The Growth of Hospice Care in U.S. Nursing Homes

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OBJECTIVES: To inform efforts aimed at reducing Medicare hospice expenditures by describing the longitudinal use of hospice care in nursing homes (NHs) and examining how hospice provider growth is associated with use.

DESIGN: Longitudinal study using NH resident assessment (Minimum Data Set) and Medicare denominator and claims data for 1999 through 2006.

SETTING: NHs in the 50 U.S. states and the District of Columbia.

PARTICIPANTS: Persons dying in U.S. NHs.

MEASUREMENTS: Medicare beneficiaries dying in NHs, receipt of NH hospice, and lengths of hospice stay were identified. The number of hospices providing care in NHs was also identified, and a panel data fixed-effect (within) regression analysis was used to examine how growth in providers affected hospice use.

RESULTS: Between 1999 and 2006, the number of hospices providing care in NHs rose from 1,850 to 2,768, and rates of NH hospice use more than doubled (from 14% to 33%). With this growth came a doubling of mean lengths of stay (from 46 to 93 days) and a 14% increase in the proportion of NH hospice decedents with noncancer diagnoses (69% in 1999 to 83% in 2006). Controlling for time trends, for every 10 new hospice providers within a state, there was an average state increase of 0.58% (95% confidence interval = 0.383–0.782) in NH hospice use. Much state variation in NH hospice use and growth was observed.

CONCLUSION: Policy efforts to curb Medicare hospice expenditures (driven in part by provider growth) must consider the potentially negative effect of changes on access for dying (mostly noncancer) NH residents. **J Am Geriatr Soc 58:1481–1488, 2010.**

Key words: hospice; nursing homes; end of life; Medicare; reimbursement policy

A half-million older adults die in U.S. nursing homes (NHs) each year,[1] but although NHs are increasingly sites of end-of-life care,[1] there are concerns about the quality of that care. Pain assessment and management are often inadequate,[2–8] and family members of dying residents report stress due to limited physician visits and insufficient staffing.[9] The use of Medicare hospice care to augment end-of-life care in NHs is a viable option for addressing such concerns, and there is a long history of NH–hospice collaborations;[10] in 2004, 78% of U.S. NHs contracted with hospice providers.[11] Documented benefits of NH hospice care provided to NH residents include better pain management,[12] fewer hospitalizations,[13] greater family satisfaction with end-of-life care,[14–16] and lower costs (at least in the last month of life).[17,18] However, the increasingly long lengths of hospice stay and their higher prevalence in NHs[19] has resulted in closer scrutiny of NH hospice care[20] and prompted consideration of policies that might jeopardize access. Also, some have advocated for NH hospice's dissolution with an argument in part based on the premise of underuse.[21,22]

Concerns regarding higher Medicare hospice expenditures prevail, and the large growth in new Medicare-certified hospice providers is believed to have driven expenditure increases in part.[19,23] Between 2000 and 2007, there was 5% average annual growth of Medicare hospice providers, and this growth was almost entirely attributable to growth in proprietary providers. A 10% average annual growth in Medicare hospice beneficiaries and large increases in lengths of hospice stay has accompanied this growth.[19,23] Consequently, Medicare hospice expenditures have escalated, with long lengths of hospice stays contributing substantially to this increase. It is believed that financially motivated provider behavior has driven longer stays in part, because regardless of length of stay, hospices are paid the same daily rates for routine hospice home care (95% of all hospice care days), and a hospice's profit margin is greater when its stays are longer.[19] Therefore, the

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Medicare Payment Advisory Commission (MedPAC) has speculated that some hospices selectively admit patients with higher probabilities of long stays, and these persons are more often persons with noncancer diagnoses.[19] Given the high prevalence of noncancer diagnoses in NHs, the concern is that policy efforts to decrease long hospice stays may differentially affect access in NHs, even though hospice has been found to be beneficial and potentially cost saving.[2,4,9,12–18]

Excessively short and long NH hospice stays are problematic (from an expenditure perspective); very short stays lose opportunities for Medicare savings by reducing end-of-life hospitalizations and very long stays increase overall Medicare costs.[18,19] The challenge in NHs is how to balance the need for hospice access with the timing of referral for NH residents in the last stages of (noncancer) chronic terminal illnesses for which predicted survival is poor at best.[24–26] From a policy perspective, the challenge is how to curb behavior by some providers who may be exploiting a payment system that results in higher profits for longer hospice stays[19] without jeopardizing access in the NH setting altogether.

