure and oversight: The state's weak oversight of hospice agencies has created opportunities for large-scale fraud and abuse*. Sacramento, CA: Auditor of the State of California. https://www.bsa.ca.gov/pdfs/reports/2021-123.pdf.

Vossel, H. 2023a. The most significant hospice deals so far in 2023. *Hospice News*, August 31. https://hospicenews.com/2023/08/31/the-most-significant-hospice-deals-so-far-in-2023/.

Vossel, H. 2023b. Palliative care payment avenues in the Kidney Care Choices Model. *Hospice News*, July 12. https://hospicenews.com/2023/07/12/palliative-care-payment-avenues-in-the-kidney-care-choices-model/.

Zuckerman, R. B., S. C. Stearns, and S. H. Sheingold. 2016. Hospice use, hospitalization, and Medicare spending at the end of life. *Journals of Gerontology: Social Sciences* 71, no. 3 (May): 569–580.