Some Aspects of Medicare Experience With Group-Practice Prepayment Plans

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This study of Medicare experience with seven selected group-practice prepayment plans compares utilization and reimbursement for beneficiaries who were members with comparable control groups of beneficiaries who received services in the fee-for-service delivery system. The data support previous studies showing lower hospital inpatient costs and higher physician costs for plan members than for nonmembers. The net result is not always less costly total health care services; in two plans, Medicare payments for all covered services were higher than they were under the comparable controls. Particular attention is given to members' use of out-of-plan services, a factor that appears closely related to cost experience.

IN RECENT YEARS, the rapid rise in health care costs has generated increasing concern over means of containing these costs. Proposals have dealt with hospital budgeting, rate setting, use of physician extenders, various methods of reimbursing physicians, and emphasis on less expensive modalities of care. Increasingly, however, attention has focused on the structure of the health care delivery system itself. This focus culminated in legislation in 1972 authorizing reimbursement to health maintenance organizations (HMO's) under the Medicare and Medicaid programs (P.L. 92–603) and, in 1973, passage of the Health Maintenance Organization Act (P.L. 93–222) authorizing grants and loans to assist the development of HMO's.

In large part, support for HMO's arose from the experience of group-practice prepayment plans (GPPP's) over many years. Although such plans are prototypical HMO's, the two are not synonymous. One important difference is that not all HMO's are prepaid group-practice plans. Any public or private organization that provides a comprehensive range of health care services, either directly or under arrangements with others, to an enrolled population for a fixed prepaid per capita fee may be defined as an HMO. Some HMO's provide physicians' services through physicians in individual practice, thus retaining the traditional delivery system but changing the payment method.

Another difference is that, under Medicare, HMO capitation payments must include all covered services under both parts of the program, whereas GPPP capitation payments are limited to physicians' services under supplementary medical insurance even when hospital care and other Medicare-covered services are part of the plan's basic benefit structure.

It is generally believed that GPPP's tend to substitute lower cost ambulatory and preventive care for more expensive inpatient hospital care and thus provide care at lower overall costs than in the fee-for-service setting. They are also believed to increase the productivity of technical and professional health manpower and to make more efficient and economic use of expensive equipment and facilities.

The empirical basis for these contentions is not conclusive, especially in relation to ambulatory care. Studies have been confined to comparisons of a few selected plans, or types of coverage, and the findings depend in large part upon that selection. Perhaps Avedis Donabedian summed up the state of our knowledge best in his comprehensive survey of prepaid group practice when he recognized the "incomplete and imperfect evidence" available to us:

> It is perhaps naive even to have attempted to answer the question, "How does prepaid group practice perform?" One must ask further, "What kind of group practice, how organized, operating in what kinds of settings?" and so on.[1]

* Division of Health Insurance Studies, Office of Research and Statistics Based on paper presented at 102d annual meeting of the American Public Health Association, New Orleans, La , October 1974.

[1] Avedis Donabedian, *A Review of Some Experiences with Prepaid Group Practice*, Bureau of Public Health Economics, Research Series No 12, University of Michigan, 1965, page 41.

Nevertheless, the weight of the evidence showing that hospital utilization and overall costs are lower under group-practice prepayment plans appears conclusive, as other studies have pointed out, although debate on the explanatory causes continues.[2]

This report considers the relative costliness of GPPP's by comparing average reimbursement in 1970 for Medicare members of seven prepaid group-practice plans with average reimbursement per beneficiary for control groups of other Medicare enrollees residing in the same areas and receiving services under fee-for-service mechanisms. In the process, differences in reimbursement—and indirectly in utilization—for various types of services are shown; particular attention is paid to amounts reimbursed for out-of-plan physicians' services.

METHODOLOGY

Prepaid group-practice plans may participate in Medicare under two alternative methods of reimbursement. One alternative allows them to be reimbursed in their accustomed manner—with prepaid per capita payments directly from Medicare, based on their "reasonable costs," instead of through the usual Medicare fee-for-service billing procedures. Plans choosing this alternative are called "direct-dealing" or "capitation" plans. The seven plans included in this study are all of this type. Plans participating under the other alternative compute "reasonable charges" based on their actual costs of providing services and submit fee-for-service bills, which are handled through Medicare's routine fee-for-service billing and processing system. Data for these fee-for-service or "carrier-dealing" plans are not included here.[3]

Capitation payments to GPPP's cover only "in-plan" physicians' services, which are those paid for by the plans and included in their costs. Medicare plan members may also use "out-of-plan" physicians' services, which are reimbursed separately through intermediaries using routine Medicare fee-for-service procedures. All services under hospital insurance (HI), as well as outpatient hospital services and home health services under supplementary medical insurance (SMI), are also reimbursed through Medicare intermediaries, even when the services are furnished by providers that the plan owns, operates, or controls.