Missing from a recent MedPAC report[19] and a related commentary[23] on growth of Medicare hospice providers and hospice use is discussion and evidence documenting the longitudinal use of hospice by the half-million older adults dying in NHs each year.[1] Unknown is how growth in hospice providers and in hospice use and lengths of stay are different for care provided in NHs. The population-based longitudinal study presented here provides this information. Using national data from 1999 through 2006, this study describes growth in the rates of hospice use and in mean lengths of stay and examines the effect of NH provider growth on rates of hospice use. Furthermore, this study presents data on the proportion of hospice care provided in NHs between 1999 and 2006 and contrasts the differing use of NH hospice across U.S. states.

METHODS

Data and Study Population

For 1999 through 2006, NH resident assessment (Minimum Data Set (MDS)) data for the 50 U.S. states and the District of Columbia, Medicare Part A claims data (for hospice, hospital, home health, outpatient, and skilled nursing facility (SNF) care), and Medicare enrollment data (which includes vital statistics data) were used to create a patient history for all residents.[27] MDS and claims records were concatenated to create a per-resident history file to determine where study subjects were located and the care they received in the days and weeks before death.

The population of NH residents was first identified using 1999 to 2006 MDS data from Medicare- and Medicaid-certified NHs (97% of U.S. NHs). Then, to determine Medicare eligibility and whether and when death occurred, these data were matched to the Medicare denominator files. Across study years, residents' MDS–denominator match rate was greater than 90%. For 2006, there was a 93.3% match rate, resulting in the identification of 3,090,244 NH residents. Also, to determine the proportion of Medicare beneficiaries who received hospice in NHs (see below), data on the total number of Medicare hospice beneficiaries in a calendar year were retrieved from Medicare and Medicaid Statistical Reports (2001–2008).[28]

NH Decedents and NH Hospice

NH decedents were defined as Medicare beneficiaries whose deaths occurred within 1 day of an identified NH stay or within 7 days of hospice transfer from a NH (as done in previous research).[12,13] In 1999, to enable capture of at least 180 days of a hospice stay, only NH residents who died in July through December were included. NH hospice use was identified when dates on hospice claims overlapped with dates of NH stays, and decedents classified as receiving NH hospice did not necessarily die with hospice. For instance, in 2006, 9% of NH decedents who received hospice were discharged from hospice before death. The rates of NH hospice use (for the U.S. and individual states and DC) were determined by dividing the number of NH decedents in a calendar year receiving NH hospice care by the total number of NH decedents in that calendar year.

Decedent Characteristics

Data from the MDS before death were used to determine a resident's sex, race and ethnicity, and age. Race was categorized as white (non-Hispanic) and minority (including Hispanic). Age was categorized as younger than 65, 65 to 84, and 85 and older. The principal diagnoses on hospice claims were used to determine hospice residents' diagnoses, and diagnoses were categorized as being noncancer or cancer (primary and secondary cancer codes and codes for lymphatic and hematopoietic neoplasms (from the *International Classification of Diseases, Ninth Edition, Clinical Modification*)). To determine the proportion of cancer and noncancer NH decedents accessing hospice, the documentation of a cancer diagnosis on the MDS was used as evidence of a cancer diagnosis because the denominator included residents with and without hospice claims.

Days of Hospice Care

For NH decedents receiving NH hospice care, dates on hospice claims were used to identify the hospice length of stay (total number of days on the Medicare hospice benefit). When more than one hospice episode occurred (individual was discharged and readmitted to hospice), the days from each episode were totaled. Hospice days before NH admission were included in totals when these days were part of a continuous hospice episode or when the episode(s) occurred within 6 months of the NH hospice episode. For 2006, 12,950 (7.6%) of the 172,015 NH hospice decedents received hospice care before NH admission, and of these, 10,763 (83%) had one continuous hospice episode.

