Use and cost of skilled nursing facility services under Medicare, 1987

by Viola B. Latta and Roger E. Keene

The data in this article are focused on the use, covered charges, and Medicare program payments for skilled nursing services during calendar year 1987. Data for the period 1971-87 are included to show trends in the use and cost of skilled nursing facility services under the Medicare program. The impact of the Medicare prospective payment system on skilled nursing facility use is also discussed.

Introduction

Skilled nursing facilities (SNF's) certified under Medicare provide subacute skilled nursing or rehabilitative services for beneficiaries who are not sick enough to need the acute care services provided by hospitals, but are too sick to be cared for at home. The SNF patient may receive a variety of services that include skilled nursing care; physical, speech, or occupational therapy; drugs; blood; medical supplies such as splints or casts; and the use of durable medical equipment.

The SNF benefit was intended as a less costly alternative to continued hospital stay for post-acute medical or rehabilitation services: "Medicare's SNF benefit was specifically designed to provide only for relatively short-term subacute care needs" (Gornick and Hall, 1988). Thus, eligibility for 100 covered days of care under the SNF benefit was tied directly to a hospital stay of at least 3 days preceding admission to the SNF, and Medicare covered the SNF admission only if the conditions requiring SNF care were the same conditions treated during the prior hospital stay. The program required the attending physician to certify that the enrollee needed skilled nursing care, physical therapy, or speech therapy for these conditions. Transfer to an SNF had to occur within 30 days of the hospital date of discharge (the original 14-day requirement was changed to 30 days).

The SNF benefit of 100 days of care was linked to the benefit period, or spell of illness, which began the first day an enrollee used hospital services and ended when the enrollee had not been an inpatient of a hospital or SNF for 60 consecutive days. At the beginning of each new benefit period, Medicare hospital insurance (HI) coverage was completely renewed, signaling the availability of an additional 100 covered days of SNF care for the enrollee.

From 1967 through 1988, Medicare paid 100 percent of the reasonable costs for the first 20 days of covered SNF care. For the 21st-100th day, Medicare paid all reasonable costs except for the beneficiary coinsurance. If the beneficiary needed care that extended beyond 100 days during the benefit period, the beneficiary was responsible for all of the SNF charges.

An important law with potential to affect the use of the SNF benefit was the Social Security Amendments of 1983 (Public Law 98-21), which established, effective October 1, 1983, the prospective payment system (PPS). Although PPS specifically concerns short-stay hospitals (SSH's), the ramifications of the law were expected to be felt by all providers furnishing post-hospital care. PPS gave SSH's an incentive to discharge patients as soon as medically feasible in their recovery period because Medicare SSH payments were predetermined prospectively for the entire stay, rather than based retrospectively on reasonable cost. A likely result of PPS would be a decrease in hospital length of stay and a corresponding increase in the transfer of hospital inpatients to SNF's.

As expected, the average covered days of care (CDOC) per discharge for short-stay hospital Medicare inpatients decreased following the institution of the prospective payment system. The average CDOC fell from 10.1 days in 1983 to 8.4 days in 1985. However, the average CDOC held steady at 8.4 days in 1986 and then rose slightly, to 8.6 days, in 1987. The average CDOC for SSH's, therefore, decreased at an average annual rate of 5.2 percent from 1981 through 1987.

In comparison, the average CDOC for SNF patients declined from 29.2 days in 1981 to 21.5 days in 1987, an average annual decrease of 9.7 percent. Gornick and Hall (1988) reported that "the decline in mean number of covered SNF days per user reflects both an increase in short covered SNF stays and a decline in relatively long covered SNF stays . . . from 1983 to 1985, SNF stays with 7 or fewer covered days increased more than 56 percent and SNF stays with 31 or more covered days decreased 18 percent."

One factor that may have contributed to the reduction in long covered SNF stays is the increase in the SNF coinsurance amount. The SNF coinsurance, which takes effect on the 21st day of a covered stay, is based on one-eighth of the inpatient hospital deductible. In 1987, this deductible was $520. Thus, the SNF coinsurance was $65 per day and in some cases, exceeded the SNF's full charge. There is some perception that this coinsurance liability may have induced patients and their families to seek alternative arrangements for continuing care. Also, because of PPS, there was increased physician attention to alternative arrangements that may have directed some

Reprint requests: Viola B. Latta, 2502 Oak Meadows Building, 6325 Security Boulevard, Baltimore, Maryland 21207.

of the patients into home health care.

For a variety of reasons, including increased emphasis on ambulatory surgery and perhaps the focused efforts of peer review organizations, the rates of SSH discharges per 1,000 HI enrollees decreased 4.5 percent from 1981 through 1987. During the same years, the number of SSH facilities declined from 6,067 to 5,850 facilities, decreasing at an average annual rate of 1.2 percent.

On the other hand, the SNF admission rate in 1987 was the same as in 1981, 10 per 1,000 HI enrollees. During this period, the number of SNF providers grew from 5,295 facilities to 7,379 facilities, increasing at an average annual rate of 11.7 percent. Included in the 1987 count of SNF providers were 1,058 swing-bed hospitals. The swing-bed concept was incorporated into the Medicare program by the provisions of the Omnibus Reconciliation Act of 1980 (Public Law 96-499). Under this law, rural hospitals with fewer than 50 beds could use the beds to furnish both acute and post-acute care (that is, SNF level of care). The Omnibus Budget Reconciliation Act of 1987 (Public Law 100-203) extended the swing-bed option to rural hospitals with fewer than 100 beds.

As a percent of SSH discharges, the SNF admissions increased from 2.6 percent in 1981 to 3.5 percent in 1986 before dropping to 3.2 percent in 1987. One reason a higher percentage of hospital discharges were followed by an SNF admission could be the incentives embedded in PPS for hospitals to discharge patients as soon as medically feasible, a practice characterized as "quicker and sicker." However, Gornick and Hall (1988) cite the increase in the number of procedures (previously done solely on an inpatient basis) that are being performed in an outpatient setting (e.g., cataracts). Patients having these procedures would not have been likely to need or use post-acute services. Thus, of the patients hospitalized today, a larger proportion are likely to need post-hospital care in an SNF.

