

Appendix D.—Selected Regional Examples of the Effects of Alternative Delivery Systems

Rochester, N.Y.

The Rochester area has one of the lowest hospital utilization rates of any major metropolitan area in the country, around 560 days per 1,000 for the Blue Cross population (which is 85 percent of the market) in 1977. This rate has been steadily declining each year, a fact attributed by Blue Cross/Blue Shield members to health maintenance organization (HMO) competition in the area (132).

Blue Cross/Blue Shield dominates the insurance industry in Rochester and has been affiliated with all three HMOS that have operated in the area. The Blues have been significantly influenced in recent years by large corporations in Rochester (Eastman Kodak, Xerox, General Motors, and Sybron), who have encouraged cost containment efforts. These firms perceived the HMO as a method by which costs could be controlled; and they encouraged the Blues, which claimed a philosophical commitment to the HMO as an alternative, to create new HMOS (108).

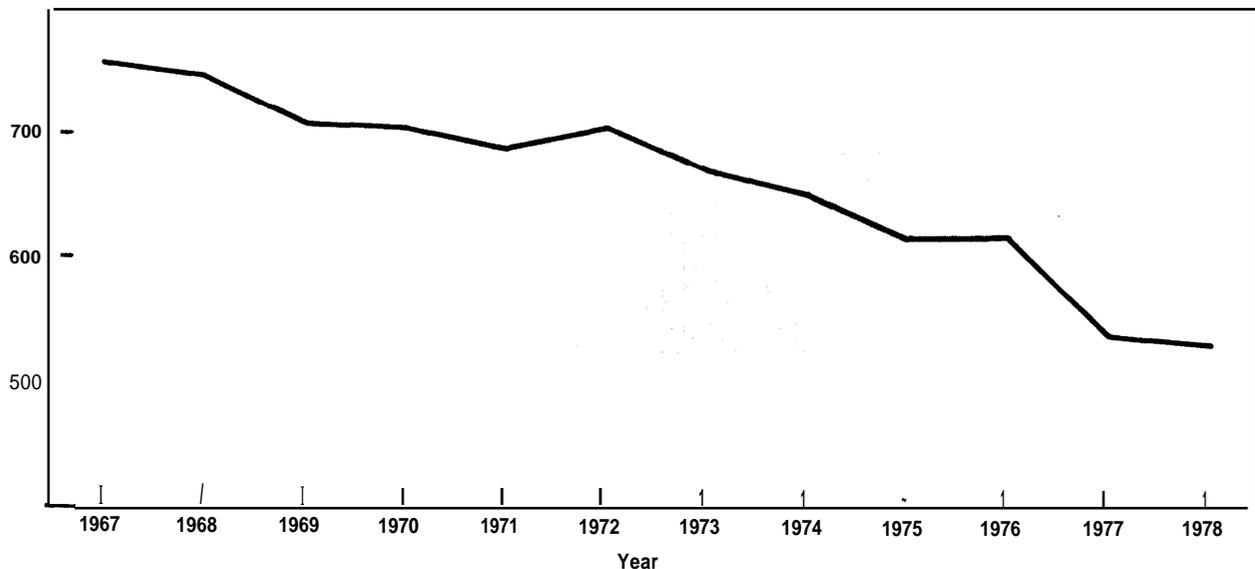
Consequently, in 1973, three HMOS were started with the support of the local Blues. The Genesee Valley Group Health Association (GVGHA) is a multispecialty prepaid group practice modeled after the Kaiser-Permanente program. Enrollment in GVGHA has

lagged somewhat behind projections, and break even was projected for 1981 with an enrollment of 41,000. A second plan, Rochester Health Network (RHN) developed a network of contracting neighborhood facilities in 1976, many of them originally part of the Office of Economic Opportunity's Neighborhood Health Center Program. Enrollment in 1979 in RHN was about 18,000, drawn primarily from lower income areas.

The third plan, Health Watch, an individual practice association (IPA), was sponsored by the Monroe County Medical Society. The plan involved 650 physicians, a majority of those in the area, and grew rapidly in the first 2 years, enjoying an enrollment of 24,000 by 1975. Health Watch experienced a rapid decrease in membership of its one large group, General Motors, after a 60-percent premium increase. By July 1976, the plan was out of business. A new IPA, the Rochester Area HMO, began operation in November 1979, with about 200 contracting physicians (163).

Figure D-1 presents the data for hospitalization by Blue Cross members under the age of 65. Two possible interpretations of this pattern of decline emerge: 1) the direction downward has been relatively continuous; or 2) the flat utilization rate of 1969-72 was

Figure D-1.—Rochester, N.Y. Blue Cross: Annual Hospital Days per 1,000 Persons, 1967-78 (under age 65 only)



SOURCE: H. S. Luft, S. C. Maerki, and J. B. Trauner, "The Competitive Effects of Health Maintenance Organizations: Another Look at the Evidence From Hawaii, Rochester, N.Y., and Minneapolis-St. Paul," presented at the American Public Health Association Annual Meeting, Los Angeles, October 1981.

followed by a marked decline from 1973 to 1978, during which HMO enrollment grew to 46,000.

The Finger Lakes Health Systems Agency concluded in 1980 that one of the factors contributing to the overall decline in hospital use “may well be the presence of alternative delivery systems.” Other factors listed by the agency included: 1) successful efforts to control the number of hospital beds in the Rochester area (3.5 per 1,000 in contrast to the national average of 4.5), 2) more effective use and reimbursement of alternatives to hospital use such as home health care and ambulatory surgery, 3) indirect effects on physician hospital utilization practices from Professional Standards Review Organization (PSRO) review of Medicare/Medicaid hospitalization, and 4) “no-fault” reimbursement for some auto injury-related hospitalizations.

