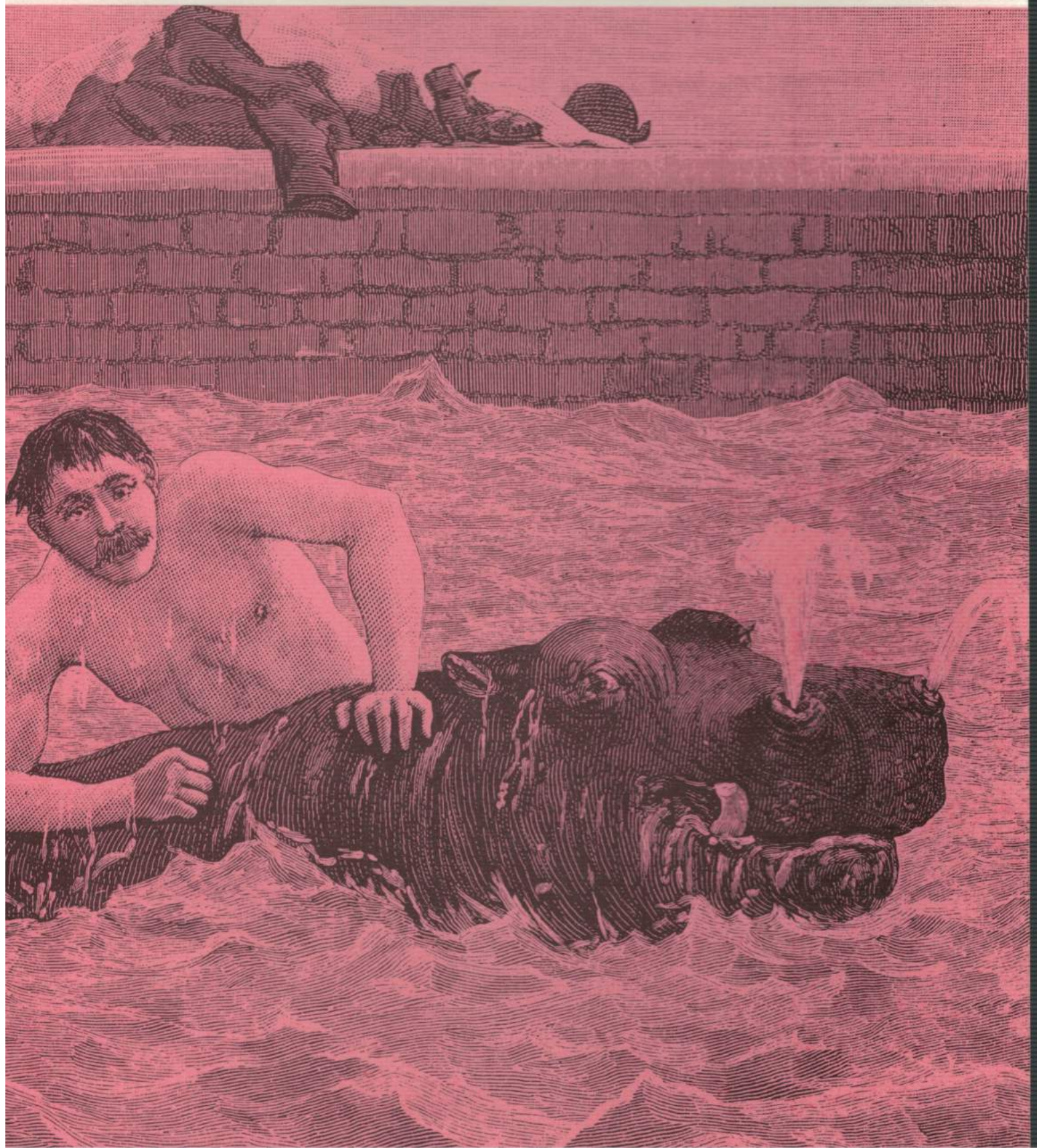


GOOD HEALTH



The Role of Health Maintenance Organizations

Dr. Eamonn Butler



G O O D H E A L T H !
**The Role of Health Maintenance
Organizations**

By

Dr Eamonn Butler

From research conducted for
The Adam Smith Institute
1986

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1. A NEW HEALTH SYSTEM EMERGES

Those resident in the United States have access to health services that are the most advanced and comprehensive in the world. For the vast majority, access comes through membership of a private insurance plan, such as Blue Cross/Blue Shield, which reimburses the patient for the costs of medical treatment provided by private-sector doctors and hospitals. For others, government insurance programmes such as Medicare pay for the costs of private treatment. Government hospitals provide for yet other groups. And (although the point is commonly ignored in British discussions of the system), private doctors and hospitals generally accept it as their duty to provide treatment and care for the minority of uninsured individuals who come through their doors.

Yet this comprehensive access to the very best of medical treatment has its costs. In recent years, Americans have been alarmed by the rise in health insurance premiums. As health insurance has spread, it has been found to be very different from other types of insurance: the cost of repairing a damaged car is easy enough to determine, but it is hard to place any limit on the number of tests, the days of hospitalization, the seniority of the surgeon, or the expenditure on drugs that might be used in bringing a sick person back to health. Those decisions rest in the hands of doctors and hospital administrators whose interests are to overprovide treatment in the knowledge that the insurance companies must foot the bill.

The competitive response

Rising premiums, however, have brought about a competitive response in the shape of health maintenance organizations (HMOs). Their solution is to involve the doctors and hospitals in the insurance process, giving them more incentive to cure the patient as speedily as possible, less incentive to devise ever-costlier and purposeless procedures.

Not only have the numbers of HMOs grown spectacularly in the United States as insurers and insureds have sought new ways of keeping costs down; their diversity has likewise increased. Many different forms of organization offer many different forms of benefit package to many different kinds of subscriber. This report will review some of the main organizational types and the particular range of services they offer. But the essential strategy of them all is to manage the delivery of health services interests of insurers, doctors, and hospitals are brought into harmony with the goal of offering subscribers the best care at the lowest cost.

At first sight there may seem to be little difference for the patient. In conventional health insurance, people can take out a policy individually or as part of a group. In case of illness, the policyholder goes to a private-sector doctor (and where

necessary, a specialist or a hospital) of his or her choice. The doctor, specialist, and hospital send a bill for their services, and the patient is reimbursed by the company.

People subscribing to an HMO again pay an annual or monthly premium, but usually join as part of a large group, arranged by their employer. They go to one of a number of doctors or group practices participating in the HMO plan, and will go on to participating specialists and hospitals if necessary. But they never receive a bill: the HMO's contract with them is to provide all the medical care they need, not just the money to pay for it.

The incentives on doctors, specialists, and hospitals in the traditional fee-for-service system is to bump up their charges in the knowledge that some distant insurance company, not the patient, will suffer the cost. But in doing so, they prompt insurance companies to raise their premiums for all policyholders in the future. Those in the HMO system, however, are all part of a team that has to provide subscribers with comprehensive health services within its premium-income budget. Their rewards are greater if they can keep costs down, not force them up.

Growth of HMOs in the United States

Year	1975	1977	1979	1981	1983	1984	1985	1990
Number of HMOs	178	165	215	243	280	306	398	
Enrolment (000,000)	5.7	6.3	8.2	10.2	12.5	15.1	18.9	50?

Source: National HMO Firms 1985 (Excelsior Minnesota: InterStudy, 1985) and US Department of Health and Human Services.

Note: Figures exclude the near-HMOs and health insurance company affiliates that have boosted the growth in alternative health care delivery systems even more rapidly in recent years.

Recent growth of the idea

It is perhaps unsurprising that this new principle, once established, should grow rapidly, and indeed it has. According to data collected by the US Department of Health and Human Services and InterStudy, a Minnesota health research foundation, 18.9 million Americans were enrolled in health maintenance organizations by June 1985, so that the 400 HMOs then in existence accounted for roughly nine per cent of the health care market.(1)

Today's figure is undoubtedly higher. HMOs have enjoyed spectacular growth over the last decade, increasing their numbers from 178 and their coverage from 5.7 million people in 1975 --

growth in enrolments between June 1984 and June 1985 alone was a remarkable 24.9%. According to some estimates, such as one report from the research arm of the New York investment company Sanford C Bernstein & Co Inc, HMOs will enjoy even more spectacular growth over the next few years: 'by 1990, 75 million people, or 30 percent of the population, will be members of HMOs' with the organizations experiencing 'membership expansion and revenue growth of 30-40 percent a year.'(2)

A close relative of the HMO, the preferred provider organization (PPO), is also growing as Americans seek a way to control rising health-care costs. The Institute for International Health Initiatives Inc, based in Bethesda near Washington DC, reports that a further ten million people are covered by 229 PPOs.(3) The traditional way of delivering health services in the United States is evidently under a severe competitive threat from the new systems that are springing up in the market.

A SOLUTION TO BRITISH PROBLEMS?

The United Kingdom, of course, faces very different problems in the way it provides health care to the bulk of the population. Not the overprovision of health services to a public that does not count the cost, but the widespread and often serious underprovision of services through an undercapitalized and unmanageable National Health Service are the source of the UK's difficulties. The problems are so serious that large numbers of people have chosen to escape from the ailing NHS by taking out private health insurance.

The reluctant commitment to private alternatives

To all but the dogmatics who see the NHS and other state institutions as instruments of enforcing equal treatment on individuals whether it fits their needs and preferences or not, the option to use private insurance and private health delivery systems is a welcome one, allowing individuals a choice in the benefit package they deem best for themselves. Not surprisingly, therefore, the decision to opt for private insurance has been given some (modest) encouragement.

Nevertheless, British governments have been reluctant to launch themselves wholeheartedly into a policy of encouraging people to opt out of state provision and into private alternatives, even despite the budgetary strain they face in the attempt to maintain the NHS in its present form as a free service for the whole population. Part of the reason is that the private insurance model, with the tendency to cost escalation that has dogged it in the United States, generates less than complete confidence among politicians. Would a greater encouragement and use of private health insurance in the UK simply replace the waiting lists and poor-quality services found here with the problem of rising costs and overprovision of treatment found in the United States?