In summary, the implementation of PPS was followed by a general decline in the rate of SSH discharges per 1,000 enrollees. Although the rates for SNF admissions per 1,000 HI enrollees remained fairly constant from 1981 through 1987, SNF admissions as a proportion of SSH discharges rose about 35 percent. The average covered days of care per SNF admission decreased.

Selected data highlights

For Medicare beneficiaries using HI benefits during the period 1981-87, trend data are displayed to show the patterns of both SSH and SNF use before and after the implementation of PPS. Table 1 includes the number of SSH and SNF providers, the number of SSH discharges and SNF admissions, rates of SSH and SNF use per 1,000 HI enrollees, the proportion of SNF admissions to SSH discharges, the average covered days of care, and the average annual rate of change (AARC).

During the period 1981-87, the count of SSH providers dropped 3 percent, declining from 6,067 hospitals in 1981 to 5,850 in 1987. In contrast, the number of SNF providers increased 39 percent, rising from 5,295 facilities in 1981 to 7,379 in 1987. The number of SSH discharges in 1981 (10.7 million)

Table 1

Trends in the use of Medicare short-stay hospital and skilled nursing facility services, and rates of change: Calendar years 1981-87

Type of facility	Calendar year						Average annual rate of change 1981-87
	1981	1983	1984	1985	1986	1987	
				Number of providers			
Short-stay hospital	6,067	6,048	6,029	6,034	5,912	5,850	-1.2
Skilled nursing facility[1]	5,295	5,760	6,183	6,725	7,148	7,379	11.7
				Number in thousands			
Short-stay hospital discharges	10,660	11,436	10,896	10,027	10,044	10,110	-1.8
Skilled nursing facility admissions[2]	273	309	333	353	347	327	6.2
				Rate per 1,000 hospital insurance enrollees			
Short-stay hospital discharges	420	440	413	381	381	366	-4.5
Skilled nursing facility admissions	10	10	11	12	11	10	0.0
				Percent			
Skilled nursing facility admissions to short-stay hospital discharges	2.6	2.7	3.1	3.5	3.5	3.2	NA
				Average covered days of care			
Short-stay hospital discharges	10.1	9.5	8.6	8.4	8.4	8.6	-5.2
Skilled nursing facility admissions	29.2	29.2	26.6	23.4	22.4	21.5	-9.7

[1]Beginning in 1983, swing-bed hospitals were included in the count of providers furnishing SNF services.

[2]Includes skilled nursing facility admissions with at least 1 day of covered care under Medicare.

NOTE: NA is not applicable.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System; data development by the Office of Research and Demonstrations.

decreased 5 percent by 1987 (10.1 million), although SNF admissions rose from 273,000 in 1981 to 327,000 in 1987, an increase of 20 percent.

The SNF admission rate per 1,000 HI enrollees provides a measure to assess the impact of PPS on SNF use. SNF admissions increased from 10 per 1,000 enrollees in 1981 to 12 in 1985. However, the SNF admission rate declined to 11 per 1,000 in 1986 and returned to 10 per 1,000 in 1987. Therefore, according to this measure, there was little change in the use of SNF care following the implementation of PPS. Because of the changes in the patterns of hospital use resulting from the impact of PPS, SNF admissions as a percent of SSH discharges climbed 35 percent, rising from 2.6 in 1981 to 3.5 percent in 1986.

In noting the AARC from 1981 through 1987:

- The number of SSH providers decreased at an average annual rate of 1.2 percent. In contrast, the number of facilities providing SNF services grew at a rate of 11.7 percent; this included swing-bed hospitals.
- SSH discharges declined at a rate of 1.8 percent, and SNF admissions increased at the rate of 6.2 percent.
- Per 1,000 HI enrollees, SSH discharges decreased at a rate of 4.5 percent and the rate of SNF admissions remained steady.
- The average CDOC for each SSH discharge decreased at a rate of 5.2 percent, while the average CDOC per SNF admission decreased 9.7 percent.

Thus, there was a more notable decrease in the average CDOC per SNF admission. The average CDOC declined from 29.2 days in 1981 to 21.5 days in 1987, representing a drop of 24 percent. This pattern was similar to that reported in the *Health Care Financing Review*. The authors reported that the decrease in the average CDOC per SNF admission during the period 1981-85 was entirely in PPS States (Guterman et al., 1988). Gornick and Hall noted that this declension "reflects both an increase in short covered SNF stays and a decline in relatively long covered SNF stays."

For the period 1971-87, trend data are presented in Table 2 to identify patterns in the use and cost of SNF services. The data are arrayed by calendar year and include the number of CDOC, the amounts of covered charges, the total amounts of program payments under Medicare Part A and Part B, and the amounts of program payments to SNF's.

Covered charges under the SNF benefit rose 417 percent, increasing from $230 million in 1971 to $1.2 billion in 1987, an AARC of 10.8 percent. Program payments to SNF's increased 217 percent, rising from $179 million in 1971 to $544 million in 1987, an AARC of 7.2 percent. The widening divergence in covered charges and program payments from 1971 through 1987 (Figure 1) probably occurred, in part, because beneficiary coinsurance payments progressively represented a larger proportion of total SNF expenditures (program payments plus beneficiary coinsurance).

