

Health Insurance for the Aged: Amounts Reimbursed

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SINCE MID-1966, health insurance for the aged (Medicare) has been helping to pay the hospital and medical bills for persons aged 65 and over. Information on reimbursements for services under both the hospital insurance (HI) and the supplementary medical insurance (SMI) parts of the program in its first 3 years is presented here, by State.

Reimbursements have grown each year for both HI and SMI. For HI, the United States total rose from \$2.5 billion in the first year to \$4.6 billion in the third year, and the average amount per enrollee increased from \$134 to \$193 to \$237. For SMI, reimbursements more than doubled: from \$668 million in fiscal year 1967 to \$1.6 billion in fiscal year 1969. The SMI average per enrollee rose from \$38 to \$77 to \$87.

In making comparisons, it is important to note that, for several reasons, the figures for the fiscal year 1967 are understated in relation to the other 2 years. The primary reason for the understatement is the fact that bills came in slowly at the beginning of the program, but there was no such lag in the second or third year. Partly for this reason, the year-to-year increase was greater between fiscal years 1967 and 1968 than between fiscal years 1968 and 1969.

Other factors contributed to the substantially lower figures for the first year: (1) The availability of extended-care benefits for only half the year and (2) the application of the entire \$50 deductible under SMI for only 6 months in calendar year 1966. The \$50 deductible is applied on a calendar-year basis; enrollees would normally begin accruing bills to meet the deductible in January of any given year—the midpoint of the fiscal year. Because Medicare began operations on July 1, 1966, the \$50 deductible had to be met between July and December 1966 before benefits could be paid, and the deductible then had to be met again in calendar year 1967. The carryover provision mitigated the situation somewhat by

permitting expenses incurred by an individual in the last 3 months of 1966 and applied to the deductible for that year to be carried over and applied to the deductible for 1967.

The year-to-year growth in total and average reimbursements also reflects rising prices and increased utilization of services. The jump in prices is reflected in the medical care component of the Bureau of Labor Statistics Consumer Price Index (CPI), which rose 22 percent from 127.0 in June 1966—the month before Medicare began—to 155.2 in June 1969.¹

Most of the claims reimbursed under HI are for hospital inpatient services. Total expense per inpatient day increased 47 percent from June 1966 (\$53) to June 1969 (\$77).² Data collected by the American Hospital Association show that the inpatient utilization rate (days per person per year) for persons aged 65 and over was 3.25 for July–December 1966, 3.60 for the same period in 1967, and 3.86 for the first half of fiscal year 1968. Rates based on Medicare data are higher for the same time periods—3.73, 3.83, and 3.97—but also show an upward trend.³

Under SMI, physicians' services account for most of the services reimbursed. The CPI for physicians' fees rose 21 percent from June 1966 (128.0) to June 1969 (155.5). The only data available on the utilization of physicians' services, obtained from the National Disease and Therapeutic Index, show a small increase in the total number of physician visits from fiscal year 1967 to fiscal year 1968. The number of visits per person aged 65 or over actually declined slightly in

¹ Loucele A. Horowitz, *Medical Care Price Changes: Medicare's First Three Years* (Research and Statistics Note No. 14), Office of Research and Statistics, 1969.

² These figures are derived from monthly data in the "Indicators" section of *Hospitals* (Journal of the American Hospital Association). No adjustment has been made in these figures for the volume of outpatient visits.

³ Robert J. Myers, *Hospital Utilization and Average Daily Hospital Costs for Persons Aged 65 and Over as Indicated by Data Under the Hospital Insurance Program and From the American Hospital Association* (Actuarial Note No. 61), Office of the Actuary, Social Security Administration, 1969.