The American answer, health maintenance organizations, might well remove this doubt. It is just possible that the United Kingdom could move directly to a system of private health insurance in which costs are controlled, by-passing all the difficulties that have emerged in the application of the traditional private insurance model.

A management lesson?

The HMO solution can provide still other benefits for the UK. As we shall see, much of their success rests on the application of strong and sound management techniques, good communications between professional managers and professional physicians, the systematic elimination of duplication and waste, and the close monitoring of the public's needs and preferences. Whatever the virtues of the NHS, few would deny that it has a great deal to learn on all these measures. An examination of the operating methods of HMOs, therefore, could give strong pointers to what is wrong with NHS management, and how to correct it.

Growing new HMOs

After outlining what HMOs are, how they have performed, and the organizational, marketing, and management determinants of their success, this report goes on to explore how similar systems could be developed in the United Kingdom. It does not propose to sweep aside present mechanisms in preference to new ones; rather, it suggests ways in which a start can be made, so that the new systems, if popular, can thrive. To make that start requires little new effort by public- or private-sector institutions; but the benefits to both, and to their patients, could be significant.

2. PRINCIPLES AND ORGANIZATION OF THE HMO

Deficiencies of traditional insurance

Most people are familiar enough with the principle of private health insurance. In return for a fixed premium paid in advance, the insurance company agrees to pay all or some of the cost of medical services bought from the private sector during the lifetime of the contract.

The difficulty for insurance companies offering such a contract, however, has always been that they have very little control over the volume of services bought and the charges which doctors and hospitals decide to make for them. The patient's interest is to have the best and most extensive medical treatment possible, in the knowledge that the insurance company will pick up the bill; doctors and hospitals are happy to oblige by providing better and more extensive services, however marginal these might be in medical terms, because each new service means a higher fee, met by the insurance companies once again. In the United States especially, doctors prefer to err on the side of caution and perform every plausible test and procedure, rather than risk the enormous settlements that have been determined in malpractice suits. Again, the knowledge that the insurance companies will pay for every justifiable service reinforces this tendency to overprovision.

Although consumer pressure does exist in this traditional health insurance system -- rising premiums causing people to switch to cheaper arrangements -- it is not focused at the sources of the rising cost and occurs too late to prevent it.

Failure of traditional cost containment

Insurers have devised various strategies to escape from this unhappy spiral. The 'excess' principle is used to eliminate small claims entirely and to make insureds more cautious about accepting unnecessary services by asking them to pay the first tranche of any claim. The 'coinsurance' principle asks insureds to meet a given percentage of any claim, reducing their willingness to accept unnecessarily expensive services.

While such devices work well in many forms of insurance, they have not proved able to control costs in the United States health insurance market. Firstly, neither consumers nor insurance companies are medical experts: they are likely to accept the judgement of doctors and specialists that a particular procedure is truly necessary. Even when insurance companies have employed their own expert loss adjusters in the attempt to police medical charges, the decision whether any procedure is necessary is often one of opinion alone, and it has been impossible to put a firm cap on the services and the charges that should be allowed in each case. Thirdly, health insurance in the United States is commonly offered by employers as part of their remuneration

package, and workers' representatives have shown the tendency to opt for increasingly comprehensive insurance packages in which the excess or coinsurance elements, and therefore consumer pressure on medical costs, are small or nonexistent.

The HMO response

The growing response to these problems, the health maintenance organizations and preferred provider organizations, start from the insurance principle but draw in doctors (and increasingly, hospitals) as allies rather than adversaries. The HMO contracts with doctors and/or hospitals so that it can actually provide the delivery of health services to subscribers in return for their prepaid and fixed premium, whereas the traditional insurance company is limited merely to paying for the services which their policyholders can buy from almost any source. Because insurance experts and health practitioners are linked in the HMO, a strong management control can be exercised over what services are offered, how efficiently they are organized, and how much they cost -- a control which is the envy of traditional insurance managers.

The doctors and hospitals making up the delivery side of the HMO are usually remunerated on a capitation basis, rather than their receiving fees for each service they perform, and this is the essential principle behind the HMO which puts a brake on medical costs. But the arrangements are not always so straightforward, and within different HMOs can be found many different forms of relationship between insurers, doctors, hospitals, and patients. This diversity of approach makes it difficult to give a brief but unequivocal definition of what precisely an HMO is, and can lead to much confusion in the minds of those unfamiliar with the concept.

For most purposes, however, HMOs can be taken as organizations which accept a contractual obligation to assure or provide the delivery of health services to a voluntarily enrolled population paying a fixed premium. The phrase 'assure or provide' indicates that, if the HMO is unable to provide the necessary specialist services or equipment from its own participating doctors and hospitals, it must either buy them in for the patient or undertake to pay for the cost of treatment elsewhere.

The related system of the preferred provider organization, the PPO, is perhaps even harder to define. Typically, its obligation is to reimburse subscribers for the fees they are charged for medical services when they are sick (like conventional health insurance plans), not to actually provide services through its own panel of doctors and hospitals (as an HMO would do). In general, it retains the principle by which service providers are remunerated by fees, but keeps costs down by negotiating discounts on the fees of a number of 'preferred' doctors and hospitals and encouraging subscribers to use these preferred providers through financial incentives such as more favourable cost sharing arrangements. Whereas the typical HMO subscriber is

required to use only a participating doctor or hospital for treatment, the typical PPO subscriber can go anywhere -- but it will generally be much cheaper for him or her to use a preferred provider, where the PPO will cover all or most of the fees charged.

The incentive structure

Because they are prepaid plans for the delivery of health services, HMOs have incentive structures that are different from those operating in conventional health insurance. As we have seen, the incentives in conventional arrangements urge doctors and hospitals to overprovide services and patients to overconsume them.

In an HMO, patients also have an incentive to overconsume, and because there are typically no coinsurance or excess arrangements, the incentive is stonger than in conventional schemes: once the subscription is paid, each and every service costs the patient nothing. But the incentives operating on the HMO's managers and contracting doctors and hospitals are quite opposite. Once the premiums are paid, additional services simply increase the insurance manager's costs by requiring more medical personnel and facilities to be contracted. Likewise, the HMO's doctors and hospital administrators, being remunerated on a capitation rather than a fee-for-service basis, will see each new service offered to patients eating into their time and costs.

Does that mean that a hospital which is serving the subscribers of an HMO has 'a temptation to let a patient die of cardiac arrest rather than place him in the intensive care unit at a cost of \$300 per day'?(4) The answer is a clear negative. For one thing, the doctors and hospital administrators who contract with HMOs are subject to the same ethical and legal rules that apply to others. Also, each HMO must compete with others and with the different systems of health service delivery that exist in the marketplace -- a competition in which the quality of the care provided is the key concern of potential customers. And as a matter of fact, as we shall see later, the quality of care offered by HMOs turns out to be generally superior to that offered by other arrangements.

DIFFERENT TYPES OF HMO

HMOs can take a variety of different forms and can be established for a number of different motives. Let us consider the latter point first.

Profit and non-profit HMOs

Most HMOs operating in the United States are nonprofit organizations. As of June 1985, according to InterStudy, there were 241 nonprofit HMOs with 13.9 million subscribers, compared to 136 for-profit HMOs serving 4.9 million members.(5) However, in the past three years, more than ten percent of operating HMOs

have converted from nonprofit to for-profit status.

Nonprofit HMOs are rather like friendly societies or mutual insurance funds. They are set up to provide health services for their subscribers, and have no owners or shareholders to satisfy. Any increases in efficiency that their managers can achieve are used to improve services or lower subscription costs. For-profit HMOs, on the other hand, are more akin to commercial insurance companies, except that they are bound to provide subscribers with a stream of health services rather than with a cash indemnity against loss.

There are probably niches for both arrangements in most health marketplaces, although the balance reached in the United States owes as much to government interventionism and differences in the tax treatment of nonprofit and for-profit organizations as it does to the market attraction of the organizations themselves.

Nonprofit organizations, for example, pay no income taxes, and in many states they are exempt from property taxes as well. Federal grants and loans are available for nonprofit HMOs that are not available to commercial organizations. The laws in some states have prohibited the operation of for-profit HMOs completely, while in others, legal technicalities controlling the status and assets of charitable bodies make it difficult for a nonprofit organization to convert to a for-profit one even if it wanted to. On the other hand, some state insurance regulations treat HMOs much like conventional insurance companies, and require them to maintain large financial reserves that nonprofit bodies, especially those like HMOs providing benefits in kind rather than in cash, find it hard to meet.

Increasingly, many HMOs are braving the difficulties and converting to for-profit status so that they can raise new capital to expand their services and penetration in a highly competitive and growing market. According to the US Office of Health Maintenance Organizations (OHMO), HMOs raised about \$480 million through public stock and bond offerings between 1982 and 1984 alone.(6) And for-profit companies can diversify and raise income from new sources while non-profit organizations remain tied to the purposes specified in their trust deed. Moreover, for-profit HMOs are finding that they can attract higher-quality staff by offering them a share in the enterprise. All this makes for-profit HMOs grow faster and more successfully than their nonprofit cousins, and is causing small and medium-sized nonprofit HMOs to seek conversion in sizeable numbers.

Organizational arrangements

Whatever the nonprofit or for-profit constitutional arrangements chosen by an HMO, there are many ways of organizing the provision of care. The Group Health Association of America identifies four main types.(7)

In the group model, the HMO contracts with a group practice, usually remunerated on a capitation basis. Group model HMOs tend to have the largest enrolments, with 175,200 members on average. Their subscribers tend to join in large groups (averaging 27,100) signed up by unions or employers. Their scale allows them to charge the lowest subscription premiums for both single and family contracts -- \$71 and \$196 respectively in the year ending 31 December 1984.

The staff model HMOs, attracting an average of 42,500 members, provide health services through a group practice, usually on a salaried basis.

The network model HMO contracts with two or more group practices, usually remunerated on a capitation basis.