- From 1971 through 1983, the number of CDOC increased 21 percent, rising from 7.5 million days to 9.0 million days, respectively.
- However, from 1984 through 1987, the number of SNF CDOC decreased 21 percent, declining from 8.9 million days to 7.0 million days.
- Program payments to SNF's, as a percent of total Medicare Part A and Part B program payments, fell from 2.4 percent in 1971 to 0.7 percent in 1987.
- Thus, SNF payments were increasing at a much slower AARC (7.2 percent) than total Medicare Part A and Part B payments (15.6 percent) during the period.
- The average SNF Medicare payment per day increased from $24 a day in 1971 to $77 in 1987 (Figure 2), an AARC of 7.5 percent.
- SNF program payment per enrollee increased from $8.62 in 1971 to $17.09 in 1987, an AARC of 4.4 percent.

The use of SNF services during 1987 are examined by area of residence in Table 3. Covered admissions and CDOC are shown along with the corresponding amounts of covered charges and program payments.

Of the U.S. census regions, the rate of covered SNF admissions ranged from 8 per 1,000 enrollees in the Northeast and South Regions to 16 per 1,000 in the West Region. Per 1,000 enrollees, the highest number of CDOC was reported in the West Region (306 days); the lowest, in the South Region (170 days). The average number of SNF CDOC per admission ranged from 19.0 days in the West Region to 29.6 days in the Northeast Region.

Average covered charges per admission were lowest in the North Central Region ($3,305) and highest in the Northeast Region ($4,194). Average program payments were lowest in the South ($1,507) and highest in the West Region ($1,825). The largest amounts of average covered charges per day ($196) and Medicare program payments per day ($96) were recorded for the West Region.

In the United States, 10 out of every 1,000 Medicare HI enrollees were admitted to SNF's in 1987. Overall, the States in the South Atlantic Division showed the lowest admission rates per 1,000 enrollees. Delaware, the District of Columbia, Georgia, and Maryland admitted Medicare patients to SNF's at the rate of 4 admissions per 1,000 enrollees. Virginia and North Carolina's rate was 5; Florida's rate was 6; South Carolina and West Virginia registered 7 SNF admissions for every 1,000 enrollees.

On the other hand, the States with the highest admission rates per 1,000 enrollees were located in the West North Central Division. These States were well above the national admission rate of 10. Iowa and North Dakota, respectively, reported 23 and 24 admissions per 1,000 enrollees. Kansas (20) and Nebraska (19) were followed in rank by Missouri (16) and Minnesota (13), while South Dakota (11) tied the national rate.

Among the States, Arkansas and South Dakota had the lowest average CDOC (13.3 days) per admission, and Hawaii had the highest (35.4 days). The smallest

Table 2

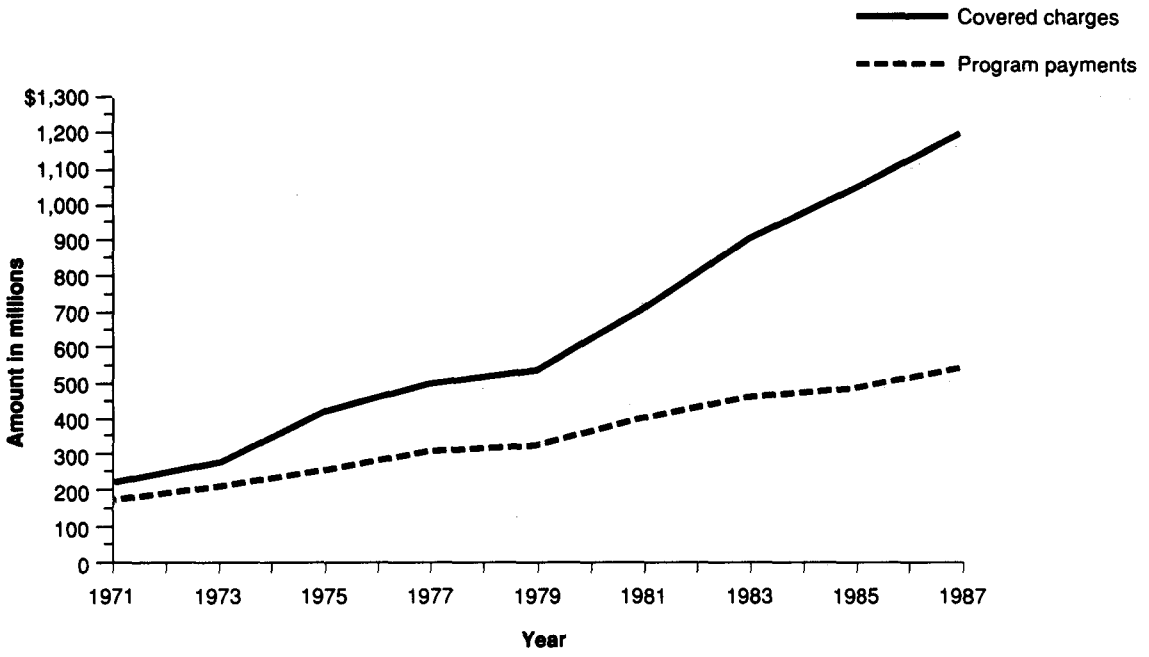
Covered days of care, covered charges, and program payments for skilled nursing facility services used by Medicare hospital insurance beneficiaries, by type of enrollment: Selected calendar years 1971-87

