Special Report

Medicare hospice benefit: Early program experiences

by Feather Ann Davis

In this article, an overview of the Medicare hospice benefit is presented and selected preliminary findings from the Medicare hospice benefit program evaluation are provided. By mid-1987, about one-half of all community home health agency-based hospices were Medicare certified, compared with about one-fifth of all independent/freestanding hospices and one-seventh of hospital and skilled nursing facility-based hospices. Medicare beneficiary election of the hospice benefit increased from about 2,000 beneficiaries in fiscal year 1984 to about 11,000 during fiscal year 1986. Medicare reimbursed hospices an average of $1,798, $2,078 and $2,337 per patient during fiscal years 1984, 1985, and 1986, respectively.

Introduction

The Medicare hospice benefit was authorized by the Tax Equity and Fiscal Responsibility Act (TEFRA) of 1982. It is the single major expansion of the Medicare benefit structure since 1972 when disability and end stage renal disease (ESRD) were included as bases for Medicare entitlement. There are alternative viewpoints about the cost effectiveness of the hospice benefit. Hospice proponents maintain that hospice can provide a more humane, effective, and less costly alternative to the acknowledged high cost of dying. On the other hand, there are those who believe that hospice services are not likely to be substitute services, but rather an additional benefit after costly services have been used. Because everyone eventually dies, the concern is that the Medicare hospice benefit could result in additional outlays from the Medicare Trust Funds.

The purpose of this article is to report selected preliminary findings from an evaluation of the Medicare hospice benefit. The evaluation is being implemented through three contracted studies; the final results will be available by fall 1988.

Background

Hospice movement in the United States

Although the hospice concept of a place to die is ancient, the convergence of clinical thought about pain control with a philosophy of humane palliative care for the dying occurred during the 1960's. At that time, there were a few homes and hospitals that specialized in care for incurable patients in both England and the United States. The evolving thought of the 1960's about pain control and understanding of the terminal stage of illness was highlighted by the work of two physicians. In England, Cicely Saunders gained international fame with the establishment of St. Christopher's Hospice of London in 1967. In the United States, the book entitled, *On Death and Dying*, by Elisabeth Kubler-Ross was being widely acclaimed for identifying five stages through which many terminal patients progressed with some degree of order (Kubler-Ross, 1969).

The first "official" hospice in the United States was Hospice, Inc., established in 1973 in New Haven, Connecticut. It followed the Saunders format, with the exception that it initially provided only home care services. However, after 3 years of operation, a 44-bed inpatient facility was constructed in order to assure continuity of inpatient services and home care (Lack and Buckingham, 1978). During the 10-year period from 1973 to 1983 when the Medicare hospice benefit was implemented, there was a burst of enthusiasm and emergence of "grass roots" volunteer efforts to establish hospices across the country (Mor and Masterson-Allen, 1987).

Variations in services and organization

Many forms of hospice emerged: a few facilities similar to the English freestanding hospice model, hospital-affiliated programs, community-based models, and home care agency services (Munley, 1983; Longo, McCann, and Ahlgren, 1987). In 1979, the General Accounting Office (GAO) reported to Congress that there was ". . . no standard definition of a hospice or of what services an organization must provide to be considered a hospice." GAO noted that 59 organizations in the United States considered themselves to be hospices, providing many different combinations of medical and support services to terminally ill, predominantly cancer, patients. Seventy-three other organizations were identified as intending to establish hospice care programs that would also provide various mixes of services (General Accounting Office, 1979).

Government and foundation support

The Federal Government's attitude toward hospice care was described as "cautious and investigatory" (U.S. Department of Health and Human Services, 1980). From 1974 to 1977, the National Cancer Institute funded a home health care hospice demonstration program. In 1979, the National

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Institutes for Health convened a national conference on pain, discomfort, and humanitarian care (Abdellah, Harper, and Lunceford, 1982). In 1980, the Health Care Financing Administration (HCFA) funded 26 hospice programs as demonstration projects. An evaluation was conducted by Brown University, under joint funding by HCFA, the Robert Wood Johnson Foundation, and the Hartford Foundation (Greer et al., 1985).

In 1981, the W. W. Kellogg Foundation awarded a grant to the Joint Commission on Accreditation of Hospitals (JCAH) to investigate the status of hospice in the United States and to develop standards for hospice accreditation (Joint Commission on Accreditation of Hospitals, 1983; McCann, 1985). Through two mail surveys, the JCAH identified more than 800 hospices in varying stages of development. Of the 440 operational programs identified, 46 percent were classified as hospital-based; 27 percent were a combination of case manager, the Visiting Nurse Association, skilled nursing facility, and community-based home care; 23 percent were home health agency-based; and 4 percent were totally volunteer.

Medicare hospice benefit

Despite uncertainties regarding the costs, Congress judged the benefits of hospice care sufficiently great to warrant enactment of Public Law 97-248, section 122, in August 1982, thereby creating a Medicare hospice benefit. The legislation contained several cost-containment mechanisms. The benefit includes a cap on both overall annual aggregate per patient expenses and inpatient hospital utilization, thus structuring the benefit to promote Medicare program savings through the substitution of home care for inpatient care. A "sunset" provision limited the benefit to the 3-year period, from November 1, 1983 to October 31, 1986.[1] Further indication of congressional caution was the requirement of an evaluation of the cost effectiveness of the hospice care under the benefit. The report was to be delivered to Congress in time for consideration of renewal of the benefit.

Major benefit provisions

Election

All Medicare Part A beneficiaries are eligible for hospice care for up to two 90-day periods and one subsequent 30-day period if the beneficiary's attending physician and hospice physician certify that a patient is terminally ill, that is, has a life expectancy of 6 months or less, and the patient has elected to receive hospice services. Once the beneficiary has elected hospice care, he or she retains eligibility for Medicare Part B reimbursement for services of the attending physician and Part A and Part B services not related to the terminal condition. The beneficiary who elects the hospice benefit waives the right to Medicare reimbursement for any terminal condition and any care related to the terminal illness that is not provided by (or arranged for through) the designated hospice.