Lastly, the IPA model makes use of what are termed independent practice associations. Here, the HMO contracts with an association of doctors who come from a variety of settings, some individuals and some groups. They are usually reimbursed on a fee-for-service basis, but naturally the HMO can negotiate lower rates for its subscribers than are available to the general public, and in any event the fees that it is prepared to offer to participating doctors are limited by its subscription income. This kind of HMO has the smallest average membership, at 28,500, caters for the smallest groups (averaging 6,300 members), and charges the highest premiums, \$75 and \$206 on average for individual and family subscriptions in 1984.

HMO sizes and premium rates, 1984

Model	Average enrolment	Family premium	Individual premium
Group	175,263	\$195.91	\$71.30
Network	52,866	\$199.55	\$73.72
Staff	42,540	\$197.58	\$71.96
IPA	28,473	\$205.76	\$75.39

Source: Christine Brudevold and David Plotnick, A Survey of HMOs 1985 (Washington DC: Group Health Association of America, Inc, December 1985).

Varying degrees of provider risk

In the traditional fee-for-service system, all risk is borne by whoever pays the doctors' and hospitals fees. This is often an insurance company, but it might well be an individual or group which is 'self-insured' -- that is, one deciding to play the odds and pay medical costs when they arise, rather than going through the medium of an insurance company. The doctors and hospitals

simply sell their services and need to make none of the actuarial decisions faced by their clients. Their incentive, if anything, is to increase their charges as far as possible and so make the actuarial risks borne by those clients even greater.

The founding principle of the HMOs was to shift some part of the risk back to doctors and hospitals and so contain the pressure towards rising costs. Doctors and hospitals retained on a flat capitation fee would have every reason to economize -- though not beyond the point where their patients were actually getting sick and requiring more expensive treatment later on.

However, remuneration by a set capitation fee is not the only way to impose an element of risk and therefore cost control on medical practitioners, and a variety of different systems have emerged within HMOs. Furthermore, other types of health delivery system which would not normally be classified as HMOs have begun to introduce elements of practitioner risk. Hard distinctions between the different models of HMO and even between HMOs and other delivery systems have become difficult.

Typically, for example, preferred provider organizations have retained the fee-for-service principle but sought to reduce costs by negotiating discounts with participating doctors and hospitals, leaving the risk firmly with the insurance carrier or self-insured member group. But now, in plans that would normally be considered as PPOs, 'some providers have accepted risk sharing in various degrees.'⁽⁸⁾ In some cases, doctors' and hospitals' fees are 'capped' on the basis of aggregate measures of expenditure or service use. Health Care 2000, established for self-insured groups of employees by the consulting and health management firm Tekmatix in Towson, Maryland, sets targets for doctors' expenditures, including outpatient laboratory and X-ray tests, and for hospital costs. If utilization is below the targets, the whole group of participating doctors share half the savings (up to a maximum of one month's revenues), and the balance is returned to the self-insured employer. But the group must bear the full cost of any above-target expenditures.

So confident have HMOs and PPOs become that they can deliver health care more efficiently that the KeyCare programme established by Blue Cross and Blue Shield in Virginia, serving 60,000 members and contracting with 38 hospitals and 3,500 doctors across the state, sets its hospital utilization targets at ten per cent below historical levels, and rewards doctors if they are met. They have been: during the first fifteen months of KeyCare's operation, participating groups in Richmond and Petersburg experienced an 11% drop in hospital admissions and a 17% drop in the number of days patients stay in hospital. Participating employers have been told to expect premium reductions in the order of ten percent.⁽⁹⁾

In other cases, doctors face a mixture of risk and guaranteed reward through fees. The Deseret Health Care Plan serves 33,000 employees in the Salt Lake City area, using 300 participating

doctors. Primary care doctors are paid a capitation fee of fifty cents per month for each subscriber; the fees they charge on top of this are subject to target levels, so that they and the insurance company share any below-target savings, but doctors must also share at least some of the above-target deficits.(10)

Several PPOs have placed upper limits on future premium increases (or in the case of self-insured employer groups, on increases in the volume of claim payments), transferring part of the risk to the participating doctors and hospitals. VHA Enterprises, the for-profit subsidiary of the Voluntary Hospitals of America, handling large accounts from the Teamsters' Union and others, generally withholds ten per cent of doctors' fees, disbursing them only if subscriptions can be held to eight percentage points below national trends.(11)

Different degrees of lock-in

One element which might be regarded as central to the HMO concept is that patients are required to use only participating doctors or group practices, something which is seen as essential if HMO managers are to be able to control costs. But this 'lock-in' arrangement (and therefore the distinction between PPOs and HMOs) is beginning to erode. Memorial Health Plan in Worcester, Massachusetts, works with a panel of doctors who are paid by capitation fees for most services. However, subscribers can use doctors outside the scheme and be reimbursed for their fees, subject to a 70% coinsurance element. The Emerald Health Network, in Ohio and western Pennsylvania, also reimburses subscribers for the fees charged by non-participating doctors, but imposes a 20% coinsurance and an excess of \$250 per person (\$500 per family) per year.(12)

3. HMO GROWTH AND COVERAGE

Origins of the HMO

Although their most rapid growth has taken place recently, HMOs are by no means new phenomena. The foundations were undoubtedly laid in the United Kingdom, where friendly societies and co-operatives would provide a range of services, from health care to groceries and even funerals, to subscribers.

It was in the 1930s, however, that the HMO concept began its modern life. The Ross-Loos clinic was established in Los Angeles to provide group health services to city power and water workers. Across the continent in Washington DC, the Group Health Association was organized by employees of the federal Home Owners Corporation as a consumer co-operative. Then, the industrialist Edgar F Kaiser brought together a group of doctors to offer health services for workers on the Grand Coulee Dam -- with their remuneration being set in advance instead of being charged by them as a fee for each service performed. Kaiser steel and shipbuilding operations used the same principle during the second world war. And so was born Kaiser-Permanente, the most widely known of all the current HMO operations.(13)

Nevertheless, the HMO movement grew very slowly from these beginnings, partly because of the suspicion and entrenched interests of established medical practitioners and partly because of restrictive state laws which preserved the status quo. By August 1973, less than half the states in the US had one or more HMOs in operation: but that result is hardly surprising, given the evidence from a 1972 survey that nine states prohibited HMOs altogether, while another twenty had restrictions so severe that conventional HMOs could not operate.(14)

Among these restrictions were requirements for medical society approval of the constitution of a new plan, society sponsorship of directors, or actual control of the plan itself. The outlawing of the 'corporate practice of medicine' in other states effectively prohibited the operation of HMOs, which are corporations. Certificate-of-need laws have required HMOs to seek the approval of health planning agencies (often dominated by local doctors hostile to the HMO concept) for their offices and major equipment purchases. Elsewhere, 'open enrolment' rules on HMOs, but not fee-for-service insurers, have forced HMOs to take on poorer health risks to the benefit of conventional insurers. State laws against the advertising of medical services have also imposed barriers on the development of HMOs in some areas.

Purposeful encouragement of HMOs

Such restrictions held back the development of HMOs for many years, until the rising cost of medical care prompted a re-think by America's politicians. It was not so much that medical costs were rising faster than the national income that alarmed the

policymakers, but the fact that the government's own medical expenditures were rising even faster -- largely because of the new Medicare and Medicaid programmes. Between 1960 and 1970, for example, the share of the nation's total hospital bill borne by the government more than doubled -- rising from 18.8% of all hospital expenses to 37.8% of all hospital expenses.(15)

As the 1970s dawned, it became clear to the administration in Washington that some remedy was needed. One possibility was to attempt to control medical costs through even stricter regulation and price ceilings, but it was dismissed as unlikely to work. More promising was the idea of allowing competitive pressures to operate for the first time by sweeping away the excessive and complacent regulation in the market, but this would have brought Washington into a long and bitter conflict with the states. The course finally chosen was to promote competition through the encouragement of a special kind of arrangement that it was hoped could compete successfully with traditional health care delivery systems -- the arrangement which the administration's health expert, Dr Paul M Ellwood Jr, christened 'health maintenance organizations.'(16)

In 1971, the administration drew up an ambitious policy to promote the development of HMOs, aiming for them to cover ninety percent of the population within the decade. In the event, Congress passed a very much more modest proposal in the shape of the 1973 Health Maintenance Organization Act. This Act and the 1976 amendments to it allowed HMOs to take off: by 1980, enrolment had tripled to nine million people.

The 1973 and 1976 measures override a number of state restrictions on HMOs that are actually or potentially certified at the federal level. In particular, the federal legislation overrides state regulations requiring medical society approval or control, imposing certain financial reserve requirements, or forbidding HMOs to advertise.

Another part of the package was a federal financial assistance programme that eventually provided some \$145 million in grants and \$220 million in loans to HMOs between 1975 and 1983.(17) Most of this help went to nonprofit HMOs, with for-profit organizations being able to qualify only if they served an area 'lacking in medical facilities.'(18)

Employer provision of health insurance has long been a standard feature of most benefits packages in the United States. The third leg of the new tripod supporting HMOs was the requirement that employers with twenty-five or more employees should offer employees the option of enrolling with a federally qualified HMO in their area. To ensure that employers do not favour one type of coverage over another, the regulations require that the amount the employer pays towards the HMO premium should be equal to that paid towards the non-HMO option.(19)

Persistent restrictions

Despite this legislative help, however, HMOs were still not given a completely free hand to compete with their rivals. To gain the prize of federal certification, they were required to offer a much more generous package of benefits that was customary -- such as providing short-term mental health, alcoholism, and drug-abuse services, and having open-enrolment periods in which they must accept all customers, regardless of their health risk.

In addition, HMOs must charge the same premium to all members of a given community and cannot vary their premiums according to any differences they perceive in the health risks of different subscribers. At the same time, federal law limits HMOs from purchasing reinsurance to protect themselves against a run of bad claims experience.

The law requires an HMO to have one-third of its board drawn from subscribers, and imposes reporting, quality-assurance, and training requirements. The same laws which encouraged them, in conclusion, also imposed a number of new restrictions that were not faced by the traditional fee-for-service insurance systems.