Hospices Providing Care in NHs

Using the hospice claims for NH residents, the unique number of hospices providing care in NHs in 1999 through 2006 were identified. The provider's official address in the hospice provider of service file (or if unavailable, the first two digits of the provider number) were used to assign the hospice to a state. Through previous analysis, the growth of providers in NHs had been determined to be different from the growth of all Medicare-certified hospice providers. Specifically, using 1999 as the base year, growth in the number of hospices providing care in NHs began in 2000 and continued through 2006 (Figure 1), although growth in the number of all Medicare-certified hospice providers did not occur until 2003.[19]

Proportion of Medicare Hospice Care in NHs

This proportion was defined as the percentage of total Medicare hospice beneficiaries in a calendar year who received any hospice while in a NH. The numerator was the total number of NH residents in a calendar year with any NH hospice (not restricted to decedents), and the denominator was the total number of Medicare beneficiaries in a calendar year who received hospice (from the Medicare and Medicaid Statistical Reports).[28]

Analytical Approach

Descriptive statistics were used to show provider growth, hospice decedent characteristics, and the rate of NH hospice use (weighted by number of deaths in individual states and U.S.) over time and in 2006. *T*-test and chi-square statistics were used to test the statistical significance of observed differences, and a Breslow-Day statistic was used to test for interactions (for changes between 1999 and 2006 according to categories of U.S. states). To examine how the growth in hospice providers affected NH hospice use, a panel data fixed-effect (within) regression analysis that controlled for differences across states (50 U.S. states and District of Columbia) was performed. This analysis included a year indicator to capture the secular trend (scaled to be 0 in the first year (1999)) and the number of hospices (scaled to be 0 in 1999 and representing an increase of 10 providers per unit of change). State-level observations were weighted in the regression according to their number of confirmed NH decedents to obtain nationally representative estimates.

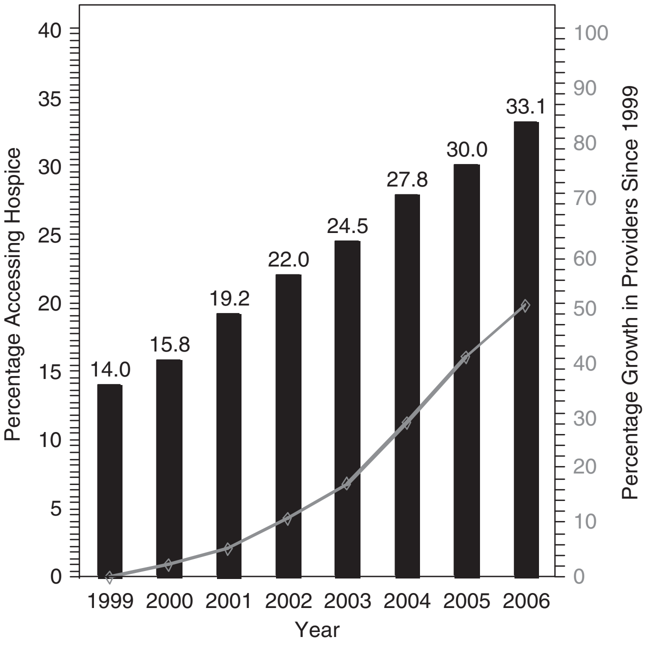

Figure 1. Percentage growth in hospices providing care in nursing homes and rates of nursing home decedent hospice use, 1999–2006.

RESULTS

Although the number of Medicare hospice beneficiaries in NHs doubled from 101,843 in 1999 to 233,844 in 2006, the proportion of beneficiaries who were in NHs largely mirrored the overall growth in the Medicare hospice program. In 1999, 21.7% of Medicare hospice beneficiaries resided in NHs; this rose to 24.2% in 2002 and remained constant through 2006, at approximately 25% (data not shown).

The number of Medicare-certified hospices providing care in U.S. NHs was 1,850 in 1999 and 2,768 in 2006 (49.6% growth), and the rate of NH decedent hospice use was 14.0% in 1999 and 33.1% in 2006 (137% growth; Figure 1). Using regression analysis that controlled for state differences and secular time trend, it was found that, for every 10 new hospice providers within a state, there was an average state increase of 0.58% in NH hospice use (95% confidence interval (CI) = 0.383–0.782%). Between 1999 through 2006, there was on average 4% more growth in the 10 states with the largest provider growth than in hospice use in the 10 states with the lowest growth. NH hospice use increased significantly over time, irrespective of provider growth. Controlling for hospice provider growth and differences between states, rates of hospice use grew each year by an average of 2.5% (AOR = 2.50, 95% CI = 2.37–2.62).