Type of enrollment and selected calendar year	Covered days of care		Covered charges		Total Medicare Part A and B program payments in thousands	Skilled nursing facility program payments				
	Number in thousands	Per 1,000 enrollees	Amount in thousands	Per day		Amount in thousands	Percent of covered charges	Percent of total Medicare program payments	Per enrollee	Per day
All beneficiaries										
1971	7,481	361	$229,912	$31	$7,486,953	$178,703	77.7	2.4	$8.62	$24
1973	8,629	370	282,091	33	9,639,206	212,761	75.4	2.2	9.13	25
1975	8,874	360	420,305	47	14,746,886	261,058	62.1	1.8	10.59	29
1977	9,612	368	497,553	52	21,094,334	312,703	62.8	1.5	11.98	33
1979	8,294	302	535,718	65	28,267,017	323,721	60.4	1.1	11.79	39
1981	8,575	300	697,306	81	41,021,962	402,984	57.8	1.0	14.10	47
1983	9,032	305	897,158	99	54,894,513	456,352	50.9	0.8	15.42	51
1984	8,864	296	975,362	110	59,132,200	464,796	47.7	0.8	15.50	52
1985	8,268	270	1,028,181	124	63,693,919	480,247	46.7	0.8	15.70	58
1986	7,770	249	1,122,723	144	68,582,511	501,171	44.6	0.7	16.06	65
1987	7,041	221	1,187,821	169	75,816,726	544,276	45.8	0.7	17.09	77
Aged										
1971	7,481	361	229,912	31	7,486,953	178,703	77.7	2.4	8.62	24
1973	8,523	395	278,065	33	9,218,271	209,838	75.4	2.3	9.73	25
1975	8,585	382	405,547	47	13,178,458	251,506	62.0	1.9	11.19	29
1977	9,278	395	477,611	51	18,518,654	300,452	62.9	1.6	12.80	32
1979	7,988	325	513,397	64	24,491,108	310,488	60.4	1.3	12.65	39
1981	8,269	323	668,904	81	35,521,279	387,331	57.9	1.1	15.14	47
1983	8,738	328	864,565	99	47,949,283	440,705	51.0	0.9	16.52	50
1984	8,578	361	940,169	110	52,109,000	449,327	47.8	0.9	16.57	52
1985	7,986	288	987,745	124	56,199,278	463,062	46.9	0.8	16.73	58
1986	7,493	265	1,075,327	144	60,459,418	482,482	44.9	0.8	17.07	64
1987	6,875	235	1,136,461	167	67,893,397	523,548	46.1	0.8	18.16	77
Disabled										
1975	289	133	14,758	51	1,568,428	9,552	64.7	0.6	4.41	33
1977	334	128	19,942	60	2,575,680	12,251	61.4	0.5	4.68	37
1979	306	105	22,321	73	3,775,909	13,233	59.2	0.4	4.55	43
1981	306	102	28,402	93	5,500,675	15,653	55.1	0.3	5.22	51
1983	293	101	32,594	111	6,945,230	15,647	48.0	0.2	5.36	53
1984	286	99	35,193	123	7,023,200	15,469	44.0	0.2	5.36	54
1985	282	97	40,436	143	7,494,641	17,185	42.5	0.2	5.91	61
1986	277	93	47,396	171	8,123,093	18,689	39.4	0.2	6.32	68
1987	256	84	51,360	201	7,923,328	20,729	40.0	0.2	6.84	81

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System; data development by the Office of Research and Demonstrations.

Figure 1

Covered charges and program payments for Medicare beneficiaries admitted to skilled nursing facilities: Calendar years 1971-87



SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System; data development by the Office of Research and Demonstrations.

amount of SNF program payments per day was shown for Delaware ($41) and the largest for Louisiana ($159).

Data on the use of SNF services by Medicare hospital insurance beneficiaries are presented in Table 4. The number of covered admissions, CDOC, amounts of covered charges, and program payments are displayed by the age, sex, and race of the Medicare beneficiary.

With advancing age, the number of SNF covered admissions per 1,000 enrollees increased dramatically. For enrollees aggregated into the various age cohorts under 75 years of age, admissions ranged from 2 to 8 per 1,000 enrollees. Medicare patients 75-79 years of age were admitted at a rate of 12 for each 1,000 enrollees. In the group of enrollees 80-84 years of age, the admission rate per 1,000 climbed to 21; and for the elderly people 85 years of age or over, the rate was 34 per 1,000 enrollees.

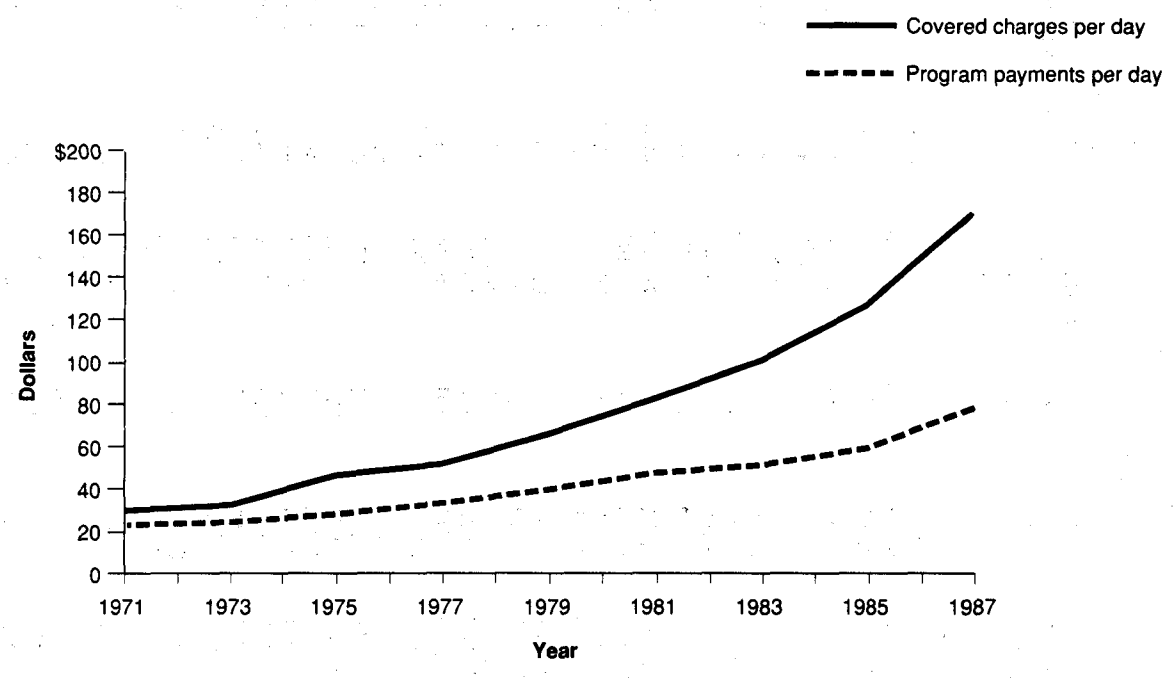
- Excluding beneficiaries under 65 years of age, the CDOC rate per 1,000 enrollees rose with advancing age. For beneficiaries 80-84 years of age, the CDOC rate (451) was twice as high as that for all beneficiaries (221).
- For beneficiaries 85 years of age or over, the CDOC rate (753) per 1,000 enrollees was more than 15 times higher than that for beneficiaries 65-66 years of age (50).
- Females averaged 22.2 CDOC per SNF admission, or 10 percent more than males, who averaged 20.1 days.
- Enrollees under 65 years of age had the highest program payments per admission ($1,808) of any age group, about 9 percent above the national average ($1,664).
- Eleven per 1,000 white enrollees were admitted to SNF's in 1987; the rate for enrollees of other races was 8 per 1,000.
- Beneficiaries who were white had shorter average stays per admission (21.3 days) than beneficiaries of other races (24.9 days).

