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Translating the U.S. HMO experience to other health systems
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During the 1980s, competitive forces to contain costs replaced the direct regulatory efforts attempted in the United States during the 1970s. Health maintenance organizations (HMOs), which have a long history of serving a relatively small segment of the population, and other payment systems such as preferred provider organizations (PPOs) and managed care networks figure strongly in the increasingly competitive U.S. health care environment. There is substantial evidence that some HMOs provide comprehensive medical care for their enrollees at lower cost than do fee-for-service providers. Also, HMOs have been perceived as increasing competitive pressure on conventional health care providers.

Because medical care costs are rising all over the world, international interest in HMOs also is rising. The United States, with its high spending rate, may seem to be a poor model for cost containment. The applicability of lessons from the U.S. experience with HMOs to other countries must be assessed on a case-by-case basis and depends only to a limited degree on the specific evidence on HMO performance in the United States, which is summarized elsewhere.1

HMOs are often discussed as if they were simple, homogeneous organizations, easily replicated, and well understood. In reality, each HMO is a highly complex combination of economic incentives, bureaucratic structures, and personalities. We know relatively little about exactly how they work. To interpret the research for policy purposes, one must generalize from the relatively small number of carefully studied cases to the broader population of HMOs, an approach that is inherently limited.

A generic definition of HMOs. HMOs are specifically defined for the purposes of federal and state regulatory agencies, but a generic definition includes the contractual responsibility to assure the delivery of a range of medical services (not just to reimburse the patients for their costs) to an enrolled population, which is periodically offered a choice of plan.

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Furthermore, HMO revenue comes mainly from premiums rather than from fee-for-service payments, and the HMO assumes at least part of the financial risk and/or gain in the provision of services.

This definition purposely allows for considerable variation in the organization of HMOs. For example, physicians could practice together in a clinic setting, either as employees of the HMO or as a legally distinct medical group contracting with the HMO. The first form is often termed a staff model and the second, a group-model plan. Both varieties are sometimes lumped together under the label “prepaid group practice.” Alternatively, the HMO could contract with physicians who also maintain substantial fee-for-service practices; this model is often called an individual practice association (IPA). In some cases, IPAs contract primarily with groups of fee-for-service physicians, and this is often termed a network model.

Because specific social, legal, historical, political, and economic aspects of the medical care environment have shaped delivery systems such as the HMO, it is not reasonable to expect that the typical U.S. HMO could be transplanted intact to another country. However, some general lessons from the U.S. HMO experience may be applicable elsewhere. In some instances, I draw upon real or hypothetical examples from U.S. or international experience. While these examples may make the discussion more concrete, they are not intended as evaluations or interpretations. Here I consider five major issues: the social contract and public risk taking, physician payment alternatives, organizational forms, reallocating the medical care budget, and consumer incentives.

The Social Contract And Public Risk Taking

One key difference between the United States and many other developed nations is the role of government in the medical care system. In some countries, the notion of a social contract and the uniform sharing of risk is deeply ingrained and highly valued. While regional inequities may exist in the availability of services, the public intent is to equalize access and coverage. A uniform system of entitlements, even if provided through a multitude of independent providers and insurers with identical benefits, has the advantage of political accountability. In the United States, Medicare for the elderly comes the closest to this model. While private local fiscal intermediaries administer the program and care is delivered through independent fee-for-service providers, benefits and coverage are determined nationally, and policymakers can ask whether beneficiaries are receiving the services they intended.

In some ways, the U.S. policy debate about the use of capitated systems
for Medicare beneficiaries exemplifies the concerns that would be raised in transferring HMO-type systems to other countries. The numerous technical issues of how to set the HMO premium or capitation payment are only part of the problem. Even if payments were fully adjusted for risk differences, problems would still remain. In the United States, programs such as Medicare are often referred to as “uncontrollables” in budgetary discussions because the government cannot really control how much money will be spent in a year. Instead, beneficiaries are guaranteed certain levels of coverage, and various mechanisms are used to control prices and use. When Medicare beneficiaries are enrolled in HMOs, however, the government knows in advance exactly what its outlays will be for the coming year, making planning much simpler. This shifts the financial risk to the provider and the risk of inadequate services to the enrollee.²