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TABLE 1.—Distribution of the 50 States and the District of Columbia, by program and average reimbursement per enrollee, fiscal years 1967–69

Average reimbursement per enrollee ¹	1967		1968		1969	
	Number of States	Percentage distribution	Number of States	Percentage distribution	Number of States	Percentage distribution
Hospital insurance program						
Total.....	51	100.0	51	100.0	51	100.0
Less than \$100.....	9	17.6	1	2.0	-----	-----
100–119.....	13	25.5	1	2.0	-----	-----
120–139.....	12	23.5	5	9.8	-----	-----
140–159.....	10	19.6	10	19.6	2	3.9
160–179.....	6	11.8	11	21.6	8	15.7
180–199.....	1	2.0	8	15.7	7	13.7
200–219.....	-----	-----	6	11.8	11	21.6
220–239.....	-----	-----	4	7.8	8	15.7
240–259.....	-----	-----	3	5.9	2	3.9
260–279.....	-----	-----	1	2.0	5	9.8
280–299.....	-----	-----	1	2.0	2	3.9
300–319.....	-----	-----	-----	-----	4	7.8
320 or more.....	-----	-----	-----	-----	2	3.9
Supplementary medical insurance program						
Total.....	51	100.0	51	100.0	51	100.0
Less than \$25.....	5	9.8	-----	-----	-----	-----
25–34.....	22	43.1	-----	-----	-----	-----
35–44.....	16	31.4	-----	-----	-----	-----
45–54.....	6	11.8	9	17.6	2	3.9
55–64.....	1	2.0	16	31.4	9	17.6
65–74.....	1	2.0	13	25.5	13	25.5
75–84.....	-----	-----	5	9.8	11	21.6
85–94.....	-----	-----	2	3.9	3	5.9
95–104.....	-----	-----	2	3.9	5	9.8
105–114.....	-----	-----	2	3.9	3	5.9
115–124.....	-----	-----	1	2.0	2	3.9
125 or more.....	-----	-----	1	2.0	3	5.9

¹ Based on January 1 enrollment.

the second year—from 14.5 to 14.2. These figures may understate the real level and misrepresent the direction of change because they omit the large and fast-growing number of visits to hospital outpatient clinics.

STATE HI REIMBURSEMENTS

In each of the 3 years the pattern of increases in reimbursements under HI held for the individual States as well as for the Nation. Chart 1 shows graphically that the reimbursement per enrollee rose in every State in all 3 years.

The upward movement of reimbursements in the States is clearly delineated in table 1, which distributes the States by size of average reimbursement per enrollee. The entire distribution moves up each year. More States fall in the higher intervals, the modal interval is higher, and the number of States in the lower intervals is reduced.

In fiscal year 1967, for example, the average HI reimbursement was less than \$120 in 22 States; only 2 States had such a low average a year later; and, in 1969, none did. Because of the factors noted above, the difference between Medicare's first and second year appears more dramatic than that between the second and third year.

Per capita reimbursements in the first year varied considerably among the States.⁴ The data for the succeeding 2 fiscal years show that the variation has continued. The range in fiscal year 1967 covered a low of \$66 in Mississippi and a high of \$191 in Nevada. The following year, the low was \$95 for Alaska and the high was \$287 for Connecticut. Arkansas had a low of \$145 in fiscal year 1969, and Nevada was highest with \$397.

The variations from State to State display a strong geographic pattern in all 3 years. In chart 1 and table 2, the States are arranged by geographic divisions and both presentations show that they tend to cluster, with contiguous States having similar values for average HI reimbursement. In fiscal year 1967, for example, the East South Central States had averages ranging from \$66 to \$113, well below the national average of \$134.

The extent of the variation among the States and the geographic pattern have remained stable over the 3 years.⁵ States with high averages in 1967 had high averages in subsequent years, and, similarly, States with low averages have remained low. The averages of the East South Central States in fiscal year 1969 ranged from \$153 to \$203, still well below the national average of \$237 in that year. Increases in these averages have maintained the pattern of variation among the States that was set in 1967. Further evidence of this fact is shown by the correlations between State averages in different years. The correlation between average reimbursements for the 50 States and the District of Columbia in fiscal years 1967 and 1968 is high (.95), as is the correlation between 1968 and 1969 (.90). The correlation between 1967 and 1969 is .87.