Because Rochester Blue/Cross-Blue Shield dominates the market in the area, overall hospital utilization rates should, it seems, reflect the Blues pattern of falling utilization rates. Instead, though, in contrast to a 12 percent Blues decrease, there is an overall increase of more than 11 percent. Luft, et al. (163), hypothesized that falling hospital use by Blue Cross enrollees stemmed from the fiscal crisis in New York that led to some major revisions in the State Medicaid program in 1976-77. In particular, Medicaid rates were frozen and the State attempted to shift certain costs onto the Medicare program by contesting eligibility. Both factors made it more difficult for hospitalized patients to be transferred to long-term care settings.

The Luft hypothesis is that these Medicare and Medicaid patients “backed-up” in acute hospitals and took beds that would otherwise have been used by under-age-65 Blue Cross enrollees. Coupled with an existing bed supply of only 3.5 per 1,000, the situation may have resulted in a change in the indications used for elective surgery or hospitalization, and so a consequential decline in admissions.

Because the relatively low Blue Cross/Blue Shield premium has been considered to be a major marketing obstacle for GVGHA, it is further unlikely that utilization rates fell in response to a competitive threat. The Blues have maintained premium rates at relatively constant levels over the past few years (163), and have had an added advantage in that community rates practically equal its enrolled population (because of its 85 percent market share). As the Blue Cross utilization rate drops each year, an HMO finds itself in a position of having to subsidize its premiums with other income in order to remain competitive. To its credit, GVGHA has lowered the amount of this subsidy almost every year. But it has yet to break even (132).

In 1977, a study by the Federal Trade Commission (FTC) also raised the possibility that the Blue

Cross/Blue Shield had engaged in a certain amount of anticompetitive behavior with the three area HMOS. Though independent, Blue Cross originally provided financial and marketing support as well as administrative services for the HMOS. The report noted, though, that within 3 years of the startup of the Rochester HMOS, all three of them expressed dissatisfaction with the Blues marketing performance. RHN, for example, elected to develop a marketing staff of its own after only 6 months because of a “lack of coordination at the lower levels” (108).

Hawaii

Proponents of procompetitive proposals have considered the State of Hawaii as a good example of direct competition between a plan of Blue Cross/Blue Shield type and an established HMO. Hawaii is also interesting because the two competing plans cover the majority of the population in the State, and so can influence the total delivery system there. More than 80 percent of Hawaii’s working population and about 72 percent of the total civilian population receive their medical care through one of the two competing plans.

One plan is the Kaiser-Permanence HMO program, which entered the State in 1958 and now enrolls about 13 percent of the State’s civilian population. This program enrolls 16 percent of the population of Oahu, where Kaiser’s main facilities are located (79). Kaiser has experienced a gradual enrollment growth, which has just kept pace with growth in the civilian population over the past 5 years. The enrollment of members under the Federal Employees Health Benefits Program (see app. C) provided impetus to Kaiser’s growth in its early years (132).

The Hawaii Medical Service Association (HMSA)—the larger of the two plans—is a Blue Shield plan that uses the typical fee-for-service mode of payment. HMSA enrolls about 54 percent of the population. HMSA’S influence is enhanced through its role as fiscal intermediary for Medicare and Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) beneficiaries (163). In 1972, HMSA also began sponsoring the Community Health Program, an HMO composed of nine group practices. By 1977, this program covered about 23,000 people, or about 3 percent of the population.

Competition and Utilization Patterns

Both Kaiser and HMSA believe that the market for medical care in Hawaii is highly competitive. In a communication with FTC, Albert H. Yuen, Executive Vice President of HMSA, stated (38):

The Kaiser Plan and HMSA maintain a posture of respectful competitors which has resulted in the growth of both programs.

Ronald Wyatt, Vice President and Regional Manager of the Hawaii Region of the Kaiser Foundation Health Plan, Inc., was more emphatic concerning this point (38):

... since the late 1950's when the Kaiser-Permanente Program commenced operating here, there has been vigorous competition between Kaiser-Permanente and HMSA.

Enthoven has also argued that "there is little question but that the two plans compete vigorously," and recounts the benefits to the area brought about by market forces (79):

Kaiser's entry into the market put pressure on HMSA to improve its benefit coverage and to strengthen its cost controls. Kaiser, in turn, found it necessary to depart from its traditional style of delivering all of its services in large medical centers and to set up five small outpatient clinics on Oahu at locations convenient to members, in order to compete effectively with HMSA'S individual-practice style. Kaiser and HMSA both report hospital use for employees and their families (that is, the under-65 age group) at or below 400 days per 1,000 per year. Even after adjusting for the age of the population, Hawaii's hospital use is about 75 percent of the national average. Hawaii has about 3 short-term community hospital beds per 1,000 civilian population, compared with a national average of about 4.6. Thus the excess of hospital beds that adds so much to costs in most areas is not a problem in Hawaii. As a result, hospital cost per capita through the 1970's was about two-thirds of the national average, despite the fact that the cost of living generally was about 20 percent above the national average. HMSA and Kaiser premiums for comprehensive care are among the lowest in the Federal Employees Health Benefits Program.

Various factors besides competition contribute to this desirable situation in Hawaii. The population is young. Cultural factors and healthful lifestyles play a part. But based on direct observation as well as study of the data, I believe that vigorous and effective competition between HMSA and Kaiser has been the key factor in achieving these lower costs. Both organizations make strenuous efforts to hold down costs while giving good service and comprehensive benefits to their members, in order to remain competitive with each other. And the fact that the two competitors dominate the market is important, because individual providers have a hard time escaping the cost controls of one or the other health plan.

The health insurance market in Hawaii may additionally benefit by the existence of other factors. There are more than 50,000 Federal, State, and local government employees, for example, all of whom are offered a choice of plan and a fixed or formula-based employer contribution toward the plan of their choice (79). And

while HMSA is nominally a Blue Shield plan, it exercises rather stringent controls over utilization (158). Several large employers in Hawaii have been influential in promoting cost-containment activities in HMSA. The physician fees HMSA will pay are not allowed to increase faster than inflation (79). Luft (158) has observed that HMSA acts more like an IPA or an Ellwood-McClure-type health care plan (see ch. 3).