Data in Table 5 reflect the use of SNF services in 1987 by the 12 leading principal admitting diagnoses, that is, those conditions most frequently reported by the attending physician as responsible for the patient's admission to an SNF. The medical coding for the principal diagnosis was taken from the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM) (Public Health Service and Health Care Financing Administration, 1980).

- The 12 leading diagnoses for SNF Medicare patients

Figure 2

Average covered charges per day and average program payments per day for Medicare beneficiaries admitted to skilled nursing facilities: Calendar years 1971-87



SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System; data development by the Office of Research and Demonstrations.

accounted for 141,809 admissions, or nearly 43 percent of all SNF admissions (327,012).

- Two of the 12 leading diagnoses, hip fracture (ICD-9-CM code 820) and acute cerebrovascular disease (ICD-9-CM code 436) accounted for nearly 25 percent of all SNF admissions and charges.
- Of the 12 leading diagnoses, the average CDOC per admission ranged from 15.6 days for malignant neoplasm of the trachea, bronchus, and lung (ICD-9-CM code 162) to 33.9 days for chronic ulcer of skin (ICD-9-CM code 707).
- Covered charges per admission ranged from $2,497 for heart failure (ICD-9-CM code 428) to $5,959 for chronic ulcer of skin.

Days of care cohorts are the focus of Table 6, and the data are arrayed by Medicare status. During the first 20 days of care in each benefit period, Medicare reimbursed the SNF's for all covered services. For stays of 21-100 days, the beneficiary coinsurance amounted to $65 per day in 1987. For SNF stays of 41-100 days, beneficiary coinsurance payments of $65 per day were progressively higher than were the Medicare program payments. That is, beneficiaries paid more than the average per diem payment made by Medicare. For example, Medicare SNF program payments amounted to $46 per day for admissions within the cohort of 81-100 days.

- About two-thirds (215,623) of all SNF admissions had 20 or less CDOC, accounting for 30 percent (2.1 million) of all SNF covered days of care (7.0 million) and 42 percent ($227.8 million) of all SNF program payments.
- Approximately 30 percent (96,984) of all admissions entailed 1-8 SNF CDOC.
- The average program payment per SNF admission increased substantially with each successive CDOC interval, going from $528 for 1-8 CDOC to $4,362 for 81-100 CDOC.
- Conversely, as the number of SNF CDOC increased, the average SNF program payment per day decreased, for the most part, declining from $106 to $46.
- For SNF stays over 40 CDOC, the average SNF program payment per day was progressively less than the beneficiary coinsurance payment per day of $65 (one-eighth of the HI inpatient hospital deductible).
- Disabled beneficiaries accounted for only about 4 percent (11,471) of all SNF covered admissions during 1987. The use and cost of services per admission for disabled beneficiaries was somewhat higher than that for aged beneficiaries.

Table 3

Number of covered admissions[1], covered days of care, covered charges, and program payments for skilled nursing facility services used by Medicare hospital insurance beneficiaries, by area of residence: Calendar year 1987