⁴ *Variations Among States in Per Capita Benefit Payments Under Medicare, Fiscal 1967 (HI-7)*, Office of Research and Statistics, 1968, and *Health Insurance for the Aged: Amounts Reimbursed by State, July 1966–December 1967 (HI-9)*, Office of Research and Statistics, 1968.

⁵ The standard deviation of the distribution has risen each year, but the coefficient of variation has remained stable at about .23.

CHART 1.—Hospital insurance: Average reimbursement per enrollee, by State, fiscal years 1967-69

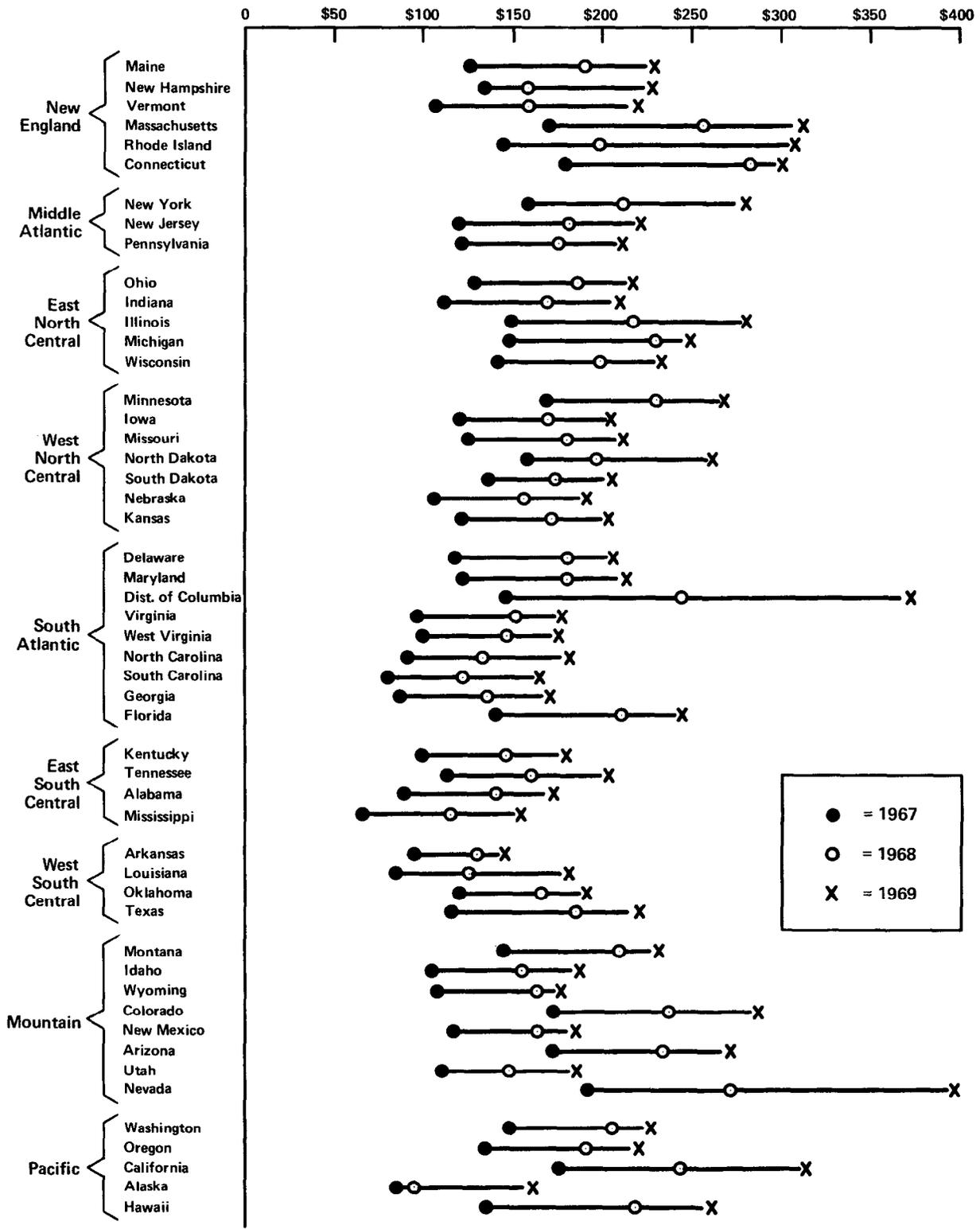


TABLE 2.—Hospital insurance: Total and average reimbursement per enrollee, by region, division, and State, fiscal years 1967–69

Area	1967		1968		1969	
	Amount (in thousands)	Per enrollee ¹	Amount (in thousands)	Per enrollee ¹	Amount (in thousands)	Per enrollee ¹
Total ²	\$2,525,818	\$133	\$3,736,322	\$192	\$4,654,000	\$236
United States.....	2,521,139	134	3,727,257	193	4,638,840	237
Northeast.....	730,467	145	1,054,856	206	1,329,404	258
New England.....	199,162	161	303,849	242	368,940	292
Maine.....	14,621	126	22,284	189	27,064	228
New Hampshire.....	10,197	132	12,453	158	18,187	227
Vermont.....	5,071	106	7,665	158	10,701	219
Massachusetts.....	105,916	170	181,000	256	196,506	312
Rhode Island.....	14,457	144	20,166	198	31,576	307
Connecticut.....	48,900	178	80,280	287	84,906	300
Middle Atlantic.....	531,305	140	751,007	194	960,464	247
New York.....	303,521	158	411,358	211	545,548	279
New Jersey.....	78,317	119	121,476	181	150,865	221
Pennsylvania.....	149,467	121	218,172	174	264,051	210
North Central.....	757,763	136	1,110,646	196	1,339,122	235
East North Central.....	509,532	138	760,430	202	917,103	242
Ohio.....	124,220	128	181,537	185	212,844	216
Indiana.....	53,850	112	81,861	168	102,333	209
Illinois.....	159,439	149	235,010	217	305,010	280
Michigan.....	108,028	148	170,292	229	188,076	249
Wisconsin.....	63,995	141	91,730	198	108,840	232
West North Central.....	248,231	133	350,215	184	422,019	220
Minnesota.....	66,882	168	92,015	229	109,418	267