The demographic characteristics of NH hospice decedents changed little across study years. Most hospice decedents were female (67%) and white (90%), and 50% to 55% were aged 85 and older. The proportion of NH hospice decedents with noncancer diagnoses grew from 69.2% in 1999 to 82.6% in 2006 ($P < .001$), and there was significant growth in the proportion of cancer and noncancer decedents accessing hospice. In 1999, 11.9% of NH decedents with noncancer diagnoses and 23.0% with cancer diagnoses accessed hospice; in 2006, these rates rose to 31.4% and 51.3%, respectively ($P < .001$).

With the growth in NH hospice use came longer mean lengths of hospice stay (Figure 2). Nationwide, mean stays for NH decedents rose from 45.8 days in 1999 to 93.2 days in 2006 ($P < .001$); higher proportions of long hospice stays appear to have driven this increase. For instance, the proportion of hospice stays longer than 180 days rose from 6.6% in 1999 to 15.6% in 2006 ($P < .001$), whereas the proportion of hospice stays of 7 days or less remained relatively stable at approximately 30%.

Table 1 presents the considerable state variation in the growth of NH hospice providers and in NH hospice use between 1999 and 2006. In 2006, the lowest rates of NH hospice use were in Alaska (2.3%) and Hawaii (7.9%), but rates were also low in several rural states such as Wyoming (9.0%) and Vermont (8.1%), although even in these low-use states, the percentage of growth in NH hospice use was high. For example, in Wyoming, the increase in the rate of hospice use was 163%, and in Vermont it was 96%. In the 10 states with the most provider growth (Alabama, Georgia, Idaho, Louisiana, Mississippi, New Mexico, Oklahoma, South Carolina, Tennessee, and Utah; Table 1), there was a (weighted) 192% increase in rates of NH hospice use between 1999 and 2006, compared with a (weighted) 101% increase in the 10 states with the least provider growth (Arkansas, Florida, Kentucky, Maryland, Minnesota, New

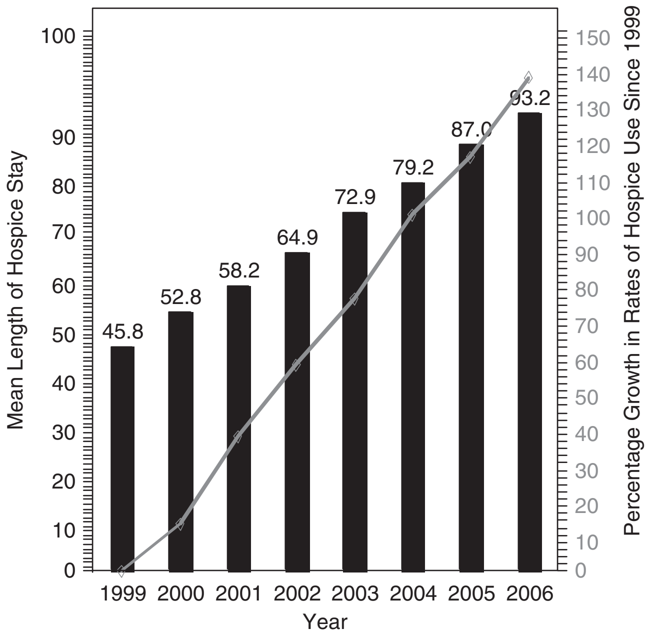

Figure 2. Percentage growth in rates of hospice use and mean lengths of hospice stay for nursing home decedents, 1999–2006.

Hampshire, New York, North Dakota, Minnesota, South Dakota, and Washington; Table 1). The proportion of Medicare hospice care in NHs differed little in 2006 for these states with the most and the least provider growth (21.6% and 22.6%, respectively).

Mean lengths of stay also differed in the 10 states with the most and the least provider growth, with mean stays being significantly longer in states with the most growth than in those with the least growth (131 vs 95 days; $P<.001$). Additionally, increases in lengths of stay at the 90th percentile were greater in the 10 states with the most provider growth than in those with the least provider growth. At the 90th percentile, hospice stays were 173 days in 1999 and 399 days in 2006 (a 131% increase) in states with the most provider growth, whereas they were 141 and 276 days, respectively (a 96% increase) in the states with the least growth. In both groups, however, increases in the proportion of NH hospice decedents with noncancer diagnoses were similar (13.8% vs 13.0%).