Beneficiaries may switch from one hospice program to another during any election period without revoking the hospice election, provided that the beneficiary files a change of election statement with both hospices that specifies the effective date of the change. Beneficiaries may revoke the hospice election and resume complete Medicare coverage by signing a revocation statement that specifies the effective date of the revocation.

Certification and coverage

As with all other types of Medicare providers, hospices must receive certification by the Department of Health and Human Services that they meet the conditions of participation in order to be recognized as Medicare reimbursable providers. Medicare certified hospices must have the following "core" services available at all times: skilled nursing, medical social services, physician services, and counseling. In addition, the hospice must provide, as needed, either directly or under arrangement, the following services: physical and occupational therapy and speech-language pathology; services of home health aides; homemaker services; medical supplies, including outpatient drugs and biologicals for palliation and medical appliances; and short-term inpatient care, including respite care limited to periods of not more than 5 consecutive days.

Each Medicare hospice enrollee must have a written plan of care that is drafted and administered by an interdisciplinary team, including, at a minimum, a physician, a registered nurse, a medical social worker, and a pastoral or other counselor. When certified hospices provide care through contractual arrangements, the hospice must maintain professional management responsibility through legally binding written agreements.

Unlike other Medicare providers, the legislation specifically requires that Medicare certified hospice providers will use volunteers in the provision of care. Also, unlike other Medicare providers, hospice providers may not discontinue services to a patient because of the patient's inability to pay for the care. If a Medicare beneficiary exhausts the entire three hospice benefit periods, the hospice may bill the patient directly, but cannot discharge the patient or discontinue services to the patient if the patient is unable to pay. This particular condition has generated considerable concern about fiscal solvency and may affect both hospice willingness to participate in the Medicare program and patient acceptance practices by certified hospice providers.

[1]The sunset provision was removed in April 1986 by section 9123 of Public Law 99-272 which also made hospice an optional benefit under Medicaid and raised each of the four per diem rates by $10.

Table 1

Medicare hospice benefit payment rates and services covered, by category: April 1, 1986

Category	Rate	Services covered
General inpatient	$281 per diem	Inpatient routine care; ancillary services (oxygen, laboratory, pharmacy, etc.)
Inpatient respite	$65.33 per diem	Inpatient (skilled nursing care) routine care; drugs, supplies, equipment, and interdisciplinary group.
Routine home care	$63.17 per diem	Nursing, home health, social service/therapy, home respite, interdisciplinary group, drugs, supplies, equipment, and outpatient hospital therapy.
Continuous home care	$15.36 per hour ($368.67 per diem maximum; $122.88 minimum)	Nursing, therapy, drugs, supplies, equipment, and interdisciplinary group.

SOURCE: (Abt Associates, Inc., 1987).

Payment method

Cost savings were to be encouraged through limits on the average aggregate annual payment per patient, adjusted annually for inflation, and the total inpatient days for which a hospice can receive reimbursement. Initially, the cap on the average aggregate payment per patient was set by Congress at $6,500; by October 31, 1985, the cap was $6,884; through October 31, 1987, the cap was $7,898. No more than 20 percent of the total days of elected hospice care provided by the hospice are permitted payment at the inpatient care rate. The remaining 80 percent could be paid at two prospectively determined daily home care rates that were developed by HCFA in 1983.

Although the law requires provision of counseling services, specifically bereavement and nutritional and dietary counseling, it prohibits explicit reimbursement for bereavement counseling. The law specifically permits cost sharing of outpatient drugs and inpatient respite care.[2] The payment rates were calculated using the following: exclusion of bereavement counseling costs, as specified by law; inclusion of overhead costs; use of direct and indirect costs reported by HCFA hospice demonstration cost data, excepting the inpatient respite rate, which was based on average Medicare skilled nursing facility (SNF) costs; inclusion of an inflation factor; and local adjustments for area wage level differences. The four Medicare hospice benefit payment rates and services covered are presented in Table 1. Nursing care may be covered on a continuous basis for as much as 24 hours per day during periods of crisis as necessary to maintain an individual at home. Either homemaker or home health aide services or both may be covered on a 24-hour continuous basis during periods of crisis, but care during these periods must be predominantly nursing care. A period of crisis is a period in which the individual requires continuous care which is primarily nursing care to achieve palliation or management of acute medical symptoms (U.S. Department of Health and Human Services, 1983).

[2]Coinsurance amounts may be charged to Medicare hospice patients for: drugs and biologicals used in the home at the rate of 5 percent of the hospice's cost, up to $5, per prescription; and 5 percent of the estimated cost of respite care, up to the amount of the inpatient hospital deductible ($492 in 1986) in each coinsurance period.

Evaluation issues and methodologies

The major questions specified by Congress in TEFRA concerning the Medicare hospice benefit include the following:

- Is hospice care (in general, and under this or some other Medicare benefit) cost effective?
- Are the payment rates and other requirements of this benefit fair and equitable?
- Are certain kinds of services, such as outpatient drugs, nutritional and dietary counseling, and bereavement counseling, adequately financed under the benefit?

Given the wide range of organizational characteristics of hospices and the subsequent wide range and mix of services provided, it was considered important to include in the evaluation the comparability of hospices, the representativeness of certified hospices, and the likelihood of noncertified hospices meeting the Medicare conditions of participation. The evaluation was designed so as to collect, to the extent possible, data on hospice structure, processes, services, patients, costs, and utilization that are comparable across certified and noncertified hospices.

Evaluation contracts

A JCAH survey of structure and process of hospice care describes the hospice industry (both Medicare certified and non-Medicare certified) as of 1986.[3] Final results are presented in this article.