Analysis and evaluation of costs of services for Medicare plan members must be based on payments for all covered services—in-plan and out-of-plan, HI and SMI. Therefore, data in this report include all Medicare payments for plan members and controls included in the study. Annual capitation payment amounts per member for in-plan services were obtained from annual cost statements submitted by the plans for each year studied. Noncapitation payment amounts for out-of-plan SMI services and for all HI services were obtained from Social Security Administration billing records and include all claims for services provided during the calendar year and processed through the central records of the Social Security Administration, 2 years later, as of June.

Medicare plan members for whom data were tabulated resided in counties with substantial numbers of plan members, were enrolled for both HI and SMI, and were plan members for the entire calendar year (except that persons who were plan members at the beginning of the year but died during the year remained in the sample). Beneficiaries who did not meet these criteria were excluded. State "buy-in" enrollees—that is, those whose Medicare premiums under SMI were paid by the States—were also excluded because of their probable unequal distribution between the plans and the control groups.

Data for each plan are compared with a control group of Medicare beneficiaries representing a 5-percent sample of beneficiaries who were not plan members but lived in the counties from which plan members were selected and met all other criteria for selection. The sample was based on specified combinations of the last two digits in the health insurance claim number. Reimbursement data for the controls were also obtained from Social Security Administration billing

[2] Avedis Donabedian, *op. cit.*, and "An Evaluation of Prepaid Group Practice," *Inquiry*, September 1969, pages 3–27; see also Milton I. Roemer and William Shonick, "HMO Performance: The Recent Evidence," *Milbank Memorial Foundation Quarterly*, Health and Society, Summer 1973, pages 271–317.

[3] For more detailed information about cost reimbursement of GPPP's, see Howard West, "Group-Practice Prepayment Plans in the Medicare Program," *American Journal of Public Health*, April 1969, pages 624–629

records, and the same definitions and limitations apply. Data for the control groups were standardized to the age and sex distributions for the comparable plans.

Data for 1969 and 1970 are presented in the tables. Since patterns were the same for both years, however, the analysis in this report is limited to 1970.

In 1970, there were 34 plans participating in Medicare on a capitation basis, with Medicare membership totaling 282,000—less than 1½ percent of the total Medicare population. The seven plans included in the study, with 157,000 Medicare members, are not a representative sample of capitation plans, and data for them cannot be projected to derive estimates for the total Medicare membership of group-practice prepayment plans. They were selected to obtain a geographic and size distribution and examples of different types of sponsorship, organization, and benefit patterns.

Many GPPP's are employer-employee-union sponsored and are oriented to a specific industry or type of employment or trade. One plan in this study is union-sponsored; the other six are classified as community-sponsored, but five of them started under employer-employee-union sponsorship. Thus, the membership of these and other GPPP's, including community- and consumer-sponsored plans, may reflect group characteristics associated with an industry or type of employment and may, therefore, vary not only in age, sex, and race but also in income, education, and other socioeconomic characteristics that affect utilization of health care services.

For ease of presentation, the study plans were assigned numbers in descending rank order of their average total reimbursement per Medicare member. The names of the plans and the numbers assigned follow:

Number	*Name*	*Location*
1	Union Family Medical Fund of the Hotel Industry of New York City	New York City
2	Health Insurance Plan of Greater New York	New York City
3	Kaiser Foundation Health Plan	Los Angeles
4	Kaiser Foundation Health Plan	Oakland
5	Community Health Association	Detroit
6	Kaiser Foundation Health Plan	Portland, Oreg.
7	Group Health Cooperative of Puget Sound	Seattle

COMPARISON OF PLANS AND CONTROLS

The top segment of chart 1, based on data in table 1, summarizes Medicare reimbursement in 1970, including all HI and SMI services, for plan members and for the control groups in the study. It shows the average per capita reimbursement for Medicare beneficiaries in each plan, compared with the matching control group.