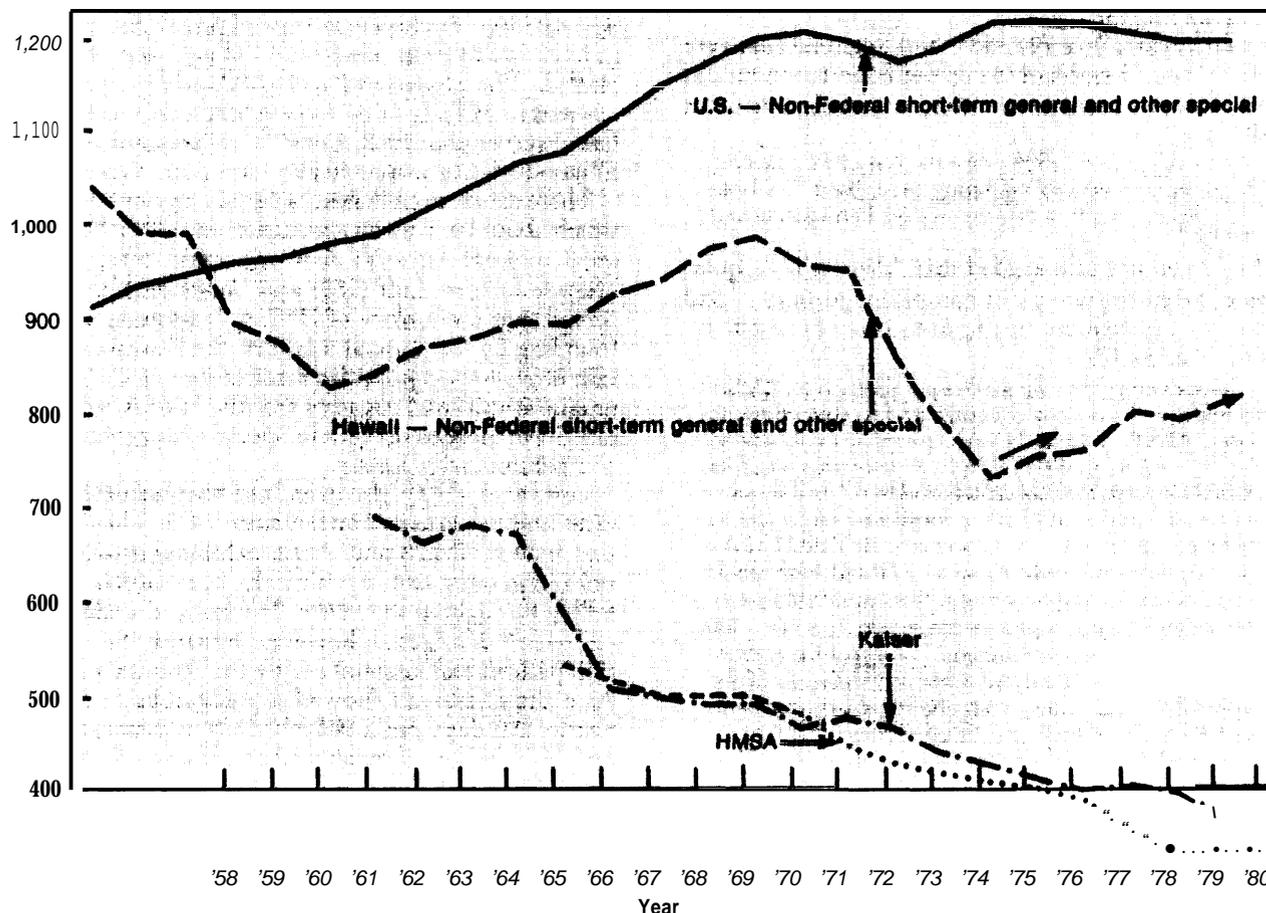
There exists, nonetheless, a certain amount of skepticism about the Hawaii experience. Enthoven (79) was quick to point out atypical demographic, cultural, and lifestyle factors. Luft (158) and Bailey (11) have observed that the history of HMSA, beginning with its founding by local social workers, the Hawaiian heritage of plantation-provided medical care, and Hawaii's unique ethnic mix, suggests that the HMSA behavior may have more to do with its special history than with competition with Kaiser.

Luft, et al. (163), also examined hospital utilization rates and patterns in Hawaii since 1955. They found that indeed HMSA and Kaiser exhibited equally low utilization rates, and, significantly, both rates had been falling throughout the 1970's. The study also identified an overall divergence, however, between this utilization pattern and hospital use by the State as a whole. As a State, Hawaii showed a precipitous decline of nearly 250 days per 1,000 population between 1969 and 1974, followed by an increase of almost 100 days per 1,000 by 1979 (see fig. D-2).

The Luft study attributes at least part of decreasing utilization rates for HMSA and Kaiser to increasing duplicate health insurance coverage with non-Kaiser and non-HMSA carriers, and so artificially deflating reported use rate (by increasing the denominator of enrollees) (163). In 1978, there were 1.23 plan enrollees per person in the State. (The Hawaii compulsory health insurance law of 1975 extended coverage to many employees not previously covered by employee-based insurance, possibly duplicating some secondary workers.) Between 1958 and 1976, too, the different age and sex composition of Hawaii implied a 12 percent lower hospitalization rate than the national average.