As long as the proportion of Medicare beneficiaries enrolled in HMOs remains relatively small, capitation rates can be tied to the “standard” local fee-for-service plan costs.³ Thus, as costs for fee-for-service enrollees rise with price inflation and use of new technology, one can argue that the capitation payments based on fee-for-service costs are reasonable. However, as the proportion of beneficiaries enrolled in the fee-for-service sector becomes smaller and perhaps less representative of those enrolled in the HMOs, fee-for-service costs are no longer a valid standard. The capitation rate is then likely to be tied to some arbitrary index, such as the rate of growth in gross national product (GNP). If this happens, the capitation program for Medicare beneficiaries would be transformed from one of guaranteed benefits to one of a dollar allotment, which must be weighed against other budgetary needs. On the one hand, some economists argue that medical care should be treated as any other commodity or service and should be evaluated within global budget constraints. On the other hand, some policymakers insist that medical care is, and should be, different. In fact, the question of whether a publicly supported medical care program should guarantee benefits or dollar subsidies is largely a philosophical and political, rather than an economic, issue and thus is well beyond the scope of this Commentary.

Even if HMOs are intended to be small components of a largely traditional fee-for-service system, problems in screening out poor-quality HMOs may arise in public systems. U.S. employers and unions have the right to choose which health plan options they will offer to their employees and members. The loss of a contract by an HMO is not easily contested in court. In contrast, HMOs are typically brought into publicly funded programs through standard government contracting and cannot be easily cut from the list of available options. The typical inflexibility in governmental contracting becomes even more of a problem when the quality of
the “product” is as difficult to measure as is medical care.

Physician Payment Alternatives

A key aspect of the HMO concept is that providers control the whole range of benefits. In particular, if physicians reduce enrollees’ expensive hospital use, these funds may be used for ambulatory services or shared with physicians. This raises the difficult question of how to reduce use of expensive services. The complex and highly technical nature of medical care makes it difficult for nonphysicians to undertake what might be called “micromanagement.” It is generally impossible to set out explicit criteria for whether a specific patient should be hospitalized. The broad international literature on variations in practice patterns across small geographic areas and individual physicians suggests there is often wide latitude in clinically acceptable treatment decisions. That equally competent physicians can disagree on appropriate treatment, however, offers the opportunity to encourage HMO physicians to practice more conservative medicine by altering the-standard economic incentives.

Financial incentives. Fee-for-service payment gives physicians the strongest incentives to offer more services and minimizes physicians' financial risk associated with patients who require additional care. At the other extreme, pure salary arrangements offer physicians the least incentive for increased productivity. Capitation creates incentives to add patients to the provider's list, while minimizing the provision of services to those within the capitation pool. Thus, if a physician is capitated just for primary care, there are incentives to encourage “troublesome” patients to join another physician's pool or to refer such patients to specialists. On the other hand, placing the primary care physician fully at risk for referral services, and perhaps even the associated hospital costs, can create substantial problems. While there is often considerable discretion in determining the need for hospitalization, a typical physician has so few capitated patients that the random occurrence of a few patients who need expensive services can deplete the physician's entire risk pool even if the physician uses resources frugally.

Thus, it seems best to make capitation payments to groups of physicians who share in the gains or losses. The number of physicians in the pool should be large enough so that random fluctuations in patients' health status average out, yet small enough so that a physician can recognize some rewards for more conservative practice. Such plans might also be modified to distribute risk among inpatient and ambulatory care providers. In developing such risk pools, one should seek a balance of incentives to reward cost-effective decision making by physicians while not impos-
The Roles Of Specialists And Generalists