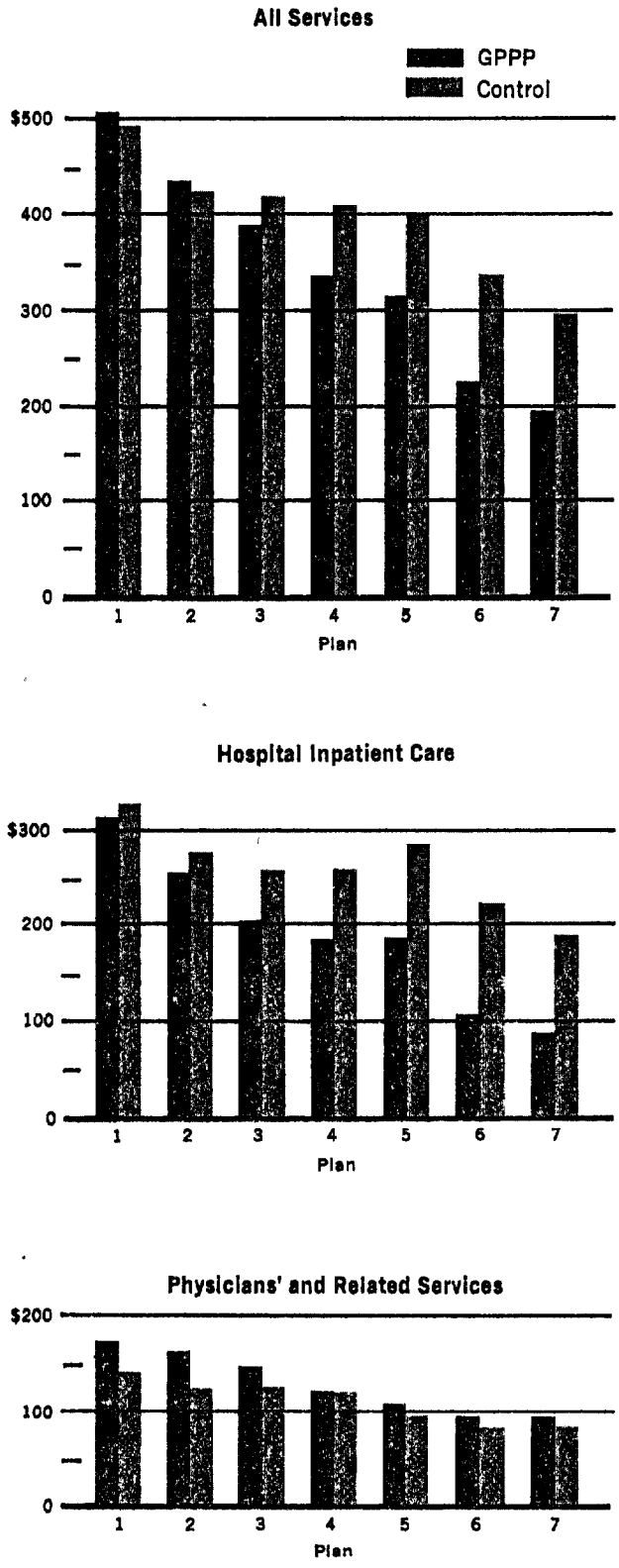
The control groups fall in the same order—by amount of total reimbursement per Medicare beneficiary—as the rank order of the plans in the study. There appears to be a geographic pattern to this ranking. Plans 1 and 2 are in the New York City metropolitan area, Plans 3 and 4 in California, Plan 5 in the East North Central area, and Plans 6 and 7 in the Northwest. This pattern of geographic variation is similar to that shown by figures for reimbursement per person for all Medicare enrollees and for all covered services under the Medicare program.[4]

Only Plans 1 and 2 had total reimbursement per beneficiary higher than their controls, and these differences were relatively small—$18 and $8, respectively. Total reimbursement per beneficiary in the other five plans was consistently lower than in the controls; the differences ranged from $26 in Plan 3 to $111 in Plan 6. (Note that total reimbursement includes payments for hospital outpatient, extended-care facility, and home health services, as well as for hospital inpatient care and physicians' and related services.)

The two lower segments of chart 1 show the same comparisons for the two major components of reimbursement: payments for hospital inpatient care and for physicians' services. Per capita payments for these two types of service combined accounted for about 90–96 percent of total reimbursement per beneficiary in all the plans and controls studied. Reimbursement per beneficiary for physicians' services was consistently higher in all the plans than in their con-

[4] Social Security Administration, Office of Research and Statistics, *Medicare: Health Insurance for the Aged, 1969, Section 1: Summary* (in press).

CHART 1.—Total Medicare reimbursement per beneficiary for seven study plans and controls, by type of service, 1970



trols, but the differences were relatively small in amounts, ranging from $3 in Plan 4 to $35 in Plan 1. The major difference between plans and controls was in payments for inpatient hospital care, which were lower in all the plans than in the controls. In four plans, in fact, payments for hospital care were lower than in the lowest of the controls, and in Plans 6 and 7 they were less than half the payments in the comparable controls. The differences between plans and controls ranged from $16 in Plan 1 to $116 in Plan 6.