Iowa.....	41,426	119	59,039	168	72,235	204
Missouri.....	67,114	124	98,312	179	117,904	212
North Dakota.....	10,182	157	12,918	195	17,434	260
South Dakota.....	10,583	135	13,931	173	16,585	205
Nebraska.....	20,663	116	28,037	155	34,510	189
Kansas.....	31,381	121	45,064	171	53,933	203
South.....	575,984	107	903,541	161	1,131,682	197
South Atlantic.....	280,487	111	442,969	168	555,974	205
Delaware.....	5,322	127	7,725	179	9,038	206
Maryland.....	32,401	122	49,111	179	59,899	213
District of Columbia.....	9,820	146	16,499	243	24,992	372
Virginia.....	32,107	96	51,982	151	62,318	177
West Virginia.....	19,206	100	28,533	146	34,380	175
North Carolina.....	34,565	91	54,000	138	72,440	181
South Carolina.....	14,189	80	22,181	122	30,500	164
Georgia.....	29,339	87	47,220	135	59,795	169
Florida.....	103,558	140	165,718	210	202,612	243
East South Central.....	113,789	95	175,537	143	223,985	180
Kentucky.....	32,615	100	48,500	146	60,042	179
Tennessee.....	40,382	113	58,570	159	76,086	203
Alabama.....	26,868	89	43,593	140	54,400	172
Mississippi.....	13,904	66	24,874	115	33,457	153
West South Central.....	181,728	108	285,034	164	361,723	199
Arkansas.....	21,071	95	29,768	131	33,492	145
Louisiana.....	23,544	84	36,809	126	53,424	181
Oklahoma.....	33,351	120	47,090	165	55,092	190
Texas.....	103,762	116	171,367	184	209,715	220
West.....	456,925	162	658,215	226	838,631	261
Mountain.....	91,798	147	132,403	205	163,013	245
Montana.....	9,745	144	14,305	209	16,000	231
Idaho.....	6,774	105	10,205	155	12,545	187
Wyoming.....	3,191	108	4,918	163	5,380	177
Colorado.....	30,555	172	43,194	237	52,958	287
New Mexico.....	7,460	117	10,795	163	12,646	184
Arizona.....	21,552	172	31,037	238	38,422	271
Utah.....	7,719	111	10,664	148	13,702	185
Nevada.....	4,802	101	7,285	271	11,360	397
Pacific.....	365,127	166	525,812	232	675,618	282
Washington.....	44,836	147	64,055	206	71,620	227
Oregon.....	28,322	135	41,001	191	48,250	220
California.....	286,290	175	411,390	243	543,740	314
Alaska.....	483	85	572	95	1,004	161
Hawaii.....	5,196	135	8,793	218	11,004	261