The roles of primary care and specialist physicians in the United States differ from those roles in many other developed nations. This difference can have an important impact on the design of capitation plans. In the United States, the patient with fee-for-service insurance coverage typically has free access to both primary care physicians and specialists, and most primary care physicians and specialists make treatment decisions, bill patients, and run their medical practices independently. Thus, one can identify three groups of decisionmakers: (1) primary care physicians who can follow their patients and provide many types of general medical and surgical care in the hospital; (2) specialists who advise on whether certain types of special services should be rendered, often by themselves and the hospital; and (3) hospitals and hospital-based physicians (such as anesthesiologists, radiologists, and pathologists) who provide specialized services generally prescribed by physicians in the first two categories. The last group of physicians generally has incentives for developing productivity-enhancing technology even within the fee-for-service system; these incentives are even stronger with the Medicare hospital prospective payment system (PPS). It is important, however, to distinguish incentives to reduce the cost of providing specific services from incentives to order fewer services. Capitated plans such as HMOs will often contract with hospitals in ways that create incentives for the hospitals to be efficient providers but obviously do not hold them responsible for the number of services ordered. Instead, incentives to constrain the number of services ordered have to be focused on the first two groups of decisionmakers.

A complex, poorly understood system of referral patterns exists among US. primary care and specialist physicians. Referrals in both directions are commonplace because many specialists also serve as generalists. Because it is illegal to split fees to induce referrals, physicians cultivate referral relationships in more informal ways. One aspect of the relationship is the shared responsibility for primary and specialist care of inpatients. This shared responsibility and close working relationship probably lead to an intuitive sense of differences in practice styles among various physicians. For example, there is some evidence that the existing referral system tends to channel patients toward hospitals and specialists with better-than-average outcomes, even though explicit outcome statistics are not readily available.5

In many countries outside the United States, there is a sharp distinc-
tion between the primary care physician, whose responsibility ends at the hospital door, and the specialist, who is responsible for all hospital care, may be paid on an entirely different basis, and may have a different career path. The shared responsibility of generalist and specialist in the United States may or may not be a crucial aspect of the HMO model, but it is probably not irrelevant. Clearly, if specialists have no cost-containing incentives, then some of the largest potential savings may be overlooked. This suggests that physician payment alternatives have to be integrated into an overall organizational design that includes both primary care physicians and specialists.

In nations with clear divisions between primary care physicians and salaried specialists based in the hospital, it would be more difficult to import the classic U.S. HMO with its single pool of specialists and generalists. However, some HMOs have developed in such environments. For example, most medical school-faculty have something similar to a salary arrangement; even if they bill patients fee for service, the fees are often turned over to the department, which may be more willing to agree to future salary increases if revenues are high. Some medical school-based HMOs are formed around a central core of primary care physicians who then refer patients to specialists in the medical school when appropriate. HMO patients may represent all or most of the primary care physician's practice but only a small part of the subspecialist's practice. Specialty departments may be paid fee for service by the HMO (but recall that the HMO controls access to the specialist), or the HMO may use a capitation rate for the department. Subspecialists may still want to practice high-technology medicine, and, unless paid on a capitation basis, they have no direct incentive not to do so. Primary care physicians, however, monitor the use of services by specific specialists and attempt to direct referrals toward those who are more conservative.

Organizational Structure

In the United States, HMOs' economic incentives have been applied to different types of organizations. The prepaid group practice has provided the best evidence of cost-containing ability with reasonable quality. Some IPAs with networks of physician groups show similar performance, even if those groups were originally focused on, and still primarily serve, fee-for-service patients. IPAs with more loosely associated physicians demonstrate a wider range of costs and medical care use. There are several potential explanations for these differences. The formation of a medical group, be it fee-for-service or capitated, may make it easier for generalists and specialists to develop consistent practice styles. The group also
provides a natural risk pool for capitation payments that is large enough to avoid some of the problems associated with capitation for individual physicians, while accepting risk for hospital and specialist services.