Still, by 1978, hospital use in Hawaii was 40 percent below the national average (163). Luft and his colleagues concede the sharp drop might be evidence of a competitive impact, and that it was around 1970 that HMSA instituted tight reimbursement policies designed to reduce hospital use. Yet their study builds a strong argument that the decline stemmed from other, extraneous factors, and not from competition with Kaiser. Declines in utilization, for one thing, were much more apparent for Medicare/Medicaid beneficiaries (hospital use for these groups fell by 23 and 37

Figure D-2.—Hawaii—Annual Hospital Days per 1,000 Persons, 1955-80



SOURCE: H. S. Luft, S. C. Maerki, and J. B. Trauner, "The Competitive Effects of Health Maintenance Organizations: Another Look at the Evidence From Hawaii, Rochester, N. Y., and Minneapolis-St. Paul," presented at the American Public Health Association Annual Meeting, Los Angeles, October 1981.

percent respectively between 1970 and 1974) than for HMSA enrollees, even when adjusted for duplicate coverage.

A substantial fraction of the decline in use also occurred on the islands of Hawaii and Kauai, where Kaiser has no facilities or enrollees. With the demise of the Viet Nam conflict, the 1969-74 period also saw a shift of CHAMPUS and Veterans Administration (VA) patients out of civilian hospitals and back to military hospitals only, reducing utilization of community hospital beds per civilian population (the ratio on which the data are based). The early 1970's were a period of further reduction of long-term beds in short-term hospitals in Hawaii.

Lastly, HMSA first began to experience rate in 1969. Kaiser, on the other hand, has always been community-rated. A possible conclusion is that the competition HMSA felt was from experience-rating commercial insurers, who had in 1970, and continue to

have now, a larger share of the market than does Kaiser.

Quality Assurance

A major project conducted in Hawaii by the University of Michigan (54) has looked at the implications for quality of care in a plan setting with capitation payment, compared with other practice settings. The project consisted of four primary components: 1) an "Episode of Illness Study," 2) an "Office Care Study," 3) a "Hospital Organization Study," and 4) a "Continuing Education Project" (54). (It should be noted that there are often difficulties in undertaking and interpreting quality assessment studies. Findings can be both unstable and unreliable. See ch. 4 for a further discussion.)

The "Episode of Illness Study" (216,217), using hospital and ambulatory record data for 1968, was a

study of medical care delivered by all practicing Hawaii physicians. A series of 21 diagnoses were chosen as the basis of a study of patients discharged from two general short-term hospitals in Hawaii in 1968. There was also an assessment of physician performance in the ambulatory phases (both pre- and post-hospitalization of this episode of illness) which used process and outcome measures. The results of the the “Episode of Illness Study” indicated that the prepaid multispecialty group was capable of directing its patients effectively to the appropriate specialist and maintaining a staff of specialists who were more careful in the effective use of the hospital facility (admission and length of stay) without impairing quality in the delivery of medical care.

Results of the “Office Care Study” showed that this degree of effectiveness extended to the office care setting. A further implication was that the referral or consultation pattern of patient care was more effective in the controlled prepaid group setting than in the more informal organizational pattern of other community hospitals. The important effect of the prepaid multispecialty group practice appeared to be almost totally that of assuring care in large hospitals by appropriate specialists.

As part of the “Continuing Education Project,” appropriate lengths of stay were examined for selected diagnoses in six general hospitals (one, a prepaid group practice hospital) between 1968 and 1971. Although the general trend was toward a greater percentage of “appropriate length of stay,” the Kaiser hospital experienced an increase in percentage of appropriate length of stay between 1968 and 1971 of 7 percent; in each of the other study hospitals there was a rise in percentage of appropriate length of stay of 16 to 25 percent between 1968 and 1971. Initially, the Kaiser hospital had a much better record of appropriate length of stay than the other hospitals. During this period control measures were introduced in the hospitalization insurance program of HMSA, and charges of the other study hospitals were covered by this program.

Rhee (225) used the University of Michigan data base to focus on determinants of the quality of physician performance. Additional data were collected on the organization of office care from the American Medical Association Group Practice Register, and data on hospital structure and activities were obtained by questionnaire. Organization of office care explained less than 1 percent of the variance in the overall performance of all physicians. The data seem to suggest that physicians in large multispecialty groups (both fee-for-service and cavitation) provide the highest quality of care, while physicians in the intermediate, smaller groups provide consistently lower quality of care.

Rhee’s findings on the quality of care in ambulatory settings imply that the forms and payment methods of group practice will have a noticeably positive influence on the quality of care only when the group practice setting is large enough to implement the necessary organizational controls. Overall, however, Kaiser-Permanente physicians provided better care by the study’s measures than physicians in the large fee-for-service groups (54).

Multnomah County, Oreg.

Multnomah County (which includes Portland) was one of the first jurisdictions to experiment with direct financial incentives to effect choice of health care plans by the medically needy.

Until 1973, the county operated a County Hospital located on the campus of the University of Oregon Health Services Center just south of downtown Portland. While the center’s teaching staff and students provided physician service, the location was very inconvenient to many potential users. In addition, the care represented a separate system—a “provider of last resort”—for the county’s low-income residents.

In 1973, the Oregon legislature authorized a State takeover of the facility, freeing up \$4.2 million in county funds. In turn, a new county agency, Project Health, was created to serve as a broker organization, as well as advocate and counselor for the poor, rather than as a provider of care (79,133).

Operating under waivers of several Medicaid regulations, the county offered a range of health plans with comparable benefits, comprehensive in nature, to medically needy residents. These citizens had incomes marginally above the welfare payment level, but were unable to purchase adequate medical care, and had not previously been offered publicly supported medical care outside the county-owned hospital. The county acted as a broker to negotiate health insurance packages with local health plans including HMOS (both IPA and prepaid group practices) and the Oregon Physician Services plan (Blue Shield). Each enrollee paid a monthly fee determined by the enrollee’s family size and income and the total premium cost of the plan. This provided a financial incentive for the selection of lower cost plans usually lacking in Medicaid programs (8).

