Social health maintenance organizations' service use and costs, 1985-89

by Charlene Harrington and Robert J. Newcomer

Presented in this article are aggregate utilization and financial data from the four social health maintenance organization (S/HMO) demonstrations that were collected and analyzed as a part of the national evaluation of the S/HMO demonstration project conducted for the Health Care Financing Administration. The S/HMOs, in offering a $6,500 to $12,000 chronic care benefit in addition to the basic HMO benefit package, had higher startup costs and financial losses over the first 5 years than expected, and controlling costs continues to be a challenge to the sites and their sponsors.

Introduction

After more than a decade of research and demonstrations on long–term care programs, the need and demand for community long–term care services by those who are disabled have been well documented. In previous demonstrations, community-based long–term care services have been found to improve the quality of clients lives and to provide needed support for informal caregivers (Kemper, Applebaum, and Harrigan, 1987). The value of case–management services, which provides assessment of needs, plans of care, arrangements for services, and ongoing monitoring of clients, has also been documented (Kemper, Applebaum, and Harrigan, 1987). Even though positive outcomes have been identified, unfortunately, long–term care demonstrations have generally not been found to control costs and are likely to increase overall costs (Hamm, Kickman, and Cutler, 1982; Kemper, Applebaum, and Harrigan, 1987; Weissert, 1985; Weissert, 1988; Zawadski, 1983). Thus, the search has been for cost-effective long-term care financing and service delivery models.

The social health maintenance organization (S/HMO) model was designed as an innovative new approach to control costs while expanding long-term care services. This demonstration model, designed by Brandeis University in 1980, was sponsored by the Health Care Financing Administration (HCFA) with waivers from the Medicare and Medicaid programs (Leutz, Greenberg, and Abrahams, 1985). The S/HMO model includes the following basic organizational and financing features. First, a single organizational structure provides a full range of acute and chronic care services to Medicare beneficiaries who enroll on a voluntary basis and pay a monthly premium for services. The benefits include nursing home, home health, homemaker, transportation, drugs, and other such services beyond the basic Medicare benefits.

Second, a coordinated case-management system was established to authorize long-term care services for those members who met specified disability criteria and were within a fixed income limit of about $6,250-$12,000 per year. The case-management system was also designed to improve access to and appropriateness of services delivered. Third, S/HMOs were designed to serve a cross-section of the elderly population including both the functionally impaired and the unimpaired elderly, unlike most demonstrations that have been targeted only to the impaired elderly. The goal of S/HMOs is to keep individuals healthy and perhaps to reduce or slow the rate of impairment and disability. Fourth, financing was accomplished through prepaid capitation by pooled funds from Medicare, Medicaid, and member premiums. The initial financial risks were shared by S/HMOs and by HCFA, but only S/HMOs assumed full financial risk for service costs at the end of the first 30 months of the demonstration. The design feature was developed to provide an overall financial incentive to S/HMOs to control total program costs while allowing greater flexibility in the services provided. For a full discussion of the initial goals and plans for S/HMOs, see Leutz, Greenberg, and Abrahams (1985); Harrington and Newcomer (1985); and Greenberg et al., (1988).

After a delayed start, S/HMO demonstration projects became operational in 1985. The S/HMO demonstration model was tested by four different organizations in different market environments. These new organizational models were developed by two types of sponsors: two health maintenance organizations (HMOs) and two types of long-term care organizations. Kaiser Permanente (KP) Northwest, an established HMO in Portland, Oregon, developed Medicare Plus II. A partnership between a mature HMO and an experienced direct long-term care service provider (that is, Group Health, Inc. (GHI) and Ebenezer Society) in Minneapolis-St. Paul, Minnesota, established Seniors Plus. The Metropolitan Jewish Geriatric Center, Inc., a direct long-term care service provider in Brooklyn, New York, established Elderplan. Senior Care Action Network (SCAN), a long-term care service broker developed an informal partnership with a large medical center and its physician group in Long Beach, California, to establish SCAN Health Plan (SHP). Thus, two S/HMOs were new products offered by existing HMOs, and two were newly formed HMOs by organizations with no previous HMO experience.

One primary goal of the demonstration projects was to control S/HMO service utilization and expenditures and to develop a financially viable product or organization that could sustain itself beyond the demonstration period. In this article, we examine the S/HMOs aggregate service

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Reprint requests: Charlene Harrington, Ph.D., Department of Social and Behavioral Sciences, University of California, N-631, San Francisco, California 94143-0612.

utilization and expenditure patterns during the first 5 calendar years of the demonstration. Differences across S/HMO projects in terms of enrollment, the competitive market, premiums, disability levels, chronic care services, and benefit limits are identified, which account for differences in service utilization and expenditure patterns (for hospital inpatient care, chronic care, and other services). The startup costs were substantially higher than expected across all sites, except Medicare Plus II. This resulted in one site achieving financial gain during the fourth and the fifth years of the demonstration, one site showing a net gain in the fourth year, one site breaking even in the fifth year, and one site showing losses for the 5-year period. The overall effects of these financial outcomes on the S/HMO's sponsors and their future options for S/HMOs are discussed.

Methodology

The first 5 calendar years of project operation from January 1985 through December 1989 are covered in this article. The primary source of the S/HMO descriptive statistics on utilization and financial data were the unaudited quarterly and special reports submitted by the S/HMOs to the HCFA. These data include measures of S/HMO acute and chronic care service use, revenues, and expenses. It should be noted that, in some instances, the utilization and expenditure data presented in this article differ from earlier published reports because S/HMOs have adjusted their data based on audit findings and other needed adjustments for the period 1985 through 1989.

The report data were augmented by interviews with S/HMO officials and others at each demonstration site and by documents collected by HCFA program evaluators at the University of California, San Francisco; Berkeley Planning Associates; and Duke University (Newcomer, Harrington, and Friedlob, 1989 and 1990a). Respondents included executive directors and key administrative staff, marketing directors, selected board members, and former staff. The interviews were conducted at S/HMO sites three times between January and December 1986, by telephone in spring 1987, and at onsite visits during the summers of 1988 and 1989. Focused questions concerned key organization, management, and provider arrangements considered to be related to the financial success of prepaid health plans (Lamb and Associates, 1980; Fox, Heinen, and Steele, 1986; Luft, 1987). Correspondence, contracts, board minutes, reports by the sites, audit reports, and other documents were also collected and analyzed to verify and supplement the interview data.

Findings

Each S/HMO had different features or program policies that were associated with the differences in S/HMO service utilization and expenditures during the first 5 operational years. This section describes these features.

Membership size and enrollment problems

Membership size varied across sites and had effects on project costs. Although each site had expected to enroll about 4,000 individuals, all sites experienced initial difficulties in obtaining this target; and two sites were not able to reach their targets throughout the first 5 years of the demonstration (Table 1). Only Kaiser Permanente's Medicare Plus II met its minimum enrollment target of 4,000 members within the first 18 months after program startup. Elderplan had a slow enrollment pattern during the first 24 months of operation (2,502 members), but enrollment then showed a steady increase to 5,000

Table 1

Differences in social health maintenance organization enrollment, premiums, disability levels, and chronic care services received, by site: United States, 1985-89

Site	1985	1986	1987	1988	1989
			Net enrollment		
Elderplan	770	2,502	4,205	5,000	5,082
Medicare Plus II	3,169	4,309	4,987	5,030	5,412
SCAN Health Plan[1]	1,149	2,075	2,769	3,057	2,824
Seniors Plus	433	1,686	2,572	3,021	3,256
			Monthly premiums		
Elderplan	$29.89	$29.89	$29.89	$29.89	$29.89
Medicare Plus II	49.00	49.00	49.00	57.00	57.85
SCAN Health Plan[1]	40.00	40.00	40.00	40.00	42.00
			[1]24.95	[1]24.95	[1]24.95
Seniors Plus	29.50	24.95	24.95	29.95	34.95
			Percent nursing home certified at year end		
Elderplan	7.5	4.1	4.3	4.8	5.4
Medicare Plus II	4.2	6.7	8.1	10.5	11.4
SCAN Health Plan[1]	4.0	5.5	8.7	10.0	7.9
Seniors Plus	11.5	7.2	9.8	8.1	8.5
			Percent receiving chronic care at year end		
Elderplan	4.8	2.9	3.1	2.1	7.7
Medicare Plus II	3.4	4.5	5.9	7.3	7.5
SCAN Health Plan	8.7	12.1	10.0	9.0	8.5
Seniors Plus[1]	13.8	11.0	13.0	12.7	13.7

[1]SCAN Health Plan developed a low-option premium that excluded dental care for 1987.

SOURCE: Harrington, C. and Newcomer, R.J., University of California, Department of Social and Behavioral Sciences.

members in 1988 and to 5,082 in 1989. Seniors Plus was the least successful in meeting its initial membership target, with only 2,572 enrolled members by 1987 and 3,256 by the end of 1989. SHP experienced similar slow growth, reaching 3,057 members by the end of 1988 and then showing a decline by the end of 1989. The decline in enrollment in 1989 was reported by SHP to be related in part to their increase in pharmacy copayments and limits (which were changed in 1990) and to the general dissatisfaction of the SHP physician group with their contract arrangements. Elderplan and SHP had no previous Medicare HMO members, so all of their members were new health plan enrollees, whereas the two HMOs were able to convert Medicare members from their existing HMO program to the S/HMO demonstration. (For more information, see also Harrington, Newcomer, and Friedlob, 1989; Newcomer, Harrington, and Friedlob, 1990b.) Discussed later are the marketing costs associated with each site.