Area of residence	Covered admissions		Covered days of care			Covered charges			Program payments			
	Number	Per 1,000 enrollees	Total in thousands	Per 1,000 enrollees	Per admission	Amount in thousands	Per admission	Per day	Amount in thousands	Percent of covered charges	Per admission	Per day
All areas	327,012	10	7,041	221	21.5	$1,187,821	$3,632	$169	$544,276	45.8	$1,664	$77
United States	326,260	10	7,028	242	21.5	1,185,992	3,635	169	543,363	45.8	1,665	77
Northeast	53,385	8	1,578	222	29.6	223,888	4,194	142	95,592	42.7	1,791	61
North Central	101,895	13	1,972	246	19.4	336,796	3,305	171	161,788	48.0	1,588	82
South	82,098	8	1,787	170	21.8	294,293	3,585	165	123,758	42.1	1,507	69
West	88,882	16	1,690	306	19.0	331,014	3,724	196	162,225	49.0	1,825	96
New England	9,410	5	251	139	26.7	36,849	3,916	147	16,540	44.9	1,758	66
Connecticut	3,765	8	99	223	26.4	11,373	3,021	115	4,800	42.2	1,275	48
Maine	778	4	18	106	23.6	4,201	5,399	229	2,267	54.0	2,914	123
Massachusetts	2,689	3	75	90	27.8	13,969	5,195	187	6,500	46.5	2,417	87
New Hampshire	683	5	14	109	20.6	2,485	3,638	177	973	39.1	1,424	69
Rhode Island	1,144	8	35	230	30.5	3,621	3,165	104	1,502	41.5	1,313	43
Vermont	351	5	9	134	27.0	1,201	3,423	127	498	41.5	1,420	53
Middle Atlantic	43,975	8	1,327	250	30.2	187,039	4,253	141	79,052	42.3	1,798	60
New Jersey	3,726	4	110	106	29.5	15,745	4,226	143	7,102	45.1	1,906	65
New York	21,161	9	699	290	33.0	97,116	4,589	139	38,840	40.0	1,835	56
Pennsylvania	19,088	10	518	279	27.1	74,178	3,886	143	33,109	44.6	1,735	64
East North Central	57,374	10	1,248	228	21.8	191,121	3,331	153	88,072	46.1	1,535	71
Illinois	15,988	11	326	223	20.4	73,115	4,573	224	33,571	45.9	2,100	103
Indiana	9,296	13	180	249	19.3	23,870	2,568	133	13,102	54.9	1,409	73
Michigan	13,841	12	384	331	27.7	41,607	3,006	108	16,810	40.4	1,215	44
Ohio	11,974	8	230	159	19.2	34,858	2,911	151	15,655	44.9	1,307	68
Wisconsin	6,275	9	128	188	20.4	17,671	2,816	138	8,933	50.6	1,424	70
West North Central	44,521	18	724	286	16.3	145,676	3,272	201	73,717	50.6	1,656	102
Iowa	10,106	23	138	312	13.7	31,556	3,122	228	18,971	60.1	1,877	137
Kansas	7,080	20	101	290	14.3	20,308	2,868	200	7,989	39.3	1,128	79
Minnesota	7,223	13	154	274	21.3	19,599	2,713	128	8,707	44.4	1,205	57
Missouri	12,318	16	190	254	15.4	52,955	4,299	279	27,492	51.9	2,232	145
Nebraska	4,419	19	81	350	18.2	13,806	3,124	171	7,455	54.0	1,687	93
North Dakota	2,238	24	45	478	20.2	5,050	2,256	111	2,227	44.1	995	49
South Dakota	1,137	11	15	144	13.3	2,401	2,112	158	876	36.5	770	58
South Atlantic	30,093	5	745	134	24.8	102,730	3,414	138	44,890	43.7	1,492	60
Delaware	295	4	8	100	27.5	788	2,671	97	336	42.6	1,139	41
District of Columbia	265	4	6	87	24.3	891	3,362	138	464	52.1	1,751	72
Florida	13,123	6	311	149	23.7	45,838	3,493	147	20,831	45.4	1,587	67
Georgia	2,607	4	50	75	19.3	7,134	2,736	142	2,994	42.0	1,149	59
Maryland	1,753	4	42	85	23.9	5,061	2,887	121	2,317	45.8	1,322	55
North Carolina	3,863	5	103	127	26.6	11,863	3,071	115	4,589	38.7	1,188	45
South Carolina	2,628	7	71	179	27.1	10,499	3,995	148	4,695	44.7	1,787	66
Virginia	3,469	5	102	156	29.5	14,229	4,102	139	6,177	43.4	1,781	60
West Virginia	2,090	7	51	175	24.4	6,426	3,075	126	2,486	38.7	1,190	49

See footnote at end of table.

Table 3—Continued

Number of covered admissions[1], covered days of care, covered charges, and program payments for skilled nursing facility services used by Medicare hospital insurance beneficiaries, by area of residence: Calendar year 1987

Area of residence	Covered admissions		Covered days of care			Covered charges			Program payments			
	Number	Per 1,000 enrollees	Total in thousands	Per 1,000 enrollees	Per admission	Amount in thousands	Per admission	Per day	Amount in thousands	Percent of covered charges	Per admission	Per day
East South Central	22,833	11	553	273	24.2	$71,912	$3,149	$130	$28,399	39.5	$1,244	$51
Alabama	5,925	11	102	189	17.2	11,700	1,975	115	4,794	41.0	809	47
Kentucky	5,126	10	139	279	27.2	17,231	3,361	124	6,856	39.8	1,338	49
Mississippi	2,899	8	52	151	17.9	8,418	2,904	162	3,166	37.6	1,092	61
Tennessee	8,883	14	260	405	29.2	34,562	3,891	133	13,582	39.3	1,529	52
West South Central	29,172	10	489	166	16.8	119,651	4,102	245	50,470	42.2	1,730	103
Arkansas	2,985	8	40	107	13.3	9,331	3,126	235	5,295	56.7	1,774	133
Louisiana	7,210	15	109	223	15.2	42,263	5,862	387	17,419	41.2	2,416	159
Oklahoma	4,322	10	61	145	14.2	18,716	4,330	305	8,828	47.2	2,043	144
Texas	14,655	9	278	169	19.0	49,340	3,367	177	18,928	38.4	1,292	68
Mountain	19,998	14	343	236	17.1	59,105	2,956	172	29,810	50.4	1,491	87
Arizona	4,105	9	72	162	17.4	12,555	3,059	176	6,792	54.1	1,655	95
Colorado	5,584	18	88	275	15.7	18,380	3,292	210	9,326	50.7	1,670	106
Idaho	1,525	12	23	185	14.9	2,922	1,916	128	1,540	52.7	1,010	68
Montana	2,581	24	53	486	20.6	5,830	2,259	110	2,558	43.9	991	48
Nevada	998	9	20	178	20.1	3,220	3,227	161	1,589	49.4	1,592	79
New Mexico	1,157	7	22	136	18.6	4,835	4,179	224	2,286	47.3	1,976	106
Utah	3,542	25	58	405	16.4	10,127	2,859	175	5,219	51.5	1,473	90
Wyoming	506	11	8	173	16.2	1,236	2,443	151	500	40.4	988	61
Pacific	68,884	17	1,348	331	19.6	271,909	3,947	202	132,415	48.7	1,922	98
Alaska	122	6	3	127	20.8	630	5,164	248	290	46.0	2,377	114
California	58,986	20	1,136	380	19.3	238,798	4,048	210	116,820	48.9	1,980	103
Hawaii	838	8	30	271	35.4	5,100	6,086	172	2,134	41.9	2,547	72
Oregon	4,203	11	97	247	23.0	15,224	3,622	157	6,722	44.2	1,599	69
Washington	4,735	8	82	147	17.4	12,158	2,568	147	6,449	53.0	1,362	78
Outlying areas	752	1	13	19	17.7	1,829	2,432	137	913	49.9	1,215	69
Puerto Rico	682	2	12	28	16.9	1,444	2,118	125	778	53.9	1,141	67
Other	70	0	2	6	25.4	385	5,498	216	135	35.2	1,936	76

[1]Includes skilled nursing facility admissions with at least 1 day of covered care under Medicare.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System; data development by the Office of Research and Demonstrations.