Jack Martin and Company collected cost report and patient data for fiscal years 1985 and 1986 from a stratified random sample of noncertified hospices. Cost differences among hospices will be studied, as well as the reasons why hospices did not choose to be certified. Results of the survey of hospice administrators are presented in this article, but not the cost results.

[3]The JCAH was renamed The Joint Commission on Accreditation of Healthcare Organizations in August 1987.

Abt Associates, Inc., will combine the findings from these studies with the analysis of Medicare patient claims data for 3 years (1984, 1985, and 1986). Medicare certified hospice cost reports will be analyzed both independently and in combination with the cost data from the Jack Martin and Company study in order to evaluate the fairness of the current payment rates.

Preliminary findings

Hospice participation

Prior to the implementation of the Medicare hospice benefit, representatives of the National Hospice Organization (NHO) estimated that only about 200 hospices could meet the requirements of the legislation at that time; a similar number was estimated by the Inspector General of the Department of Health and Human Services. The actual number of hospices certified during the first year (119) was 60 percent of the estimate.

Two surveys of hospices conducted prior to the removal of the sunset provision showed that about one-half of the hospices that had not been certified as Medicare providers during the first 2 years of the benefit did not ever intend to apply for certification. In 1985, a sample[4] of 82 noncertified hospices showed that 48 percent intended to apply for Medicare certification if the benefit were extended or became permanent (Jack Martin and Company, 1987). Similarly, a 1986 JCAH mail survey of hospices revealed that 53 percent of those not already Medicare certified did not intend to apply for Medicare certification (Longo, McCann, and Ahlgren, 1987).

The diversity among hospices has led to different terms to be used to describe the different types. This article uses the Medicare classifications and the Joint Commission on Accreditation of Healthcare Organizations' (JCAHO) classification somewhat interchangeably. The JCAHO has used the formal control of the hospice as the basis for their classification: hospital, community home health agency (public or private), independent (a freestanding organization that provides only hospice care), skilled nursing facility, and intermediate care facility. Medicare classifies hospices also according to their organizational control: hospital-based, skilled nursing facility-based, home health agency-based, and freestanding.

The JCAH estimated the universe of U.S. hospices in 1985 to be about 1,700. Of that 1,700, 46 percent were hospital or skilled nursing facility-based, 20 percent were community home health agency-based, and 34 percent were independent hospices. Using the 1985 estimate as the denominator, the participation rate was calculated for the Medicare certified hospices. (Data not shown, available from author upon request.) Community home health agency-based hospices have had the highest participation in the Medicare program since its inception. Almost one-half of all community home health agency-based hospices in the United States were Medicare certified as of June 1987, compared with 21 percent of independent hospices and 14 percent of hospital and skilled nursing facility-based hospices.

During the year and a half since the removal of the sunset provision in April 1986, 136 additional hospices became certified, a 49-percent increase in the number of hospices certified by Medicare. However, based on the responses to the JCAH questionnaire and the interviews by Jack Martin and Company, this number represents only about 20 percent of the estimated 700 hospices likely to apply for certification after the benefit became permanent. By the end of September 1987, 415 hospices were certified, less than one-quarter of the approximately 1,700 operational hospices.

Beneficiary participation

The relatively small number of hospices that initially applied for certification is interrelated with the initially small number of Medicare beneficiaries who chose to elect the hospice benefit. During fiscal year 1984, about 2,000 beneficiaries elected the hospice benefit. The number tripled to about 6,000 during the second year of the Medicare hospice benefit program (fiscal year 1985) and reached more than 11,000 elections during the third fiscal year (1986).[5] Medicare beneficiaries who elected hospice had an average age of 74; one-half were males. About 95 percent died while in hospice care. The overall average length of hospice enrollment for Medicare beneficiaries was 29.3 days and 32.1 days during fiscal years 1984 and 1985, respectively (Table 2). About 6 percent of the beneficiaries who elected the benefit used the second 90-day benefit period, with an average of 29 and 57 days during each of the respective fiscal years (data not shown).

Reasons for not participating

Initially, there was a great deal of uncertainty among hospice personnel regarding the implications of participation in the new Medicare program. Administrators from a representative sample of hospices that were not Medicare certified were interviewed during 1986 concerning their reasons for not applying for Medicare provider status. The reasons were primarily financial and varied among the hospice types (Jack Martin and Company, 1987).

[4]The sample was stratified on the basis of type of provider to get a sufficient number of each type of hospice provider for developing statistics.

[5]These figures are derived from the Medicare master beneficiary (enrollment) file. The financial data are derived from a subset of beneficiaries for whom enrollment, billing, and death data are complete. Therefore, there is some difference among the tables regarding the numbers of hospice patient presented.

Table 2

Number and percent of Medicare beneficiaries and length of hospice enrollment, by selected characteristics: Fiscal years 1984-85

Characteristic	Fiscal year 1984			Fiscal year 1985		
	Number[1]	Percent	Average length of stay in days	Number	Percent	Average length of stay in days
Total	2,005	100.0	29.3	5,991	100.0	32.1
Age						
Under 65 years	125	6.2	32.0	334	5.6	33.5
65-74 years	1,002	50.0	29.4	2,899	48.4	31.5
75 years or over	877	43.8	28.5	2,758	46.0	32.5
Sex						
Male	1,028	51.3	27.8	3,171	52.9	30.1
Female	977	48.7	30.6	2,820	47.1	34.3
Race						
White	1,773	88.6	29.7	5,423	90.5	32.1
Black	162	8.1	24.6	385	6.4	33.6
Other	19	0.9	21.8	47	0.8	24.1
Unknown	51	2.5	—	136	2.3	—
Diagnosis						
Cancer	1,980	98.8	29.3	5,612	93.7	32.1
Noncancer	25	1.2	25.7	375	6.3	30.8
Died in hospice	1,913	95.4	29.2	5,664	94.5	31.6
Left hospice, died	92	4.6	31.4	327	5.5	39.3

[1]The data are obtained from the social security master enrollment file.