In 1978, an evaluation study of Project Health by A. D. Little calculated the costs per recipient, and compared these figures to costs of similar health benefits received by welfare recipients under the State’s fee-for-service Medicaid plan (8). Populations enrolled in Project Health were not directly comparable to welfare enrollees (because of higher incomes), but estimates based

on per capita costs suggested that Project Health benefits were 7 percent less expensive than the fee-for-service Medicaid plan applied to the same population.

One caveat, however, was that this result was heavily dependent on Project Health's ability to include the disabled with the rest of the population and enroll them in the competing health insurance plans at relatively favorable group rates covering both families and disabled adults. It should be noted that unit episodic costs were generally higher in the Project Health system, yet total per capita medical expenditures were less, reflecting lower rates negotiated with prepaid plans under community-rating structures.

There was also speculation that higher premiums charged by open-panel (IPAs) HMOS and insurance plans would result in the highest cost patients' (with greater preexisting medical needs) choosing these more expensive plans. This "adverse selection," in turn, would cause premiums to rise still further, and these plans would become even less competitive with the closed-panel (prepaid group practices) HMOS (8).

One of Project Health's objectives in seeking "mainstream care" was to avoid adverse selection, and the premiums were set with a view to distributing the clients evenly over the various health plans (79). Still, the Oregon Physician Services Plan in fact withdrew from Project Health because of rapidly rising expenditures and premiums. The effect of this withdrawal on the premiums charged by other plans is unclear. (See ch. 2 and app. C for further discussions of adverse selection.)

Other problems encountered by the project have included the turning away of applicants toward the end of each fiscal year because of limited resources. The County General Fund has not kept up with inflation either, causing a general decrease in services (133).

Multnomah County is also a county with seven alternative delivery systems, a somewhat homogeneous population with about 7 percent of its families below the poverty level, and a minority population of approximately 10 percent, including 4 percent black. Such a demographic backdrop raises questions about how this experience would fare in cities and communities which have large minority and/or indigent populations, or do not have alternative delivery systems already in place (256).

Despite the problems and uncertainty, the strengths of the program should not be overlooked. It has provided nonstigmatized mainstream care to an income class who have traditionally had "special problems" with respect to health care (79). Consumer education and advocacy have been promoted as part of the overall program, to help clients utilize the benefits of health plans in wiser and more appropriate ways. Health care

has additionally been provided in a less costly way than its Medicaid counterpart. Lastly, Project Health might partially serve as a model for implementation in other areas, and among other income groups, of a multiple-choice competitive market system.

Minneapolis=St. Paul

A highly publicized example of apparent vigorous competition and rapid HMO growth has been the Twin Cities area of Minneapolis-St. Paul, Minn. Unlike Hawaii and Rochester, the Twin Cities have multiple HMO options. The detection of any competitive effects, as a result, seems more likely. Six of the seven HMOS in Minneapolis-St. Paul have, in addition, chosen State rather than Federal qualification. Such a situation, which may approximate more closely an open competitive market, has been found deserving of further examination by several parties (163).

The Twin Cities has slightly more than 2 million people in its lo-county metropolitan area at this time. The growth rate is less than 1 percent a year. Yet HMO participation increased from a base of 1.9 percent in 1972 to 20 percent in 1982 (8,132,188). Such an increase in market share reflects an average growth rate of 28 percent per year.

The HMOS in the Twin Cities have been sponsored by a variety of organizations and feature many different financial arrangements for distributing risk. The largest and oldest HMO, Group Health Plan (121,184 members on Dec. 31, 1978), began operation in 1957 as a consumer cooperative, employs physicians on a salary basis, and purchases hospital services by contractual arrangements with community hospitals. The second largest HMO, MedCenter Health Plan (46,706 members), began in 1972 and was sponsored by the St. Louis Park Medical Center, a mainly fee-for-service multispecialty group practice. The plan has added several other physician groups and secures hospital services through negotiated contracts with a number of local hospitals.

In contrast to Group Health and MedCenter, there are three newer HMOS with somewhat closer ties to hospitals, The Ramsey Health Plan (4,025 members) contracts with St. Paul Ramsey Hospital, a public general hospital, for staff, hospital, and ancillary services and clinic space, and the hospital is partially at risk for the expense of hospitalizing plan members. SHARE Health Plan (21,862 members) is located adjacent to Samaritan Hospital, which it uses for inpatient and outpatient ancillary services and hospitalization of members. However, the hospital is not financially at risk for the expense of hospitalizing SHARE members. SHARE was sponsored initially by a mutual-

benefit association for railroad employees, but it is now independent and community-based, and its physicians are salaried employees of the health plan. It is the only HMO in the area that has sought Federal qualification. The Nicollet-Eitel Health Plan (8,485 members) is a joint venture of the Nicollet Clinic (a multispecialty group practice) and Eitel Hospital. Nicollet Clinic absorbs two-thirds of any financial losses associated with the plan, and Eitel Hospital is at risk for the remaining third.

The two newest HMOS were formed partially in response to the growth of the five organizations described above. HMO Minnesota (HMOM, Twin Cities enrollment, 12,170) consists of independent physician groups that contract with Blue Cross/Blue Shield to provide medical care to an enrolled population on a prepaid, capitation basis. One of these groups is sponsored by the Ramsey County (St. Paul) Medical Society. Hospitals throughout the Twin Cities provide institutional services on a contractual basis, and Blue Cross/Blue Shield provides administrative and support services. The Physicians Health Plan (26,422 members), an IPA HMO, was sponsored by the Hennepin County Medical Society and includes over 1,200 physicians, or approximately 75 percent of those in private practice in greater Minneapolis. Participating physicians agree to absorb any losses incurred by the plan, and enrollees are hospitalized through contractual arrangements with most of the hospitals in the Twin Cities.