Table 4

Number of covered admissions[1], covered days of care, covered charges, and program payments for skilled nursing facility services used by Medicare hospital insurance beneficiaries, by age, sex, and race: Calendar year 1987

Age, sex, and race	Covered admissions		Covered days of care			Covered charges			Program payments			
	Number	Per 1,000 enrollees	Total in thousands	Per 1,000 enrollees	Per admission	Amount in thousands	Per admission	Per day	Amount in thousands	Percent of covered charges	Per admission	Per day
Total	327,012	10	7,041	221	21.5	$1,187,821	$3,632	$169	$544,276	45.8	$1,664	$77
Age												
Under 65 years	11,456	4	256	84	22.3	51,316	4,479	201	20,711	40.4	1,808	81
65-66 years	9,418	2	196	50	20.8	40,285	4,277	206	16,957	42.1	1,801	87
67-68 years	11,288	3	237	66	21.0	47,509	4,209	201	19,884	41.9	1,761	84
69-70 years	13,936	4	287	86	20.6	55,954	4,015	195	24,054	43.0	1,726	84
71-72 years	17,312	6	361	117	20.9	68,897	3,980	191	29,858	43.3	1,725	83
73-74 years	21,177	8	444	158	21.0	81,497	3,848	184	35,897	44.0	1,695	81
75-79 years	65,601	12	1,385	250	21.1	240,987	3,674	174	110,070	45.7	1,678	79
80-84 years	73,888	21	1,605	451	21.7	260,091	3,520	162	121,817	46.8	1,649	76
85 years or over	102,936	34	2,271	753	22.1	341,285	3,316	150	165,028	48.4	1,603	73
Sex												
Male	107,444	8	2,160	160	20.1	392,174	3,650	182	171,652	43.8	1,598	79
Female	219,568	12	4,881	266	22.2	795,647	3,624	163	372,625	46.8	1,697	76
Race												
White	293,532	11	6,238	225	21.3	1,039,944	3,543	167	481,699	46.3	1,641	77
Other	24,711	8	616	193	24.9	115,042	4,656	187	47,682	41.4	1,930	77
Unknown	8,769	9	188	202	21.4	32,834	3,744	175	14,895	45.4	1,699	79

[1]Includes skilled nursing facility admissions with at least 1 day of covered care under Medicare.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System; data development by the Office of Research and Demonstrations.

Table 5

Number of covered admissions[1], covered days of care, covered charges, and program payments for skilled nursing facility services used by Medicare hospital insurance beneficiaries, by principal admitting diagnosis: Calendar year 1987

Principal admitting diagnosis	ICD-9-CM code[2]	Covered admissions	Covered days of care		Covered charges			Program payments		
			Total in thousands	Per admission	Amount in thousands	Per admission	Per day	Amount in thousands	Percent of covered charges	Per admission
All diagnoses	—	327,012	7,041	21.5	$1,187,821	$3,632	$169	$544,276	45.8	$1,664
12 leading diagnoses	—	141,809	3,251	22.9	512,100	3,611	158	235,121	45.9	1,658
Malignant neoplasm of trachea, bronchus, and lung	162	3,659	57	15.6	11,105	3,035	195	5,048	45.5	1,380
Diabetes mellitus	250	5,773	125	21.7	18,523	3,209	148	8,226	44.4	1,425
Chronic ischemic heart disease	414	2,530	56	22.1	7,352	2,906	131	3,182	43.3	1,258
Heart failure	428	8,779	140	15.9	21,917	2,497	157	10,368	47.3	1,181
Acute cerebrovascular disease	436	36,063	927	25.7	146,485	4,062	158	61,983	42.3	1,719
Pneumonia, organism unspecified	486	9,918	173	17.4	28,982	2,922	168	12,525	43.2	1,263
Chronic airway obstruction	496	4,082	67	16.4	12,923	3,166	193	5,118	39.6	1,254
Disorders of urethra and urinary tract	599	6,841	134	19.6	19,461	2,845	145	9,176	47.2	1,341
Chronic ulcer of skin	707	10,986	372	33.9	65,461	5,959	176	23,973	36.6	2,182
Fracture of neck of femur	820	43,875	992	22.6	145,063	3,306	146	77,648	53.5	1,770
Fracture of unspecified parts of femur	821	4,761	121	25.4	17,565	3,689	145	8,800	50.1	1,848
Other orthopedic aftercare	V54	4,542	87	19.2	17,263	3,801	198	9,074	52.6	1,998
All other diagnoses	—	185,203	3,788	20.5	675,721	3,649	178	309,155	45.8	1,669

[1]Includes skilled nursing facility admissions with at least 1 day of covered care under Medicare.
[2]*International Classification of Diseases, 9th Revision, Clinical Modification* (Volume 1).

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System; data development by the Office of Research and Demonstrations.