The relationship of enrollment to overall financial costs varied across the four sites. Even through Medicare Plus II and Elderplan reached their enrollment targets and had at least 5,000 members each in 1988, neither plan was able to achieve a positive financial balance with its enrollment until Elderplan did so in 1989. Seniors Plus, with the lowest enrollment, was able to control its expenditures and achieved a positive financial picture in 1988 but not in 1989; whereas SHP, with a low enrollment, was able to show a net gain in 1988 and 1989. Thus, factors other than enrollment were also important in affecting the overall financial outcomes of each project.

Competitive market

The HMO market competition varied across the four S/HMO areas and influenced enrollment. In 1985, Brooklyn could be considered a newly competitive market because it had only one large staff model HMO in competition for the Medicare market and an estimated 7 percent Medicare enrollment in HMOs. At the time Medicare Plus II began, Portland was emerging as a competitive market with only 16 percent of the elderly population enrolled in HMOs. Although there were three newly formed HMOs, KP Northwest dominated the HMO market in the Portland region.

Los Angeles and Minneapolis-St. Paul were mature competitive markets when the S/HMOs were developed. Minneapolis-St. Paul had six competing HMOs and an estimated 60 percent HMO enrollment rate for the elderly population (Harrington, Newcomer, and Friedlob, 1989). Los Angeles had 24 percent of its elderly population enrolled in five well-established HMOs in 1985. SHP and Seniors Plus were late to enter the elderly HMO market and faced severe competition which limited their enrollment and affected their marketing costs and overall financial picture, especially during the first 3 years as they attempted to establish their plans. The competitive market situation appears to be a factor associated with both the initial and the continued poor enrollment at Seniors Plus and SHP. The enrollment problems in turn had a direct effect on marketing costs.

Premium levels

At all the sites, S/HMO premiums were generally not established at a high enough level to cover the difference between Medicare and Medicaid revenues and the projected costs of providing plan benefits. The primary consideration in setting initial premium levels was to be competitive with existing HMOs options in each of the areas. During the first year, monthly premium levels ranged from $29.50 to $49 (Table 1). S/HMO premiums were less than those of competing Medicare supplemental policies but greater than competing Medicare HMO alternatives.

The unfavorable pricing of S/HMOs was most pronounced in Minneapolis and Long Beach, where the competition was greatest. After S/HMOs were initiated, Seniors Plus and SHP soon realized the need to reduce premiums. Because of this, Seniors Plus lowered its premium to $24.95 in March 1986; and SHP reduced its base premium to $24.95 in 1987, with optional dental benefits for an additional $17.50 per month. Even though SHP lowered its premium, its premium remained substantially higher than those of most of its competing HMOs, which had zero premiums and included drug benefits. In 1988, Seniors Plus increased its premium by $5, at a time when other competing HMOs increased their premiums to an even higher rate. Thus, Seniors Plus was competitive in terms of its premium in 1988 until it closed its enrollments in November along with its sponsor Group Health because they had more members than they could accomodate.

Medicare Plus II had higher premiums than other HMOs in the Portland area throughout the 1985-88 period, but it had little competition when the project achieved its initial enrollment. Medicare Plus II was able to increase its premiums in 1988 by $8 without negative effects on its membership. The premiums were higher than other sites, in part because Medicare Plus II had greater chronic care benefits and lower copayments for chronic care.

Disability differences across sites

Each site had a different mix of members in terms of their age, sex, and disability levels. The Medicare capitation payment rates took these differences into account, based on the adjusted average per capita costs (AAPCC) for each county, by age, sex, welfare status, health status, and institutional status. Each S/HMO received 100 percent of a modified AAPCC formula for all their Medicare members, subtracting those community members who were in bed or at home most or all of the time because of a disability or because they needed the help of another person in getting around in the community (about 5 percent of the community sample). Medicare paid 100 percent of the AAPCC institutional rate for all members living in the community who were determined to be nursing home certifiable according to predetermined State Medicaid criteria for disability.

Although these payment adjustments were made for age and disability, the projects were anxious to avoid adverse selection at enrollment, which could contribute to

financial problems over time. Each S/HMO was required to limit its new enrollees to a maximum of 5 percent of those who were severely impaired (that is, were nursing home certifiable by State Medicaid criteria). S/HMOs could screen new applicants and place impaired applicants on a waiting list (queing) if they had already enrolled more than 5 percent of the impaired. Three sites used some screening and queing at different points during the first 4 years (all except Medicare Plus II) to control entry and, indirectly, to prevent high utilization and costs. Seniors Plus reported that their enrolled population was older and more disabled than the enrollees in their basic Medicare plan (Seniors), and so they used queing from November 1985 through 1989. The issue of whether the plans had biased selection is being addressed in a separate article (Manton, Tolley, and Vertrees, 1990).

Eligibility for chronic care benefits

All S/HMO members were eligible to receive benefits covered by Medicare (that is, hospital, physician, skilled nursing home, skilled home health services, hospice, and durable medical equipment), so these benefits did not vary across sites. Each S/HMO established its own eligibility levels for chronic care services. Case managers conducted assessments on individuals to determine eligibility and reassessments on a periodic basis, authorized the use of chronic care services, and monitored service use and eligibility. Throughout the 5-year period, Medicare Plus II offered benefits only to severely impaired individuals (equivalent to those who meet the State nursing home certification criteria). Elderplan and SHP initially offered chronic care benefits to those with severe impairments and also to those with moderate impairments. After the first year, Elderplan restricted benefits to the severely impaired. SHP restricted its benefits to those with severe impairments beginning in 1988. Seniors Plus offered chronic care services to all its members based on need and not on disability levels; these included the moderately and severely impaired and others considered at risk of increasing disability. As a result, eligibility criteria at Seniors Plus were more generous at baseline and have continued to be so throughout the 5-year period.

These eligibility criteria resulted in different percents of members being eligible to receive chronic care services (Table 1). Not all members who were eligible for chronic care services received services because each site established its own procedures for service authorization. Table 1 shows that Elderplan not only had the lowest percent of members eligible for benefits but also had the smallest percent receiving services. Medicare Plus II and Seniors Plus had the highest percent of eligibles receiving chronic care services. With substantially higher proportions of members eligible and receiving chronic care services, Seniors Plus would have been expected to have higher chronic and expanded care utilization and expenditure rates and Elderplan to have the lowest rates. This did not prove to be the case, however, as discussed in the next section.

Chronic care benefits

Chronic care benefits also varied across demonstration sites and were limited to $6,250-$12,000 annually with copayments. Chronic care services included custodial nursing home services, nonskilled home care services, homemaker, respite, and other such services. Each site had different benefit configurations and total dollar limits on chronic care, as shown in Table 2. Clients (or Medicaid) paid for any chronic care services required beyond the level allowed by S/HMO.

Elderplan retained its chronic care benefits throughout the 5-year period. Medicare Plus II also retained its chronic care benefits over time, except that it reduced the amount of chronic nursing care days covered per spell of illness from 100 days to 30 days in 1989. SHP and Seniors Plus both limited their nursing home benefits in 1988 and 1989 in an effort to control their chronic care nursing home utilization and costs, although Seniors Plus expanded its chronic care home care benefits. Thus, S/HMOs were able to retain the home and community benefits and the copayment levels, but they limited nursing home services in the last 2 years in response to their nursing home utilization and cost experience.

In addition to chronic care benefits, all sites offered a range of expanded care (or supplemental) benefits which included prescription drugs, eyeglasses, hearing aids, and nonemergency transportation. All sites included drug benefits with minimal copayments ($1-$3 per prescription), except for SHP in 1989. In order to control utilization, SHP added a 25-percent copayment on its drug benefit and set an $800 limit for drugs in 1989, whereas its principal competitor had a $3 copayment and no limit. Because of enrollment problems in 1989, SHP changed its copayment to $3 and set a $1,000 limit for 1990. Two sites (Elderplan and SHP) offered dental benefits; Seniors Plus offered preventive dental benefits until 1988, and Medicare Plus II did not offer such services. Elderplan and Seniors Plus offered routine footcare, but the other projects offered only medically necessary podiatry.

Service utilization and expenditures

Service utilization and expenditures varied across each of the projects. To examine these patterns, service use and expenditures were grouped into four major categories: Medicare-covered acute care and ambulatory care, Medicare-covered skilled nursing and home care, non-Medicare-covered chronic care services, and expanded services. Non-Medicare-covered chronic care services included skilled nursing, intermediate care, home health, homemaker, respite, residential care, transportation, meals, and day health. Expanded care services included vision, dental, physical examinations, and outpatient pharmacy services. These were available to S/HMO members without eligibility restrictions.