The work setting of both fee-for-service and prepaid multispecialty groups may also tend to attract less individualistic physicians because there is usually some type of income sharing. Thus, physicians who would tend to earn less in solo fee-for-service practice (such as pediatricians) earn more in a group setting, while others (such as surgeons) earn less in groups. A group setting also allows physicians a somewhat different "lifestyle" than solo practice, with less individual responsibility for "on-call" time and more free time, but less control over one's own schedule and work environment. These characteristics of group practice may attract physicians who use medical care more conservatively. On the other hand, there is increasing evidence that some IPAs that do not use groups can also control costs, but it seems they tend to use more direct controls over utilization, not the more implicit rules found in groups.6

Thus, implementation of a capitation approach in other countries may depend on existing practice models. If multispecialty groups or clinics are present, capitation contracts may be possible with these organizations, letting the physicians and clinic administrators develop their own schemes to divide the pool of funds. (The method for dividing the available pool among physicians within groups is often one of the most closely guarded secrets of HMOs.) If such organizations are not already present, then analogues will have to be developed, although it is certainly possible to have an "HMO without walls," in which physicians do not practice together but merely form an economically related group. The development of such a group requires care in attracting only those physicians comfortable with the HMO style of practice and organization.

HMOs' financial incentives may not be directly responsible for cost containment; instead, the incentives may merely serve to attract physicians with more conservative practice styles. New HMOs in an environment in which they are not well understood will have to design the appropriate set of signals to attract the "correct" types of physicians. For example, if HMOs are presented as a means for physicians to exercise more professional autonomy without external bureaucratic controls and bothersome paperwork, as long as their subsystem remains within budget, the effort will likely attract rather different types of physicians than would an emphasis on increasing physicians' incomes. Thus, the interplay of incentives is crucial in shaping behavior directly and in selecting individuals comfortable with those incentives.

This raises the question of organizational sponsorship and goals. If the only funds available for start-up costs and experimentation come from
private sources, then there will be a greater expectation of a profit in the short run. On the other hand, public agencies, at least in the United States, have rarely been willing to establish their own HMO systems; the risk of failure is substantial, and the rewards are far less clear to the public decisionmaker. Public support has been available, however, in the form of grants and loans to not-for-profit HMOs, which has allowed the development of systems with less focus on profitability. Mixed public/private or semiautonomous enterprises may also be possible in which the organization is established outside the government bureaucracy but the government is the prime or sole shareholder.

Reallocating The Medical Care Budget

The underlying attraction of HMOs is the notion that key decision-makers, such as physicians, can be attracted by the promise of increased personal incomes, while at the same time the total cost of care is reduced. Since expenditures are the source of income for workers in a sector, this implies a reduction in hospital use and staffing. It may also imply a relative shift of expenditures on physician services away from inpatient-oriented specialists toward primary care physicians and, more importantly, those physicians working in HMOs. In some nations, the political implications of such shifts may be substantial.

Politics aside, the mechanics of the shift may be difficult in some systems, especially those that separate the financing systems for physicians, in particular primary care physicians, and inpatient care. This may be seen through a brief discussion of Kaiser Permanente, the largest U.S. HMO. The Kaiser Foundation Health Plan, the formal HMO organization, enrolls members for a fixed premium and assures necessary medical care. To do this, it contracts on a capitation basis with the Permanente Medical Group, a legally separate (but closely related) physician partnership, to provide the necessary physician services. The health plan also contracts with Kaiser Foundation Hospitals for hospital care based on the expected number of enrollees. If less hospital care is used than anticipated, the savings are split between the Kaiser Foundation Hospitals and the Permanente Medical Group. To remain competitive in the health insurance market, the health plan attempts to minimize its payments to the other two groups. Over time, as Kaiser physicians use fewer hospital days for their patients, hospitals' share of the total pie has shrunk, but in absolute terms, enrollment growth allows for hospital expansion.

Shifting funds among the actors. If there were no way to shift funds from the “hospital side” to the “physician side,” it would be difficult to reward clinical decisionmakers for the development of more cost-effec-
tive practice styles. Formal contracts between the HMO and hospitals are not necessary for these shifts to occur. Most U.S. HMOs do not own their own hospitals but instead pay for the care of their patients in ways similar to those used by conventional insurers. If HMO physicians request less hospital care for their patients, however, there is more money left for the HMO to spend elsewhere, such as in the physician pool.

