
DataWatch

From Movement To Industry: The Growth Of HMOs

by Lynn R. Gruber, Maureen Shadle, and Cynthia L. Polich

The history of the health maintenance organization (HMO) movement can be traced to early 1970. There was unrest on the health care front: rapidly escalating costs in the Medicare and Medicaid programs; complaints of insufficient access to medical care because of maldistribution of medical providers and health care facilities; and accusations that medical care in the United States was inferior and inefficiently administered.¹ In 1970, responding to calls for national health insurance and skyrocketing health care costs, the Nixon administration began exploring other ways to achieve more efficient, less costly medical care.

Paul M. Ellwood, Jr., a Minnesota physician and the founder of InterStudy, recommended that incentives in the private sector be restructured to reward providers who emphasized health maintenance through pre-paid, comprehensive care. In early 1970, he told government officials that new entities called health maintenance organizations were needed to carry out the plan. The Nixon administration endorsed HMOs as the new national health strategy in 1971 and pressed Congress to enact laws to encourage HMO development through planning grants and loans. Passage of the HMO Act of 1973 (Public Law 93-222) provided the initial stimulus for growth of HMOs in the mid- and late 1970s.

The First Decade Of Growth

In this DataWatch, we show the growth of HMOs from 1970 to 1987. Data on HMOs in existence and members enrolled from 1970 to 1975 are not as reliable as data from 1976 onward. Therefore, we shall deal with data from 1970 to 1975 in a cursory fashion and provide a more in-depth analysis of primarily InterStudy data from 1976 to 1987.

In 1970, InterStudy identified thirty-seven HMOs in fourteen states. California led the nation in number of operational HMOs with sixteen,

Lynn Gruber is vice-president of managed care research at Interstudy, a Minneapolis-based HMO think tank. Maureen Shadle is a senior research analyst at Interstudy. Cynthia Polich is InterStudy's president, and directs its Center for Aging and Long-Term Care.

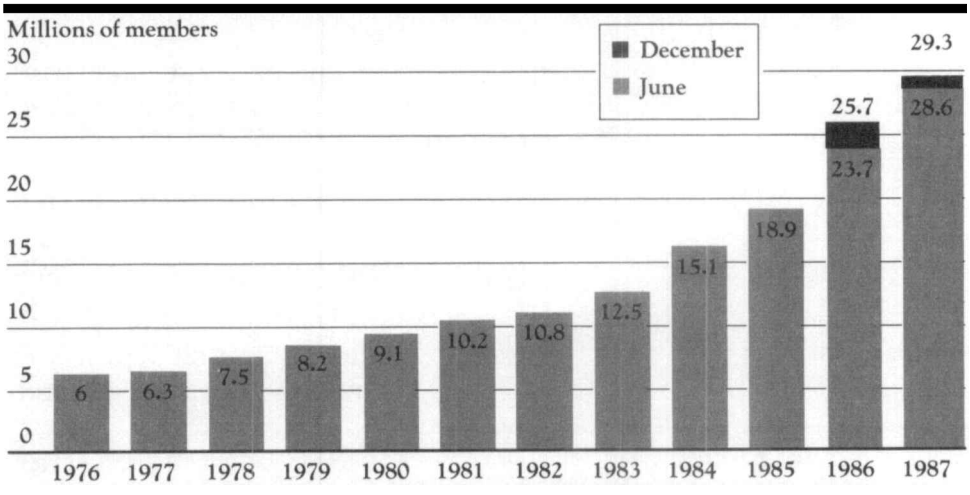
or 43 percent of the total.² HMOs were most popular in the West; 67 percent of all HMOs were in Arizona, California, Hawaii, Colorado, Oregon, and Washington. The Midwest and East were evenly represented with five HMOs each in three and five states, respectively. The South had only one HMO, in Missouri. Approximately 3 million persons received health care through HMOs.

The HMO Act of 1973 helped to quicken the pace of HMO development and operation by making available \$50,000 feasibility grants, \$125,000 planning grants, and other initial development monies of up to \$1 million to qualified HMOS.³ From 1974 to 1980, the federal government contributed \$190 million to new HMO development.⁴ The contribution of private-sector financing during the early 1970s also was considerable and should not be diminished. Estimates place such investment prior to 1974 at \$784 million.⁵

In January 1975, 183 HMOs were in operation with estimated enrollment of over 6 million. Thirty-two states plus the District of Columbia had at least one operational HMO, and 297 future HMOs were in the formational or planning stage.⁶ Thus, HMO enrollment doubled in the first half of the 1970s, and the number of HMOs increased fivefold.