Table 2

Differences in social health maintenance organization chronic care benefits, by type of health plan and type of benefit: United States, 1985-89

Site and chronic care benefit	1985	1986	1987	1988	1989
Elderplan					
Home and community	$6,500 per year	no change	no change	no change	no change
Nursing home	$6,500 per year	no change	no change	no change	no change
Overall limit	$6,500 per year	no change	no change	no change	no change
Home care copayment	10 percent of charges	no change	no change	no change	no change
Nursing home copayment	20 percent of charges	no change	no change	no change	no change
Medicare Plus II					
Home and community	$12,000 per year	no change	no change	no change	no change
Nursing home	$12,000 per year or 100 days per stay	no change	no change	no change	30 days per spell of illness
Overall limit	$12,000 per year	no change	no change	no change	no change
Home care copayment	10 percent of charges	no change	no change	no change	no change
Nursing home copayment	10 percent of charges	no change	no change	no change	no change
SCAN Health Plan					
Home and community	$7,500 per year	no change	no change	$625 per month	$625 per month
Nursing home	$7,500 per year	no change	no change	$1,000 per month $9,400 per lifetime	21 days per stay and $7,500 per lifetime
Overall limit	$7,500 per year and $9,400 per lifetime	no change	no change	no change	$7,500 per year
Home care copayment	$5.00 per visit	no change	no change	$7.50 per visit	$7.50 per visit
Nursing home copayment	15 percent of charges	no change	no change	20 percent of charges	20 percent of charges
Seniors Plus					
Home and community	$6,250 per year	no change	no change	$7,200	$7,200
Nursing home	$6,250 per year $7,800 per lifetime	no change	no change	21 days per spell	21 days per spell
Overall limit	$6,250 per year	no change	no change	$7,200 per year	$7,200 per year
Home care copyament	20 percent of charges	no change	no change	no change	no change
Nursing home copayment	20 percent of charges	no change	no change	no change	no change

SOURCE: Harrington, C. and Newcomer, R.J., University of California, Department of Social and Behavioral Sciences.

Acute and ambulatory care

The primary problem experienced by S/HMOs was managing and controlling hospital utilization and expenditures. Hospital utilization patterns during the first 5 years are shown in Table 3. The two S/HMOs sponsored by HMOs were generally able to keep days of care, length of stay, and admission rates lower than the other two S/HMOs throughout the 5-year period. Elderplan had longer lengths of stay, and SHP had higher hospital admission rates; thus, both had higher days per 1,000 members than the other two projects sponsored by HMOs.

The U.S. average number of Medicare hospital days per 1,000 member months for HMOs was 1,945 in 1987 (InterStudy, 1988). All sites except Elderplan were able keep their rates below this level. In 1988, only the two S/HMOs sponsored by HMOs (Seniors Plus and Medicare Plus II) were able to stay below the U.S. average days of care. These patterns are repeated when looking at the U.S. average hospital length of stay of 7.3 days per hospitalization for Medicare HMO members (InterStudy, 1988). Again, all S/HMOs except Elderplan were below this level. Seniors Plus experienced a sharp increase in the average length of hospital stay and days of care in 1989.

Although S/HMOs were able to stay below their target hospital utilization rates, two considered utilization a problem (except Medicare Plus II and Seniors Plus) and invested considerable resources in tracking hospital use and attempting to reduce utilization. All S/HMOs showed a general trend for increased hospital utilization over the 5-year period as their membership aged.

Table 4 shows the hospital expenditures per member per month (pmpm) for each of the S/HMOs for 1985-89. Medicare Plus II had the highest total hospital expenditures through the period, even though its utilization rates were low, because its hospital costs per day were high. Seniors Plus had the lowest hospital expenditures, in part because of its lower days of care per 1,000 and lower hospital rates per day.

Overall, hospital expenses represented a high proportion of the total S/HMO budget, ranging from 29 to 40 percent of the total budget in 1989 (Table 4). SHP and Seniors Plus were within their planned levels of hospital expenditures for the 5-year period. Medicare Plus II showed a financial loss on its hospital services because it waived premiums for deductibles and copayments. Elderplan was also not within its hospital budget allocations in 1988 because of sharp increases in the per day rates charged by its major contract hospital. In 1989, Elderplan was able to shift many of its hospitalizations to two hospitals that offered per diem discount rates and was thus able to keep the rate of increase in its hospital costs down for the year. S/HMOs reported concern about hospital utilization and expenditures and had goals of substantially reducing these expenditure rates.

Table 3

Hospital days, length of stay, and admissions per 1,000 members per year at social health maintenance organization sites, by site: United States, 1985-89

Site	1985	1986	1987	1988	1989
			Days of care per 1,000 members per year		
Elderplan	1,860	2,533	2,225	2,109	2,271
Medicare Plus II	1,538	1,675	1,624	1,778	1,779
SCAN Health Plan	1,754	2,367	1,785	2,079	2,135
Seniors Plus	1,393	1,194	1,848	1,889	2,060
			Average length of stay		
Elderplan	7.9	10.2	8.5	11.5	9.3
Medicare Plus II	6.0	5.6	5.8	6.0	5.8
SCAN Health Plan	5.7	7.0	5.6	6.4	6.8
Seniors Plus	5.1	5.4	7.2	6.7	10.0
			Admissions per 1,000 members per year		
Elderplan	235	249	261	250	245
Medicare Plus II	256	298	279	296	308
SCAN Health Plan	301	299	324	344	308
Seniors Plus	235	227	256	270	207

SOURCE: Harrington, C. and Newcomer, R.J., University of California, Department of Social and Behavioral Sciences.

Table 4

Expenditures per member per month for services at social health maintenance organization sites, by type of expenditure and site: United States, 1985-89

	Elderplan					Medicare Plus II[1]				
Type of expenditure	1985	1986	1987	1988	1989	1985	1986	1987	1988	1989
Total member months	5,310	19,640	38,570	56,335	61,488	20,085	47,825	57,267	62,252	65,015
Total cost	683.96 (100.0)	464.38 (100.0)	406.66 (100.0)	417.33 (100.0)	403.48 (100.0)	267.23 (100.0)	286.11 (100.0)	307.75 (100.0)	338.85 (100.0)	357.08 (100.0)
Provider expenditures										
Hospital[2]	$82.02 (12.0)	$107.37 (23.1)	$103.60 (25.5)	$139.28 (33.4)	$134.01 (31.9)	$107.25 (40.1)	$122.51 (42.8)	$114.47 (37.2)	$142.10 (41.9)	$142.25 (39.9)
Ambulatory encounters[3]	111.18 (16.2)	88.16 (19.0)	96.93 (23.8)	115.18 (27.6)	102.83 (25.5)	90.43 (33.8)	87.85 (30.7)	111.39 (36.2)	100.42 (29.6)	126.38 (35.4)
Medicare nursing home[4]	8.48 (1.4)	7.11 (1.5)	13.81 (3.4)	14.97 (3.6)	12.22 (3.0)	5.02 (1.9)	5.71 (2.0)	6.11 (2.0)	6.08 (1.8)	11.41 (3.2)
Medicare home health[4]	4.97 (0.7)	4.39 (0.9)	6.93 (1.7)	12.51 (3.0)	7.03 (1.7)	9.66 (3.6)	10.37 (3.6)	8.72 (2.8)	17.98 (5.3)	8.31 (2.3)
Other Medicare[5]	6.90 (1.0)	5.78 (1.3)	3.27 (0.8)	5.34 (1.3)	8.13 (2.0)	3.13 (1.2)	3.45 (1.2)	2.21 (0.7)	2.94 (0.9)	3.36 (0.9)
Chronic care[6]	25.48 (3.7)	32.27 (7.0)	22.46 (5.6)	30.10 (7.2)	44.12 (10.9)	21.04 (7.9)	21.04 (7.4)	25.41 (8.3)	30.30 (8.9)	28.73 (8.0)
Expanded care[7]	30.91 (4.5)	40.89 (8.8)	44.99 (11.1)	33.30 (8.0)	51.61 (12.8)	19.61 (7.3)	20.46 (7.2)	23.32 (7.6)	24.05 (7.1)	23.95 (6.7)
Case-management staff[8]	23.91 (3.5)	9.92 (2.1)	6.86 (1.7)	6.17 (1.5)	6.36 (1.8)	4.50 (1.7)	4.50 (1.6)	6.52 (2.1)	7.33 (2.2)	7.47 (2.1)
Administrative expenditures										
Marketing	114.40 (16.7)	52.99 (11.4)	33.95 (8.3)	13.99 (3.3)	7.29 (1.8)	1.78 (0.7)	1.78 (0.6)	0.23 (0.1)	0.18 (0.1)	0.36 (0.1)
Administration[9]	198.55 (29.0)	81.51 (17.6)	55.78 (13.8)	38.00 (9.1)	29.42 (7.3)	4.81 (1.8)	8.44 (2.9)	9.37 (3.0)	7.47 (2.2)	4.86 (1.4)
Capital and other costs[10]	77.16 (11.3)	33.99 (7.3)	18.08 (4.4)	8.49 (2.0)	5.67 (1.4)	NA —	NA —	0 —	0 —	NA —

See footnotes at end of table.