¹ Based on January 1 enrollment.

² Includes Puerto Rico, the Virgin Islands, and other outlying areas.

STATE SMI REIMBURSEMENTS

With only three exceptions, the average reimbursements for supplementary medical insurance rose in every State in all 3 years. Massachusetts showed no increase between 1968 and 1969, and the averages for Arizona and Iowa actually declined.

As in HI, the averages for SMI have maintained the wide variation among States and the

regional pattern of that variation set in 1967.⁶ The range for 1967 extended from \$23 in Alabama to \$72 in California. The 1968 low was \$48 (Kansas, South Carolina, and Kentucky), and the high was \$127—again in California. In 1969 the

⁶ The variation of the distribution declined slightly in the second and third years. The coefficient of variation is .29 for 1967, .27 for 1968, and .25 for 1969.

CHART 2.—Supplementary medical insurance: Average reimbursement per enrollee, by State, fiscal years 1967-69

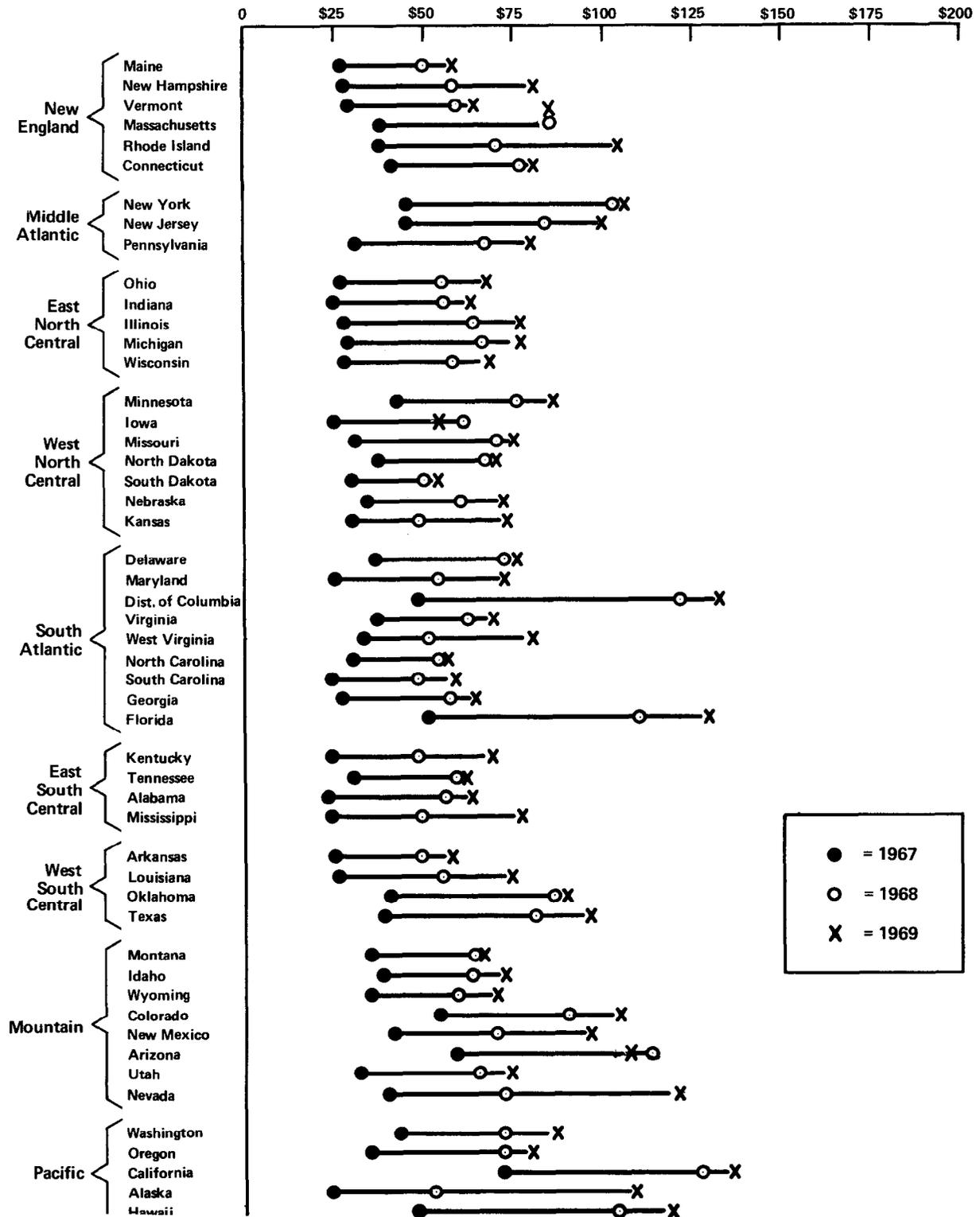


TABLE 3.—Supplementary medical insurance: Total and average reimbursement per enrollee, by region, division, and State, fiscal years 1967–69