SOURCE: (Abt Associates, Inc., 1987).

Independent and freestanding hospices were more likely than the provider-based[6] hospices to report that they were financially unable to satisfy the Medicare requirements for participation. About one-half of the provider-based hospices reported that the Medicare hospice benefit would involve unacceptable financial risk for them, specifically, that the prospectively determined payment rates were insufficient to cover their costs. Community home health agency-based hospices were more likely than either the independent and freestanding or hospital-based hospices to anticipate excessive financial risks from: the legislated cap on the average aggregate patient payment ($6,500 initially) and the legislated 210-day hospice benefit periods during which the hospice could receive Medicare payment (Jack Martin and Company, 1987). In actuality, none of the Medicare certified hospices exceeded the cap during fiscal years 1984 and 1985 (Abt Associates, Inc., 1987).

Utilization, charges, and expenditures

As shown in Table 3, an average of $1,843[7], $2,202, and $2,508 per Medicare hospice beneficiary were charged for the years 1984, 1985, and 1986, respectively. The average charges[8] varied among the hospice types similarly for each of the years presented. For fiscal year 1986, average charges range from a low of $1,922 for freestanding hospices to a high of $4,423 for skilled nursing facility-based hospices.

The variation in Table 4 is largely the result of different proportions of inpatient care usage. The freestanding hospices use less inpatient care than the other hospice models. Whereas the freestanding hospices used inpatient services for less than 20 percent of the patients, the hospital and home health agency-based models used it for about 30 percent of their patients, and the skilled nursing facility-based hospices hospitalized more than 50 percent of their patients. By fiscal year 1985, the home health agency hospice (22 percent) use of inpatient care more closely resembled that of the freestanding hospices (19 percent). Similarly, the institution-based (hospital and skilled nursing facility) hospice patients had lower utilization of continuous care, than did the freestanding and home health agency hospice patients (Abt Associates, Inc., 1987).

Of the Medicare certified hospices, 90 percent have complied with the 20-percent legislative limit on the

[6]Provider-based refers to hospices sponsored by an organization that provides health care services in addition to hospice care, specifically, hospitals, skilled nursing facilities, and community home health agencies.

[7]First year lengths of stay may be somewhat shorter than would have been the case had the benefit been available earlier in the disease progression of the earliest enrolled patients.

[8]Hospice expenditures are used when discussing the aggregate expenses associated with the Medicare hospice programs. Because it is not always possible to determine whether the differences between claimed and reimbursed amounts can be applied equally to each of the four types of daily reimbursement rates, charge data are used.

Table 3

Hospice charges per Medicare hospice patient, by type of service and hospice: Fiscal years 1984-86

Type of hospice and fiscal year	Average total charges	Type of service				
		Routine home care	Continuous home care	Respite inpatient care	General inpatient care	Physician services
Total						
1984	$1,843	$1,018	$176	$5	$611	$33
1985	2,202	1,258	139	5	770	30
1986	2,508	1,446	97	5	881	79
Freestanding						
1984	1,415	955	120	1	309	30
1985	1,629	1,007	120	2	450	51
1986	1,922	1,328	107	3	441	43
Hospital-based						
1984	2,364	1,474	136	18	671	64
1985	3,052	1,657	76	10	1,290	19
1986	3,238	1,915	88	14	1,198	23
Skilled nursing facility-based						
1984	2,121	941	10	6	1,151	13
1985	3,443	1,497	31	7	1,898	10
1986	4,423	2,167	23	4	2,208	22
Home health agency-based						
1984	2,155	874	340	3	992	27
1985	1,930	1,167	233	5	507	19
1986	2,353	1,527	110	7	666	43

SOURCE: (Abt Associates, Inc., 1987).

use of inpatient days. Skilled nursing facility hospices had the greatest difficulty meeting the 20-percent inpatient limit. Inpatient days in excess of the 20-percent limit are paid at the routine home care rate. As shown in Table 5, Medicare paid more than 90 percent of billed charges, an average of $1,798 per hospice patient in 1984, $2,078 in 1985, and $2,337 in 1986. More than one-half of hospice charges are for routine home care and another one-third is accounted for by general inpatient care.

Impact on Medicare

Abt Associates, Inc. (1987), has conducted a preliminary analysis of the benefit's cost impact on Medicare, using fiscal year 1985 Medicare conventional care and hospice benefit patient claims data. The analysis estimates the Medicare savings attributable to the hospice benefit using an actuarial approach that superimposes average hospice utilization patterns on a sample of conventional care patients to determine how much would have been saved in conventional care reimbursements had these patients been enrolled in the hospice benefit.

The assumption regarding how many conventional care hospital episodes to count as saved is critical in this comparison, therefore, the simulations conducted employ two assumptions—one conservative and one liberal. The conservative assumption (A) is that a hospice patient would not enroll in the hospice benefit during an inpatient episode, and would therefore not "save" any part of the hospital episode that overlaps the hypothetical enrollment date. The liberal assumption (B) counts the overlapping hospital stay as a "saved" episode.

The analysis constructs "windows" of time for each conventional care patient with complete claims and DRG information, counting from death back 5 days or less, 10 days or less, etc. Within each window, hospital episodes are counted, measured in days, and matched with the associated charges and Medicare reimbursement at the appropriate national DRG rate. Each window was divided into hospital days and nonhospital days. Nonhospital days were assumed to be paid at the average nonhospital Part A reimbursement per day (for skilled nursing and home health care services estimated from data for fiscal year 1985 conventional care sample).

Total Medicare Part A payments per patient window were computed as the sum of hospital and nonhospital payments. Of the total, 10 percent were added to account for Part B payments. Average conventional care per diem reimbursements were computed for each window by dividing total reimbursements by the number of days in the window.