Table 4—Continued

Expenditures per member per month for services at social health maintenance organization sites, by type of expenditure and site: United States, 1985-89

Type of expenditure	SCAN Health Plan					Seniors Plus[1]				
	1985	1986	1987	1988	1989	1985	1986	1987	1988	1989
Total member months	6,704	19,827	30,213	35,264	34,985	2,861	15,599	25,761	33,878	38,020
Total cost	550.95 (100.0)	413.44 (100.0)	402.58 (100.0)	389.83 (100.0)	404.24 (100.0)	434.33 (100.0)	294.08 (100.0)	271.40 (100.0)	258.21 (100.0)	331.40 (100.0)
Provider expenditures										
Hospital[2]	$102.56 (18.6)	$104.68 (25.4)	$104.15 (25.9)	109.03 (28.0)	118.65 (29.4)	$68.91 (15.9)	$79.45 (27.0)	88.30 (32.5)	93.04 (35.9)	108.39 (32.7)
Ambulatory encounters[3]	[3]72.00 (13.1)	79.10 (19.1)	[3]89.60 (22.3)	104.65 (26.9)	105.93 (26.2)	[3]91.97 (21.2)	[3]75.70 (25.7)	[3]87.45 (32.2)	81.67 (31.5)	120.54 (36.5)
Medicare nursing home[4]	12.16 (2.2)	22.79 (5.6)	22.97 (5.7)	23.22 (6.0)	18.78 (4.6)	5.45 (1.3)	2.99 (1.0)	2.37 (0.9)	3.33 (1.3)	10.10 (3.0)
Medicare home health[4]	2.15 (0.4)	3.35 (0.8)	2.41 (0.6)	3.00 (0.8)	2.89 (0.7)	4.23 (1.0)	3.97 (1.5)	4.45 (1.6)	4.84 (1.9)	5.71 (1.7)
Other Medicare[5]	3.68 (0.7)	3.24 (0.8)	2.84 (0.7)	0.91 (0.2)	0.28 (0.1)	5.44 (1.3)	5.78 (2.0)	5.49 (2.0)	5.51 (2.1)	6.03 (1.8)
Chronic care[6]	32.87 (6.0)	30.09 (7.3)	27.02 (6.7)	24.36 (6.2)	19.21 (4.8)	40.03 (9.2)	29.33 (10.0)	23.50 (8.7)	23.96 (9.2)	27.92 (8.4)
Expanded care[7]	30.89 (5.6)	34.19 (8.3)	45.75 (11.4)	31.48 (8.1)	38.94 (9.6)	24.55 (5.6)	17.02 (5.6)	17.17 (6.3)	23.69 (9.3)	25.90 (7.8)
Case-management staff[8]	22.20 (4.0)	15.37 (3.7)	16.11 (4.0)	11.83 (3.0)	11.39 (2.8)	39.25 (9.0)	8.56 (2.9)	8.32 (3.1)	6.86 (2.7)	6.94 (2.1)
Administrative expenditures										
Marketing	112.55 (20.4)	38.69 (9.4)	30.77 (7.6)	20.77 (5.3)	24.08 (6.0)	61.93 (14.3)	40.50 (13.8)	16.93 (6.2)	4.35 (1.7)	2.24 (0.7)
Administration[9]	91.28 (16.6)	39.57 (9.6)	38.76 (9.6)	42.92 (11.0)	36.09 (8.9)	70.67 (16.3)	23.75 (8.1)	13.20 (4.9)	9.27 (3.6)	16.92 (5.1)
Capital and other costs[10]	68.61 (12.4)	42.37 (10.4)	22.20 (5.5)	17.66 (4.5)	28.00 (6.9)	21.90 (5.0)	7.03 (2.4)	4.22 (1.6)	1.69 (0.8)	0.71 (0.2)

[1] Kaiser Permanente Northwest reported adjusted community rate costs for services other than chronic care.
[2] Hospital expenditures include in-area emergency and out-of-area services. For Seniors Plus and Kaiser Permanente Northwest, outside referrals were included in this figure. Figures for 1988 for Seniors Plus include pending claims for hospital services.
[3] Includes medical referrals nd ambulatory encounters. SCAN Health Plan physicians received an additional $8 per member per month in 1985 from the risk reserves not shown in the above figures.
[4] Includes Medicare only.
[5] Durable medical equipment.
[6] Includes non-Medicare skilled nursing facility and intermediate care facility services, non-Medicare home health services, in-home services, and day care services. For Medicare Plus II, the average audited costs are shown for both 1985 and 1986. Included in the $21.04 are the estimated direct service claims of 1985 ($7.24) and 1986 ($16.14), plus additional chronic care costs.
[7] Includes dental, prescription drugs, vision, hearing aids, medical transportation, and emergency medical response system.
[8] Average audited costs are shown for Medicare Plus II. These costs reached $6.75 per member per month by the end of 1986 for Medicare Plus II.
[9] Includes all administrative costs including salaries and benefits. For Kaiser Permanente Northwest, beginning in 1986, health plan administration was identified as a separate component of the adjusted community rate and was included in the administration per member per month costs. Capital costs are not segregated. The Medicare Plus II administrative costs reported were only those for chronic care and not for the total plan in 1985.
[10] Includes interest, depreciation, amortized startup and rent for administrative and staff offices, and risk reserves.
[11] Figures for Seniors Plus are based on the claims paid through the end of the year. Actual expenditures may be higher than these figures reflect because not all claims for a given quarter are filed or paid during that quarter. Figures for 1988 are based on claims paid through March 1989.

NOTES: Numbers in parentheses are percents of total costs. NA denotes data not available. These data are unaudited and subject to later adjustments. Seniors Plus was reported on a cash basis; Elderplan and SCAN Health Plan were reported on an accrual basis; whereas Kaiser hospital, ambulatory care, and other Medicare costs were estimates rather than actual expenditures.

SOURCE: Harrington, C. and Newcomer, R.J., University of California, Department of Social and Behavioral Sciences.

Ambulatory care utilization varied across sites, with the two HMO-sponsored S/HMOs generally having lower utilization in the first 3 years (Table 5). In the fourth year during the full-risk sharing phase, Elderplan and SHP were able to reduce the number of ambulatory care encounters and referrals, so that the utilization patterns across the sites were very similar. Seniors Plus and Elderplan both showed sharp increases in their ambulatory care utilization rates in 1989, but Medicare Plus II held a steady pattern.

Ambulatory care expenditure patterns were similar for all plans except Seniors Plus, which had lower expenditure patterns (until 1989). These expenditures ranged between $103 and $126 pmpm for 1989, ranging from 26 to 36 percent of total expenditures for S/HMOs (Table 4). Three sites reported keeping their ambulatory expenditures within their budget allocation. (Medicare Plus II waived premiums for deductibles and copayments from 1985 through 1989 and thus had a loss.) Seniors Plus experienced a sharp increase in expenditures in 1989 that appeared to be directly related to the large increase in ambulatory care utilization rates for the year. Medicare Plus II also had a large increase in costs for 1989. In contrast, Elderplan was able to develop a capitated payment arrangement with many of its physician specialists and was thus able to lower its costs in 1989.

Medicare long-term care services

Medicare skilled nursing utilization rates varied across sites (Table 5). These rates were lowest at Seniors Plus by one-half, even though it had a substantially higher proportion of its members eligible for chronic care services (Table 1). Elderplan also had low-skilled nursing utilization but fewer members eligible for services. Interestingly, by 1989, all the plans had similar utilization patterns for skilled nursing homes and sharp increases in the number of skilled nursing home days per 1,000 members. The increase in use was primarily attributed by sites to the change in the Medicare eligibility-for-payment rules instituted through the fiscal intermediaries in 1988 and 1989.

Medicare home health care utilization tended to show a reverse pattern to that of nursing home use. Home health visits per 1,000 members were highest at Elderplan, Medicare Plus II, and Seniors Plus, suggesting that these sites may have been substituting skilled home care for skilled nursing home care services. In contrast, SHP had high-skilled nursing use and low home health care utilization.

Consistent with its low Medicare nursing home utilization, Seniors Plus had the lowest Medicare nursing home costs ($3 pmpm in 1988). Seniors Plus nursing

Table 5

Utilization of Medicare covered services across social health maintenance organization sites per 1,000 members per year, by site and services covered: United States, 1985-89

Type of health plan and covered service	1985	1986	1987	1988	1989
Elderplan					
Total member months	5,310	19,640	38,570	56,335	61,488
Ambulatory encounters and referrals[1]	17,333	15,262	13,155	7,047	12,770
Medicare skilled nursing facility days[2]	199	445	1,132	395	1,120
Medicare home health visits[3]	479	1,077	4,311	3,252	6,900
Medicare durable medical equipment	—	—	—	—	—
Medicare Plus II					
Total member months	20,085	47,825	57,419	62,039	64,752
Ambulatory encounters and referrals[1]	10,289	10,086	9,696	9,677	9,655
Medicare skilled nursing facility days[2]	448	557	750	859	1,398
Medicare home health visits[3]	1,375	1,815	1,579	1,379	1,408
Medicare durable medical equipment	—	—	—	—	—
SCAN Health Plan					
Total member months	6,708	19,826	30,213	35,176	34,985
Ambulatory encounters and referrals[1]	16,151	11,674	21,986	8,071	—
Medicare skilled nursing facility days[2]	546	1,246	1,195	969	1,153
Medicare home health visits[3]	327	390	172	238	0
Medicare durable medical equipment	—	—	1,914	—	67
Seniors Plus					
Total member months	2,861	15,610	25,761	33,878	38,020
Ambulatory encounters and referrals[1]	8,963	8,809	9,633	8,762	12,272
Medicare skilled nursing facility days[2]	432	324	265	452	1,389
Medicare home health visits[3]	1,233	740	840	1,803	1,772
Medicare durable medical equipment	—	—	—	579	739

[1] Ambulatory encounters are face-to-face contacts between a social health maintenance organization (S/HMO) member and a provider of health care services. They include medical, optometric, podiatric, mental health, and audiologic encounters and encounters with nurse practitioners and physician assistants that are not incident to seeing a physician. Medical referrals include services provided by medical specialists outside of the S/HMO and authorized by the S/HMO. Includes emergency room visits and all mental health visits. Nonphysician visits are also included. SCAN Health Plan data for 1989 are incomplete because of reporting problems.