Area	1967		1968		1969	
	Amount (in thousands)	Per enrollee ¹	Amount (in thousands)	Per enrollee ¹	Amount (in thousands)	Per enrollee ¹
Total ²	\$669,832	\$38	\$1,380,622	\$77	\$1,644,842	\$87
United States.....	668,014	38	1,385,301	77	1,638,689	87
Northeast.....	189,436	39	411,318	85	461,882	93
New England.....	43,811	37	90,725	76	99,969	81
Maine.....	3,032	27	5,636	58	6,732	53
New Hampshire.....	2,005	28	4,239	58	6,174	81
Vermont.....	1,332	29	2,736	59	3,026	64
Massachusetts.....	22,842	38	50,679	84	51,301	84
Rhode Island.....	3,639	38	6,720	70	10,290	104
Connecticut.....	10,961	41	20,715	77	22,446	81
Middle Atlantic.....	145,625	40	320,593	88	361,913	97
New York.....	81,220	45	189,086	103	198,789	106
New Jersey.....	28,135	45	53,928	84	66,268	100
Pennsylvania.....	36,270	31	77,578	67	96,856	80
North Central.....	149,720	29	324,333	62	391,214	71
East North Central.....	94,066	27	210,414	60	258,935	71
Ohio.....	23,451	26	49,501	55	63,024	67
Indiana.....	11,146	25	24,899	56	29,484	63
Illinois.....	27,643	28	64,736	64	80,439	77
Michigan.....	19,862	29	46,085	66	55,984	77
Wisconsin.....	11,974	28	25,193	58	30,004	66
West North Central.....	55,654	32	113,919	65	132,279	72
Minnesota.....	15,814	42	29,156	76	34,042	86
Iowa.....	8,099	25	20,355	61	18,402	54
Missouri.....	14,994	31	34,141	70	39,974	75
North Dakota.....	2,169	37	4,112	67	4,492	70
South Dakota.....	2,223	30	3,715	50	4,152	54
Nebraska.....	5,573	34	10,803	65	12,663	72
Kansas.....	6,782	30	11,637	48	18,554	73
South.....	169,326	34	357,972	70	449,610	83
South Atlantic.....	85,770	37	180,422	75	225,060	87
Delaware.....	1,441	36	2,903	72	3,218	76
Maryland.....	5,949	25	14,393	59	18,604	72
District of Columbia.....	2,954	48	7,282	121	8,183	132
Virginia.....	11,152	37	19,141	62	22,875	69
West Virginia.....	5,846	33	9,985	56	15,043	80
North Carolina.....	10,342	30	18,756	54	20,929	56
South Carolina.....	3,830	24	7,905	48	10,230	59
Georgia.....	8,036	27	18,125	57	21,768	64
Florida.....	36,220	51	81,932	110	104,210	129
East South Central.....	28,015	26	59,216	54	78,098	67
Kentucky.....	7,187	24	14,709	48	22,174	69
Tennessee.....	10,121	30	20,165	59	22,472	62
Alabama.....	6,490	23	15,731	56	18,703	63
Mississippi.....	4,217	24	8,611	49	14,749	77
West South Central.....	55,541	36	118,335	74	146,452	87
Arkansas.....	5,138	25	10,362	49	12,846	58
Louisiana.....	6,627	26	13,940	55	19,840	74
Oklahoma.....	10,543	40	23,002	86	25,155	90
Texas.....	33,233	39	71,030	81	88,611	96