Generally, per capita reimbursement amounts for plans and controls varied together. This finding is to be expected since health care costs for both plans and controls would be subject to similar economic influences within their commonly defined service areas. Variability was appreciably greater among the plans than among the controls, however, particularly for hospital care. Average reimbursement per beneficiary for this type of care ranged from $90 in Plan 7 to $313 in Plan 1 (a difference of $223), compared with a range of from $190 to $329 per beneficiary in the controls (a difference of $139).

The index in table 2 shows the payments per beneficiary for each plan studied in relation to its matching control group. The index expresses each plan's reimbursement per beneficiary as a percentage of that for its control. That is, each control group's reimbursement equals 100, for all services and for each type of service.

The index shows clearly the effects of the lower hospital reimbursement for GPPP's on their total costs. All of the plans had hospital payments below 100. Plans ranked in the same order, generally, for physicians' services and inpatient hospital services. (The obvious exception is Plan 4, in which physicians' payments were only 2 points above the control.) That is, if the plan ranked high on the physician index, it also tended to rank high on the hospital inpatient index.

Plans 1 and 2 are the only plans for which total per capita reimbursement exceeded that for the matching control—that is, only for these plans were the index values for all services above 100. For the other plans, higher payments for physicians' services in relation to their control groups were more than offset by lower relative payments for inpatient hospital services, so that the index values for all services fell below

TABLE 1.—Medicare reimbursement per beneficiary for all covered services, by type of service, 1969 and 1970 [1]

Plan and control	Number of Medicare enrollees	All Medicare services	Hospital inpatient services	Physicians' and related services			Extended-care facility inpatient services	Hospital outpatient services	Home health services [2]
				Total	Capitation	Non-capitation			
	1969								
Plan 1	4,485	$444.92	$270.17	$154.01	$80.64	$73.37	$12.43	$5.18	$3.13
Control	37,167	426.69	283.74	118.44		118.44	16.49	4.33	3.69
Plan 2	47,664	422.83	255.23	142.15	89.70	52.45	19 60	2.36	3.49
Control	47,149	391.32	261.66	106.93		106.93	15.29	3.94	3.50
Plan 3	25,456	355.67	175.29	144.53	123.48	21.05	27.65	1.99	6.21
Control	35,931	396.39	235.70	122.94		122.94	25.97	7.19	4.59
Plan 4	27,949	309.72	167.79	116.37	98.16	18.21	12.37	2.87	10.32
Control	18,360	357.19	217.79	109.04		109.04	19.27	5.90	5.19
Plan 5	2,597	265.28	151.37	102.08	79 80	22.28	9 23	1.01	1.64
Control	14,908	394.17	270.47	101.14		101.14	15.61	5.27	1.68
Plan 6	7,792	214.11	103.72	84.65	71.64	13.01	11.34	1.26	13.14
Control	5,546	298.06	191.93	81.43		81.43	16.99	2.33	5.40
Plan 7	6,927	211.80	99.91	94.84	81.84	13.00	12.85	.76	2.94
Control	6,332	312.60	201.59	86.91		86.91	17.71	3.15	3.24
	1970								
Plan 1	4,408	$507.26	$313.03	$175.82	$80.76	$94.56	$6.15	$9.44	$3.82
Control	37,219	499.20	329.29	140.18		140.18	8.67	7.77	3.29
Plan 2	47,721	431.05	254 15	161.40	94.80	66.60	7.98	4.82	2.70
Control	46,862	423.20	277.84	128.40		128 40	7.04	6.93	2.99
Plan 3	28,381	388 11	200.06	149.23	128.08	21.15	33.21	2.35	3.26
Control	36,949	414 49	258.33	129.47		129.47	17.06	7.90	1.73
Plan 4	30,127	331.10	186.11	123.27	104 04	19 23	8.50	2.91	10.31
Control	18,861	405.72	258.10	120.52		120.52	14.26	8.99	3 85
Plan 5	2,975	311.61	189.22	110.28	88.56	21.72	9.13	1.32	1.66
Control	15,024	398.18	284.82	97.45		97.45	8.78	5.72	1.41
Plan 6	7,922	225 88	106.67	94 81	80.16	14.65	9.72	1.61	13 07
Control	5,664	336.65	222 65	83 58		83.58	23.63	3.27	3.52
Plan 7	7,440	196.33	89 84	95 13	82 08	13.05	7.66	1.45	2.25
Control	6,436	295.52	190.19	86.85		86.85	12 49	4.45	1.54

[1] Reimbursed for each control group standardized to age and sex distribution for comparable prepaid group-practice plan.