[2] Total census days in skilled nursing facilities.

[3] Includes all home health visits (e.g., visits by a registered nurse, physical therapist, occupational therapist, speech therapist, social worker, and home health aides and hospice visits). SCAN Health Plan data for 1989 are unavailable.

NOTES: These are unaudited data. Elderplan data are based on authorizations. All other sites are based on actual utilization.

SOURCE: Harrington, C. and Newcomer, R.J., University of California, Department of Social and Behavioral Sciences.

home cost did triple in 1989 as their nursing home utilization also tripled. Elderplan, with low nursing home utilization, had high Medicare nursing home expenditures, in part reflecting the higher nursing home reimbursement rates paid in New York State. SHP had the highest nursing home costs, consistent with its high nursing home use rates and its high daily reimbursement rates, but was able to lower its rate in 1989 with a change in its nursing home contract.

SHP had the lowest Medicare home health care costs, again consistent with its low home health care utilization rates ($2.89 pmpm in 1989). Both Elderplan and Medicare Plus II were able to lower their Medicare home health care costs substantially in 1989 over those of the previous year, but both continued to have higher Medicare home health care costs than SHP and Seniors Plus.

Chronic care services

There were substantial variations across sites in chronic care utilization rates and patterns. These variations were attributable in part to differences in S/HMO site benefits, eligibility criteria for services, and the proportion of members receiving services, as discussed earlier (Table 1).

The same pattern as the Medicare nursing home service utilization was revealed in a comparison of non-Medicare-covered chronic care nursing service utilization across the four sites. Table 6 shows that in 1989, Seniors Plus had the lowest chronic care nursing home service use rates and somewhat higher home and homemaker utilization rates. SHP had the reverse pattern, with high nursing home use and lower home health and homemaker use. SHP's and Seniors Plus chronic care nursing home utilization was expected to be higher, because both plans had higher proportions of eligible members. In spite of higher proportions of members eligible for services, Seniors Plus was generally able to control its chronic care utilization.

Elderplan was in a dilemma because it had the highest chronic care utilization in both nursing home and homemaker services but the lowest number of members certified as needing care and receiving services (Table 1). Thus, Elderplan provided more services to those few eligible individuals than other S/HMOs did. Medicare Plus II also had a consistently high use of chronic care nursing home and homemaker services in comparison with other sites.

Total chronic care expenditures per member per month also varied across the sites—$19-$44 pmpm in 1989 (Table 4). In 1989, Elderplan experienced a substantial increase in its pmpm costs (from $30 in 1988 to $44 in 1989). Even though Elderplan had the lowest proportion of its members eligible for chronic care services, it had the highest utilization and cost rates per member. Medicare Plus II and SHP were both able to lower chronic care costs in 1989, even though their service utilization increased. Considering the high percent of individuals receiving chronic care services at Medicare Plus II and Seniors Plus, both were able to control expenditures remarkably well. Chronic care services represented only 5 to 11 percent of the total S/HMO expenditures at the sites in 1989.

Table 6

Utilization of chronic care services across social health maintenance organization sites per 1,000 members per year, by site and chronic care service: United States, 1985-89

Site and chronic care service	1985	1986	1987	1988	1989
Elderplan					
Chronic care SNF/ICF days	199	835	1,012	425	1,636
Chronic care home health visits[1]	273	78	299	178	0
Chronic care respite, homemaker, home aide, and chore hours[2]	40,165	21,154	18,926	15,923	40,277
Day care center days[3]	151	224	146	20	15
Medicare Plus II[4]					
Chronic care SNF/ICF days	613	1,426	2,342	2,339	1,050
Chronic care home health visits[1]	—	100	99	83	38
Chronic care respite, homemaker, home aide, and chore hours	4,180	7,849	11,927	14,400	16,090
Day care center days	138	191	280	469	880
SCAN Health Plan					
Chronic care SNF/ICF days	1,487	1,852	5,551	5,100	831
Chronic care home health visits[1]	199	70	6	1	0
Chronic care respite, homemaker, home aide, and chore hours	10,787	15,589	7,020	3,996	4,520
Day care center days	145	633	129	447	279
Seniors Plus					
Chronic care SNF/ICF days	2,562	1,815	1,983	1,140	458
Chronic care home health visits[1]	608	588	4,807	1,470	377
Chronic care respite, homemaker, home aide, and chore hours	17,364	12,157	4,369	9,226	8,907
Day care center days	2,516	1,162	936	757	1,009

[1]Includes all home health visits by a registered nurse, physical therapist, occupational therapist, speech therapist, and social worker and hospice visits.
[2]Elderplan reported a total of 385 private duty nursing hours during 1985, and 2,320 hours during 1986. Elderplan did not report any totals for chronic care nursing home health visits during July and August 1986.
[3]Includes social day care and day treatment center days.
[4]Chronic care benefits were not offered to Medicaid members under the terms of the State Medicaid contract so that utilization is only calculated for Medicare member months at Medicare Plus II. Medicare Plus II reported a total of 1,741 home health aide visits and 363 homemaker visits in 1986.

NOTES: SNF/ICF is skilled nursing facility and intermediate care facility. These are unaudited data. Elderplan and Medicare Plus II data are based on authorizations. Data for all other sites are based on actual utilization.

SOURCE: Harrington, C. and Newcomer, R.J., University of California, Department of Social and Behavioral Sciences.

Expanded care services

Benefits and utilization of expanded care services such as pharmacy, dental, transportation, and other services varied across sites. Prescription use rates ranged from 18 to 19 prescriptions per member per year at Medicare Plus II and SHP in 1989 (Table 7). It is not known how these prescription use rates compare with those of other Medicare HMOs that offer drug benefits, but anecdotal reports by HMOs suggest that other HMOs also have high rates. The S/HMOs all reported efforts to control costs by reviewing drug utilization and increasing drug copayments. Capitation contracts were used at SHP and Elderplan with pharmacy providers to control costs, and this resulted in a substantial reduction in use at Elderplan in 1989. Elderplan also introduced a drug formulary in 1989 that further reduced its pharmacy costs. Medicare and SHP were both able to lower utilization rates in 1989.

Two sites (Elderplan and SHP) offered dental benefits, and Seniors Plus offered preventive dental benefits until 1989. Utilization rates for eyeglasses, hearing aids, and durable medical equipment were 96 to 329 units per 1,000 members per year. Other data on utilization of expanded care were incomplete.

The expenditure rates for expanded care ranged from $24 to $52 pmpm in 1989 (Table 4). A large proportion of these expenses were for prescription drug benefits. Two HMO-sponsored S/HMOs (Seniors Plus and Medicare Plus II) had substantially lower expanded care expenditures than the other S/HMOs did. The reasons for the higher levels at SHP and Elderplan appear to be associated both with the difficulties in managing utilization and in their higher level of benefits. Lower expenditure levels at Medicare Plus II and Seniors Plus were, in part, because they offered slightly fewer expanded care benefits (e.g., dental coverage).

Case management

Case-management costs represented a small portion of overall expenditures, ranging from 2 to 3 percent of the S/HMO budgets in 1989—about $7-$11 pmpm (Table 4). These variations can be explained, in part, by the differences in eligibility for service and benefit levels discussed above and by differences in administrative, clerical, and other support staff time allocated to case-management costs (Yordi, 1988, 1990). The two S/HMOs sponsored by HMOs (Medicare Plus II and Seniors Plus), for example, did not include the full costs associated with utilization review and discharge planning performed by HMO personnel for S/HMO members in reporting expenditures. In contrast, Elderplan and SHP included case management as well as discharge planning and utilization review costs in their data. Seniors Plus had the highest proportion of its members using chronic care and case-management services (Table 1) and yet were

Table 7

Utilization of expanded care services across S/HMO sites per 1,000 members per year, by site and expanded care service: United States, 1985-89

Site and expanded care service	1985	1986	1987	1988	1989
Elderplan					
Dental office visits	443	257	391	235	361
Outpatient prescriptions	15,060	18,172	15,594	6,674	NA
Optometry and audiology visits	1,191	645	613	167	348
Eyeglasses and hearing aids, and durable medical equipment (pieces)	585	297	285	282	96
Emergency response system (months)	41	24	9	7	7
Medical transportation (round trips)[1]	2,235	2,162	1,223	523	996
Medicare Plus II					
Dental office visits	NA	NA	NA	NA	NA
Outpatient prescriptions	13,912	15,660	18,141	22,506	18,756
Optometry and audiology visits	NA	NA	NA	NA	NA
Eyeglasses, hearing aids, and durable medical equipment (pieces)	609	408	346	308	329
Emergency response system (months)	0	15	28	64	76
Medical transportation (round trips)[1]	39	75	98	176	156
SCAN Health Plan					
Dental office visits	—	—	—	—	NA
Outpatient prescriptions[2]	19,305	20,693	21,673	20,288	17,556
Optometry and audiology visits	—	—	77	—	335
Eyeglasses, hearing aids, and durable medical equipment (pieces)	804	686	1,549	322	221
Emergency response system (months)	20	33	108	110	65
Medical transportation (round trips)[1]	109	571	518	246	223
Seniors Plus					
Dental office visits	1,778	1,140	—	29	121
Outpatient prescriptions	—	—	—	—	—
Optometry and audiology visits	2,017	1,713	—	1,580	1,397
Eyeglasses, hearing aids, and durable medical equipment (pieces)	—	—	219	303	295
Emergency response system (months)	71	74	86	103	130
Medical transportation (round trips)[1]	839	803	715	962	1,063

[1]Includes ambulance, ambulette (that is, invalid coach), and private-care service (with or without assistance).
[2]Decrease in utilization was due to a reduction in the benefit levels; therefore, the utilization reported is only what SCAN Health Plan covered.