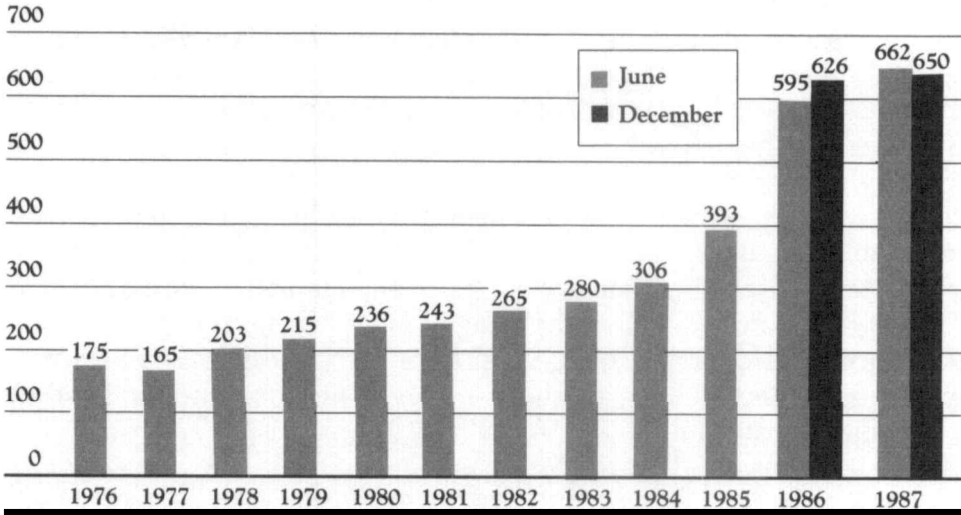
The National HMO Act of 1973 was amended in 1976, with the

Exhibit 1
HMO Members, In Millions, 1976-1987



Sources: Office of Health Maintenance Organizations, "National Census of Prepaid Health Plans" (Washington, D.C.: U.S. Department of Health, Education, and Welfare, 1978, 1979, 1980); Group Health Association of America, "National HMO Census Survey 1976-1977-Summary" (Washington, D.C.: GHAA, 1977); InterStudy, *National HMO Census* (Excelsior, Minn.: InterStudy, 1981-1984); InterStudy, *The InterStudy Edge* (Excelsior, Minn.: InterStudy, Spring 1987, Fall 1987, Spring 1988); InterStudy, *The June 1985 HMO Summary* (Excelsior, Minn.: InterStudy, 1985); and InterStudy, *The 1986 June Update* (Excelsior, Minn.: InterStudy, 1986).

Exhibit 2
Number Of HMO Plans, 1976-1987



Sources: Office of Health Maintenance Organizations, "National Census of Prepaid Health Plans" (Washington, DC.: U.S. Department of Health, Education, and Welfare, 1978, 1979, 1980); Group Health Association of America, "National HMO Census Survey 1976-197-Summary" (Washington, D.C.: GHAA, 1977); InterStudy, *National HMO Census* (Excelsior, Minn.: InterStudy, 1981-1984); InterStudy, *The InterStudy Edge* (Excelsior, Minn.: InterStudy, Spring 1987, Fall 1987, Spring 1988); InterStudy, *The June 1985 HMO Summary* (Excelsior, Minn.: InterStudy, 1985); and InterStudy, *The 1986 June Update* (Excelsior, Minn.: InterStudy, 1986).

enactment of Public Law 94-460, "Health Maintenance Organization Amendments of 1976." Essentially, the amendments liberalized requirements for federal qualification and created widespread industry acceptance of the federal qualification distinction.⁷ The number of federally qualified plans nearly doubled from forty-two in 1977 to seventy-nine in 1978. The amendments also increased the limits on financial assistance for feasibility surveys, planning, initial development, and initial operation. Exhibit 1 shows the growth of HMO enrollment from 1976 to 1987. Exhibit 2 shows the number of plans in existence from 1976 to 1987. It is important to recognize the impact of Kaiser Foundation Health Plans on total enrollment in the early years of HMO development. In 1978, Kaiser Foundation Health Plans had 3.5 million enrollees, or almost 50 percent of total HMO enrollment in the United States,