There is considerable variation in the premiums that the HMOS quote to different groups. In general, the quoted premiums of the HMOS vary with the benefit package offered, the expected premiums of competitors, the predicted use of services by the potential enrollee group, the ability of the HMO to assimilate additional membership, and the marketing strengths other than price of competing HMOS. Thus, Twin Cities HMOS (except SHARE because of its Federal qualification) do not construct premiums based on a community-wide rating system (39).

There are several reasons for the extensive development of HMOS in Minnesota. Minnesota has a strong liberal, reformist tradition and has been in the forefront of the cooperative movement. In the State, there are nearly 900 marketing cooperatives; 70 electric, telephone, and electric generating transmission co-ops; and 130 mutual insurance companies. This context appears to have provided an atmosphere conducive to the development of an HMO derived from the cooperative movement (Group Health Plan) and other HMOS that require the cooperation of physicians. This general attitude also appears to have stimulated the group practice of medicine in Minnesota. The availa-

bility of group practices has made it much easier for HMOS to develop, since some of the newer HMOS, such as MedCenter and HMOM, are based on the utilization of existing fee-for-service group practices.

It is instructive to note the effect of the differences in attitude towards cooperatives and group practice between Minneapolis and St. Paul. St. Paul is a more conservative city and has few group practices. Thus, the newer HMOS, which are dependent on preexisting group practices have concentrated in Minneapolis and the suburbs.

The Minnesota Health Maintenance Organization Act, passed in 1973, has established a favorable legal environment for HMO development, and has increased the willingness of physicians to accept the presence of HMOS. The act formally authorizes the establishment of HMOS and provides financial assistance to certain HMOS.

In Minneapolis, the prior existence of Group Health has also helped to make the community more receptive to new HMO development. Interstudy, a non-profit research organization which conducted many of the early studies of HMOS and which is headed by Paul Elwood, one of the early advocates of HMOS and the originator of the term "HMO," is headquartered in suburban Minneapolis. Another key element in promoting HMO development in Minneapolis has been the National Association of Employers on Health Maintenance Organizations, a group composed of employers concerned with the rising cost of health care and interested in the development of alternative delivery systems that could restrain costs. Originally comprised only of Minnesota-based companies, this organization has been enlisting other large companies (108).

Indeed, an important characteristic of this regional experience has been its involvement with the employed, middle-income family as a result of understanding and support by a number of the area's large corporate employers. More importantly, many employers have offered multiple choice and a fixed dollar contribution to employees. Enrollments reflect such behavior: 65 percent of General Mills' employees in the Twin Cities area have enrolled in an HMO, as have 65 percent of Cargill's, 44 percent of Honeywell's, and 36 percent of Control Data's. On the other hand, only about 4 percent of 3M Co.'s employees have chosen HMOS, reflecting in part that company's lack of support for the idea (79).

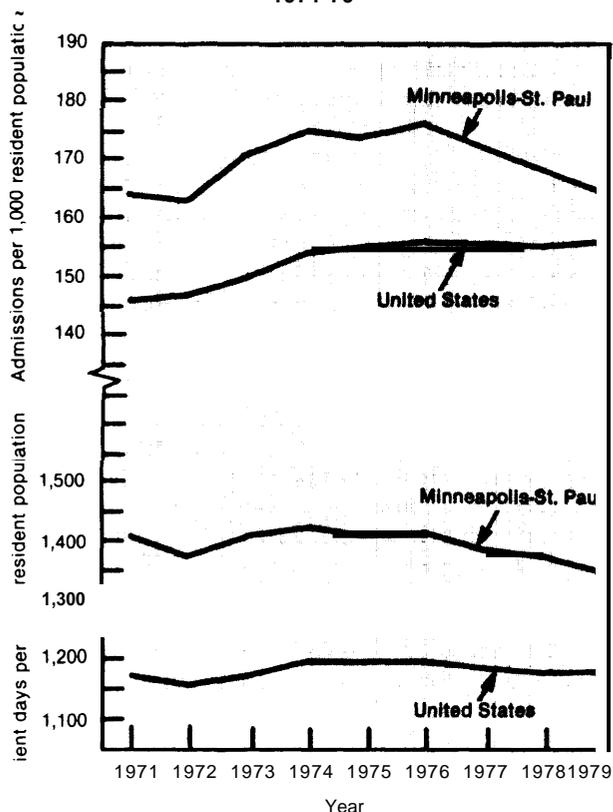
Another reason for HMO development in Minneapolis-St. Paul has been the asserted number of excess hospital beds in the area. This has prompted hospitals to encourage development of HMOS in order to secure a guaranteed population (108). HMOS have also started placing clinics in locations convenient to members and lengthening their hours of operation (79).

The longer clinic hours, the opening of outreach centers, and the increased availability and awareness of health option plans at the least substantiate the impression of a competitive process in the Twin Cities region. The evidence supporting the notion that this competition is reducing or containing costs, however, has been challenged (163).

Since 1976, admissions per 1,000 population in the Twin Cities showed a marked decline relative to national trends. When measured in terms of patient days, a relative decline is less dramatic however (see fig. D-3).

The decline in utilization has been most apparent among HMO enrollees. Nationally, people enrolled in HMOs have about 25 percent fewer hospital days per year than do similar people in conventional income plans. In the Twin Cities, HMO enrollees average about 450 days per 1,000 population, but these figures are not adjusted for differences in age, sex, and other

Figure D-3.—Minneapolis-St. Paul Metropolitan Area and United States: Use of Community Hospitals, 1971-79



SOURCE: H. S. Luft, S. C. Maerki, and J. B. Trauner, "The Competitive Effects of Health Maintenance Organizations: Another Look at the Evidence From Hawaii, Rochester, N. Y., and Minneapolis-St. Paul," presented at the American Public Health Association Annual Meeting, Los Angeles, October 1981.

characteristics. In fact, in studies by Blue Cross of Minnesota of employees offered a multiple-choice option, those who joined were found to have been low users of hospitals while in Blue Cross. In other words, low hospital use by HMO enrollees may partially be due in the Twin Cities to a "selection effect" by healthier groups into HMOs (163).