Recent boosts to HMO growth

The most rapid growth of HMOs, however, took place in the early 1980s. Enrolment in them doubled between 1980 and 1985, helped by two factors. One was the increasing unwillingness of large employers to absorb ever-rising medical costs for their employee groups using the fee-for-service principle. A number of major national enterprises became much more interested in moving to the HMO model.

In response, large HMOs such as Kaiser Permanente began opening offices in new areas of the United States. Traditional insurers too became involved, with the Prudential Insurance Company of America, Cigna Corporation, and a number of the 85 Blue Cross and Blue Shield insurance plans teaming up with doctors and hospitals to establish their own HMO arrangements among the competition. Blue Cross, for example, now offers roughly 75 HMO plans serving two million subscribers.

The large hospital chains, tackling the problem from the other side of the partnership, added insurance and general practitioner expertise to form their own HMOs. To them, the move into a new form of service delivery was also a response to the fact that rapidly rising hospital costs were cutting their occupancy rates. Thus Humana Inc, with 89 hospitals in 1981, formed Humana Care Plus in 1984, and now sees its occupancy rates rising once more, thanks in part to the scheme's 650,000 members. Humana's major competitors, the Hospital Corporation of America (with 1985 revenues of \$4.9 billion as against Humana's \$3 billion), National Medical Enterprises Inc (\$3 billion), and American Medical International Inc (\$2.6 billion) have all followed its lead, merging their hospital services with HMOs and other forms

of prepaid health insurance.(20) Often, the hospital groups have bought off-the-peg established HMOs instead of creating their own: AMI in 1985 began its programme of acquisitions by buying 80% of the George Washington University Health Plan for a reported \$12 million.(21)

The second recent boost to HMOs' growth came in 1982, when the US Congress voted to allow Medicare, the federal programme which pays for the medical treatment of older people, to negotiate contracts with HMOs. Previously, those entitled to Medicare help were permitted to join HMOs, but the government still paid for their treatment on the customary fee-for-service basis and so never enjoyed the possible cost-containment advantages of the prepaid HMO principle.

In January 1985, the Department of Health and Human Services issued the regulations needed to get this new arrangement under way. Under the plan, Medicare will pay HMOs 95% of the average per capita costs which it now pays for beneficiaries' care under the fee-for-service system. Although the government therefore stands to save an average of 5% on every beneficiary it can join to an HMO, some people have argued that this is not enough: previous experiments have suggested that on average, an HMO's cost in serving a Medicare beneficiary was closer to 80% of what the government would have paid under the traditional fee-for-service arrangements. Another factor which might give HMOs an undue advantage from the new plan, according to HMO expert Professor Harold Luft of the University of California Medical School in San Francisco, is that they are likely to attract the better risks. Medicare beneficiaries who are fit will be willing

Top ten HMOs, 1985

National firm	Members	Growth Dec 83 - Jun 85
Kaiser Foundation Health	4,765,643	8%
CIGNA Corporation	828,885	25%
Health America Corporation	681,113	105%
Maxicare Health Plans Inc	600,670	102%
US Health Care Systems Inc	524,813	119%
Prudential Health Care Plans	444,744	31%
United Health Care Corp	444,534	89%
Humana Care Plus	359,200	n/a
American MedCenters Inc	235,633	34%
HealthCare USA Inc	234,547	233%

Sources: InterStudy, Humana Inc.

Note: For definitional reasons, InterStudy's 1985 ranking of HMOs excludes Humana Care Plus, independent HMOs, and Blue Cross & Blue Shield affiliates.

to move to an HMO, while those who are sick prefer to stay with their own doctor.(22)

The HMO market today

In the late 1970s, according to American health economist Dr Alain Enthoven, 'there was only one national HMO organization with the competence, capital, and credibility to be able to enter new market areas with assurance of success -- namely, Kaiser-Permanente. Now there are six or eight...'(23) Surveys by InterStudy also reveal that much of the recent growth in HMOs has come from the entry of these large national firms into the market. Small HMOs established to serve an identifiable local need are now being absorbed into multistate networks linked by common ownership and management. By June 1985, some 38% of HMOs were linked to national firms, compared to just 28% a year earlier.(24)

Kaiser-Permanente, for example, run jointly by Permanente Medical Groups, Kaiser Foundation Health Plans, and Kaiser Foundation Hospitals, operates in sixteen states, and serves nearly five million subscribers.

Yet there is still little uniformity in the size and shape of the 400 HMOs currently in operation. While a survey by the Group Health Association of America found that the average plan had 75,000 members, group models (those in which the HMO contracts with a group practice, usually on a capitation basis) were found to be much larger, with an average enrolment of 175,200, caused principally by a small number of extremely large, established plans operating on the West Coast and the Northeastern areas of the United States. By contrast, HMOs in the South average only 26,000 subscribers, those in the Midwest average 41,000.(25)

HMO SUBSCRIBER PROFILES

HMOs are essentially group health plans, in which doctors take some part of the risk that their subscribers will not require abnormally high average levels of treatment. When new members join in large groups (those signed up by an employer, for example) it is likely that the risks will balance out. Were people to join the scheme as individuals, however, there is a chance of what insurers call 'moral hazard' or 'self-selection' -- that those who anticipate putting most burden on the service will be most likely to join and stay in, while those who expect to remain fit will not join or will drop out after a short period.

HMO marketing, therefore, is firmly at group accounts. Employee groups are the principal engine of their growth. Over half of the HMOs reporting to the Group Health Association of America study cited federal, state, county, and municipal workers as their largest accounts, while a quarter relied on corporate accounts as their largest source of business. Medicaid groups, trade unions, and other employees formed the largest accounts of

the remainder. Medicaid beneficiaries and federal employees are generally very large accounts, averaging 32,000 and 24,700 respectively; and county employee groups are not far behind at an average of 23,500 members. Although trade union accounts tend to be small, averaging under 5,000 members, penetration of the potential group is high, with HMOs enrolling nearly half of the workers in a union that offers its members the HMO option.(26)

HMOs' largest accounts, 1984

Employee group	Average size of account	Average % of enrolment	Average group penetration
Federal	24,732	17.6%	15.4%
County	23,503	20.3%	30.2%
Corporate	6,509	26.0%	36.9%
Medicaid	32,033	74.7%	29.9%
State	6,808	23.2%	21.6%
Union	4,986	30.5%	48.5%
Other	11,055	16.4%	30.7%

Source: Christine Brudevold and David Plotnick, A Survey of HMOs 1985 (Washington DC: Group Health Association of America, 1985).

Premium levels

Generally, the employers offering HMO options pay the bulk of the premiums of those employees who actually join an HMO, with the workers themselves paying the rest. The split is roughly uniform across geographical regions, and across different forms and sizes of HMO. On average, employers pay 75% of family contract premiums, and 86% of single-person contract premiums.

Those premiums are the primary source of revenue for the HMOs, and the average in 1984 was surveyed as \$200.61 for family contracts and \$73.36 for single contracts. The premium levels are remarkably uniform across different regions and different types and size of HMO.(27) It is difficult to compare these premiums against those offered by traditional insurance companies, however, since HMOs generally offer benefits without subscriber copayments or the principle of an excess. Thus, the premiums of HMOs are higher in some cases, but patient services are also more generous and patient out-of-pocket expenses are less. Nevertheless, five studies brought together by Professor Harold Luft in 1978 agreed that at the end of the day, total medical care costs were lower for those subscribing to the Kaiser HMO than in traditional insurance and other plans.(28)

One problem for employers, however, is that federally approved HMOs must determine their premiums through a 'community rating' system, which takes account of the complete risk profile of the

local population; they are not permitted to charge premiums according to their actuarial experience of a given subgroup. An employer with a demonstrably fit workforce, therefore, will be charged the same premiums as one with less healthy workers, so that those giving HMOs lower-cost groups are unable to reap the benefit.

Age profiles

With this in mind, it is remarkable that HMOs apparently attract subscribers who are, on average, younger and fitter than those who are treated in other health care delivery systems. A review in 1983 by J C Penney, the major chain of department stores, revealed that the average age of its workers opting for HMO coverage was 35, six years younger than the average age of those remaining in the fee-for-service insurance system.(29)

Again, this might be due to older employees with a record of sickness preferring to stay with their present doctor rather than switch to a new doctor contracted with an HMO. However, HMOs are now attracting subscribers who are on average significantly older than before, many of them the beneficiaries of Medicare. Their enrolment of people over the age of 65 nearly doubled in 1984 alone, according to the GHAA study.(30)

As HMOs expand, it might well be that their subscriber profiles are approaching more closely those of the average American population. Certainly, larger numbers of people across the United States are now more willing than before to consider joining an HMO plan. In 1980, researchers from Louis Harris and Associates found that 38% of eligible non-members expressed interest in joining an HMO. By 1984, the comparable figure had jumped to 50%.(31)

4. HMO PERFORMANCE

COST REDUCTION IN HMO PLANS

It is difficult to compare the costs of HMOs and conventional insurance plans very precisely, because conventional insurance requires the patient to pay an excess or a given percentage of all treatment charges, which HMOs generally do not. Furthermore, the range of services that can be insured by conventional methods is not always as comprehensive as those offered by HMO plans. For both these reasons, a direct comparison of premium costs will make HMOs look more expensive because of the more generous benefit structure.

In fact, the picture is even more complicated, because conventional insurance companies can adjust their premiums for each patient, depending upon their actuarial assessment of the risk involved, which federally approved HMOs are unable to do. It therefore becomes hard to choose a perfectly representative subscriber to a conventional insurance plan against which the premiums offered to HMO subscribers could be judged.

Evidence from employers and doctors

Nevertheless, there is a growing acceptance by doctors and employers that HMOs do reduce medical costs substantially. In 1980, a survey by Louis Harris and Associates found that 59% of business executives interviewed agreed with the statement that HMOs are effective in containing the cost of health care. Four years of HMO growth later, that belief had spread to a remarkable 85% of business executives. Similarly, 59% of doctors in 1980 thought that HMOs effectively contained health care costs, but by 1984, some 78% were giving that opinion.