In 1978, emphasis began to shift from small, independent plans toward national networks of HMOs. (InterStudy defines a national HMO firm as an organization that owns and/or operates separate HMOs in two or more states.) In that year, six national HMO firms were identified: Kaiser Foundation Health Plans, PruCare, Inc., Family Health Program, CNA

Healthplans, Inc., Connecticut General, and United HealthCare Corp. Four of these firms had been developed as new lines of business by insurance companies. The six firms were then operating seventeen health plans representing only 8 percent of the 203 plans operating as of August 1978. However, membership in these plans was 3.7 million, almost half of all HMO members nationwide. Further analysis of these statistics reveals that the six Kaiser health plans enrolled 94 percent of the national HMO firm membership.⁸ Exhibit 3 summarizes the growth of national firms from 1978 to 1986.

A private sector/federal government partnership called the National Industry Council for HMO Development was established in 1978 to assist the Secretary of the Department of Health and Human Services (HHS) to further the growth and development of HMOs. The council included thirty-six employers, labor, and health industry executives. The active involvement and support of these sectors helped to produce another three-quarters of a million additional HMO enrollees in 1979.

HMO Growth

The early 1980s. Steady growth for HMOs continued into 1980

Exhibit 3

Growth Of National HMO Firms, August 1978-June 1986a

	1978	1979	1980	1981	1981 ^b	1982 ^b	1983 ^b	1985	1986
National HMO firms	6	8	8	11	12	10	14	26	42
Affiliated HMOs	17	23	29	43	52	63	81	156	310
Percent of total HMOs	8%	10%				23%	28%	39%	50%
Enrollment in affiliated HMOs (millions)	3.7	4.2	4.7	5.3	5.4	6.0	7.1	11.1	15.6
Percent of total enrollment	49%	51%	52%	52%	51%	51%	51%	59%	61%
Kaiser enrollment (millions)	3.5	3.7	3.8	4.0	4.0	4.2	4.4	4.8	4.9
Kaiser enrollment as percent of national firm enrollment	94%	89%	82%	72%	75%	71%	62%	43%	31%

Sources: K. Lewis and M. Shadle, "National HMO Firms, 1982," *HMO Industry Report Series*, monograph (Excelsior, Minn.: InterStudy, 1982); M. Shadle, "National HMO Firms, 1983," *HMO Industry Report Series*, monograph (Excelsior, Minn.: InterStudy, 1983); N. Baker, J. McGee, and M. Shadle, *HMO Status Report 1982-1983*, monograph (Excelsior, Minn.: InterStudy, 1984); D. Holmes et al., *National HMO Firms 1985*, monograph (Excelsior, Minn.: InterStudy, 1986); InterStudy, *National HMO Firms 1986*, monograph (Excelsior, Minn.: InterStudy, 1987); Office of Health Maintenance Organizations, "National Census of Prepaid Health Plans" (Rockville, Md.: Department of Health and Human Services, Office of HMOs, 1978, 1979, 1980); and InterStudy, *National HMO Census 1981* (Excelsior, Minn.: InterStudy, 1980).

^a All dates are June of each year unless otherwise noted.

^b Enrollments as of December; number of plans as of March.

(Exhibits 1 and 2). However, by 1982, enrollment growth slowed, with only half as many new members as in 1981. High unemployment (8.5 percent) and loss of employer-sponsored health benefits may have contributed to this slowdown. But by June 1983, enrollment was growing again at a rapid rate (up 15.3 percent from 1982). Not since 1978, when enrollment grew by 15.8 percent, had the HMO industry had such a boost. Factors influencing this growth include: more than 50,000 American employers' offering HMOs as a health benefit, and the passage of the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA), which encouraged Medicare enrollment.⁹ By June 1984, enrollment had increased by a record-breaking 21.2 percent.