DISCUSSION

There was substantial growth in the number of hospices providing care in NHs, and this growth was significantly associated with greater rates of hospice use. Furthermore, dramatically longer mean hospice stays accompanied greater rates of hospice use. Herein lies the concern. Although greater access to hospice care in NHs had been promoted,[29] greater access appears to come at a cost of longer stays and these have resulted in increased Medicare hospice expenditures.[19] Furthermore, although increases in hospice use are a likely response to unmet needs,[24,25] greater growth in long stays was observed in the 10 states with the most provider growth than in those with the least provider growth even though both groups had similar increases in noncancer patients. Further study is needed to understand the provider and healthcare market factors influencing these differences.

In the United States, 67% of older persons with dementia-related diagnoses and 28% of persons with other noncancer diagnoses die in NHs, whereas only 21% of those with cancer diagnoses die in NHs.[1] Therefore, to provide hospice care to all but a small proportion of dying NH residents means substantial care will be provided to persons with noncancer diagnoses, a high proportion of whom will have dementia-related diagnoses. This firsthand was observed because the proportion of hospice NH decedents with noncancer diagnoses was sizable (69%) even before the substantial growth of hospice providers, when only 14% of decedents accessed hospice. Nevertheless, although 83% of NH decedents had noncancer diagnoses in 2006, only 31% accessed hospice. In contrast, 51% of NH decedents with cancer diagnoses accessed hospice in 2006. This large discrepancy in access reflects the continuing barriers to Medicare hospice for persons with (noncancer) chronic terminal illnesses in NH and non-NH settings.[24–26]

Mean length of hospice stays for NH decedents more than doubled, from 46 days in 1999 to 93 days in 2006. Additionally, in 2006, the 93-day mean hospice stay for NH decedents was estimated to be at least 20 days longer than the mean stay for non-NH hospice decedents (based on the proportion of all Medicare hospice provided in NHs, mean NH stay, and MedPAC length-of-stay data for all hospice decedents).[19] This longer mean stay for NH decedents is consistent with NH case-mix differences (as discussed above) and with the more-bimodal distribution of hospice lengths of stay for persons with noncancer diagnoses.[30] Still, as discussed above, it appears that differing provider and healthcare market behavior may influence the presence of longer long stays (days of stay at 90th percentile) because increases in these days were significantly greater in the 10 states with the greatest provider growth than in those with the least.

The current study provides new information showing that almost one-third of Medicare beneficiaries dying in NHs accessed Medicare hospice in 2006, and given the observed trends, this growth in use is probably continuing. Additionally, other recent research has shown that 40% of NH decedents with end-stage dementia and 35% of those with a comorbid dementia diagnosis accessed hospice in 2006.[31] Therefore, calls for elimination of Medicare hospice in NHs based on its underuse appear unfounded,[21,22] especially considering the finding that use in the NH mirrored the overall growth in Medicare hospice use. Additionally, the notion that the complexity of NH–hospice collaborations is a major obstacle to the viability of hospice care in NHs[22] also appears unfounded, given the high proportion of U.S. NHs contracting with hospice providers and the documented outcomes resulting from this collaborative care.[4,9,12–16] Nevertheless, the argument that the design of the Medicare hospice benefit creates barriers to its access[21,22] is undeniable.

There are major shortcomings in the Medicare hospice benefit that appear to influence the timing of referral (resulting in very short and long stays),[32] and these may limit further increases in access for NH residents. First, the need for a physician-certified 6-month terminal prognosis creates

Table 1. Growth in Nursing Home (NH) Hospice Use 1999 to 2006 and NH Hospice Use in 2006 in 50 U.S. States and District of Columbia