To corroborate the point, the survey revealed that 18% of fee-for-service doctors interviewed in 1984 said that HMOs were reducing their income, and 14% said they had moved towards more cost-effective treatment methods, including lower rates of hospital usage, as a result of the competition of HMOs. Some 12% had reduced their fees because of prepaid plans in their area. Among employers, 30% reported an actual reduction in their employee health care costs as a result of HMO membership.(32)

The downward pressure on costs that have stemmed from new forms of health care delivery are perhaps most clearly demonstrated in the preferred provider organizations, where future years' premium levels are sometimes guaranteed not to rise or to be held substantially below national trends. The Medicare decision to award custom to HMOs if they could reduce costs by five percent was eagerly accepted by the industry, and as we have seen, many commentators believe that the target saving could have been nearer twenty percent.

Premiums charged by HMOs are certainly rising -- by 9.7% for

family contracts and 10.2% for single contracts over the year 1983-84 alone, according to the GHAA survey.(33) This is roughly equal to the increase in total health spending in the United States over the same period, although in previous years non-HMO employers and the Medicare system were well used to increases of up to 20% or more per annum. The real issue, however, is not the percentage increase in costs each year but whether HMOs really start with a lower absolute charge for the range of services they are able to provide.

Systematic evidence

Systematic evidence that HMOs do indeed reduce the costs of medical care substantially come from two main sources: Professor Harold Luft's 1978 survey of about forty comparison studies, and the more recent findings from a sophisticated controlled cost experiment from the Rand Corporation.(34)

The studies compared by Luft show that prepaid group practices reduce per capita cost by between ten and forty per cent. It was not the common assumption that fee-for-service doctors and hospitals tended to perform unnecessary surgery that gave HMOs the edge: on the contrary, hospital utilization by HMOs was lower for surgical and non-surgical treatment, and HMOs suffered lower costs on nonelective procedures just as they did for elective ones. The advantage was simply that HMOs think more about cost, and opt for less expensive styles of practice.

The Rand Corporation study confirmed Luft's conclusion, and identified a cost saving of 28% as a result of HMO membership. And this result is a very reliable one: the study took a decade and cost \$80 million to plan, execute, and report. According to Alain Enthoven, it 'stands in a class by itself as a controlled experiment...we are not likely to see another one as good for a long time.'(35) The Rand experimenters compared the use of doctors' and hospitals' services by different kinds of patient:

- (a) those who had been members of an HMO for over a year;
- (b) those randomly assigned by the experimenters as new members of the HMO;
- (c) those receiving fee-for-service treatment, with varying amounts of copayments from zero to 95%; and
- (d) patients in a plan requiring them to pay 95% of outpatient bills up to a \$150 limit, with free inpatient services.

The division of HMO users into the first two categories was particularly ingenious, since it removes the challenge that HMO groups are self-selecting, younger and fitter individuals who like to pay less but expect and demand lower service levels. The procedure allowed the use of HMO facilities by the (self-selected) group who had been HMO members for more than a year to be compared to the usage of people who were assigned to the HMO at random, so that any self-selection effect helping the HMO to keep down its costs could be detected.

In the event, the use of services in the self-selected and

randomly assigned HMO groups was about the same, indicating that self-selection is not as important a factor in keeping costs down as some critics claim. The real difference, however, was between the costs imputed to these two groups and the fee-for-service group where the insurance company paid the whole bill. Looking at the services used by the HMO groups and the free fee-for-service groups, the study found that imputed expenditures were 28% lower among those randomly assigned to the HMO, 23% lower among those who had been HMO members for more than a year.

Not even those fee-for-service patients who paid a quarter of their health care charges clocked up lower costs. It required patients to pay for 95% of the fees charged before the imputed value of the services they used fell to a point comparable with the value of the services used by HMO patients.

QUALITY AND TYPE OF CARE

These differences in the costs of providing health services to patients in HMOs and those in the fee-for-service sector are so remarkable that it is natural to ask for more detail about how they were achieved. Both the evidence collected by Luft and that from the Rand study give some strong indications on that question.

Self-selection?

Before the Rand Corporation study, a common suggestion was that HMOs were able to provide services more cheaply because they attracted younger, fitter subscribers who naturally required less treatment. Thus it would be self-selection, not HMO efficiency, which would explain the difference.

The Rand study shows, however, that self-selection has very little effect. Actually, those people assigned randomly to the

Service use and imputed annual cost in 1983 dollars

Plan	Out/inpatient visits (% of participants)	Hospital visits (% participants)	Cost (est)
HMO (random)	86.8	7.1	\$439
HMO (self-selected)	91.0	6.4	\$469
Free-fee-for-service	85.3	11.1	\$609
25% copayments	76.1	8.8	\$620
95% copayments	73.9	7.9	\$413

Source: Willard G Manning *et al*, 'A Controlled Trial of the Effect of a Prepaid Group Practice on Use of Services', *New England Journal of Medicine*, Volume 310 (7June 1984) pages 1505-1510 (page 1507).

HMO by the experimenters were less expensive still to treat than the self-selected individuals who had been members of the HMO for more than a year. The randomly assigned patients used hospital services rather more, but outpatient services rather less than the established subscribers, such that the estimated total cost of their treatment (at 1983 prices) was \$439 against the established members' \$469. This \$30 difference is quite negligible, however, when seen beside the \$609 that it took to provide treatment for patients in the fee-for-service sector whose insurers paid the whole cost.(36) The ability of HMOs to provide a significantly cheaper service even for those assigned randomly to them is a clear indication that self-selection of HMO groups is not the explanation of their success in containing costs.

Lower quality?

Are HMOs cheaper because they cut corners? On the face of it, this might be a reasonable hypothesis, since every service given to HMO patients brings the doctors and managers nothing in the way of fees and is just an extra expense. Are HMOs giving in to the temptation to provide inadequate care to patients in order to increase their own returns?

Once again, very careful studies of a wide variety of HMOs give the answer as a resounding negative. HMOs actually provide care that is better on most measures than that available from other delivery systems. Frances C Cunningham and Dr John W Williamson of the Johns Hopkins School of Hygiene and Public Health looked through ninety articles in the professional literature that concerned the quality of care offered in HMOs. From that review, they were able to select 27 studies from 17 independent research projects that, in their judgement, provided relevant and valid measures of HMO service quality. Their summary of these studies, and their conclusions on the results, went into the Group Health Journal in 1980.(37)

In 19 of the 27 studies selected, investigators found the quality of care in HMOs to be superior to that in other settings. In the remaining 8 studies, quality was found to be similar or the total study findings were inconclusive. In no project were the overall results indicative that the quality of care in HMOs was below that in other settings.

Cunningham and Williamson went further, drawing out a total of 101 separate measurements that had been used in the literature and examining HMO performance on each one. Some 21 measures were rejected as inadequate measures of service quality. Of the remaining 80 measures based on valid indicators, 53 revealed HMOs to be superior to other forms of service delivery; in 19, HMO performance and outcomes were comparable or the findings of the investigators were inconclusive.

Only on eight measures was the quality of care provided by HMOs found to be inferior: of these, two were measures of the

continuity of care (which did not take the use of team care by HMOs fully into account); two were satisfaction measures where HMO members were less satisfied with their doctors than fee-for-service recipients (but were more satisfied with technical quality and other health personnel); one indicated the provision of fewer preventive services in HMO settings (although it was not clear whether such services might have been provided in other visits); and one indicated poorer outcomes for hypertensive patients (although past patient histories and different severity of illness might well have confused the result). The remaining two measures were subjective: how patients perceived their access to care and how long doctors thought that patients should stay in hospital.

Another interesting point in this review of the literature was the persistent finding that the quality of care, as measured by a range of indicators, was better for people from poor backgrounds and those with apparent high need for care and treatment. In other words, not only do HMOs provide cheaper care, but they provide it more willingly to the poor. Not only do they provide better care, but they target it more accurately at those who are in need of it.

Provider estimates of quality

Perhaps it is not surprising that fee-for-service doctors (60% of whom, according to the Louis Harris survey, believe they will be affected by the growth of HMOs and 26% of whom believe their practice will be affected a great deal) should continue to express doubts on the quality of care provided by HMOs. The Harris survey found that 64% of non-HMO doctors agreed that many HMOs offer care that is below acceptable standards, a figure that has changed little since 1981. Many of the doctors interviewed believed that HMOs perform fewer laboratory and diagnostic tests than many be necessary, employ less qualified doctors, and do not allow for adequate doctor-patient relationships.(38)

However, this does seem to be a large bunch of sour grapes; for despite their reservations, the survey found that 46% of fee-for-service doctors were actually considering affiliating with a prepaid plan. Furthermore, only 39% of the employers offering the HMO option to their workers thought that care might be below standard, although they would probably be the first to know if their employees thought they were getting a bad deal. For their part, 86% of HMO doctors (who of course are subject to the same ethical and legal rules as others) intend to continue in prepaid group practice, suggesting they have far fewer misgivings than their fee-for-service colleagues about the quality of care offered to patients in HMO plans.

Consumer satisfaction

Patients too are happy with the treatment they receive through HMOs. The Harris poll found that 89% of HMO members interviewed were satisfied with the quality of their doctors, and 76% said

they were satisfied with the quality of hospital care they received. In both cases, this is slightly more than the satisfaction levels reported by patients in traditional medical care systems. Some 85% of HMO subscribers said they were satisfied with the overall service they received, and 77% were satisfied with their access to specialists.

The views of the majority of fee-for-service doctors, in other words, are not confirmed by the opinion of HMO patients, who in general are happy with their access to care and the quality of that care when they receive it. Most, some 76%, were also happy with the level of premiums they paid for this service.

There are, of course, pressures other than the ethical and legal duties of doctors which ensure that HMOs deliver high standards of care. In the first place, there are federal rules operating on all federally approved HMOs. In addition, the growth of HMOs in recent years means that competition in many areas is now fierce, and an HMO which gained a reputation for poor treatment would place itself at a severe disadvantage. Moreover, the Group Health Association of America, representing most HMOs, publishes a rigorous list of standards that it expects all its members to meet. These requirements include good communication with subscribers and between doctors and managers, the existence of good complaints procedures, the assurance of accessibility, staff training and qualification standards, financial probity, full disclosure of potential conflicts of interest within the organization, and high standards of design and maintenance of buildings and facilities. The GHAA visits each HMO applying for membership, conducting interviews and inspecting records, and requires annual reports and accounts from each member.