[2] Includes services under both hospital insurance and supplementary medical insurance.

100. For Plans 1 and 2, however, reimbursement per Medicare beneficiary for inpatient hospital services, though less than that for their controls, was not low enough to offset the higher per capita payments for physicians' services. Amounts reimbursed per beneficiary by Medicare for inhospital services were only 5 and 9 percent less for Plans 1 and 2, respectively, than they were for their control groups. Their per capita reimbursement for physicians' services was 25 percent and 26 percent higher than their controls.

While the data currently available do not explain the patterns observed, speculation is possible on two factors that undoubtedly had some effect. One is the use of out-of-plan physicians' services, which, as noted later, was substantially higher in Plans 1 and 2 than in other plans. The other concerns the degree of control the plans have over the hospitals themselves. In Plans 3 through 7, hospitalization is an integral part of the plans' services and is provided in facilities with which the plans are closely affiliated—through co-ownership or control. In Plans 1 and 2, on the other hand, hospitalization is covered through the insurance mechanism—through contracts with Blue Cross, for example—and is provided in community hospitals over which the plans have no control. The cumulative effects of these two factors would be to substantially lessen the control Plans 1 and 2 have over hospital utilization and costs.

Under existing legislation, HMO's may participate in Medicare under either cost reimbursement or incentive reimbursement contracts. Both involve a single capitation rate for all services—

TABLE 2.—Index: Medicare reimbursement per beneficiary as a percent of reimbursement per beneficiary for controls, by type of service, 1970

[Average reimbursement per beneficiary for each control group=100]

Plan	All services	Hospital inpatient services	Physicians' and related services	Extended-care facility inpatient services	Hospital outpatient services	Home health services
Plan 1	104	95	125	71	122	101
Plan 2	102	91	126	118	70	90
Plan 3	94	77	115	195	30	188
Plan 4	82	72	102	60	33	268
Plan 5	78	66	113	104	23	118
Plan 6	67	48	113	41	49	371
Plan 7	66	47	110	61	33	146

HI and SMI—covered under Medicare. Under the latter option, an HMO will be at risk for all covered services provided to its Medicare enrollees, including emergency care by nonplan practitioners and providers. Beneficiaries enrolled in these HMO's will be restricted, for Medicare coverage, to use of in-plan services.

The data for these study plans suggest some considerations for GPPP's that may wish to participate in Medicare as HMO's. The limitations of the data must be kept in mind, however, and it must be recognized that, for some plans, changes in benefit structure would be necessary that would affect utilization and thus reimbursement.

Incentive reimbursement for HMO's is based on "adjusted average per capita costs" in each plan's service area—the costs per beneficiary for non-HMO Medicare enrollees in the HMO's service area, adjusted to account for age, sex, race, and other characteristics of the HMO membership. The HMO's annual per capita costs are measured against the adjusted average per capita costs for its service area. If the HMO's costs are higher, it must bear the loss. But if its costs are lower—that is, if it has "savings"—the difference up to 20 percent of adjusted average per capita cost is apportioned equally between the plan and the Social Security Administration, and savings above 20 percent go entirely to the Social Security Administration.

Adjusted average per capita costs are similar in principle to the control group costs in the study. In table 2, for "all services," 100 represents the "break-even" point and 80 is the cut-off point for the apportionment of savings to the plan. Plans falling above 100 would lose by that proportion of their control group's costs, and plans below 100 would receive one-half of the proportion above 80.

Two plans, Plans 1 and 2, would have had losses, but by only $18 and $8 per beneficiary, respectively. Thus, as risk-basis HMO's they would be highly motivated to reduce their costs by these amounts to avoid losses and would benefit from being risk-basis plans only if they reduced their costs further. Plans 3 and 4 could increase their "earnings" to the maximum amount by decreasing their costs down to 80 on the index. Plans 5, 6, and 7, which are below 80 on the index, would receive the maximum possible per capita payments. Their savings below 80 would be allocated to the Social Security Administration.

OUT-OF-PLAN SERVICES

Obviously, plans are able to affect Medicare costs only to the extent that they control services provided to their Medicare members. They can control in-plan services since they are provided by plan practitioners and providers. In cases of hospitalization, their control is limited to those admissions and services ordered and controlled by plan physicians. Utilization and costs of out-of-plan services, therefore, are critical factors in the plans' ability to control costs for their Medicare members.