	Growth in Hospice Providers, %	Growth in Rates of Hospice Use by NH Decedents, %	Hospice Care Provided in NHs, %	Hospice Use, %	Days of Hospice Stay in 2006, NH Decedents with Hospice		
State	1999–2006	1999–2006	2006	2006	Mean Days of Stay	≤7 Days, %	Proportion ≥181 Days, %
United States	49.6	137.1	25.0	33.1	93.2	30.6	15.6
AK*	—	—	2	2.3	44.2	0.0	0.0
AL	137.2	161.1	16.9	34.2	152.6	20.9	27.0
AR	10.8	179.1	22.3	26.6	109.0	31.7	17.5
AZ	56.3	70.2	14.1	43.5	109.8	29.9	19.5
CA	24.2	98.7	18.4	27.7	79.4	34.7	12.4
CO	32.3	47.2	28.7	45.5	86.2	33.2	15.0
CT	21.7	234.6	33.3	28.2	45.2	39.3	6.3
DC	50.0	195.8	14	18.6	70.5	23.4	12.8
DE	40.0	117.0	28.8	46.8	83.9	34.3	13.4
FL	7.9	98.6	21.1	41.5	126.1	27.6	21.0
GA	92.0	104.2	19.7	35.2	112.8	26.2	18.9
HI	66.7	497.2	7.3	7.9	62.2	31.7	12.5
IA	18.6	195.2	46.8	50.0	71.5	33.1	11.8
ID	93.8	146.8	15.9	17.1	94.8	26.1	17.3
IL	20.5	97.0	29.6	36.6	78.4	32.3	12.6
IN	53.1	217.0	32.6	33.0	103.9	28.5	17.9
KS	60.6	176.2	32.6	47.8	92.3	28.8	16.1
KY	9.5	100.2	22.7	23.6	88.9	31.1	15.0
LA	206.7	315.4	27.2	41.9	99.0	25.2	16.5
MA	39.5	246.3	38.1	31.6	70.3	33.8	11.6
MD	8.0	146.5	23.4	23.3	64.6	34.6	10.3
ME	45.5	786.9	30.4	23.8	81.0	30.7	14.2
MI	29.4	115.6	21.4	34.6	88.3	31.1	14.5
MN	3.6	107.4	33.9	30.0	71.5	31.2	12.1
MO	40.9	154.1	39.5	42.1	98.4	27.9	17.4
MS	252.6	621.8	11.8	24.6	147.5	21.1	25.7
MT	71.4	185.4	21.6	21.3	78.4	33.0	13.7
NC	33.9	281.0	19.6	26.5	96.9	27.4	16.7
ND	7.7	85.2	54.8	24.0	88.5	29.1	14.9
NE	32.0	128.3	45.4	38.1	69.8	36.0	11.5
NH	0.0	227.0	32.2	33.7	63.8	34.3	10.4
NJ	42.9	208.1	29.9	34.2	70.3	34.1	11.6
NM	190.9	125.7	18.1	37.3	141.3	26.7	22.5

(Continued)

Table 1. (Contd.)

State	Growth in Hospice Providers, %	Growth in Rates of Hospice Use by NH Decedents, %	Hospice Care Provided in NHs, %	Hospice Use, %	Days of Hospice Stay in 2006, NH Decedents with Hospice		
	1999–2006	1999–2006	2006	2006	Mean Days of Stay	≤7 Days, %	Proportion ≥181 Days, %
NV	57.1	92.3	15.9	33.6	105.7	32.1	17.1
NY	(2.0)	106.6	20	17.1	77.6	29.3	13.2
OH	16.5	97.9	35.1	39.8	87.3	34.0	14.4
OK	108.8	119.2	34.5	56.6	188.4	19.3	31.2
OR	18.9	138.1	14.3	34.4	57.4	36.8	9.6
PA	34.0	163.3	31.1	33.8	81.3	32.9	13.9
RI	33.3	534.4	41.5	43.0	69.7	35.0	12.0
SC	111.5	192.1	17.4	28.7	131.3	24.3	23.4
SD	9.1	294.4	43.1	24.2	60.6	32.5	8.6
TN	100.0	580.1	26.5	27.4	97.9	26.0	15.9
TX	85.7	115.6	28.1	48.1	107.5	29.1	17.4
UT	253.3	309.5	24.2	47.2	125.7	31.0	21.9
VA	71.4	332.6	19.5	22.5	77.5	30.9	12.6
VT	33.3	96.4	12.5	8.1	74.2	36.4	15.0
WA	3.4	49.4	18.9	25.0	66.2	30.2	11.0
WI	19.6	165.4	25.4	24.6	83.8	31.2	14.0
WV	55.6	459.1	11.1	11.4	106.2	26.5	19.0
WY	77.8	163.2	14.6	9.0	87.0	33.3	15.6

* Alaska had no NH hospice patients in 1999.