NOTES: NA denotes data not available. These are unaudited data. Elderplan and Medicare Plus II data are based on authorizations. Data for all other sites are based on actual utilization.

SOURCE: Harrington, C. and Newcomer, R.J., University of California, Department of Social and Behavioral Sciences.

able to keep their case-management costs at a low level, by having a high patient-to-case manager ratio. Elderplan also had low case-management costs, but had fewer members using case-management services than any other site (Table 1).

Marketing expenditures

Table 4 shows marketing expenditures for each of the sites. Medicare Plus II had significantly lower marketing expenses than the other sites did (less than 1 percent of its total expenditures in 1985 and 1986), because it was able to meet its enrollment targets with a minimal marketing effort in 1986. Marketing expenditures at the three other sites varied substantially, but, initially, they represented about 14 to 20 percent of the total budgets in 1985. The initial marketing budgets were low at three sites, but these budgets were significantly expanded as enrollment targets fell short of target levels. Initial S/HMO marketing expenditures were not substantially higher than the average expenditures reported by the Medicare HMO demonstrations for 1984 (Langwell et al., 1986), but these marketing costs were substantially higher than expected by the sites.

The S/HMOs gradually reduced their marketing expenditures each year during the 5-year period (except for SHP in 1989). The initial marketing costs for all plans (except Medicare Plus II) were high at a point in time when the S/HMOs were attempting to expand membership and when the marketing costs were paid primarily by HCFA and the State Medicaid programs under the demonstration risk-sharing arrangements. After mid-1987, when the S/HMOs assumed full financial risk for all costs, they reduced their marketing costs, even though all S/HMOs (except Seniors Plus) wanted to continue to increase enrollments. SHP continued to have high marketing expenses ($24 pmpm) in 1989, at a point in time when its membership was declining.

Administrative expenditures

Administrative expenditures, excluding marketing costs, varied significantly across sites (Table 4). Initially, administrative costs ranged from 16 to 29 percent of total S/HMO expenditures (except for Medicare Plus II, which was 1 to 2 percent throughout the 5-year period, because only administrative costs for the S/HMO component of the program were reported). (KP Northwest included its other administrative and capital costs within each service category). By 1989, the administrative cost had reduced sharply at the other three sites, except Medicare Plus II. In 1989, Seniors Plus was 5 percent, compared with 7 to 9 percent for Elderplan and SHP. These differences followed the new versus the established HMO origins of the demonstration projects. The established HMOs' sponsors were able to utilize administrative resources from their existing organization for S/HMO projects, whereas Elderplan and SHP had to establish new administrative structures for all S/HMO operations. Seniors Plus had its administrative costs subsidized by its sponsors until 1989, when the plan assumed the full costs.

Overall financial outcomes

The utilization and expenditure patterns as previously described had an overall impact on each of the S/HMOs during the 5-year period. Table 8 shows that the revenues for the first 5 years of the project were about $226 million for the four projects. Revenues were primarily from Medicare payments (77-86 percent), but they also included subscriber premiums, Medicaid, copayments, and other sources. The average revenues varied across sites and were based in part on the age, sex, disability status, and location of the members. Medicare Plus II received an average of about $326 pmpm for 1989, compared with about $430 at SHP. Seniors Plus had the lowest revenues pmpm (about $320 in 1989) and the lowest overall revenues because it had low membership and low Medicare rates.

Total average expenditures, including financial reserves, varied substantially across sites, ranging from about $267-$684 pmpm in 1985 to about $331-$404 pmpm in 1989 (Table 8). During the period 1985-88, the average expenditures declined (except at Medicare Plus II), in part because the projects lowered their marketing and administrative costs. Medicare Plus II had low marketing and administrative costs throughout the entire period; thus, its service costs increased annually as would be expected. In 1989, Seniors Plus and SHP had increases in their per member expenditures.

The net gains and losses for each project are shown in Table 8. The discussion is divided into the risk-sharing period (first 30 months, 1985 to mid-1987) and the last 30 months (mid-1987 through 1989), when S/HMOs assumed full financial risk. During the startup phase, HCFA shared the financial losses (along with the State Medicaid program at Elderplan, Seniors Plus, and SHP) with the S/HMOs. KP Northwest assumed full financial risk for all Medicare-covered services initially and for all chronic care services after 18 months. Because each of the S/HMOs except Medicare Plus II had limited financial risks during the initial period ($425,000 to $700,000), S/HMOs had little incentive for cost containment (Clark, 1986). During the first 3 years, Seniors Plus experienced the fewest losses (less than $2 million). Elderplan experienced the greatest losses ($8 million), and SHP had losses of about $3 million. Medicare Plus II experienced a net gain of $0.65 million during 1985 and 1986 on its chronic care services but a loss of $1.4 million on its Medicare-covered services, thereby realizing a net loss for the period. Its losses in 1987 were also on the Medicare-covered services.

After S/HMOs assumed full financial risks, they were able to reduce their costs and to improve their overall financial picture. Elderplan had the highest initial losses ($376 pmpm in 1985) but was able to lower its pmpm costs each year. It had hoped to break even in 1988, but unexpectedly high hospital costs for the year resulted in a $2.5 million loss for the year and liabilities of $3.6 million. After full risk sharing, Elderplan reported a number of changes to control costs, including hiring a new administrator with a strong financial background,

Table 8

Social health maintenance organization revenues, expenditures per member per month (pmpm), and net gain or loss: 1985-89

Item	1985	1986	1987	1988	1989
Elderplan					
Total member months	5,310	19,640	38,570	56,335	61,488
Total revenue pmpm	$307.54	$291.58	$329.21	$373.22	$403.54
Total revenue	$1,633,024	$5,726,551	$12,697,483	$21,025,172	$24,812,925
Total expenditures pmpm	$683.96	$464.38	$406.66	$417.33	$403.48
Total expenditures plus reserves	$3,631,846	$9,120,503	$15,684,883	$23,510,515	$24,808,931
Total gain or loss pmpm	–$376.43	–$172.81	–$77.45	–$44.12	$0.06
Net gain or loss	–$1,998,822	–$3,393,952	–$2,987,400	–$2,485,343	–$3,994
Medicare Plus II[1]					
Total member months	20,085	47,825	57,267	62,252	65,015
Total revenue pmpm	$255.11	$273.34	$300.89	$326.90	$325.97
Total revenue	$5,123,953	$13,072,459	$17,230,964	$20,350,340	$21,193,158
Total expenditures pmpm	$267.23	$286.11	$307.75	$338.85	$357.08
Total expenditures plus reserves	$5,367,315	$13,683,211	$17,623,919	$21,094,090	$23,215,556
Total gain or loss pmpm	–$12.12	–$12.77	–$6.86	–$11.95	–$31.11
Net gain or loss	–$243,430	–$610,752	–$392,955	–$743,750	–$2,022,398
SCAN Health Plan					
Total member months	6,704	19,827	30,228	35,264	34,985
Total revenue pmpm	$334.45	$351.68	$354.93	$398.11	$429.98
Total revenue	$2,242,159	$6,972,727	$10,728,727	$14,038,834	$15,042,820
Total expenditures pmpm	$550.95	$413.44	$402.58	$389.83	$404.24
Total expeditures plus reserves	$3,693,592	$8,197,206	$12,169,157	$13,747,058	$14,142,489
Total gain or loss pmpm	–$216.50	–$61.76	–$47.65	$8.27	$25.73
Net gain or loss	–$1,451,433	–$1,224,479	–$1,440,430	$291,776	$900,331
Seniors Plus[2]					
Total member months	2,861	15,599	25,761	33,878	38,020
Total revenue pmpm	$237.53	$227.61	$251.12	$278.30	$319.76
Total revenue	$679,571	$3,550,462	$6,469,116	$9,428,328	$12,157,262
Total expenditures pmpm	$434.33	$294.08	$271.40	$258.21	$331.40
Total expenditures plus reserves	$1,242,616	$4,587,308	$6,991,634	$8,747,621	$12,599,859
Total gain or loss pmpm	–$196.80	–$66.47	–$20.28	$20.09	–$11.64
Net gain or loss	–$563,045	–$1,036,846	–$522,518	$680,707	–$442,597

[1]The total amount of savings from the chronic care component of Medicare Plus II was $654,840 for 1985 and 1986. Expenditures for Medicare-covered benefits, including acute and ambulatory care, were based on the adjusted community rate and resulted in a loss of $1.4 million, so that the overall loss was $854,182 for 1985 and 1986. The chronic care savings in 1987 was $229,462, which when combined with the interest from the Benefit Stabilization Fund (BSF) resulted in a total BSF of $919,342 at yearend 1987. In 1987, the total loss was on Medicare-covered services. Of the total loss in 1988, $221,444 was on chronic care services and $522,306 was on the Medicare-covered services and supplemental benefits. Some funds from the BSF were used in 1988 to cover the losses on the chronic care services, and with accrued interest, the balance in the BSF was $729,298 at the end of 1988. There was no BSF activity in 1989; therefore, the additional interest accrued in 1989 brought the 1989 BSF yearend balance to $783,429. In 1989, the loss was all on the Medicare-covered services.