Chart 2 shows the magnitude of payments for out-of-plan physicians' services per Medicare member of each plan studied, in relation to total payments for physicians' services. In Plans 3 through 7, annual payments for out-of-plan physicians' services were fairly consistent and were relatively small, ranging from $13 to $22 per beneficiary and accounting for only 14–20 percent of total payments for physicians' services. In Plans 1 and 2, however, these payments were

CHART 2.—Medicare reimbursement per beneficiary for in-plan and out-of-plan physicians' services, 1970

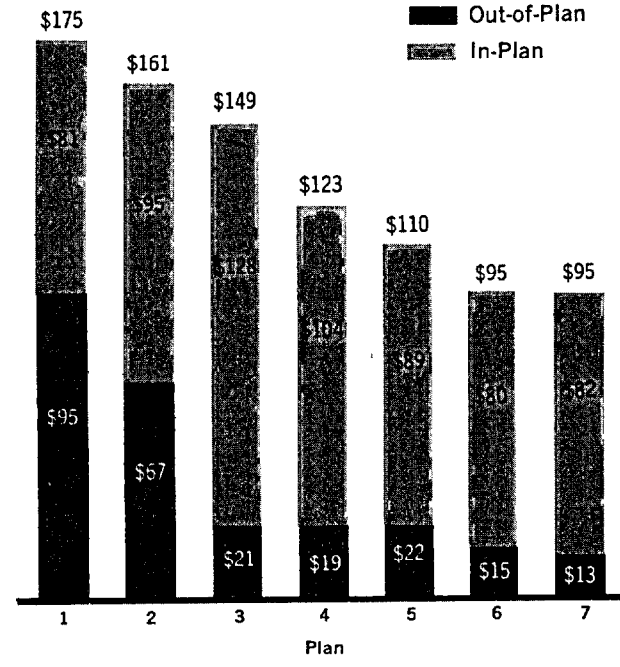


TABLE 3.—Rates of use and average Medicare reimbursement for out-of-plan physicians' services, by place of service, 1969 and 1970