Record growth in the mid-1980s. An unprecedented 3.8 million people joined HMOs between July 1984 and June 1985—a 24.9 percent increase, bringing the total number of persons in HMOs to 18.9 million. The number of HMOs increased by 28.9 percent, raising the number of HMOs to 393. By the end of 1986, 2.1 million people were members of 480 HMOs—an increase in enrollment of 11.4 percent in six months. Rapid HMO growth continued into 1986 as enrollment increased 25.2 percent between June 1985 and June 1986 and the number of HMOs increased 51.4 percent. In the last half of 1986, HMO enrollment increased 8.9 percent from June of that year, bringing total HMO enrollment to 25 million. A number of reasons contributed to this outstanding growth. A leading factor was widespread acceptance by employers of HMOs' cost-effective potential in an environment of rising indemnity insurance premiums. Additionally, more independent practice association (IPA) HMOs were available to consumers who desired wider choice of physicians. Many national HMO companies used the IPA HMO vehicle to establish a broad market presence.

Enrollment slowdown in 1987. HMO growth in the first quarter of 1987 was strong. At year-end, however, the HMO growth rate had slowed. Total enrollment reached 29.3 million. The number of new plans reached an all-time high of 662 by September 30, 1987, but fell back to 650 by December 31, 1987. Reasons for the slower growth include: (1) increased competition from other health care products and organizations; (2) the difficulty plans faced in responding to employers' demands for experience-rated premiums; and (3) purchasers' frustrations in not receiving group-specific data on cost, use, and quality.

Plan Characteristics

Model type. HMOs can be divided into four types: staff, group, network, or IPAs.¹⁰ Exhibit 4 displays the distribution of these various

Exhibit 4
HMO Plan Characteristics, June 1980-June 1987

	1980	1981	1982	1983	1984	1985	1986	1987
Type of HMO								
Staff model	63	44	57	59	53	55	71	64
Group model	76	88	80	86	70	71	86	74
Network model		21a	31	36	57	86	93	107
IPA model	95	90a	97	99	126	181	345	417
Total	236	243	265	280	306	393	595	662
Percent federally qualified	49%	53%	53%	59%	63%	65%	51%	51%

Sources: *National HMO Census 1980* (Rockville, Md.: U.S. Department of Health and Human Services); InterStudy, *National HMO Census (1980-1984)* (Excelsior, Minn.: InterStudy); InterStudy, *HMO Summary* (Excelsior, Minn.: InterStudy, June 1985); InterStudy, *1986 June Update* (Excelsior, Minn.: InterStudy); and *The InterStudy Edge* (Fall 1987).

^a InterStudy introduced the network model in the 1981 *National HMO Census*. An apparent decline in IPA plans from 1980 to 1981 is attributable to differences in the way the Office of Health Maintenance Organizations and InterStudy designated model type.

models from 1980 to 1987. Network-model HMOs gained popularity in the early 1980s. By the mid-1980s, both network-style HMOs and IPAs were the most popular mode of provider arrangements. In 1987, the IPA model predominated by a two-to-one margin. Group practice-style models (group, staff, and network) have historically been the dominant style of HMO in terms of membership. However, the proportion of HMO members in group-model plans has decreased from 81 percent in 1980 to 59 percent in 1987.

Plan size. In 1980, 61 percent of HMOs had membership enrollment under 15,000. By 1981, plan size had increased so that nearly half (46 percent) of HMOs had membership of 15,000-25,000. By June 1984, the annual enrollment growth rate was the highest (72 percent) for large plans, those with 50,000-100,000 members. In 1987, 49 percent of HMOs had membership enrollment under 15,000, but 75 percent of HMO members were in the larger plans (50,000 or more members).

Geographic distribution. In 1982, California had the greatest number of HMOs (thirty-four) and the largest proportion of total enrollees (41.6 percent). Thirty-nine states plus the District of Columbia and Guam had HMOs, and HMO penetration was concentrated in urban areas. Only 33 percent of HMOs had providers in nonmetropolitan areas.¹¹ By June 1984, only seven states were without an HMO: Alaska, Idaho, Mississippi, Montana, South Dakota, Vermont, and Wyoming, although some of these states—most notably Vermont—may have been served by an HMO in a neighboring state. In 1987, forty-eight states as well as Guam and the District of Columbia were served by HMOs. Nine states (Califor-

nia, Florida, Illinois, Massachusetts, Michigan, New York, Ohio, Texas, and Wisconsin) had HMO enrollments of over 1 million members.

Sources Of Support

Federal involvement. The National HMO Act of 1973 and the amendments of 1976 fostered HMO growth by offering public assistance to new HMOs and requiring those employees within a certain distance of a federally qualified HMO to offer the plan to their employees. In 1981, the federal government achieved its financial assistance goals for HMOs and phased out further public funding. Federal assistance had totaled \$190 million (43 percent) of the \$439 million that helped support new HMO development during 1974-1980. The percentage of HMOs that were federally qualified between 1980 and 1987 is shown in Exhibit 4.