Utilization declines might also be attributed to effective area PSROS. Between 1974 and 1977, the Twin Cities had the third largest decline in admission rates by Medicare beneficiaries among all PSROS in the country. There is later evidence of continued decline in hospital use by this same group through 1979 (163).

There have been other findings that make the interplay between HMO development, competitive forces in the health market, and cost containment more problematic. For one thing, downward trends in utilization are much more noticeable in St. Paul, even though most of the HMOs have been based in Minneapolis. For another, there has been long-term decline in use rates in a large number of hospitals. It suggests that the recent decline may have had its roots in planning efforts in the late 1960's to reduce capacity (as has already been mentioned, it has long been recognized that the Twin Cities is "overbedded"), and not in the recent growth by HMOs.

Thirdly, changes in coverage and reimbursement procedures for Medicaid patients, and for treatment of alcoholism and chemical dependency in the mid-1970's, created incentives to shift treatment out of the hospital and to use outpatient facilities. The importance of such incentives, however, is unknown. Lastly, some firms have found that after 3 or 4 years of multiple choice, the conventional insurance option is left with a high-cost uninsurable pool and that this has increased, rather than decreased, total premium costs. Honeywell, one of the major initial backers of HMOs, seems to have experienced the major savings in spite of large-scale HMO enrollment (163).

A 1977 staff report of FT'C did conclude that, despite their very small market share, HMOs have had a competitive effect in the Twin Cities (108). The report also cautioned, though, that while HMOs appeared to have a bright future in the region, the number of HMOs may have been too large for all to remain viable, and that some mergers and/or failures would not be surprising (108).

California

California is an oft-cited area where the introduction of alternative delivery systems such as the HMO has been proclaimed to have had a significant impact on competition among health insurers. Approximately

20 percent of California's population (about 4 million people) is currently enrolled in a prepaid plan of an HMO or other alternative delivery system type. (Given the number of people in the State on Medicare (15 percent) and Medicaid (14 percent), only about so percent of other Californians have chosen not to enroll in an alternative delivery program.)

The Ross-Loos Medical Group, established in California in 1929, is the oldest and largest physician-owned prepaid health plan in the Nation. It was followed by the Kaiser-Permanente Plan, which had its origins in the State of Washington in 1933, and was first offered in California in 1942. Both Kaiser and Ross-Loos, particularly in their early years, relied heavily on organized labor for their growth. Kaiser's growth has been particularly remarkable and has become the largest group practice prepaid plan and the largest nongovernmental health care delivery system in the United States. Kaiser has a current enrollment of about 3.2 million people, equally split between plans in northern and southern California. Even more significant, perhaps, is the fact that in northern California about one out of every two employees offered the option of joining the Kaiser plan does so (31).

One competitive response to Kaiser's growth over the last two decades has been the development of foundations for medical care by about half of the nonrural county medical associations in California (31). Foundations preserve the fee-for-service approach, and have typically offered the indemnity insurance companies a mechanism which would conduct peer review, process both inpatient and outpatient claims, and guarantee that participating physicians would not charge over the maximum fee schedule. In return, the medical foundations require the insurance companies to meet certain specifications of coverage. Physicians in these foundations are not at risk.

The foundations have attracted significant portions of the market, between 10 and 20 percent of the total population in the Sacramento, San Jose, and San Diego areas, and have attempted to create a climate of restraint on length of stay and physician overutilization. Still, the foundations have never offered the comprehensive benefits or integrated system approach found in the Kaiser prepaid group practice (31).

From these foundations have recently evolved a series of broad-based IPAs which utilize the foundation expertise in peer review and claims processing. Presently, six of these organizations are federally qualified HMOS, and two more broad-based IPAs are in the process of qualifying. Interestingly, all HMO plans that are expanding to any degree are federally qualified because: 1) most major employers are requiring Federal certification before it is offered to its employees; and 2) the deficiencies of the California

prepaid health care plans for Medicaid recipients in the early 1970's (see app. E) stimulated the growth of extremely restrictive State regulations for prepaid plans, regulations far stricter and more difficult to qualify under than the Federal HMO laws (3 I).

A second major competitive mechanism in the State has been the reaction by Blue Cross and Blue Shield. Blue Cross of Northern California began to respond to the presence of Kaiser in the mid-1960's by broadening its benefits packages, introducing a hospitalization peer review program, and creating a network-based HMO and network-based clinics. Blue Cross of Southern California (an organizational entity separate from its counterpart in northern California) began a network-based HMO, Communicate, in 1973. Importantly, Blue Cross does not receive a discount on charges from hospitals as it does in many other areas of the country, and so has no competitive advantage over private insurers, nor is Blue Cross more attractive to HMOS seeking hospitalization agreements (108).

Other competitive mechanisms have been the creation of four originally hospital-inspired or hospital-based HMOS, an HMO developed by a county government, an HMO developed by the Safeco Insurance Co., and 12 surviving HMOS from the prepaid health care plan concept. There is also the recent development in the HMO field in California of the purchase of established HMOS by large corporations. Currently, there are 32 HMOS functioning in California, of which 21 are federally qualified (31).

Lower hospital utilization rates by selected California HMOS are seen in table D-1. A 1977 FTC study also argued that the entry of HMOS was responsible for lowering the hospital utilization of people in conventional plans (108).