Table 6 presents the net Medicare hospice savings per day by various assumed lengths of stay and Table 7 presents the same data by the three major hospice provider types. An estimate of the relative difference

Table 4

Percent of Medicare hospice patient using specified service, by type of service and hospice: Fiscal years 1984-85

Type of hospice and fiscal year	Type of service				
	Routine home care	Continuous home care	Respite inpatient care	General inpatient care	Physician services
	Percent				
Total					
1984	89	14	1	27	14
1985	89	11	2	28	13
Freestanding					
1984	96	12	1	16	11
1985	92	12	1	19	14
Hospital-based					
1984	91	10	3	31	21
1985	84	5	3	34	13
Skilled nursing facility-based					
1984	73	2	2	57	7
1985	79	3	3	56	11
Home health agency-based					
1984	81	21	1	32	18
1985	92	16	2	22	11

SOURCE: (Abt Associates, Inc., 1987).

between the hospice and conventional care was obtained by dividing what would have been reimbursed in benefit and regular Part A payments for a hospice patient had enrollment occurred at 5 days before death, 10 days, etc., by what would be saved in conventional care reimbursement. A ratio of 1.00 means that estimated savings are equal to estimated costs. Values greater than 1.00 indicate savings greater than costs and values less than 1.00 indicate that net costs are greater.

Under the conservative and liberal assumptions, the benefit generated either small net costs ($.96 saved for every dollar spent) for enrollments of 30 days or less,[9] or fairly substantial savings ($1.36 saved for every dollar spent), depending on the assumption. As shown in Table 7, under assumption A, the savings estimates for an assumed 30-day length of stay ranged from $.77 for SNF-based hospices to $1.01 for freestanding hospices. Under assumption B, the range is from $1.09 for SNF-based hospices to $1.43 for freestanding hospices.

The aggregate figures in Table 6 mask the large differences in savings ratios among hospice provider models. Freestanding and home health-based hospices generally saved Medicare money relative to conventional cancer patient care for patients enrolled 30 days or less. Table 7 shows the difference in savings among the four categories of hospices. Freestanding hospice savings were estimated to be either $1.01 (using the conservative assumption A) or $1.43 (using the liberal assumption B). Home health agency hospices were nearly neutral ($.99) in their impact when using assumption A, but saved $1.40 under assumption B. However, the hospital and SNF-based hospices saved only under the relatively generous assumption B.

Thus far, the magnitude of the estimated total Medicare savings or costs associated with the benefit has been small relative to the total Medicare expenditures. Medicare paid about $10.3 million for the care of 4,700 hospice beneficiaries enrolled in fiscal year 1985, which, if multiplied by the assumed saving ratio of 0.96, would be associated with an

[9]The 30-day period was chosen because it is close to the average number of days Medicare beneficiaries use the hospice benefit.

Table 5

Average Medicare hospice reimbursements and charges, by type of service: Fiscal years 1984-86

Type of service	Fiscal year		
	1984	1985	1986
	Average reimbursement per hospice patient		
Total	$1,798	$2,078	$2,337
	Average charges per hospice patient		
Total[1]	$1,843	$2,202	$2,508
Routine home care	1,018	1,258	1,446
Continuous care	176	139	97
Inpatient respite care	5	5	5
General inpatient care	611	770	881
Physician services	33	30	79

[1]The numbers of beneficiaries are 1,582, 4,710, and 11,185 for fiscal years 1984, 1985, and 1986, respectively. These are obtained from the utilization file that contains the subset of beneficiaries who have a hospice election, have final bills, and who died within the fiscal year.

SOURCE: (Abt Associates, Inc., 1987).

Table 6

Average Medicare hospice benefit and conventional care reimbursement and net hospice savings per day using two assumptions, by assumed length of stay: Fiscal year 1985

Assumed length of stay	Number[1] of patients	Hospice reimbursement per day	Conventional care reimbursement per day[2]	Net hospice savings[3]
Assumption A[4]				
Total	4,300	[6]103	$100	0.97
1-5 days	2,964	123	123	1.00
6-10 days	2,830	116	115	0.99
11-15 days	2,700	108	106	0.98
16-20 days	2,541	101	98	0.97
21-25 days	2,381	97	94	0.97
26-30 days	2,251	94	90	0.96
31-45 days	1,933	85	78	0.92
46-60 days	1,674	78	72	0.92
61-90 days	1,270	68	62	0.91
Assumption B[5]				
Total	4,300	103	231	2.24
1-5 days	2,964	123	521	4.24
6-20 days	2,830	116	288	2.48
11-15 days	2,700	108	210	1.94
16-20 days	2,541	101	169	1.67
21-25 days	2,381	97	144	1.48
26-30 days	2,251	94	128	1.36
31-45 days	1,933	85	101	1.19
46-60 days	1,674	78	85	1.09
61-90 days	1,270	68	68	1.00

[1]The number of conventional care patients in each cohort declines because patients with first recorded cancer diagnoses later than particular windows were excluded from them.
[2]Part A reimbursement for Medicare beneficiaries who had a primary diagnosis of cancer, died, and did not elect the Medicare hospice benefit.
[3]Defined as dollars saved in conventional care reimbursement divided by dollars of hospice reimbursement.
[4]The only "saved" regular Part A inpatient episodes were those entirely within the specified window and length of stay.
[5]The "saved" regular Part A inpatient episodes include both those within the interval and those that begin before and end within the interval.
[6]Weighted (by hospice beneficiaries) reimbursements per day and savings ratios.

SOURCE: (Abt Associates, Inc., 1987).