Medicaid. The Omnibus Budget Reconciliation Act (OBRA) of 1981 gave states greater flexibility to contract with HMOs for their Medicaid programs. As a result, thirty-six HMOs contracted with various state Medicaid programs in 1981, producing some 187,000 enrollees.¹² Medicaid enrollment increased 58 percent between 1981 and 1982; at the end of 1984, nearly half a million Medicaid recipients were members of HMOs. In December 1986, 802,750 Medicaid recipients were enrolled in 125 HMOs in twenty-five states and the District of Columbia. Medicaid enrollment in HMOs concentrated in older and larger plans, with 67.6 percent of enrollees in HMOs older than ten years and over half in plans with over 50,000 members.

Medicare. Since Medicare's beginning in 1965, prepaid group practices have had the option of contracting with the federal government to provide services to Medicare beneficiaries. Three basic options were available: risk contracts, cost contracts, and health care prepayment plan (HCPP). Unfortunately, these options were not particularly attractive to HMOs because the reimbursement was retrospective and based on actual costs. Not until Congress passed the 1982 TEFRA legislation did a substantial number of HMOs begin to enroll Medicare beneficiaries. Implemented in 1985, TEFRA authorized true risk contracts in which reimbursement was prospective and not later adjusted for actual cost. Risk contracting was more attractive to HMOs, as it accommodated the way HMOs were reimbursed for their commercial members.

Although all types of Medicare HMO contracting continued to grow in the early 1980s, the most dramatic increases in Medicare enrollment were in the TEFRA risk contracting program. Medicare risk enrollment in HMOs increased from 262,000 members in June 1985 to 990,000 members in April 1988.¹³

Private-sector support. In 1983, a significant development emerged as financial analysts gave favored status to the HMO industry. Hungry for capital, many HMOs converted from nonprofit to for-profit organizations. One of the first national HMO companies to make stock available to the public was U.S. Health Care Systems, Inc. Soon, other firms with national intentions, such as Health America Corporation and Maxicare Health Plans, Inc., did the same. By June 1986, 348 HMOs (59 percent) were for-profit entities. With the exception of Kaiser Foundation Health Plans, investor-owned HMOs dominated the industry. One state, Minnesota, prohibited for-profit HMOs.

National HMO Firms

By June 1985, the number of national HMO firms had almost doubled from December 1983 (Exhibit 3). Twenty-six firms had affiliations with 156 HMOs (39 percent of all HMOs). National HMO firms represented over 11 million persons (59 percent of enrollment). The biggest player remained Kaiser Foundation Health Plans, with twelve HMOs accounting for nearly 4.8 million enrollees. Other dominant players included CIGNA Health Plan, Inc., Maxicare Health Plans, Inc., Health America Corporation, and U.S. Health Care Systems, Inc. By December 1986, the number of national HMO firms rose to forty-two, and accounted for three-fifths of all HMO members (15.6 million) and 50 percent of all operating HMOs.

The dominance of Kaiser Foundation Health Plans and Maxicare Health Plans, Inc. was challenged in 1986 by five other firms (Health Insurance Plan of Greater New York, CIGNA Health Plan, Inc., United HealthCare Corporation, U.S. Health Care Systems, Inc., and Prudential Health Care Plans, Inc.), who all boasted enrollments of over 600,000. National HMO firms did a great deal of maneuvering and repositioning between June 1985 and December 1986. Eight of the firms made major organizational changes during that period, and five of those firms were acquired by another entity—either an existing or a new national firm. Exhibit 5 illustrates the ascendancy of large HMO corporations at year-end 1986.