substantial barriers for persons with (noncancer) chronic terminal illnesses for whom a 6-month prognosis is difficult to predict.[24,25] Although this barrier affects persons dying in NHs and in other settings (and 72% of persons with nondementia chronic terminal illnesses die in non-NH settings),[1] the barrier is particularly important in NHs given the high proportion of NH residents with chronic terminal illnesses. Another major barrier arising from the Medicare hospice benefit is the requirement that beneficiaries enrolling in hospice must forgo other Medicare Part A care (when such care is related to the terminal illness). For beneficiaries in the community or in NHs, this means that hospital care and curative treatment must be abandoned, but it often also means abandonment of expensive treatments such as blood transfusions or palliative radiation (when hospices lack financial resources to support such care).[24–26] Additionally, in NHs, the Medicare Part A forfeiture requirement creates a system-wide barrier because dying NH residents routinely receive Medicare Part A skilled nursing facility (SNF) care (after hospitalizations),[33] and its forfeiture is financially disadvantageous for NHs and families.[34] Even given these barriers, one-third of NH decedents in 2006 were enrolled in Medicare hospice, although as expected, a high proportion of hospice stays were 7 days or less (30.6% in 2006) or longer than 181 days (15.6% in 2006; Table 1).

Although most U.S. NHs approach the provision of end-of-life palliative care by referring residents to hospice, many NHs also invest in developing internal palliative care programs and expertise (with or without hospice care).[11] The few studies that have tested the integration of (nonhospice) palliative care expertise and processes into NHs have shown improvement in care processes [35–39] and, when combined with a quality improvement program, a reduction in pain prevalence,[40] but there has been no widespread dissemination of any of these efforts. In 2004, 27% of U.S. NHs reported having special programs and (specially) trained staff for hospice or palliative and end-of-life care, but information on the scope of practices included in these programs was not reported.[11] More study is needed to understand the extent and breadth of nonhospice palliative care provision and expertise in U.S. NHs, the resulting quality outcomes, and the feasibility of its widespread implementation. Without a more-in-depth understanding of which NH practices and investments result in higher-quality palliative care outcomes and whether the few small-scale studies can be replicated across a broad range of NHs, paying NHs more to provide "palliative care" in lieu of paying Medicare-certified hospices[21] is ill advised. At present, given current understanding of NH end-of-life care and of the benefits and use of hospice care in NHs,[5–8,14,16] the provision of NH–hospice collaborative care appears to be the most feasible option for widespread improvement of dying residents' quality of care and life.[10] Notwithstanding this, greater palliative care knowledge and (availability of) expertise in NHs and in other healthcare settings continues to be needed to ensure high-quality symptom management for persons who do not qualify for or choose hospice, and payment or quality indicator oversight efforts to encourage such symptom management are desirable.

MedPAC has recommended changing the Medicare payment system so that the per diem rate for hospice routine home care (95% of all hospice care days) better reflects the intensity of hospice service provision.[19] Because research has shown hospice visits to be more frequent closer to the beginning and end of hospice episodes,[41–43] it is reasonable to have higher payment rates around the time of hospice admission and around the time a patient is dying. The MedPAC has also recommended closer scrutiny of recertification of hospice patients after the 180th day of stay; specifically, they propose requiring patient visits by physicians or advanced practice nurses to evaluate their continued eligibility and need for care.[19] Together, these recommended approaches to curbing Medicare costs appear to be a viable option for retaining access while reducing the number of long (costly) hospice stays (some of which appear to result from perverse financial incentives). Evaluation of such a payment option must include consideration of variations in hospice use in NHs (as shown here) and the probable greater effect of changes on hospice access for dying NH residents, given the high proportion of persons with noncancer diagnoses in NHs.

In conclusion, given the increasingly high proportion of Medicare beneficiaries who die in NHs and their entitlement to and benefit from the Medicare hospice benefit, denying them access to NH hospice is not desirable. These analyses provide new information on the increased use of hospice care in NHs and show substantial increases in very long hospice stays. As such, the data support the need for a modification of the current Medicare hospice reimbursement systems that would vary payments as a function of length of stay.[19] However, it is important for any new policy to explicitly acknowledge the challenges inherent in the timing of hospice referral for NH residents in the last stages of (noncancer) chronic terminal illnesses[24–26] by recognizing that "early" referrals will occur and deeming them "acceptable" in the presence of well-documented physician evaluations and eligibility determinations. Without such explicit acknowledgement, the fear is that undue scrutiny may occur, resulting in decreasing enrollments and a higher prevalence of very short stays.

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