Table 7

Net hospice savings[1] per day, using two assumptions, by type of hospice and assumed length of stay: Fiscal year 1985

Assumed length of stay	Type of hospice			
	Freestanding	Hospital-based	Skilled nursing facility-based	Home health agency-based
Assumption A[2]				
1-5 days	1.07	0.88	0.73	1.06
6-10 days	1.08	0.91	0.74	1.04
11-15 days	1.03	0.89	0.82	1.02
16-20 days	1.03	0.90	0.78	1.00
21-25 days	1.03	0.91	0.77	1.00
26-30 days	1.01	0.91	0.77	0.99
31-45 days	0.98	0.90	0.77	0.96
45-60 days	0.97	0.88	0.77	0.95
61-90 days	0.95	0.88	0.78	0.92
Assumption B[3]				
1-5 days	4.53	3.75	3.10	4.49
6-10 days	2.69	2.27	1.86	2.60
11-15 days	2.06	1.78	1.64	2.02
16-20 days	1.76	1.54	1.34	1.73
21-25 days	1.53	1.38	1.18	1.53
26-30 days	1.43	1.29	1.09	1.40
31-45 days	1.25	1.14	0.97	1.22
45-60 days	1.13	1.03	0.90	1.11
61-90 days	1.05	0.97	0.86	1.02

[1]Defined as dollars saved in conventional care reimbursement divided by dollars of hospice reimbursement.
[2]The only "saved" regular Part A inpatient episodes were those entirely within the specified window and length of stay.
[3]The "saved" regular Part A inpatient episodes include both those within the interval and those that begin before and end within the interval.

SOURCE: (Abt Associates, Inc., 1987).

Table 8

Percent distribution of noncertified hospice patients, by type of hospice and selected patient characteristics: 1985

Patient characteristic	Total (4,569)	Type of hospice: Community and home health (782)	Type of hospice: Hospital and skilled nursing facility-based (2,180)	Type of hospice: Independent and freestanding (1,607)
		Percent distribution		
Diagnosis				
Cancer	91.7	92.0	92.0	91.5
Non-cancer	8.3	8.0	8.2	8.5
Patient status				
Case open	14.1	13.7	12.7	16.2
Death	70.6	57.2	71.7	75.7
Discharged alive	15.2	29.1	15.6	8.0
Living arrangement				
Alone	8.9	12.1	8.6	7.8
With spouse	69.6	53.6	62.1	62.5
With other relative	25.0	27.3	24.6	24.3
Hospital inpatient	1.7	3.7	1.0	1.6
Functional status				
Ability to walk				
Immobile	22.0	18.9	20.9	25.4
Ability to transfer				
Immobile	19.3	17.6	18.5	21.5
Urinary continence				
Unable	16.2	17.5	14.8	17.8
Fecal continence				
Unable	14.4	15.6	12.6	16.5
Prognosis				
6 months or less	91.6	95.3	85.3	97.9
More than 6 months	8.4	4.7	14.7	2.1

NOTE: The number of hospices in each category is given in parentheses.

SOURCE: (Jack Martin and Company, 1987).

excess hospice benefit cost of $400,000. If the more generous assumption B was used, a savings ratio of 1.36 would generate a net savings to Medicare of $3.7 million. Regardless of the assumptions used, the estimates of net reimbursement effects are well below 0.01 percent of the $60-$70 billion annual Medicare reimbursements for health care during the last several years.

Hospice comparisons

Patient characteristics

The Jack Martin and Company (1987) analyses of the prognoses of the patients treated by the three types of noncertified hospices show that the independent and community-based hospices have a lower percent of patients with a prognosis of more than 6 months to live (2 percent and 5 percent) than the hospital-based hospices (including skilled nursing facilities) that have almost 15 percent of their patients in the longer prognosis category[10] (Table 8). Comparable information is not available on the prognoses of the Medicare hospice patients.

Of the noncertified, community home health agency-based hospices studied, 29 percent of their patients were discharged alive, compared with 15.6 percent of the hospital and skilled nursing facility-based hospice patients and 8 percent of the independent and freestanding hospice patients. Of Medicare hospice patients, 5 percent revoked the benefit before dying.

There is little difference among the three types of noncertified hospices with respect to either patient urinary or fecal incontinence. There is only a small amount of variation among the hospice types with respect to the percent of patients with immobility in walking, ranging from 18.9 percent of the community home health-based hospice patients classified as immobile to 25.4 percent of the freestanding hospice patients.

[10]The Jack Martin and Company project staff abstracted patient information directly from the hospice medical records. Prognosis was one of the patient variables with the highest rate of missing data.

Although there is little difference in the average percent of noncertified hospice patients with a prognosis greater than 6 months between cancer and noncancer patients as a whole (8.4 percent and 7.9 percent), there are differences among the hospice types (Jack Martin and Company, 1987)[11]. Hospital-based noncertified hospices are more likely to have cancer patients with a prognosis of greater than 6 months to live, whereas community and independent hospices are more likely to have noncancer patients with a prognosis greater than 6 months.

There is little difference between the percent of cancer and noncancer patients discharged alive for both community home health agency-based hospices (29 percent and 26 percent) and independent and freestanding hospices (8 percent and 9.6 percent). However, for the hospital and skilled nursing facility-based hospices, 32 percent of the noncancer patients are discharged alive, compared with 14 percent of the cancer patients. In noncertified hospices, patients with noncancer diagnoses are more likely to have longer hospice stays (11.6 percent have stays greater than 210 days) than the average hospice cancer patient (6.5 percent have stays greater than 210 days).

Services, staff, and procedures

The Joint Commission on Accreditation of Healthcare Organizations conducted a research study using the Commission's hospice accreditation program standards and criteria as the survey guide (Joint Commission on Accreditation of Hospitals, 1983). Both a mail survey of a sample of 600 hospices and onsite surveys of 60 Medicare certified hospices and 60 noncertified hospices were conducted. The degree of hospice compliance with the numerous Joint Commission Standards used a 1-5 rating scale. Guidelines in decisionmaking are used by surveyors. For example, for a rating of 1 (substantial compliance), the rating guidelines state:

"The intent of the standard is fully met both in the primary and secondary settings; the written policies and procedures verify process in both settings. This is the highest rating possible and should reflect the hospice's full compliance with the intent of the standard."