Table 6

Number of covered admissions[1], covered days of care, covered charges, and program payments for skilled nursing facility services used by Medicare hospital insurance beneficiaries, by Medicare status and covered days of care: Calendar year 1987

Medicare status and covered days of care	Covered admissions	Covered days of care		Covered charges			Program payments		
		Number	Per admission	Amount	Per admission	Per day	Amount	Per admission	Per day
All beneficiaries									
Total	327,012	7,031,052	21.5	$1,187,820,931	$3,632	$169	$544,276,485	$1,664	$77
1-8 days	96,984	481,299	5.0	93,583,177	965	194	51,226,241	528	106
9-20 days	118,639	1,661,544	14.0	306,364,063	2,582	184	176,572,272	1,488	106
21-40 days	66,865	1,882,258	28.2	334,712,345	5,006	178	159,591,886	2,387	85
41-60 days	21,092	1,034,966	49.1	166,529,507	7,895	161	62,913,942	2,983	61
61-80 days	10,070	699,799	69.5	106,675,270	10,593	152	35,687,435	3,544	51
81-100 days	13,362	1,271,186	95.1	179,956,569	13,468	142	58,284,709	4,362	46
Aged									
Total	315,541	6,785,094	21.5	1,136,460,714	3,602	167	523,547,960	1,659	77
1-8 days	93,387	463,863	5.0	89,406,907	957	193	49,198,492	527	106
9-20 days	114,703	1,606,351	14.0	293,812,714	2,562	183	170,388,488	1,485	106
21-40 days	64,649	1,819,390	28.1	320,715,471	4,961	176	153,702,946	2,377	84
41-60 days	20,341	998,129	49.1	159,352,509	7,834	160	60,421,479	2,970	61
61-80 days	9,691	673,496	69.5	102,203,706	10,546	152	34,300,510	3,539	51
81-100 days	12,770	1,223,865	95.8	170,969,407	13,388	140	55,536,045	4,349	45
Disabled									
Total	11,471	255,958	22.3	51,360,217	4,477	201	20,728,525	1,807	81
1-8 days	3,597	17,436	4.8	4,176,270	1,161	240	2,027,749	564	116
9-20 days	3,936	55,193	14.0	12,551,349	3,189	227	6,183,784	1,571	112
21-40 days	2,216	62,868	28.4	13,996,874	6,316	223	5,888,940	2,657	94
41-60 days	751	36,837	49.1	7,176,998	9,557	195	2,492,463	3,319	68
61-80 days	379	26,303	69.4	4,471,564	11,798	170	1,386,925	3,659	53
81-100 days	592	57,321	96.8	8,987,162	15,181	157	2,748,664	4,643	48

[1]Includes skilled nursing facility admissions with at least 1 day of covered care under Medicare.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System; data development by the Office of Research and Demonstrations.

Definition of terms

Admission—The formal admission of a patient into an SNF participating in the Medicare program. Admissions include those who died during an SNF stay or were transferred to another SNF. The admissions shown in this article reflect beneficiaries who received at least 1 covered day of SNF care under the Medicare HI program.

Covered charges—The SNF's covered charge for room, board, and ancillary services as recorded on the billing form (HCFA-1450 or HCFA-1453).

Covered day of care—A day of SNF care during which the services (determined to be medically necessary) covered by Medicare were furnished to a person eligible for HI benefits. The day of discharge is not counted as a day of care.

Principal diagnosis—The principal diagnosis is the condition established after study to be chiefly responsible for the admission of the patient to a SNF. All diagnostic information in this article are classified according to the ICD-9-CM. Three, four, or five-digit codes are assigned for each principal diagnosis.

Program payments—Payments under the HI program are based on interim reimbursement rates reported on processed bills. The interim rates are established to reflect current costs as closely as possible. These are usually established as a per diem amount or as a percentage of the total charges. Figures shown exclude amounts for which the patient is responsible such as deductibles, coinsurance, and charges for noncovered services. The final amount of program payments due under Medicare to each provider of medical services is determined after the end of the fiscal year on the basis of the provider's audited reasonable cost of operations.

Skilled nursing facility—An institution providing inpatient skilled nursing and restorative care services and meeting specific regulatory certification requirements. The SNF must be certified under Medicare in order to be reimbursed.

State—Refers to the State where the beneficiary is living, not the State where he or she receives services.

Sources and limitations of data

Data are derived from a 100-percent count of billing forms submitted by participating SNF's for reimbursable inpatient SNF services. Data are based on records processed and recorded as of December 1988.

It is estimated that the totals for the covered days of care and reimbursements are approximately 95 percent of the eventual totals. Thus, the rates may be less than would prevail if completed data were available. Comparisons of rates should be taken as indicative of differences by relevant characteristics rather than as final measures of the rates.

The data for SNF covered days of care should be used cautiously. The decline in the average covered days of care does not necessarily indicate a decline in the patient's actual length of stay.

Acknowledgments

The authors greatly appreciate the technical expertise and advice of their colleagues David Gibson and James Hatten of the Bureau of Data Management and Strategy and Marian Gornick, Margaret Hall, Charles Helbing, Elizabeth Cornelius, and Herbert Silverman of the Office of Research and Demonstrations. The authors would also like to thank Will Kirby, Thaddeus Holmes, and Beverly Ramsey for providing the data files, graph services, and secretarial services, respectively.

References

Guterman, S., Eggers, P., Riley, G., Greene, T., and Terrell, S.: The First 3 Years of Medicare Prospective Payment: An Overview. *Health Care Financing Review.* Vol. 9, No. 3. HCFA Pub. No. 03263. Office of Research and Demonstrations, Health Care Financing Administration. Washington. U.S. Government Printing Office, Spring 1988.

Gornick, M., and Hall, M.: Trends in Medicare use of post-hospital care. *Health Care Financing Review.* 1988 Annual Supplement. HCFA Pub. No. 03275. Office of Research and Demonstrations, Health Care Financing Administration. Washington. U.S. Government Printing Office, Dec. 1988.

Public Health Service and Health Care Financing Administration: *International Classification of Diseases, 9th Revision, Clinical Modification.* 2nd ed. DHHS Pub. No. (PHS) 80-1260. Public Health Service. Washington. U.S. Government Printing Office, Sept. 1980.