If, however, the HMO does not pay for hospital care, perhaps because it is covered by an entirely separate agency (as is the case in many countries outside the United States), then the HMO cannot appropriate the savings of lower hospital use. (Indeed, an HMO in such a system has incentives to shift costs the other way, replacing the less expensive ambulatory care covered in its capitation payment with expensive hospital care for which it has no responsibility.) For example, suppose that people are universally covered by both a hospital insurance plan paid for by the state and by a separate set of physician insurance plans for which there is some consumer cost. With no direct linkage between the two plans, if insurers were to develop incentives for their physicians to order less hospital care, the state would be the prime beneficiary, thereby reducing the incentive for insurers to undertake such a risky innovation. To encourage such cost-containing innovations, the state hospital plan might estimate the number of hospital days that would usually be required per thousand covered individuals per year and then track the actual use of people enrolled in the new system. If their subsequent use is actually lower than the average, some of the implicit savings might be shared with the physician insurance plan, which, in turn, could use the funds to reward their physicians, lower premiums, or increase benefits.

A key aspect of any set of contractual relationships, such as is implicit in the HMO model, is the expectation by each party that they will be better-off under the new arrangement than before. Under this premise, one should ask whether the approach outlined above for sharing funds between the hypothetical government-sponsored hospital fund and the physician insurers is sufficient. Compared to the Kaiser model, it is immediately apparent that no incentives have been included for the hospitals. Suppose that the hospitals in the existing system operate under a budget set by the health ministry. If patient days fall because of the “HMO” incentives, the ministry can achieve savings to share with the HMO by reducing the hospital’s budget. (If the budget is not reduced when occupancy falls, then the HMO actually costs the ministry money.) The hospital administrator probably has numerous potential ways to maintain occupancy levels, and these are all the more powerful if inpatient specialist physicians also have an interest in maintaining their patient load. However, just as a scheme could be developed to estimate
the extent of lower hospital use due to the HMO and share the savings with the physician plan, so could some of those savings be shared with the “contracting” hospitals. Of course, there may be political problems associated with what appears to be paying hospitals not to have patients, but this is just one aspect of the reversal of incentives in capitated plans.

The appropriate design of incentives for the various parties that must participate in the HMO is further complicated by the often mixed public/private nature of providers. In some countries, hospitals are primarily publicly owned, while physicians and sometimes insurers are in the private sector. As long as the payments to hospitals on the one hand and physicians on the other remain separate, then few problems occur. However, designing an HMO that reallocates funds between the two groups raises political and legal issues that are far more important than the simple design of economic incentives. For example, public hospitals, which are accustomed to having an overall budget constraint, may have no basis upon which they can set contractual prices for the care of HMO patients. Without some reasonably objective method of determining the savings attributable to the reduced hospital use of the HMO members, the stage is set for conflict not only between the HMO and the hospital, but also for allegations by fee-for-service providers that the state hospital plan is unfairly subsidizing the HMO. This again raises the issue of whether the sponsorship of new plans should be public, private, or mixed. Even a public system is not above controversy, as may be seen whenever one government agency attempts to charge another for services rendered.

**Selective contracting and exclusion.** Another issue that must be addressed in the context of “dividing the pie” is selective contracting. By their nature, HMOs include only some of the potentially available physicians and hospitals in the local area. This allows the smaller number of providers to increase their individual revenue while at the same time reducing overall expenses. For example, suppose that under a fee-for-service system orthopedists developed fairly broad indications for back surgery, and this allowed 100 surgeons to be fully occupied caring for the problems occurring in a population of one million. Suppose that more conservative treatment regimens could care for the same number of people with half the surgery, albeit with more physical therapy. An HMO covering half the population might seek to include only twenty-five orthopedists so each could be fully occupied, with no reduction in income, but far less would be spent on orthopedic surgery overall. That would leave seventy-five orthopedists “scrambling” to support themselves on a population base that previously supported fifty of them.