THE REAL SOURCES OF HMO SUCCESS

It is evident, then, that we must look deeper than the trite answers if we are to explain the real sources of HMO success..

Prevention

The fee-for-service critics of HMOs are quite wrong that they tend to economize on preventive measures, including diagnostic and laboratory tests. In fact, the incentive structure of HMOs is to keep patients well so that they do not use up doctors' and hospitals' time, so the pressure on them is to increase preventive measures rather than reduce them.

The Rand Corporation study reveals that this conclusion is in fact borne out in practice. They reported that although the overall rates of personal visits were similar for the HMO groups and the free fee-for-service patients, the number of preventive visits was significantly higher. Established HMO members, for example, enjoyed 50% more preventive visits each year than those receiving free fee-for-service care, and over 100% more than the patients paying for 95% of their fee-for-service charges.

Several HMOs examined in a management survey for the Office of Health Maintenance Organizations by Peter D Fox and Richard J Steele emphasized fitness programmes as a marketing tool. An important one, Maxicare, offers free classes on how to stop smoking, how to lose weight, and how to manage stress for all employees of some of its employer groups, not just those who are actually enrolled in the plan.(39) Others routinely give a medical screen to all new members so that potential problems can be detected immediately.

A less costly style of care

The real reason why HMOs are able to outperform other methods of health care delivery, then, is not that they overeconomize on services, but that they practice a less costly style of care. Not only do they invest more on prevention, but, as Professor Luft's survey revealed, they are far more cautious in the use of highly expensive hospitals, preferring to do routine tests and procedures in the cheaper (and to the patient, probably more reassuring and convenient) environment of the doctors' surgery.

The reliance on innovative kinds of procedures by HMOs, including the reduction in hospital visits, was quantified by the Rand Corporation study. It found that the savings achieved by the HMO under study did not come from cutting down the number of times the patients saw their doctor. Nor was it that doctors' incomes were lower and the HMO was simply using cheaper staff. The real difference was that HMO doctors put their patients in hospital less often, and kept them in for less time on each occasion. Both admissions to hospital and the total number of days in hospital were found to be 40% lower in HMO patients than in those enrolled in a free fee-for-service plan, a figure broadly confirmed by other studies.(40)

Is this less hospital-intensive style of treatment a desirable one, or does it mean that patients are not getting the full care they need? The Rand investigators' conclusion was that it would take some years of future observation before a definitive answer could be given. However, they noted, prepaid group practices have been around for years without anyone observing any major difference, and it seems unlikely that there can be large deleterious health effects from their style of medicine.

Better managerial review

Of course, it takes a great deal of organizational and management skill to make the doctors who contract with HMOs work in this more cost-effective fashion. Doctors must be aware of the time and money cost of the treatment they administer, and must have the incentive to keep patients well as efficiently as possible so that current and future service costs can be minimized.

HMOs have proved themselves to be particularly effective in building up the right incentives among their doctors and other

health workers, and in providing the management skills needed to keep a careful watch on the use of costly resources. The evidence is that these incentives and management skills certainly do deliver a fully satisfactory service, and perhaps a better one, far more cheaply than traditional methods. The management techniques HMOs deploy, then, are worthy of further analysis and review.

5. HMO MANAGEMENT LESSONS

HMOs use strong, imaginative, and effective management techniques to monitor the use, cost, and quality of their services. They are also successful in maintaining good relations between patients, doctors, hospitals, and managers. And they have a very keen awareness of their market and invest a great deal of time and attention to make sure they remain competitive and attractive to the potential subscribers who make up that market.

In HMO management techniques, in other words, there is something to be learnt by all health care providers. Even the UK National Health Service, although outside the competitive system and not reliant on marketing techniques for its revenues, could be helped by a review of HMO operations. It is, after all, a notoriously difficult system to manage, partly because of its great size and partly because it has grown up with doctors, not professional managers, taking many of the key administrative decisions. It is, moreover, a service whose appeal to the general public is fading, as evidenced by the growing numbers of people who are opting for the extra expense of private health insurance. Thus a review of the very effective and sensitive ways in which HMOs deal with patients and present themselves to the wider community would not be likely to do harm.

SERVICE USE AND QUALITY

Perhaps the first question to address is how HMOs monitor the cost of their procedures and the use doctors make of them. Even in health systems that are insulated from the full threat of competitive pressure, such management techniques are essential if resources are not to be simply wasted; but the evidence is that some, like the National Health Service, are extremely weak in this regard. Not just often but usually, doctors have little idea of the cost of the drugs, tests, and treatment they prescribe, and health workers have only a weak notion of the cost of the materials and equipment they use and discard every day. The enormous storm generated by the attempt to discourage doctors from prescribing the most costly drugs where cheaper ones were available illustrated how far the Service had drifted away from effective management, and how difficult it had become to introduce any measure of control into its operations.

HMOs, on the other hand, are characterized by strong administrative controls on the utilization of resources, and often by strong incentive programmes to achieve that control.

Utilization controls and incentives

There are four main categories of technique that are used to keep costs under control, according to the management review of eight HMOs compiled by Peter D Fox and Richard J Steele for the Office of Health Maintenance Organizations.(41)

Of direct controls on use, management pre-authorization for all elective inpatient admissions and some expensive drug therapies is the most common. Some HMO managers instead require simply to be informed of these costly procedures, leaving the ultimate decision to the doctors. Ambulatory surgery rules are also used to encourage some procedures, such as cataract removal, to be performed in an outpatient setting if this is reasonable. For more complicated surgical procedures, some HMOs require a second opinion or pre-admission testing on an outpatient basis before allowing hospital admissions, and some prohibit weekend admission to hospitals for non-emergency cases. Every plan reviewed by the OHMO study required doctors and nurses to review the necessity of continued hospitalization regularly, sometimes daily.

Second, there exist incentives and deterrents of various kinds. A common way of controlling excess utilization is the case manager or 'gatekeeper' approach, in which a primary care doctor must authorize all admissions for specialist treatment such as dermatology, mental health, and gynecology. Some HMOs have minor procedural barriers, such as the requirement of written referrals, which make it more convenient for doctors to treat patients as far as possible in their clinic rather than in expensive hospitals. Some compile utilization profiles of each participating doctor so that excessive hospital use by any individual can be monitored.

Patients, too, can be brought into the incentives and deterrents mechanism. Some plans have adopted selective and limited copayments to stem self-selection and control demand for elective procedures. Others give patients cash incentives for early discharge, particularly for maternity care. And many plans seek out alternative forms of care for particular cases, such as offering a home help in place of long-term hospitalization.

The third mechanism is education and discussion among doctors. This helps to remind doctors of the competitive world in which the HMO operates, provides them with information about their own utilization patterns, and helps the communication of ideas about less costly new techniques and treatments. Some promote this communication by regular meetings of doctors or of doctors and managers, some provide pharmacy newsletters pointing out new and less costly drugs, and some give doctors comprehensive statistics on their number of office visits and hospital use compared to the plan's average.

Fourthly, many HMOs have regular peer review in which each doctor's performance, utilization, and techniques are discussed by others. The mechanism helps doctors get new ideas from their colleagues, and gives them the material they need for better self-criticism. Not only does this help the HMO keep an eye on costs, but on the quality of the doctors it uses.

Quality assurance

All HMOs articulate a concern for quality, but use different

techniques to secure it. In most, the review of quality is related to their reviews of cost and resource utilization.

Maxicare California, established in 1973 and converting to for-profit status in 1980, serves 245,000 members through a network model, contracting with over thirty medical groups and more than fifty community hospitals. Its quality control coordinators encourage participating groups to adopt recognized professional standards (such as the Mayo Clinic standards for adult physicals and the American Academy of Pediatrics standards for children) and evaluate their performance at least annually. The HMO of Pennsylvania, an IPA model founded in 1977 and now serving 340,000 subscribers through 560 primary care doctors, 3,800 contracting specialists, and 62 hospitals, relies more on its excellent consumer relations department. Patients' complaints or switching doctors are monitored, and the HMO managers survey member satisfaction, telephone response time, the appearance of doctor's offices, and practice statistics.

Harvard Community Health Plan, a nonprofit staff model HMO with over 200,000 members, employing nearly 300 doctors and 200 other medical staff, and using its own hospital for some services and contracting with fourteen others, uses more of an auditing approach. Senior executives develop measures of quantifiable quality performance which include indicators of procedure quality (such as the steps taken when a patient complains of chest pain) and outcome (such as perinatal complication rates). Also addressed is access to doctors by telephone, acceptable waiting times, availability of 24-hour emergency care, continuity, and so on. The plan also has a widely acclaimed automated medical records system that warns clinicians when patients face special risks or need follow-up care (such as abnormal cervical smear results).

Conclusion

The lack of any adequate management system to deal with this last point, of following up cervical smear tests, and the suggestion that certain women had died as a result, drew heated criticism against the National Health Service recently. It prompts the further question of whether the NHS has management structures that succeed in doing, or even attempt to do, most of the things which HMO managers do routinely.

NHS incentive structures, if anything, probably raise costs rather than reduce them. General practitioners' surgeries are seriously undercapitalized in a system which sees hospital treatment as its mainstay. Simple tests and X-rays are performed in expensive (and for the patient, far less convenient) hospitals rather than in cheaper clinics and surgeries. Overworked general practitioners find it easier to refer patients for hospital treatment, yet no personal utilization profiles exist to warn managers and the doctors themselves of the cost they are adding to the system. Doctors at all levels are given no incentive to economize and generally do not even know the cost of the things

they prescribe, nor is there even a systematic and effective mechanism to inform them and to urge doctors to discuss new and more cost-conscious techniques. Waiting times, access to doctors through the telephone, patient satisfaction, and continuity of care are rarely if ever reviewed scientifically by the Service's own managers. Even when staff close to the patients know what simple changes would produce better and more cost-effective care, there is often no management mechanism that can evaluate their suggestions and act accordingly; and likewise, when managers recognize the scope for improvement, reform can still be blocked by senior doctors and even trade union officials.