Place of service	1969							1970						
	Plan 1	Plan 2[1]	Plan 3	Plan 4	Plan 5	Plan 6	Plan 7	Plan 1	Plan 2[1]	Plan 3	Plan 4	Plan 5	Plan 6	Plan 7
Total Medicare plan members	4,485	47,664	25,456	27,949	2,597	7,792	6,927	4,408	47,721	28,381	30,127	2,975	7,922	7,440
Total out-of-plan physicians' reimbursement (in thousands)	$329	$2,500	$536	$509	$58	$101	$90	$417	$3,178	$600	$579	$64	$116	$97
Out-of-plan reimbursement as percent of total physicians' payments	47 6	36 9	14 6	15 6	21 8	15 4	13 7	53 9	41 3	14 2	15 6	19 7	15 5	13 7
Number of out-of-plan users[2]														
Total	1,394		3,067	3,083	307	662	650	1,580		3,519	3,261	372	758	720
Office	889		2,317	2,140	184	416	411	1,039		2,635	2,339	226	470	426
Home	243		372	429	43	29	22	216		361	405	38	23	18
Inpatient hospital	596		714	813	102	181	187	625		794	843	117	198	183
Extended-care facility	12		128	99	50	22	11	24		183	118	55	26	13
Outpatient department	170		112	311	62	36	72	271		134	356	72	45	95
Independent laboratory	42		151	203	4	38	31	107		220	201	16	48	33
Other	71		391	464	3	166	155	183		508	474	5	215	196
Percent of Medicare plan members using out-of-plan services														
Total	31 1		12 0	11 0	11 8	8 5	9 4	35 8		12 4	10 8	12 5	9 6	9 7
Office	19 8		9 1	7 7	7 1	5 3	5 9	23 6		9 3	7 8	7 6	5 9	5 7
Home	5 4		1 5	1 5	1 7	.4	3	4 9		1 3	1 3	1 3	.3	2
Inpatient hospital	13 3		2 8	2 9	3 9	2 3	2 7	14 2		2 8	2 8	3 9	2 5	2 5
Extended-care facility	3		5	4	1 9	3	2	5		.6	4	1 8	.3	.2
Outpatient department	3 8		.4	1 1	2 4	5	1 0	6 1		5	1 2	2 4	.6	1 3
Independent laboratory	9		6	.7	.2	5	4	2 4		8	7	.5	.6	4
Other	1 6		1 5	1 7	.1	2 1	2 2	4 2		1 8	1 6	2	2 7	2 6
Percent of out-of-plan users[3]														
Total	100 0		100 0	100 0	100 0	100 0	100 0	100 0		100 0	100 0	100 0	100 0	100 0
Office	63 8		75 5	69 4	59 9	62 8	63 2	65 8		74 9	71 7	60 8	62 0	59 2
Home	17 4		12 1	13 9	14 0	4 4	3 4	13 7		10 3	12 4	10 2	3 0	2 5
Inpatient hospital	42 8		23 3	26 4	33 2	27 3	28 8	39 6		22 6	25 9	31 5	26 1	25 4
Extended-care facility	9		4 2	3 2	16 3	3 3	1 7	1 5		5 2	3 6	14 8	3 4	1 8
Outpatient department	12 2		3 7	10 1	20 2	5 4	11 1	17 2		3 8	10 9	19 4	5 9	13 2
Independent laboratory	3 0		4 9	6 6	1 3	5 7	4 8	6 8		6 3	6 2	4 3	6 3	4 6
Other	5 1		12 7	15 1	1 0	25 1	23 8	11 6		14 4	14 5	1 3	28 4	27 2
Average out-of-plan reimbursement per user														
Total	$236		$175	$165	$188	$153	$139	$264		$171	$178	$174	$153	$135
Office	100		113	89	110	101	74	114		91	83	110	86	75
Home	72		74	101	65	50	70	53		74	87	42	48	31
Inpatient hospital	358		305	287	246	257	241	421		368	366	262	283	252
Extended-care facility	69		57	46	153	32	21	57		53	49	94	45	32
Outpatient department	17		33	25	29	26	28	21		35	27	24	40	35
Independent laboratory	23		25	22	26	22	15	20		24	25	35	15	13
Other	63		39	52	15	53	65	77		43	46	18	70	73
Average out-of-plan reimbursement per Medicare plan member														
Total	$73	$52	$21	$18	$22	$13	$13	$95	$67	$21	$19	$22	$15	$13
Office	20		10	7	8	5	4	27		8	6	8	5	4
Home	4		1	2	1	(3)	(3)	3		1	1	1	(3)	(3)
Inpatient hospital	48		9	8	10	6	7	60		10	10	10	7	6
Extended-care facility	(3)		(3)	(3)	3	(3)	(3)	(3)		(3)	(3)	2	(3)	(3)
Outpatient department	1		(3)	(3)	1	(3)	(3)	1		(3)	(3)	1	(3)	(3)
Independent laboratory	(3)		(3)	(3)	(3)	(3)	(3)	(3)		(3)	(3)	(3)	(3)	(3)
Other	1		1	1	(3)	1	1	3		1	1	(3)	2	2
Percentage distribution of out-of-plan reimbursement														
Total	100 0		100 0	100 0	100 0	100 0	100 0	100 0		100 0	100 0	100 0	100 0	100 0
Office	27 0		48 7	37 5	35 0	41 6	33 9	28 5		39 9	33 4	38 4	34 6	32 8
Home	5 3		5 1	8 5	4 9	1 4	1 7	2 7		4 5	6 1	2 4	1 0	6
Inpatient hospital	64 9		40 6	45 9	43 5	45 9	50 1	63 2		48 7	53 2	47 5	48 3	47 6
Extended-care facility	2		1 4	9	13 2	7	3	3		1 6	1 0	.8 0	1 0	4
Outpatient department	9		7	1 5	3 1	9	2 3	1 4		8	1 7	2 7	1 6	3 4
Independent laboratory	3		7	9	2	8	5	5		.9	9	9	6	4
Other	1 4		2 9	4 8	.1	8 6	11 3	3 4		3 6	3 8	1	12 9	14 8

[1] Data by place of service not available

[2] Figures by place of service do not add to total because patients may use out-of-plan services in more than one location.

[3] Less than $1, rounded

much higher—$95 and $67 per beneficiary, respectively—and they accounted for 54 percent and 41 percent of total physician payments.