Of course, this implies the inclusion of some providers and the exclusion of others. Voluntary cooperation is generally desirable, especially if
the appropriate physicians can be attracted. For example, if office-based physicians are currently paid primarily fee for service, those more inclined to provide tests and procedures often earn more, while those who spend more time talking with the patient and are more conservative in their ordering patterns earn less. A capitated system, with its incentives to reduce the use of marginally necessary services, represents more of a shift in practice patterns for the first type of physician than for the second. Capitation is also less likely to offer the same level of income for the first type of practitioner, but it may actually represent an income increase for the second. An open invitation to join the HMO may thus attract primarily the second type of physician, which is desirable from the perspective of the HMO. It uses the differences in economic incentives between the two systems to selectively attract those physicians who will be most comfortable in each system.

While the HMO may be able to maintain or increase the income of its practitioner members, the shift of patients into the HMO implies lower patient loads for physicians outside the system. Increased competition among the remaining fee-for-service providers for a shrinking patient pool is likely to produce political opposition to HMOs. Such opposition may well focus on HMOs' incentives to undertreat its enrollees and may even use the preference of HMO physicians for less aggressive practice patterns as evidence of their “poor quality.” Thus, any strategy to implement HMOs must incorporate carefully designed systems to monitor quality. Such systems should both assure that the incentives are not adversely affecting quality and be able to counter unfounded allegations of poor quality; the latter is far more difficult than the former. Quality measures can focus on either process or outcome. Process measures concentrate on whether the appropriate action was taken for a patient with a particular problem, such as prescribing antihypertensive medication for a patient with high blood pressure. Outcome measures can focus on either mortality, such as the death rate due to stroke or hypertensive heart disease in comparable populations, or morbidity, such as the extent of uncontrolled hypertension in the patient population. There are advantages and disadvantages to each type of quality measure in comparing delivery systems, and a combination is probably the best strategy.

Implications Of Consumer Choice

The design of any alternative medical care financing and delivery system must consider both consumer and provider incentives if there is going to be a choice between the existing system and the new one. The question of choice is important, and a unitary system may well be
preferable. One advantage of a system with a choice among plans is the competitive pressure that will develop between the various alternatives to improve their own performance. Such pressures may be more effective at encouraging efficient operation than the more traditional budgetary pressure when it is difficult to evaluate the outcomes of the system. Offering a choice of delivery systems also reduces political opposition to a forced transfer of the public into a new system. Instead, people choose the new system only if it appears to be advantageous to them. However, making available a choice of plans also creates several problems.

Consumers may be offered various incentives to enroll in alternative delivery systems. In the United States, HMOs generally cover a wider range of preventive services and prescription drugs than conventional insurance plans usually offer. HMOs also usually forgo deductibles and have only minimal copayments, so the lack of financial barriers can be an attraction. Finally, this package of benefits and coverage sometimes is available at a lower monthly premium than the conventional fee-for-service insurance plan. Several negatives, including nonfinancial barriers to care, such as longer waits for an appointment and less continuity of care with the same physician, must be weighed by consumers and balanced against lower overall cost.

The same types of tradeoffs do not exist in all medical care environments. Some European countries have mixed insurance systems in which the worker is partly responsible for the health insurance premium. In such cases, HMOs could attract enrollees by offering a lower premium for comparable coverage. If the employer is responsible for the direct payment of the premium, the situation is a bit more complex. The employer can save money only if workers are encouraged to enroll in the HMO. Employees may be given incentives to enroll in the HMO through bonuses equal to the premium savings or the purchase of additional benefits that are not currently available.

The existing system may offer few options for additional financial incentives because it already provides comprehensive coverage with no patient copayments or premiums. Such a system implies an external source of funding, which is likely to impose other kinds of constraints to stay within budgetary limits. Suppose that these constraints operate by restricting the number of physicians or limiting the amount of personal care offered by the hospital staff. An HMO might attract enrollees by enhancing the availability of primary care physicians, so patients are able to obtain appointments on short notice or on evenings and weekends. Similarly, an HMO might develop the reputation for having the best hospital food and most attentive nurses. As long as its physicians can constrain the use of expensive services below that of the competing
conventional system, the added costs can be absorbed by the system and may serve as incentives for consumers to enroll in the plan. However, to the extent that the HMO lowers access barriers, it may increase costs.