RELATIONSHIPS WITHIN HMO STRUCTURES

This brings us on to the relationships which HMOs foster between their managers and the various practitioners and hospitals with whom they deal. A large part of HMO success rests in making the different actors in the delivery process work well together, so it is not surprising that many HMOs have developed the techniques necessary for this to a degree which puts many other delivery systems to shame.

Relations with doctors and hospitals

A concern for communication and education between managers and doctors was a strong feature of all the plans reviewed in the OHMO study. Managers must remind doctors of the impact of high utilization of expensive procedures and the need to provide a good service to patients; managers need to learn what new clinical techniques are available and what their competitors are developing.

Selection of doctors is careful, although different HMOs look for different qualities. Some, like the Rhode Island Group Health Association, a nonprofit staff model plan serving 60,000 members and employing 60 primary care doctors and specialists, seek a knowledge or understanding of prepaid group practice. RIGHA interviews candidates twice and checks references very carefully with this, as well as their medical proficiency, in mind. Some HMO managers believe that it takes up to two years for doctors to embrace HMO operating principles entirely, so there are good grounds for caution.

Plans using contracting doctors often check the location, accessibility, and smartness of their offices, the quality of their recordkeeping, and the ability of patients to get appointments quickly and of sufficient duration before they allow a doctor to join. SHARE-Minnesota, a nonprofit network model serving 127,000 members, Capital Area Community Health Plan, another nonprofit plan of 83,000 in upstate New York, and Bay Pacific, a for-profit IPA model with 60,000 subscribers in the San Francisco area, all place new doctors on probation for an initial period as a way of helping them select the best.

Leadership roles are often assigned to one or two doctors, who

will be key members of the management team. Even if not actually on the management board, all eight plans surveyed by the OHMO study had 'leader' doctors who served to communicate between doctors and managers. These techniques help managers understand doctors' needs and gives doctors easy contact to managers through one of their peers. Maintaining contact and credibility as a doctor is one reason why some plans strongly encourage managers and medical directors to continue in clinical practice.

The natural tensions that make an HMO work also mean that doctors sometimes have different objectives from those of managers, which underlines the need for leadership and the 'troubleshooting' role of the leaders. Managers, their opinions subjected to constant discussion by the leaders, realize that doctors cannot be herded, and leaders help develop more subtle methods of encouraging participating doctors to share in the objectives of the HMO and assist in the decision of how much line authority the doctors should have.

Doctor satisfaction is seen as critical by HMO managers, who believe that member satisfaction will follow. Open panel HMOs, (the networks and IPAs with doctors under contract rather than as staff) maintain strong liaison departments for responding to doctors' needs and complaints and keeping them in touch. Some IPAs retain staff who train doctors' office employees to help integrate them to the HMO concept and to provide and act upon the information vital to the HMO's success, such as utilization and cost figures.

Relationships with hospitals are becoming more important, particularly now that hospitals in some areas are beginning to affiliate with HMOs on a risk-sharing principle. Many use a small number of hospitals, with whom they are able to develop special relationships and negotiate flexible prices on the basis of the large volume of service they use.

Relations with consumers

HMOs recognize that health care is a very personal service, and that it is important to have a first-rate consumer relations department to explain its services to members, track problems, and hear members' suggestions for improvements.

Telephone services loom large in this consumer relations programme. Large HMOs are investing in airline-style computerized switchboards that record caller waiting times and divert calls to available representatives. Lifeguard HMO, a nonprofit IPA with 80,000 members in Silicon Valley, contracting with 2,000 doctors, is thinking of installing an automated answering service that would allow members to call day or night for taped answers to their questions.

Service checks are important. Some HMOs routinely call their participating doctors to monitor patient access, and will inform or discipline doctors if their standards are not met. Many

require doctors to have beeper systems so they can be contacted by members at any time.

Member opinion is sought out by consumer relations staff, and HMOs welcome the airing of complaints so that they can learn where improvements are necessary. To help members, satisfaction check-lists are issued, saving the need for them to write letters to express their good or bad experiences. Consumer relations staff in some HMOs can make cash compensation to members who are inconvenienced or unhappy with their service.

Categorization of consumer input is seen as important in order to discover where there are persistent problems (and successes) and to act accordingly. Marketing managers will be informed so that they can present the HMO's strongest features to potential subscribers, and senior managers will be informed so that they can make changes in the organization in response to members' views.

Top management are usually close to this public relations information, getting regular reports of problems (classified by type); medical managers deal personally with all complaints about medical treatment.

MARKETING HMO SERVICES

The main customers of HMOs are employee groups. Many will offer their services to individuals, but the self-selection problem means that sometimes individuals will require a medical screen before joining, and larger groups are obviously preferred because the risk is more predictable.

Most of the marketing of HMOs is therefore directed at employers. If they are convinced of the HMO's value, they will communicate the fact to their staff and allow HMO marketing personnel to outline the benefits personally to employees: and personal contact is the most effective form of marketing.

Marketing strategies

Like the marketing of any service, attention must be paid to product design, pricing, promotion, and distribution.

Knowledge of the market is important. Many HMOs seek to have contracting doctors at good intervals throughout their service areas, and some which have started from centralized locations are quickly branching out. This makes them available to members, and visible to more potential members. An employer is far more likely to be attracted to an HMO which can offer the workforce a localized service.

Some patients like a walk-in service, some like to be assigned to a specific doctor, and marketing managers often stress this choice when it is available. Employers often voice their views about the nature and flexibility of the benefit package offered,

and this too is an area where HMOs are developing more and more flexible arrangements.

For example, Prudential, which runs the PruCare HMO, is developing a 'triple choice' option, where by an employer can offer employees an insured programme (controlled by telephone prior authorization and concurrent review of treatment), an HMO and a PPO. CIGNA Corporation offers Flexcare, giving employees a choice between an exclusive provider option (a kind of HMO with experience ratings) and a PPO. Others have ended the 'lock-in' principle by adjusting their rules for members who want to use non-participating doctors. The Emerald Health Network of sixteen PPOs in the Midwest has formed its own insurance company to help small employers share some of the risk of a health plan, and other risk-sharing options are common.(42) New subsidiaries are being formed by HMOs and PPOs to help employers in risk-sharing arrangements keep track of service utilization.

Conscious identification of the market is important. HMOs tend to focus on groups of a certain size, and more are now entering the market for Medicare services. But they will consciously avoid marketing themselves towards groups they feel cannot be handled cheaply and efficiently.

HMOs recognize that the prepaid group concept may not suit everyone, and often they stress that fact in their marketing, so reducing the chance of dissatisfaction later by individuals and groups who would really have been better off with some other system. This does, however, place conflicting pressures on sales managers, which many have tried to reduce by using straight salary arrangements rather than commission structures. Others reward salesmen for good performance only after it has been demonstrated that the group is happy with the benefits received. Health care is a human service, and HMOs generally do not want it to be oversold by commission-hungry salesmen.

Professionalism in the sales force is seen as vital, particularly since successful marketing will usually will usually require the development of a good relationship with employers. Good management structures are built to ensure that approaches to employers are courteous and effective and that contact is maintained after the agreement is signed. Where HMOs are trying to recruit non-group employees, the approach has to be equally careful and well designed, as do the telephone and other marketing systems that are used. Very detailed training and regular briefing, checking, and communication is seen as vital to ensure sales staff are professional and properly informed. After-sale service is seen as an important way for sales staff and managers to discover potential problems and act quickly to solve them and prevent their occurrence in future.

Clear messages can be found in HMO advertising, though each has its own approach. Some stress accessibility of a local doctor, others the comprehensiveness of the service, the low out-of-pocket expenses, the lack of claim forms, or other aspects of

their service. Most have clear corporate symbols and may use distinctive uniforms, like airlines, to underscore their uniqueness.

Pricing is becoming a more important policy problem as new competition grows. The Rhode Island Group Health Association was forced by the presence of a new IPA competitor to reduce its annual rate of premium increase to 3% in 1985, compared to 9% in 1983. Other plans are offering employers the option of higher cost sharing in return for lower premiums. Some plans charge lower premiums in the suburbs than they do in expensive inner-city areas.(43) But few HMOs seem to have used the full community rating allowances set down in the legislation -- allowances that would enable them to charge different premiums depending on the age of a group and the type of industry it was drawn from -- preferring the simplicity of roughly uniform premiums. As they become more established, however, more precise pricing policies may well emerge within the HMO system.

MANAGEMENT LEADERSHIP AND STRATEGY

There is an optimism and energy in HMOs, according to the OHMO study by Fox and Steele.(44) Achievement targets and review create clear goals for all staff and contribute to the atmosphere of progress, improvement, and success.

Management styles

The management of each HMO is different, but some common themes stand out. A sense of identity is actively fostered. Maxicare, report Fox and Steele, promotes management interest in the organization by giving them projects outside their normal expertise, and in the process builds up a wider knowledge of the operation in each manager, and a stronger sense of corporate community.

The role of boards of directors, however, varies widely, but strong leadership at the top is generally seen as essential. Entrepreneurial drive in the chief executive seems to be crucial to HMO success, as is experience, since many established HMOs are still run by their founders and the excitement and opportunities in HMO management means that many of their senior staff stay with them for a long time. Some boards consider all aspects of the operation: finance and management, corporate planning, consumer relations, and professional relations. Others are mainly advisory and act as sounding boards for long-term planning. Non-executive directors from other walks of life bring in fresh ideas and attitudes.

The need for strong and able management comes from the essential tension that makes HMOs so dynamic. Cost control has to be reconciled with quality of service, customary treatments and methods must be given up for superior new ones, management styles must change as the organization grows, the geographical spread necessary to attract subscribers must not overwhelm the

central marketing and management of the enterprise. It is no wonder that HMOs are typified by very strong systems of communication within the organization, systems which enable them to act quickly in response to market opportunities and internal dissatisfaction.