For a rating of 2 (significant compliance), the guidelines state:

"There is evidence that the intent of the standard is met with few exceptions in the primary and secondary settings. If total compliance has been evident for only 60-90 days before survey, the score may be given with a written recommendation."

Analyses of the 1986 data reveal that, on average, Medicare certified hospices provide more comprehensive services, are providing care with more professional and appropriately trained staff, and have better processes of care provision than do noncertified hospices (Longo, McCann and Ahlgren, 1987). In the following discussion, the use of the terms "appropriate," "better," etc. refer to the specific criteria established by the Joint Commission on Accreditation of Hospitals (1983). The major findings of the Joint Commission on Accreditation of Hospitals study follow.

Size

Medicare certified hospices are larger than most noncertified hospices, both in terms of home care patient census and annual budgets. Although the average monthly inpatient census is similar (3.6 and 3.8 patients, respectively), certified hospices have a larger mean number of home care patients (14.7, compared with 9.9). In 1986, 71 percent of all hospices had annual budgets of less than $150,000. However, 79 percent of the noncertified hospices, compared with only 37 percent of the certified hospices, had budgets this low (Longo, McCann, and Ahlgren, 1987).

Nursing services

A similar proportion of both certified and noncertified hospices provide intermittent (less than 8 hours) nursing care in both the home and inpatient settings. However, 97 percent of certified hospices are reported to provide continuous nursing care in the home, compared with only 46 percent of the noncertified hospices. A significantly greater proportion of certified programs specify minimum education and experience requirements for their nursing care providers than do noncertified programs (90 percent, compared with 67 percent)(Longo, McCann, and Ahlgren, 1987).

Hospice nursing time is spent similarly for both certified and noncertified hospices. Approximately one-third of the nurse's time in the home is spent conducting clinical, technical nursing interventions; another one-third is spent providing psychosocial support; and about one-fourth is spent in patient and family teaching. For both certified and noncertified hospices, home visits were most frequently made in response to patient respiratory distress and impending death. All hospices are unlikely to make home visits for decreased mobility, anorexia, and skin integrity problems, all of which are symptoms of the expected physical decline of dying patients and do not signal acute conditions requiring intervention. Pain and respiratory distress, followed by impending death, and patient and family stress are the most frequent reasons for inpatient admissions by all hospices.

A significantly greater proportion of certified hospices (92 percent) provide nursing services that are based on a nursing assessment than do noncertified hospices (65 percent). Similarly, certified hospices have a higher percent (77 percent) of documentation of nursing services that is representative of current practice than do noncertified hospices (54 percent). Certified hospices are also more likely (58 percent) to

[11]Data are not presented in the tables, however, they are available upon request from the author.

have documentation of nursing services that are goal-directed in accordance with the interdisciplinary team care plan than are noncertified hospices (40 percent).

Physician services

Approximately 90 percent of all certified and noncertified hospice medical directors are fully board certified in their specialty. Certified hospices are more likely to use their medical directors to provide attending physician services than are noncertified programs. Almost all (97-100 percent) hospices report that attending physicians are responsible for providing the admitting diagnosis, prognosis, and current medical findings; medication and treatment orders; and other pertinent orders regarding the patient's terminal condition. However, considerably fewer of the hospices require the attending physicians to be responsible for approving the interdisciplinary team care plan (83 percent certified and 67 percent noncertified hospices). Certified hospices were found to be more likely than noncertified hospices to have attending physicians communicate with the interdisciplinary teams, document physical examinations, and provide diagnostic and therapeutic orders.

Psychosocial services

Hospices emphasize intervention for psychological, economic, and social problems associated with terminal illness. Noncertified hospices are more likely than certified hospices to provide psychosocial care in the home through contractual or informal arrangements. Noncertified programs are significantly less likely to have adequate written policies specifying the minimum education and experience required of psychosocial care providers and are significantly less likely than certified programs to have an adequate number of individuals providing psychosocial services that have appropriate education, training, and experience. Also, those who supervise the psychosocial care providers in certified hospices are significantly more likely to have advanced degrees and appropriate clinical experience than those supervisors in noncertified hospices. However, problems with psychosocial service documentation are noted for both certified and noncertified hospices.

Spiritual services

Noncertified hospices are more likely (38 percent) than certified programs (20 percent) to provide spiritual services through informal arrangements with community clergy and are significantly less likely (45 percent) than certified hospices (86 percent) to have adequate written policies stating the minimum education and experience required for spiritual service providers on the team. Both certified and noncertified hospices have difficulty with the documentation of spiritual services.

Bereavement services

An important component of hospice philosophy is the provision of bereavement care to survivors for at least 1 year following the death of the patient. Only 66 percent of certified hospices and 59 percent of noncertified hospices have bereavement services available for that period of time. JCAH found that an adequate process for the assessment of survivor needs and a referral process for pathological grief reactions was present in 58 percent of certified hospices and in 39 percent of the noncertified hospices.

Additional services and processes of care

Certified hospices are more likely than noncertified hospices to provide respite care, physical therapy, occupational therapy, speech therapy, and dietary and nutritional counseling to hospice patients and families. These services are more frequently provided by certified hospices through contractual arrangement than noncertified hospices. Certified hospices are significantly more likely (60 percent) to have an interdisciplinary team care plan for each patient and family than are noncertified hospices (25 percent). Almost all (92 percent) of the certified hospices, compared with only 59 percent of the noncertified hospice programs, have interdisciplinary team care plans completed within the first 5 days after home care admission. Both certified and noncertified hospices have difficulty meeting the standards requiring that the care plan be based on interdisciplinary team assessments.