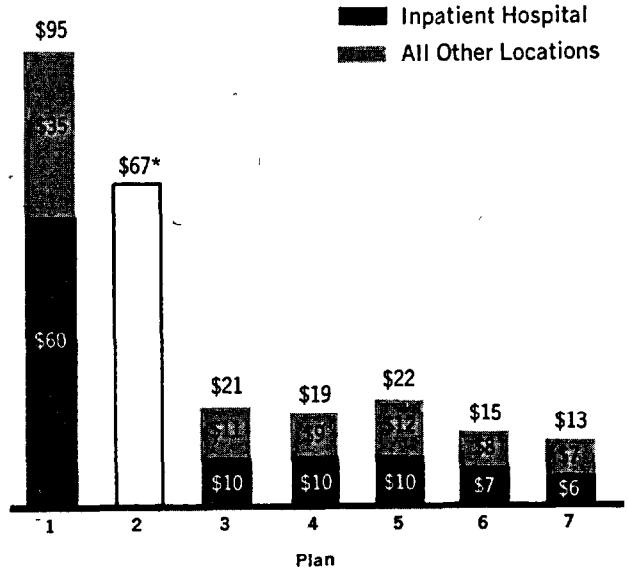
As noted earlier, the seven plans studied are not representative of all capitation plans under Medicare. With comparable data for all plans, the study might find that they do not fall into two such distinct groups—that the gap between the first two plans and the others would be filled in somewhat. The range could not be less, however, and might possibly be greater.

The percentages of Medicare members using out-of-plan services and the amounts of payments, by the place in which services were provided, are shown in table 3 for six of the plans; similar data were not available for Plan 2 at the time this report was prepared. In 1970, Plans 6 and 7 had the lowest percentages of persons using out-of-plan physicians' services, under 10 percent of their total Medicare plan members. The proportions for Plans 3, 4, and 5 were slightly higher, ranging from 10.8 percent to 12.5 percent. The user rate in Plan 1 (35.8 percent of all Medicare members) was almost three times as high as for the other plans, and the average payments per user were also significantly higher—$264 per user, compared with a range of from $135 to $178 per user for the other plans.

The two major sites where members received out-of-plan services were in physicians' offices and in hospitals as inpatients. Out-of-plan physicians' services provided to hospital inpatients are of particular significance to cost controls, for if an out-of-plan physician is the admitting or attending physician, the plan has limited or no control over the hospital utilization and costs. In Plans 3, 4, 6, and 7, the percentages of persons receiving out-of-plan services in the hospital were consistently low—2.5–2.8 percent. Plan 5 was a little higher, with almost 4 percent. In Plan 1, however, over 14 percent of the Medicare members received out-of-plan physicians' services as hospital inpatients.

Chart 3 shows the per capita reimbursement for out-of-plan physicians' services to hospital inpatients and to patients in all other places of service. In Plans 6 and 7, payments for hospitalized persons were $7 and $6 per beneficiary, respectively; for Plans 3, 4, and 5, they were just slightly over $10 per beneficiary. But for Plan 1, an average of $60 per Medicare member was paid

CHART 3.—Medicare reimbursement per beneficiary for out-of-plan physicians' services provided in hospitals and in all other places of service, 1970



* Data by place of service not available

for out-of-plan physicians' services provided to hospitalized beneficiaries. This finding suggests that a substantial proportion of the hospital care, as well as physicians' services, for Medicare members of this plan was not within the control of the plan.

There always will be some use of out-of-plan services, including emergency services and professional services not available within the plan or arranged for by the plan. The factors that affect out-of-plan usage are too numerous and complex to explore at this time. Accessibility and comprehensiveness of in-plan services are certainly important factors. So is consumer satisfaction—or dissatisfaction—with the plan's services. The amount of out-of-pocket expenditures for services, which tend to be higher for out-of-plan than for in-plan services, would also influence out-of-plan usage.

Whatever the reasons for utilization of out-of-plan services, it would still have decidedly negative effects on a plan's ability to control utilization and therefore costs. Thus, plans that cannot reduce out-of-plan utilization to the minimum will not find it feasible to function as risk-basis HMO's. They could still, however, become cost-basis HMO's, since Medicare members of cost-basis HMO's are not restricted to use of in-plan services.

SUMMARY

Data for the seven plans in this study support previous studies that have shown lower inpatient hospital utilization and higher utilization of physicians' services by members of GPPP's, if reimbursement reasonably reflects utilization. The combined payments do not always result in less costly total health care services, however, since reductions in hospital inpatient reimbursement do not always offset higher reimbursement for physicians' services.

These data do not support the commonly held theory that increased physician input in GPPP's is associated with lower hospital inpatient utilization. Among the seven plans, these two components of services, measured in terms of per capita reimbursement, varied together as shown by the index in table 2; that is, the plans with relatively higher physician reimbursement per Medicare member also tended to have relatively higher inpatient hospital reimbursement. Because of the complexity of the variables affecting utilization and costs in GPPP's, the study findings are inconclusive.

Two factors that appear related to favorable cost experience among these plans were low utilization of out-of-plan physicians' services and plan control of hospital facilities. The effects of these two variables on utilization and costs of services for GPPP Medicare members will be given further study. It should be remembered that these findings relate only to Medicare members of the plans.