Data processing and account control are seen as very important to successful HMO operation. Managers want to know the value of claims for services that a provider has rendered as soon as possible, and insist on prompt billing so that they can see cost and utilization trends instantly and take appropriate action. Computer literacy among managers and staff is often seen as important if such information is to be gathered and processed quickly and claims dealt with promptly. Some HMOs have developed their own sophisticated software packages to enable them to deal with all the enquiries, enrolments, statistical analyses, and other essential ingredients of an HMO operation.

Many HMOs invest very heavily in training programmes, helping managers with responsibility for marketing, consumer relations, and provider relations. Often, internal training programmes are used, generally employing a mixture of classroom and on-the-job training, and sometimes managers are enrolled on training courses at top business schools.

CONCLUSION

The sophistication of HMO management systems is remarkable. By fostering good internal communications, they are able to deliver services using hundreds or thousands of participating doctors and dozens of hospitals and clinics. By good management of marketing functions, they are able to identify clear market niches and pursue them quickly and effectively.

A strong commitment to consumer relations means that sources of member dissatisfaction are quickly eliminated, sometimes by radical changes that affect the whole organization. It takes expensive and highly developed management systems to keep in touch with thousands of subscribers, but it is crucially necessary. A clear entrepreneurial drive at the top rests on a determination to outperform the competition that demands a constant awareness of subscriber attitudes to the service they receive. Patients in an HMO could never be regarded just as data to be manipulated: they are the focus and rationale of the whole enterprise.

It is a model from which we in the United Kingdom could learn.

5. INTRODUCING THE HMO TO BRITAIN

WHY THE HMO PRINCIPLE IS NEEDED

The HMO principle could bring sizeable benefits to both the public and the private health care sectors in the United Kingdom.

Improving private health insurance

Already, growing numbers of people are opting to take out private health insurance in order to escape long NHS waiting lists, poor access to doctors, inflexible admission times, and the generally unattractive state of hospitals and surgeries.

This insurance works through the fee-for-service principle, although some private insurers negotiate special arrangements with hospitals in order to keep some sort of control on costs. But in general, doctors are not an integral part of the service as they are in American HMOs, nor are patients restricted in the range of hospitals they can use. Evidently, the same pressures leading to cost escalation that have so damaged conventional health insurance in the United States are also present in the United Kingdom. The difference is only that the UK's experience with private health insurance is so recent and so small that the trends have not become fully apparent -- although even now, many insurance companies are charging significantly more for health care premiums than they were two or three years ago.

The HMOs in the United States have demonstrated that they can contain costs effectively -- by roughly 28% according to the very authoritative Rand Corporation study.(45) If the effect can be reproduced in the United Kingdom, it means that private health care becomes affordable to far greater numbers of people. At present, it is concentrated among those at the upper edge of a bell-shaped income distribution curve: every percentage point that can be trimmed from its price brings it within the budget of far more than an extra one percent of the population. The most sizeable difference that HMOs could make, therefore, lies in bringing private health care down-market, making it something for the majority and not just the few. And that, in turn, would stimulate not only new competition in health delivery systems, but a more consumer-orientated approach by the NHS.

Better NHS management

The emergence of private-sector HMOs on a large scale would certainly concentrate the minds of NHS managers. But there is no reason why the HMO principle should not be used within the Service itself in an effort to improve management and increase choice for the public. HMOs are, after all, rather like smaller and better-managed versions of the NHS -- they work on a budget fixed in advance, and contract to deliver comprehensive health care out of it. With sufficient decentralization, it might well prove possible to grow their principle, including their cost-

conscious management techniques, within present NHS structures.

If costs can be trimmed, without diminution in service, by the HMO principle, the application of that principle to the NHS could also generate savings and improvements. Better management through a closer awareness of costs by practitioners and a more sympathetic approach to the public by managers could cut waste from the system and so leave resources free to make long-needed improvements. It may, for example, provide breathing space and release funds which are needed for better salaries for doctors and nurses, or allow fresh capital programmes that make the Service more accessible and pleasant for patients to use.

The integration of the HMO principle across the whole Service would of course be a risky strategy and subject to enormous opposition from doubters and vested interests. However, the potential rewards are sufficiently attractive that it is undoubtedly worth setting up a number of experiments which, if successful, will spread the new technique.

HOW TO INTRODUCE THE HMO PRINCIPLE

Different strategies are needed to establish the HMO principle effectively within the existing private sector and to develop it as a management principle within the NHS.

Private-sector HMOs

Private health insurance has grown considerably since the late 1970s. Much of that growth is attributable to the modest tax concessions introduced by Sir Geoffrey Howe when he was Chancellor of the Exchequer. Briefly, these give tax advantages when private health insurance is taken out by group schemes of workers earning less than £8,500 per annum. It is seen as a policy which brings the choice and other benefits of private insurance closer to lower-income employees, and is regarded as a reasonable concession because it means that these groups place a lesser demand on the facilities of the NHS. But governments are reluctant to give larger concessions because they feel that any further tax advantages go directly into bidding up the cost of health insurance.

In the HMO principle, there are strong mechanisms to contain spending increases, so this objection to tax concessions is far less strong. Tax concessions will not simply bid up the cost of health care because HMOs employ effective management techniques precisely to keep costs down. There is, then, a case for far more generous tax concessions for those who opt into HMOs. That case is reinforced by the fact that HMOs offer comprehensive health care, not just limited treatment and surgery like most traditional insurers, so that the strain they take off the NHS is much greater. Tax concessions for groups and individuals, and without any limits on income, seem to be the answer.

Such a concession means that employers and trade unions can

make tax-efficient wage negotiations in which health care features as part of the total benefit package. The same growth that has occurred in company and union pension schemes could occur in the health market following such a policy. Once the HMO principle had become established, it might then be possible to phase out the concession and let competition thrive on its own.

The policy would also act as a signal to traditional insurers that they must seek new ways of containing cost. In the United States, insurers are teaming up with doctors and hospitals to form new HMOs, and the same is likely to happen here.

The arrangements that are likely to prove most easy to establish will be the IPA model, in which the newly formed HMO will contract with doctors from a variety of settings, some of them taking NHS and fee-for-service private patients as well as the HMO members, or the network model, where the HMO will contract with two or more group practices on a capitation basis.

If doctors contracting with private HMOs continued to take NHS patients as well, it could greatly improve the service given to their NHS patients. To serve their HMO customers efficiently, doctors are likely to improve their surgeries by adding X-ray or other testing equipment and to install facilities to conduct minor surgical techniques without needing to send patients expensively to hospital. With some per-capita government recognition for the use of this equipment, NHS patients could well benefit from these new, doctor-based services. And it would remove some of the strain from NHS hospitals, just as it reduces hospital charges for the HMO patients.

HMOs within the National Health Service

Encouraging HMOs could bring about a revolution in the private health care market in the United Kingdom: but it is an even more exciting challenge to introduce the HMO principle and HMO management techniques within the National Health Service itself.

One of the driving forces of HMOs is competition, so the HMO principle cannot be reconciled with the application of a single plan across a whole nation. Nor would any such macropolitical effort be likely to succeed against the diverse forces of conservatism determined to prevent it. But a number of local experiments might well get the principle into practice so that it could be evaluated.

A reasonable experiment would be to invite or encourage NHS general practitioners to set up their own HMO on the group or staff models. Instead of having to attract private groups for their prepaid subscriptions, however, the groups would receive a premium from the government for every NHS patient they were able to attract. Like the US government's scheme for Medicare, the UK government would assess the average cost of each individual dependent on the NHS, and would pay that sum as an annual premium to the group practice. Perhaps it might even pay slightly less,

like the Medicare arrangement, recognizing the greater cost-efficiency that is likely to result.

The premiums paid to the group practice would probably have to be determined according to community ratings that roughly reflect the risk: age would be an obvious principle by which the size of the appropriate premium would be set. Once that premium -- approximately what the government would expect to pay through the NHS budget to provide care for each patient -- were paid to the group, it would be a contractual obligation of the group to provide all necessary treatment.

This will, of course, require them to contract with specialists and hospitals, either private hospitals or NHS hospitals. In the latter case, it would be necessary to establish a reasonable and realistic scale of charges for the treatment they administer. Those charges would be billed directly to the group, which would then have a strong incentive to ensure that services were properly managed and that patients were not unnecessarily admitted to and kept in hospital. The 40% reduction in hospitalization found by the Rand Corporation study as a result of HMO use could well be mirrored here through such a system -- with evident improvement in patient satisfaction and with an obvious effect on the notorious hospital waiting lists.

Once again, the groups setting up HMO arrangements for NHS patients on the principle of prepaid government subscriptions for each patient would need to acquire new management skills. They would face an investment in able and professional personnel. And they would have to re-equip their surgeries so that they could provide tests and minor treatment in an outpatient context instead of using costly hospital facilities. It may be that a one-off grant to encourage group practices to start an HMO scheme would help in both these respects. Despite the risks involved to doctors starting up such a scheme, however, the rewards could be great; if they are able to make savings on what the government expected to pay by the more careful management and more efficient use of resources, the surplus is theirs to invest on higher personal salaries or new equipment and offices.

The benefits to the general public of this arrangement are clear enough. The switch from hospital treatment to more localized facilities in doctors' surgeries makes the delivery of health care more personal and less frightening. The participating doctors' unwillingness to use expensive hospitals for tests that can be performed in the surgery means that long patient trips to the hospital, and long waits for the results of tests, can be eliminated in many cases. The falling pressure on NHS hospitals means that patients now on waiting lists can be admitted at last. And it may be that the doctors, through their established relationships with the NHS hospitals with which they will be contracting to provide many services, will be able to introduce a new style of management into the whole system that ultimately benefits everyone who uses the NHS.

FOOTNOTES

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41. Peter D Fox and Richard J Steele, Determinants of HMO Success (Washington DC: Office of Health Maintenance Organizations, US Public Health Service, Contract Number BHMORD-240-83-0095, January 1986). This is undoubtedly the best survey and analysis of the management of HMOs, and much use will be made of it in this chapter.

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