West.....	159,532	60	291,679	107	335,983	117
Mountain.....	26,827	46	49,540	83	58,869	93
Montana.....	2,208	35	4,417	69	4,739	71
Idaho.....	2,258	38	3,778	63	4,660	72
Wyoming.....	982	35	1,636	59	2,037	70
Colorado.....	9,146	54	15,591	90	18,590	104
New Mexico.....	2,332	41	4,010	70	5,871	96
Arizona.....	6,858	59	13,998	113	14,457	107
Utah.....	2,120	32	4,332	65	5,250	74
Nevada.....	923	40	1,777	72	3,265	121
Pacific.....	132,705	64	242,139	114	277,114	124
Washington.....	12,198	43	21,050	72	26,466	87
Oregon.....	6,799	35	14,191	72	16,723	80
California.....	111,857	72	202,698	127	228,512	136
Alaska.....	105	24	237	53	537	109
Hawaii.....	1,746	48	3,962	104	4,876	119

¹ Based on January 1 enrollment.

² Includes Puerto Rico, the Virgin Islands, and other outlying areas.

range went from \$54 (Iowa and South Dakota) to \$136 in California (table 3 and chart 2).

The SMI increases were not, however, so closely correlated as the HI increases with each State's position in 1967. The correlation between State SMI averages in 1967 and 1968 was .90, but the correlation between 1968 and 1969 fell to .84. The correlation between 1967 and 1969 was .78.

The stability of the regional pattern in the averages for both parts of Medicare suggests that the underlying causes of State differences are also stable. These causes are related to:

1. Differences in the demographic composition of the aged population. The age distribution within the Medicare enrollee population is an example of a demographic variable. The percentage of Medicare en-

rollees aged 75 or older varies from 32 percent in Nevada to 43 percent in Montana.⁷ This percentage has a strong positive correlation (about .40 for each fiscal year) with the State admission rate. Under SMI, annual charges per enrollee rise with age, giving further evidence of the tendency for older enrollees to have higher utilization rates. In 1968, average charges were \$162 for enrollees aged 65-74, \$168 for those aged 75-84, and \$206 for those aged 85 and over.⁸

2. *Differences in the availability of care in the form of hospital beds, doctors, and extended-care facilities.* The number of hospital beds (approved for Medicare participation as of July 1, 1966) per 10,000 State residents ranged from 21 in Mississippi to 54 in North Dakota.⁹ The correlation between this number and the Medicare admission rate during the first 18 months of the program is .84.