[2]Seniors Plus data are based on actual date-of-service expenditures rather than on date of payment.

NOTE: These are unaudited data and subject to later adjustments.

SOURCE: Harrington, C. and Newcomer, R.J., University of California, Department of Behavioral Sciences.

reducing administrative overhead, adding a second physician group on a capitation contract and another major hospital contractor, raising premiums by about $7 in 1989, reducing marketing expenditures, and establishing an at-risk pharmacy capitation contract with a new organization. In 1989, Elderplan was able to break even financially by, in part, shifting much of its hospitalization to two hospitals that offered per diem discount rates, capitating many of their physician specialists, and introducing a drug formulary to control pharmacy costs.

SHP also experienced high startup costs and losses of about $3 million during the first 3 years. SHP was able to achieve a net gain in both 1988 and 1989 by making a number of changes in its operations: reducing benefits including hearing aids, providing chronic care benefits only to those members who were nursing home certifiable, increasing its copayments, and shifting greater financial risks to its hospital and physician group contractors. Although SHP was showing a positive balance in 1988, its sole hospital and physician group contractors reported losses in 1988. In 1989, SHP reduced its benefit package for custodial nursing home stays, limited its pharmacy benefit and increased its pharmacy copayment (to 25 percent), asked its primary hospital and physician contractors to increase their share of risk, and added a second hospital and physician group (effective in 1990). In 1990, SHP and its primary hospital and physician contractors were unable to reach an agreement on a contract; this resulted in SHP's obtaining a new hospital and physician group contractor and realizing a subsequent sharp loss in enrollment for the period 1989-90.

Seniors Plus had high initial losses that were primarily related to its high marketing costs and low enrollment. In order to reduce its costs, in 1988, Seniors Plus increased its premium by $5 per month, increased its home care benefits, reduced its chronic care nursing home benefit, reduced its marketing costs, and eliminated its preventive dental benefit. By 1988, Seniors Plus was able to show a positive balance, but it was still receiving financial support for administrative costs from its sponsors, GHI

and Ebenezer. In 1989, Seniors Plus again reported losses, but this was because of two primary factors: a large unexpected increase in hospital utilization and in Medicare skilled nursing utilization (because of changes in Medicare eligibility for services) and the assumption of financial responsibility for its administrative services from both its sponsors. Seniors Plus had a reserve fund that offset about one-half of its losses in 1989, and the remainder was covered by its sponsors.

Even though Medicare Plus II was the most successful of the S/HMO projects in reaching its membership goals, in having low marketing and administrative costs, and in maintaining low service utilization, Medicare Plus II was the only project that showed losses over the 5-year period. The $1.25 million in losses during the period 1985-87 by Medicare Plus II were all on the Medicare-covered benefits. During this period, Medicare Plus II established a benefit stabilization fund from the chronic care savings to use as its membership aged and became more costly. In 1988, Medicare Plus II lost $744,000, of which 30 percent was attributed to chronic care costs and the remainder to Medicare-covered services. In 1989, Medicare Plus II reported a loss of $2 million that was attributed to Medicare-covered services. The losses on Medicare-covered services were due to premium waivers planned by KP Northwest at the beginning of each year.

Financial effects on sponsors

The revenues and losses of each S/HMO had important impacts on its sponsor or partner. Although S/HMOs brought in new revenues that were important to each of the sponsors or partners, the losses and opportunity costs were greater than expected at a time when all of the sponsors and partners were experiencing some financial difficulties of their own.

Medicare Plus II, as a new product line, increased revenues for KP Northwest (e.g., its $13 million in revenues represented 4.6 percent of the total KP Northwest revenues ($280 million) in 1986). KP Northwest was responsible for the annual losses of the S/HMO during the 5-year period, but this was not problematic in 1986 and 1987, when KP Northwest experienced $5.8 million and $12 million, respectively, in net income. These overall gains were reversed in 1987-89, when KP Northwest had a loss of $8.7 million in 1988 and $2.5 million in 1989. Thus, KP Northwest had to assume S/HMO losses during a period when KP Northwest had other financial concerns.

The revenues from Seniors Plus represented a smaller proportion of total revenues to GHI and Ebenezer than expected. Seniors Plus was 1 of 10 projects sponsored by GHI, representing less than 1 percent of GHI's total membership and about 2.5 percent of the total GHI revenues in 1986. Ebenezer received 2.6 percent ($0.6 million) of its total revenues in 1986 from Seniors Plus. Although new revenues were desired, Seniors Plus's losses in the first 3 years were of concern to its sponsors because both were experiencing financial problems unrelated to the S/HMO project. Because of financial problems, Ebenezer affiliated with Lutheran General in 1987 and received an infusion of funds from its new owner to cover $3 million in losses acquired in 1985 and 1986. The Ebenezer financial picture improved, showing a net gain of about $1 million in 1988 and $1.5 million in 1989.

GHI had less revenue than expected in 1985 and 1986 and slow enrollment growth until 1987, when it received a 10-percent enrollment increase. GHI made $110,000 in revenues over expenditures in 1987, although all other HMOs in the metropolitan area showed losses for the period. GHI showed $1.2 million in excess revenues over expenditures in 1988 and $4.1 million in 1989. GHI and Ebenezer covered the losses of Seniors Plus, initially on a 50/50 basis. In 1989, GHI assumed 80 percent of the losses and Ebenezer assumed 20 percent. About one-half of the 1989 losses at Seniors Plus were offset by the reserve fund.

The initial losses by Seniors Plus were of surprise and concern to both GHI and Ebenezer managers because these losses were considered not only a lost opportunity but also a potential financial liability for the sponsors in the future when they assume full financial risk. Although the financial picture at GHI and Ebenezer improved in 1987 and 1988, the sponsors placed a high priority on having Seniors Plus break even financially. Although GHI and Ebenezer agreed to continue the S/HMO demonstration at full financial risk beyond the first 30 months, Seniors Plus reduced its level of effort in marketing, closed enrollment to non-GHI members late in 1988 because of capacity problems, instituted utilization controls, and redefined its chronic benefits in 1988 and 1989.

The Metropolitan Jewish Geriatric Center (MJGC), Inc., contributed to Elderplan to cover the startup costs for the first 36 months with the expectation that Elderplan would increase new revenue to MJGC's nursing homes and home care programs. Elderplan's revenues were $6 million compared with a total of $55 million in revenues for MJGC in 1986. Although Elderplan revenues were important to MJGC, its losses of $3.4 million in 1985 and 1986 were a potential threat to the sponsoring organization, even though most of these losses were assumed by HCFA. In 1986, MJGC had a net loss of $2.8 million (exclusive of Elderplan losses), which had to be covered by private fund-raising efforts. In 1987, MJGC continued to have losses totaling $1.1 million (exclusive of Elderplan). Elderplan, as noted earlier, lost money each year until 1989, when it nearly broke even. MJGC guaranteed Elderplan's accumulated financial liabilities, which were a total of $3.6 million at the end of 1988, but reduced to $2.6 million in 1989.

The high Elderplan losses have necessitated a re-evaluation of the future of the demonstration by MJGC. MJGC has various options, including finding a partner or a buyer for Elderplan or discontinuing the project. Even though Elderplan has sought a joint venture partner, it was unable to find such an arrangement throughout the period 1985-89.

SHP was the only plan that represented a major proportion of its sponsor (SCAN) organization's budget and activities. SCAN, with no capital of its own for startup, had to rely on a $1 million loan from St. Mary Medical Center to initiate SHP (hereafter referred to as St. Mary's). SHP reported $8 million in revenues in 1986 and $11 million in 1987, while its parent, SCAN, had only $1.9 million in additional revenues in 1986 and $3 million in 1987. SHP losses of $2.6 million in 1986-87 would have overwhelmed the financial capacity

of SCAN if HCFA had not assumed most of the financial risk during the initial period.