Effect Of Competition On HMOs

Plan profits for many firms in 1986 did not keep pace with the strongly surging enrollment and new plan growth. With fierce competition among plans for enrollees, premium “price wars” affected the financial bottom line negatively for some firms that valued enrollment growth over profit

Exhibit 5**National HMO Firms, In Order Of Total Enrollment, December 1986**

National firm	Total enrollment	Total number of HMOs
Raiser Foundation Health Plans	4903,767	12
Maxicare Health Plans, Inc.	2,170,638	37
Health Insurance Plan of Greater New York	960,940	2
CIGNA Health Plan, Inc.	946,702	24
United HealthCare Corp.	917,909	28
U.S. Health Care Systems, Inc.	682,346	3
Prudential Health Care Plans, Inc.	618,313	22
Equicor	375,483	21
Partners National Health Plans	337,721	10
Lincoln National Administrative Services Corp.	280,228	11
FHP, Inc.	275,428	6
Henry Ford Health Care Corp.	216,804	3
John Hancock HealthPlans, Inc.	215,634	5
Foundation Health Corporation	207,786	6
Sanus Corp. Health Systems, Inc.	197,344	5
PacificCare Health Systems; Inc.	196,172	4
Group Health Inc.	188,636	2
MetLife Health Care Management Corp.	148,796	9
Jurgovan & Blair Inc.	143,649	5
Health Care Horizons	142,199	2
American Medical International	133,052	4
HMO America, Inc.	131,416	7
Western Health Plans, Inc.	125,912	3
Community Health Plan	120,317	4
Sierra Health Services, Inc.	117,105	5
Lifeguard HMO	111,172	3
Heritage National Healthplan Systems	88,501	4
CareFirst, Inc.	83,248	2
Independent Health Association, Inc.	79,327	2
CoMed Management, Inc.	71,666	5
Prime Health	70,340	2
Humana, Inc.	57,891	14
Travelers Health Network	54,411	13
Aetna Healthcare Programs, Inc.	44,670	6
Healthsource, Inc.	43,199	2
PREMED	34,411	3
Heritage Health Systems, Inc.	33,049	2
Unity Health Plan	24,025	2
Managed Care Corp.	19,736	3
American HMO	18,301	2
National Medical Enterprises	14,281	2
Health Care Management, Inc.	4,174	3
Total	15,606,699	

Source: *National HMO Firms 1986* (Excelsior, Minn.: InterStudy, 1987).

margins. Some large HMOs and HMO-hospital chain firms showed losses at year end. Negative financial results for 1987 resembled those of 1986 for a number of HMOs and national HMO firms. Based on annual corporate reports made available to InterStudy at the time of this writing, five national HMO firms reported losses for fiscal year 1987. Humana lost more than \$66 million on its group health business segment, which includes various indemnity insurance and prepaid health care products. Lincoln National reported losses of \$50.7 million on its HMO line of business. US. Health Care lost \$4.5 million on operations, primarily its HMO operations. Healthways Systems, Inc., a health care management company operating HMOs in New Jersey and New York, lost \$1.2 million on operations during fiscal year 1987. United HealthCare Corporation, one of the largest national HMO firms with ownership or management of thirty-four HMOs in twenty-three states and nearly 1.5 million members, reported a loss of \$15.8 million compared to a gain of \$7.2 million in 1986. Describing the year for its shareholders in its 1987 annual report, one major HMO company stated, "The industry's principal difficulty in 1987 was controlling losses in the face of tremendous price competition, while medical costs continued to increase."¹⁴

At the end of 1986 and throughout 1987, market forces (embodied in consumers' discomfort with limited provider choice and employers' pleas for fewer plans that could offer a broad product line) challenged traditionally composed HMOs to deliver products that offered wider provider choice for enrollees and decreased administrative detail for employers. New HMO hybrid products emerged and were known by such monikers as "triple option plans" and "combination plans." InterStudy dubbed this latter product an "open-ended HMO." Basically, these new products gave consumers the choice of receiving their health care from the plan HMO with no out-of-pocket expense, or utilizing nonplan HMO physicians in preferred provider organizations (PPOs) or via indemnity insurance for an out-of-pocket contribution (such as a 20 percent copayment). As of December 31, 1987, twentythree HMOs reported that their plan was offering an "open-ended HMO" product. The greatest proliferation of this HMO hybrid product was in Minnesota, where four out of five of the state's largest HMOs marketed such a product.

The hybrid HMO product was only one vestige of a highly competitive health care marketplace. The premium price wars of 1986 extended into 1987 in many markets, as competition between the 600-plus HMOs (especially those in major metropolitan areas) became fierce. PPOs grew (most noticeably in California, which housed 100 of the 500-plus PPOs) and competed with HMOs for employers' favor. Pressure to keep premiums perhaps unrealistically low in favor of achieving significant market

share could be withstood temporarily, but poor financial pictures resulted for many HMOs in 1987.