3. *Differences in the cost of hospital and extended-care facilities and in charges for physicians' and other medical services.* American Hospital Association data for calendar 1967 show, for example, that total expense per patient-day in short-term hospitals ranged from \$41 in Iowa to \$74 in California.¹⁰

These factors display a regional pattern, with adjacent States having similar levels of a given factor, and it is thus to be expected that average reimbursement would show such a pattern.

CORRELATION BETWEEN HI AND SMI REIMBURSEMENT LEVELS

A close connection exists between the levels of utilization and cost in the two parts of the program. Since the SMI program pays the doctors' bills for patients hospitalized under HI, high admission rates are associated with a high volume of physicians' services. Similarly, physicians' fees tend to be high in the same States that have high hospital costs. It is not surprising, then, that the correlation between HI and SMI per capita payments in any given year is positive and high. It averages more than .60, being .65 in fiscal year 1967, .66 in 1968, and .64 in 1969.

⁷ Social Security Administration, *Health Insurance for the Aged, 1967—Section 2: Persons Enrolled in the Health Insurance Program* (in preparation).

⁸ *Medical Insurance Sample, January-December 1968* (Current Medicare Survey, Note No. 12), Office of Research and Statistics, 1970, table 2.

⁹ Social Security Administration, *Health Insurance for the Aged, 1966—Section 3.1: Participating Hospitals*, U.S. Government Printing Office 1970.

¹⁰ From *Hospitals* (Journal of the American Hospital Association), Guide Issue, August 1, 1968, part 2.

EXPLANATORY NOTES AND DEFINITIONS

The reimbursement data relate to the State in which the service was received. Only payments for covered services received by enrollees are included in the amounts reimbursed; costs of administration are excluded. Also excluded are reimbursements under SMI to group-practice prepayment plans dealing directly with the Social Security Administration. The enrollment figures do include about 250,000 persons aged 65 and over who are members of such plans.

The average reimbursement per enrollee for each year is derived by dividing total reimbursement by enrollment as of January 1, the midpoint of the fiscal year. The basis for the enrollment figures is the mailing address of the beneficiary. Most persons receive services in their area of residence. In States with large resort areas, however, such as California and Florida reimbursements may be inflated by services to visitors.

Under HI, the amount reimbursed is the total amount the Medicare program paid to providers (that is, to hospitals, extended-care facilities, home health agencies) for covered services provided to persons enrolled in the program. Reimbursements exclude deductibles, coinsurance amounts, and noncovered services specified by law.

Under SMI, the amount reimbursed is the amount of charges for covered services that were classified as reasonable and paid by the Medicare program to or on behalf of enrollees using services. Reimbursements exclude the \$50 deductible and 20-percent coinsurance amounts.

Under HI, most providers of health care are served by an intermediary organization that makes the payments due them for services delivered to Medicare enrollees. Similarly, carriers serve the providers (primarily doctors) whose services are reimbursed under SMI. The groups of providers paid by a given intermediary or carrier are not necessarily located in the same State and this causes some problems in assigning reimbursements to individual States. These problems arise from the fact that the claims paid by the intermediary or carrier are reported as a total from that organization. The total then has to be distributed among States on the basis of the number of claims submitted from each State.¹¹

¹¹ For fuller definitions, see Louise B. Russell, *Health Insurance for the Aged: Amounts Reimbursed by State, Fiscal Years, 1967-69* (HI Note No. 16), 1970.