Informed consent

About one-third of both certified and noncertified hospices (30 percent and 36 percent, respectively) did not have adequate evidence of patient and family informed consent.

Resuscitation

Only 22 percent of the certified hospices and 12 percent of the noncertified hospices have written policies and procedures specifying their position on patient resuscitation in the home care setting, including appropriate orders by the attending physician and documentation in each patient's medical record. About 70 percent of both have these written policies and procedures in the inpatient setting.

Volunteer services

Practically all hospices use volunteers. However, one-third of noncertified hospice programs are volunteer-intensive (greater than 80 percent of the services provided by volunteers), compared with only 4 percent of Medicare certified hospices. The way volunteer help is used is similar for both certified and noncertified hospices: about one-half (57 percent) of

volunteer time is assigned to general support and assistance duties; 12 percent is assigned to administrative office duties, 10 percent is assigned to bereavement care, and 8 percent is assigned to direct patient care for professional services. Both certified and noncertified hospices are similar in their orientation and training of volunteers, although certified hospices are more likely to include medical emergency procedures in their volunteer training.

Overall compliance scores

Using a weighting procedure, summary scores of compliance were calculated for all 117 hospices that participated in onsite surveys. Each hospice was assigned to one of three categories: substantial compliance (good); partial or less compliance key standard (grey zone); and tentative nonaccreditation. On average, more than 70 percent of the noncertified hospices studied had overall compliance scores which placed them in the tentative nonaccreditation category, compared with 12 percent of the certified hospices (Table 9). Hospital, skilled nursing facility, and home health agency-based hospices averaged 69 percent that tentatively would not have been accredited, compared with 80 percent of the independent and freestanding hospices.

All of the noncertified programs were rated considerably lower than the certified hospices as a whole. Analysis of the summary compliance scores shows little variation by type of hospice among the noncertified hospices, with the exception of hospital-based noncertified hospices having overall "good" ratings (19 percent), compared with 7 percent and 0 percent for the independent and community-based hospices, respectively. The independent noncertified hospices had the highest percentage (80 percent) of poor scores. For noncertified hospices, a greater proportion of programs that were coalition and/or volunteer-intensive were likely to have poor summary scores.

Table 9

Percent distribution of a sample of Medicare certified and noncertified hospices, by type and summary compliance scores: 1986

Type of hospice and summary compliance score	Certified	Noncertified
	Percent distribution	
Hospital and skilled nursing facility-based hospices		
Good (0-0.26)	27	19
Grey zone (0.27-0.45)	60	13
Tentative nonaccreditation	13	69
Community and home health agency-based hospices		
Good (0-0.26)	38	0
Grey zone (0.27-0.45)	44	31
Tentative nonaccreditation	19	69
Independent and freestanding hospices		
Good (0-0.26)	33	7
Grey zone (0.27-0.45)	61	13
Tentative nonaccreditation	6	80

SOURCE: Longo, McCann, and Ahlgren, 1987).

Summary

Although the Medicare hospice benefit got off to a rather slow start, both in terms of the number of hospices applying for certification as Medicare providers and the number of Medicare beneficiaries electing the benefit, the growth of the program has been steady. The number of certified hospices has increased from 119 at the end of the first year to 433 at the end of the fourth year of the benefit. It is estimated that about 1,000 hospices may ultimately apply for certification as a Medicare provider.

The percent of U.S. hospices that have become certified varies by type of sponsorship. Almost one-half of all home health agency-based hospices were certified in 1987, compared with 14 percent of hospital and skilled nursing facility-based hospices and 21 percent of freestanding hospices.

The reluctance of hospice administrators to apply for and participate in the Medicare hospice program has been based primarily on the uncertainty of associated financial risks. In particular, a sample of administrators mentioned concern about the cap on average aggregate payments and the 210-day reimbursement limit. Actual experience showed that during the first 2 years of the benefit, no hospices exceeded the cap and few exceeded the 20-percent inpatient limit.

Independent hospices were more likely than provider-based hospices to express concern that they are financially unable to meet the certification requirements. This concern may be realistic: about two-thirds of the noncertified hospices studied by JCAH received summary scores that would have resulted in nonaccreditation. Hospices that were most likely to have the low ratings were volunteer intensive (more than 80 percent of staff time) and had annual budgets below $150,000. About one-third of noncertified hospices are volunteer intensive, compared with only 4 percent of certified hospices.

Although the Joint Commission noted aspects of certified hospice performance that need improvement, they documented that, overall, certified hospices are providing more comprehensive services than most noncertified hospices and are providing services appropriately, as defined by the accreditation standards. Certified hospices are generally using more professional and specially trained staff and using better processes of care than noncertified hospices.

Medicare certified hospices are larger, both in terms of patient census and budgets, than most noncertified hospices. They are employing more systematically and uniformly better administrative procedures believed to contribute to higher quality of care. Certified

providers were found more likely to have documentation that demonstrated that the nursing services were goal directed and that the treatment plans were developed on the basis of interdisciplinary team assessment. Certified hospices were found to be more likely than noncertified hospices to have the attending physicians communicate with the interdisciplinary teams, to document physical exams, and to provide diagnostic and therapeutic orders.

Both certified and noncertified hospices were found to have problems with documentation of psychosocial, spiritual, and bereavement services. About one-third of both certified and noncertified hospices did not have adequate evidence of informed patient consent, and few hospices have policies on resuscitation in home care settings.

During the first 2 years of implementation, the costs of the Medicare hospice benefit were modest. In 1985, total expenditures were approximately $10 million. Initial estimates of the cost/savings of the benefit range around 1.0 (that is, expenditures are roughly equal to estimated savings). Final analyses, using 3 years of data, will be available during the summer of 1988.

In summary, the hospice program, as of 1987, continues to grow, both in terms of number of providers, number of beneficiaries, and average Medicare expenditures. Further analyses from the hospice program evaluation project will shed more light on the progress of this important program.

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