In Minnesota, three of the five large HMOs ended the year in red ink, ranging from a \$1.7 million loss to a \$9.8 million loss. In neighboring Wisconsin, more than half of Milwaukee's thirteen HMOs lost money in the first half of 1987. All seven HMOs in South Carolina reported losses from the period January 1985 to November 1987. Maxicare Health Plans, Inc.—the second largest HMO firm in the country in 1986, with thirty-seven HMOs serving over 2 million members—showed signs of strain when it declared a 1987 loss of \$255.9 million. A portion of the financial difficulties were blamed on the costly acquisition of Health America Corp. and Health Care USA, Inc. in 1986. The glory days appeared to be over for the HMO industry.

The Future of HMOs

In the future, we predict that states will enact strong solvency laws and pay closer attention to HMO profit margins. The furious growth of HMO enrollment and new plans of the mid-1980s will be replaced with controlled growth and management emphasis on efficiency and effectiveness of plan operations. Health care purchasers greeted with 20–30 percent indemnity premium increases and 15–20 percent HMO premium increases for 1988 will demand proof of value for the increased premiums. Quality will be measured on the basis of providers' efficiency and effectiveness depicted by scrutiny of variation in practice and the outcome of medical and surgical interventions, allegiance to cost-consciousness, and true understanding of the service nature of medicine. New meaning will come to the term "preferred providers," when physicians will vie to be among those selected for inclusion on participating physician lists and HMOs will select physicians based on performance data. Power will shift from the individual consumer, who heretofore has greatly influenced the growth of PA HMOs and the "freedom-of-choice" product, to employers and HMO managers. Faced with difficult economic realities, employers and HMOs will stifle the popularity of freedom-of-choice products with more cost-effective options. Staff- and group-model HMOs will be reevaluated for their efficiency and organizational potential.

The dust may be settling now for HMOs, especially those located in large metropolitan areas. But growth will continue, albeit more slowly. Emphasis will shift to effectiveness of purpose through competition by quality that is measurable, aggressive changes in physician practice style, and cost-containment strategies for the ambulatory setting.

NOTES

1. Paul Starr, *The Social Transformation of American Medicine* (New York: Basic Books, Inc., 1982), 381.
2. InterStudy, "Operational HMOs: 1970–1979" (Excelsior, Minn.: 1980).
3. Roger W. Birnbaum, *Health Maintenance Organizations: A Guide to Planning and Development* (New York: Spectrum Publications, Inc., 1976), 18–19.
4. Kathleen A. Lewis, "Private Sector Investment in HMOs, 1974–1980," (Excelsior, Minn.: InterStudy, 1981).
5. Ibid.
6. "HMO Growth 1973–1978," unpublished (InterStudy, 1978).
7. National Industry Council for HMO Development, "The Health Maintenance Organization Industry Ten-Year Report, 1973–1983."
8. Kathleen Lewis and Maureen Shadle, "HMO Industry Report Series, Volume Three: National HMO Firms, 1982" (Excelsior, Minn.: InterStudy, 1982).
9. National Industry Council for HMO Development, "Ten-Year Report."
10. InterStudy, "National HMO Census 1983" (Excelsior, Minn.: InterStudy, 1983). The following descriptive terms were used by InterStudy in the early 1980s to categorize HMOs: (1) *Staff*—an HMO that delivers services through a group practice established to provide health services to HMO members; physicians are salaried. (2) *Group*—an HMO that contracts with a group practice to provide health services; the group is usually compensated on a capitation basis. (3) *IRA*—an HMO that contracts with an association of physicians from various settings (some solo practitioners, some groups) to provide health services. (4) *Network*—an HMO that contracts with two or more group practices to provide health services.
11. Maureen Shadle, "Impact of HMOs on Rural and Nonmetropolitan Areas Examined," *Small or Rural Hospital Report* (American Hospital Association, July-August 1986).
12. Charles N. Oberg, Cynthia Longseth Polich, and LaRae Kehn, "1987 Medicaid and HMO Data Book: The Expansion of Capitation and Managed Care Systems" (Excelsior, Minn.: InterStudy, 1987).
13. TEFRA Contract Status Report, unpublished (Health Care Financing Administration, 1 April 1988).
14. United HealthCare Corporation, Annual Report 1987,2.