Yet, a contrasting approach (158) examined total expenditures on health care in California, because even

Table D-1.—Selected Data, California Health Maintenance Organizations

HMO	Operational year	Hospital days/1,000 members, 1980
Kaiser Foundation Health Plan, Inc. (Northern California)	1945	356
Foundation Health Plan,	1972	351
Maxi-Care	1973	330
Ross-Loos Health Maintenance Organization	1929	474a
Family Health Plan	1965	398
Health Net	1979	316
Kaiser Foundation Health Plan, Inc. (Southern California)	1950	401

^aData are for the year ending 1979.

SOURCE: Department of Health and Human Services, Office of Health Maintenance Organizations, *National HMO Census*, DHHS publication No. 82-50177 (Rockville, Md.: Public Health Service, June 30, 1981).

if conventional providers constrained hospitalization in the face of HMO competition, they might maintain their incomes by increasing charges and by providing more physician services. In fact, one of the responses by Blue Cross of Northern California to Kaiser competition was to increase its coverage of ambulatory services and encourage efforts to reduce hospitalization. The most recent figures on State per-capita health expenditures do not, moreover, provide evidence that extensive HMO enrollment has resulted in overall cost containment, California ranked third highest among the so States.

Despite low hospitalization rates, California ranked second highest in the share of per-capita expenditures for physician services, meaning that the physician share of the medical care pie is much larger in this State. California ranked 46th in the share of the expenditures for hospital care. By some standards, then, the mix of medical services bought by Californians may be different, but there is no evidence that even massive HMO enrollment has resulted in overall cost containment. This example suggests, too, that the competitive effect of HMOS may not be easily discerned (158).

Denver, Colo.

Alternative delivery systems have captured almost 20 percent of the market in the metropolitan Denver, Colo., area. * Of that 20 percent penetration, though, less than half is due to enrollment in prepaid group plans. Instead, preferred provider organizations (PPOS) have attracted the greater number of individuals opting out of more traditional fee-for-service practice in recent years. According to 1980 Denver Standard Metropolitan Statistical Area population figures, PPOS hold almost a 15 percent penetration into the Denver market. More interestingly, of the estimated 400,000 people in the area who have access to PPOS, approximately 250,000 are actually using them.

PPOS are generally organizations alined with self-funded employers who assume all of the risk of health care costs, Labor-management trust funds or the Taft-Hartley trust funds are the most common participant in PPOS. What PPOS do is allow management to preserve its commitment of freedom of choice of provider to employees, while attempting to hold down costs and utilization through peer review and the promotion of cost-effective health care. In turn, any savings accrued by the PPOS return directly to the trust fund, and so to the employer.

Employers often favor PPOS exactly because of the possible savings, and because HMOS have been traditionally stingy in sharing utilization data of a particular group with its employer. (The HMOS claim that since they must community rate, this information is not relevant.) Hospitals and physician providers are willing to join PPOS in order to secure a patient base. Hospitals and physicians also agree to negotiated rates and fee schedules in return for guaranteed prompt payment and no uncollectable. PPO benefits are also structured so that the physician has an incentive to provide services on an out-patient or office basis. Providers continue to be paid, however, on a fee-for-service basis.

Each employee, on the other hand, has a choice at the time of decision to seek medical care. One option is a regular indemnity plan with deductibles and coinsurance. The other choice is to use a PPO, which has no deductibles and coinsurance, but does include a copayment per office visit. If employees choose a PPO, they are restricted to using certain physicians and hospitals that are members of that PPO.

In Denver, about 40 percent of all employers are self-funded. At present, one private firm acts as the intermediary for all area PPOS, handling both indemnity and PPO claims. Additionally, the firm is tracking utilization, lengths-of-stay statistics, and other data that could be used to eliminate PPO providers who overutilize. There are currently four PPOS in Denver, each affiliated with a separate hospital.

PPOS have largely been a response to the growth and development of HMOS in the area, particularly the Kaiser Health Plan of Colorado. The federally qualified Kaiser group, with an enrollment of over 120,000 members, has four clinics spread out in the Denver suburbs. Kaiser utilizes one central hospital, St. Joseph's, for 85 percent of their hospitalization. Within the last 2 years, Kaiser has also started a per diem arrangement with St. Joseph's with some utilization guarantee in return. Adjustments are made if Kaiser's actual utilization is more or less than the guaranteed amount; the fixed costs v. variable costs of St. Joseph's are also evaluated.

The success of the Kaiser Plan has additionally prompted the recent establishment of HMO Colorado (3,657 members), a Blue Cross/Blue Shield network-sponsored HMO. This HMO, operational only in the last 2 years, received a line of credit from Blue Cross/Blue Shield for initial funding but was developed as a separate entity.

HMO Colorado has been organized around four multispecialty group practices, each separate in terms of recordkeeping and funding. Each clinic is paid a per member, per month fee by every member associated with that clinic. In turn, each clinic has responsibility

* This section condensed from JoElyn McDonald, U.S. Congress, Washington, D. C., personal communication, March 1982 (171).

for its own financial stability while using the other three clinics in the program as a basis for comparison. HMO of Colorado currently uses several Denver hospitals with some discount agreements, and has also expressed interest in setting up a per diem with St. Joseph's.

There are two other HMOS in the Denver area: the Arapahoe Health Plan, a federally qualified IPA with about 700 members; and Comprecare, another federally qualified IPA with over 50,000 members. The fate of Comprecare, however, is somewhat uncertain, because its growth has outpaced its ability to control costs and utilization in the last 4 years.

The overall effects on utilization and costs in the Denver area, with the successes of HMO and PPO

market shares, are still unknown. HMO Colorado claims, for example, to have the lowest utilization rates in the Denver area. How comparable the membership population is to other plans and groups is, however, at least questionable.

There is also the question of how effective PPOS can and will be in containing costs or changing provider behavior, since it is the trust funds in the case of PPOS that assume the risk. Whether fear of Kaiser and other HMOS, as well as the concern about a shrinking patient base, will provide enough incentive for PPO physicians and hospitals to hold down costs is still far from clear.