Initial losses at SHP were much higher than expected by either SCAN or St. Mary Medical Center. Although SCAN was limited in its financial ability to contribute to SHP, St. Mary's was in a position to assist SHP through its loan guarantee. St. Mary's reported a 7-percent increase in revenues over the previous year and $46 million in fixed assets net accumulated depreciation in 1986. Even though SHP represented only a small proportion of St. Mary's revenues (3 percent in 1986), it did contribute to St. Mary's income. In 1987, St. Mary's agreed to defer the SHP debt payments of the principal and interest and was willing to assume full financial risk for SHP during the final period of the demonstration. Changes were made in SHP's operations as noted earlier, and SHP was able to break even and begin making repayments on its loan in 1988 to St. Mary. In late 1989 (effective in 1990), SHP and St. Mary's terminated their contractual arrangements for the S/HMO demonstration project. By that time, SHP had paid the majority of the loan money back to St. Mary's and continued to make monthly payments on the outstanding balance.

In retrospect, the sponsor-parent organizations, except for KP Northwest, reported that they did not understand the potential financial problems involved in sponsoring the S/HMO demonstration projects. During the initial period of the demonstration, all four of the organizations that undertook the demonstrations experienced some unexpected form of financial problems unrelated to the demonstrations. These financial problems contributed to the pressures for S/HMOs to achieve greater efficiency and tighten utilization controls during the period of full financial risk.

Discussion

Because of lower-than-expected Medicare and Medicaid enrollments during the first 3 years of operation, the S/HMOs (except KP Northwest) overestimated their total revenues. Low revenues and high administrative costs related to S/HMO startup were especially problematic for the new HMOs (Elderplan and SHP). The S/HMOs underestimated the marketing effort needed, and these costs became high for the three S/HMOs with low enrollments as they attempted to reach their enrollment goals. The S/HMOs faced strong competition in two sites, where Medicare HMOs were able to enroll large segments of the market. Higher premiums than those of the competing Medicare HMOs and limited benefits beyond those of competing Medicare HMOs contributed to low enrollments at SHP and Seniors Plus.

The experience of the first 5 years raises a number of policy issues, including what should the risk-sharing arrangements have been. S/HMO risk-sharing arrangements gave the projects strong incentives to load marketing and administrative costs into the initial period when HCFA was paying for the majority of the cost overruns. Although it was necessary to have risk sharing by HCFA and for the Medicaid programs to encourage providers to participate in the S/HMO demonstration, future projects should probably be asked to assume a greater proportion of the initial risks.

Another issue is what financial criteria should sponsoring organizations be required to meet to participate in demonstrations. During the beginning of the demonstration, all the sponsors had some financial difficulties unrelated to S/HMOs and, except for KP Northwest, underestimated the overall cost of undertaking the demonstration project. Sponsoring agencies of any new S/HMO that may be developed in the future should be financially sound, should understand the costs of initiating such a demonstration, and should ensure that the organization is willing to make a commitment to such a project.

Another issue is what should be the basic requirements in terms of structure and/or experience for sponsoring organizations to participate in a S/HMO demonstration. The problems of high pmpm service costs for the two S/HMOs (Elderplan and SHP) that were newly formed HMOs were caused primarily by high acute and ambulatory utilization, which represented the majority of S/HMO expenditures. Elderplan and SHP had no experience in delivering prepaid care or experience on which to base their financial budgets and utilization objectives. These organizations had limited capital for startup, and the startup costs represented major financial efforts. The fact that two long-term care organizations were able to develop into HMOs, although limited to the elderly, and deliver services within a short startup period was rather remarkable and demonstrated the commitment of the organizations and the individual project directors and their staffs. Although the problems encountered in building new HMOs from long-term care organizations were expected to some extent, the difficulties experienced raise questions about the rationale of such an approach for the future. Certainly, it is more expensive and more effort to develop new HMOs for S/HMO projects.

The two established HMOs (KP Northwest and GHI) that added S/HMO projects as new products to their existing service plans appeared to be better able to control utilization of acute and ambulatory care, although this low utilization did not translate to lower costs for KP Northwest. Seniors Plus was remarkable in its ability to control its service utilization and expenditures, even on chronic care costs, in spite of having the lowest total enrollment and substantially higher proportions of those who were eligible for and receiving chronic care services. In part, this was because the established HMOs were able to economize by using their existing service delivery networks and physicians experienced in controlling utilization.

Another issue is how to control Medicare-covered service costs or at least how to develop cost estimates for such costs. It is not clear why KP Northwest reported such high costs for its Medicare-covered services, which it experienced on both its Medicare HMO contract and its S/HMO program. These losses were expected because KP Northwest waived its premiums on deductibles and copayments. Its higher service costs are also related to the way it includes administrative and capital costs within each service category. Another question is whether KP Northwest will be willing to continue the project beyond the demonstration period, considering it has not been able to control its Medicare-related costs. On the other hand, KP Northwest has also reported losses on its basic Medicare HMO contract and has continued that program since 1985.

Another issue is how best to control chronic care costs. Overall, all S/HMOs were able to control their chronic care utilization and expenditures by a combination of methods. These included limiting benefits in terms of total dollar amounts with 10 to 20 percent copayments, using case managers to limit eligibility to those who were impaired, using case managers to limit chronic care service use, reducing administrative costs, and developing contractual arrangements with providers for chronic care services. In this sense, S/HMOs were successful in staying within their budgets. Whether these types of limited chronic care benefits and strict utilization controls are attractive enough to healthy individuals so that adequate numbers can be enrolled without adverse selection is still an open question, at least at sites where there is heavy Medicare HMO competition.

Looking to the future, the ultimate test remains whether the four established S/HMOs can become viable financial organizations or product lines within larger HMO organizations and survive after the S/HMO's demonstration period is over. Presumably S/HMOs will be able to make use of their initial experience to bring greater efficiency to the management of the program along with greater accuracy in financial planning. Enrollment growth will also be important at Elderplan and SHP for improving their financial picture.

Although some initial losses were expected, the financial viability of S/HMOs is still undetermined. Several options that are not mutually exclusive are available to the four established S/HMOs to become more financially viable. One is to continue to reduce benefits, increase copayments, and control access to long-term care services. The risks in this approach are clear because S/HMO benefits are already viewed as limited. Reductions in benefits make S/HMOs less distinguishable from HMOs and may only increase marketing problems, particularly in the areas where market competition is greatest.

A second option is to redefine the product as a high-option benefit plan, which may be coupled with a low-option plan within an HMO. This approach may make the produce more understandable and marketable. KP Northwest did test its ability to market both its basic Medicare HMO product and its S/HMO product during 1987. Even though the premium was significantly higher for the S/HMO, KP Northwest found that the largest proportion of new members during the period elected the S/HMO and that there did not appear to be any adverse selection in terms of member disability characteristics. On the other hand, GHI, which marketed both its S/HMO and a Medicare HMO throughout the demonstration period, reported that those members who joined the S/HMO had higher rates of disability. Consequently, GHI was reluctant to market the S/HMO and kept its enrollment low.

A third option is to increase the financial risk sharing of S/HMO providers, including the long-term care providers, so that these providers assume greater financial incentives to control costs (e.g., capitation contracts). This effort would shift the risk to providers but would not necessarily reduce or control provider reimbursement rates. SHP was the S/HMO that was most effective in establishing risk arrangements with its contract providers, which included hospitals, physicians, nursing homes, pharmacy services, and home health (all except homemakers). Their arrangements with their sole hospital and physician provider group during 1985-89 were not considered entirely satisfactory by their contractors, however, nor were the rates necessarily comparable to market rates. These risk-sharing arrangements lead to some difficulties in provider relations and, eventually, to the loss of the contractual arrangements. Medicare Plus II had its own acute and ambulatory care providers but had high unit costs for its services. Even though these were problems, new capitation agreements with reasonable rates are options to be further explored.

A fourth option is to increase administrative efficiency. This would particularly apply at Elderplan and SHP, where administrative costs are high in comparison with the other two S/HMOs. If Elderplan and SHP were able to develop HMOs for the population under 65 years of age or to work jointly with an existing HMO, perhaps some administrative savings could be achieved by spreading these costs across a larger enrollment base with a younger membership.

Another policy issue that needs to be addressed is how to meet Federal HMO requirements beyond the demonstration period. Federal laws presently require HMOs to limit Medicare and Medicaid members to no more than 50 percent of their total enrolled population. If Elderplan and SHP are to continue beyond the demonstration period, they will either require a waiver from these Federal provisions or they will have to meet these requirements. One option is to develop a partnership or a joint venture with an existing HMO, insurer, or health care organization to enroll an HMO population under 65 years of age. Another option would be to sell Elderplan and SHP to an existing HMO or to an organization that wanted to develop an HMO with a membership under 65 years of age.

Whether Elderplan and SHP can find a partner or a buyer depends on a number of factors described by Goran (1981), including the promise of a reasonable rate of return on investment in the future, the liquidity of the plan, the ability of the plan to attract and maintain members, evidence of management capability to achieve its utilization targets, and a sound business plan. At this time, neither Elderplan nor SHP has been able to develop such a partnership with an existing HMO that has a membership under 65 years of age, and no plans have been developed for the continuation after the 1995 demonstration period. Although it is unclear what ultimate directions the S/HMOs will take at the end of the demonstration period, these decisions will be clearly tied to financial and marketing considerations.

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