While it may be quite important that there be competition between the conventional system and the new alternative delivery system, it is less clear that there must be competition among several alternative delivery systems. Economic theory predicts more cost-conscious behavior when multiple plans are competing for the same enrollees, yet the major U.S. HMOs have developed effective cost containment systems with little local competition from other HMOs. It is even possible that the potential market for HMOs, given their distinctive delivery system, is limited to substantially less than the total population and that vigorous local competition merely leads to costly advertising and contention over market share without increasing the efficiency of the system.

The potential for biased selection. One of the problems associated with vigorous local competition among HMOs is that it may be far easier to keep costs below a fixed capitation level through favorable risk selection than through cost-effective provision of services. Thus, competition among local HMOs may encourage them to attract people who are least likely to use medical care while devising ways to avoid enrolling people most in need of services. Some biased selection is natural, based upon the location of the various service delivery sites, the reputation of the providers, and differences in benefit packages. The U.S. Medicare program has developed a fairly complex set of risk categories to compute a risk-adjusted premium for HMOs serving Medicare beneficiaries on a capitated basis, but some analysts still feel there is substantial leeway for selection.\(^9\) It may be necessary to adopt more complex methods of monitoring and adjusting for selection biases if these relatively simple approaches fail to reduce differences across plans to a tolerable level. Some argue that complete adjustment for biased selection is impossible.\(^10\)

In any event, one must remember three basic notions regarding biased selection in capitated plans. First, plans have an incentive to avoid enrolling individuals they feel will be more costly than the associated capitation payment. This need not imply that HMOs are willing to accept only the healthiest enrollees. On the contrary, if capitation payments are risk-adjusted, far greater savings are possible for someone likely to have an expensive illness that can be treated in various ways, such as acquired immunodeficiency syndrome (AIDS), than for someone expected to be healthy whose only need for care is the small probability of an occasional accident. The key is to adjust the capitation rate up or down to reflect the enrollee’s risk factors. Second, while the plan should be paid more for a high-risk enrollee, the additional cost of the higher premium payment
to the plan should be borne by society rather than by the patient. The patient’s share should reflect differences in the efficiency of the alternative delivery systems only after risk factors have been taken into account.

Finally, while biased selection may be unavoidable, some situations may reduce its importance while others may exacerbate it. Selection problems seem to be greater when patients can change plans monthly rather than yearly and when plans “market” to individuals rather than groups. Furthermore, some of the most serious problems seem to occur when HMOs are offered as alternatives to a fee-for-service plan offered by the employer or state. In such situations, the “residual plan” often seems to be left with the high-risk people, while the HMOs claim they have experienced adverse selection. An alternative that seems to work well in at least a few state Medicaid programs is to force everyone to choose from one of several HMOs, thus shifting the risk of biased selection from the state agency to the individual HMOs, while eliminating the problem of a “residual plan.”

Conclusions

There is substantial evidence that in the relatively noncompetitive U.S. medical care environment up to the late 1980s, many HMOs were able to provide care for their enrollees at substantially lower cost than fee-for-service care. While this often involved various types of access barriers, HMOs removed financial barriers, and services were comparable in quality to those offered in conventional plans. It is not yet clear whether the same type of performance will continue in the new, more competitive and cost-conscious environment of the 1990s. Similarly, the transferability of the HMO model to other nations, with far different social expectations and economic structures, has yet to be tested.

Since the HMO is really a combination of provider organizations and economic incentives, its performance will be strongly influenced by its social, economic, legal, and political environment. Even in the United States in a given time period, various HMOs perform differently. When considering HMOs' applicability to other nations, one should first inquire about the perceived local problem before reaching for the HMO model as a solution. Once the problem is understood, it may be far better to consider the HMO not as a “package” to be imported, but as a set of lessons concerning the use of incentives shape medical care delivery. Viewed in this way, various aspects of HMOs may be useful in restructuring medical care systems to achieve desired goals. In doing so, however, one should keep in mind that our understanding of how HMOs work is far from complete, so newly developed models are unlikely to function
exactly as planned. Each new model should teach us about the system and help in the creation of yet better alternatives.

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NOTES


