

Managed competition in health care and the unfinished agenda

by Alain C. Enthoven

A market made up of health care financing and delivery plans and individual consumers, without a carefully drawn set of rules to mitigate market failures, and without mediation by collective action on the demand side, cannot produce efficiency and equity. The concept of competition that can achieve these goals, at least to a satisfactory approximation, is

managed competition, with intelligent active agents on the demand side, called sponsors, that contract with the competing health care plans and continuously structure and adjust the market to overcome its tendencies to failure. A great deal remains to be done to achieve the goals envisioned by the "procompetition reformers."

Introduction

Many people have contributed to the movement for a competitive health care financing and delivery system, as an alternative to the system of "guild free choice" that was created and enforced by organized medicine (Weller, 1984). (Under guild free choice, every insurance plan was required to leave the patient at all times free in choice of provider; every doctor was able to participate in every financing plan on equal terms. The purpose and the effect was to assure that there would be no cost consciousness on the demand side of the market for health services.) The pioneers of the prepaid group practice movement introduced the concept of the "limited provider" or "closed panel" plan as a significant competing alternative. They overcame the opposition of organized medicine and proved the acceptability of prepaid group practice and its economic superiority over insured fee-for-service with "free choice of provider." They successfully advocated dual or multiple choice of limited provider health plan as an alternative to guild free choice. Their success and efforts helped persuade the U.S. Congress to adopt a competitive multiple choice model for the Federal Employees' Health Benefits Program (FEHBP) in 1959.

These practical achievements, which were of fundamental importance, came to be reflected in the writings of scholars and public policy analysts. In 1970, Ellwood, McClure, and their associates proposed a national "health maintenance strategy" that would deal with the crisis in health care cost and distribution by promoting "a health maintenance industry that is largely self-regulatory" (Ellwood et al., 1971). Their work led directly to the Health Maintenance Organization (HMO) Act of 1973, a major procompetitive step. In 1972 and 1973, while serving in the Nixon Administration, Fleming designed and recommended a proposal for national health insurance that he called "Structured Competition Within the Private Sector" (Fleming, 1973). His proposal emphasized practical ways of extending the successful experience of the FEHBP to

the whole population. In 1977, I designed and recommended Consumer Choice Health Plan (CCHP), "a national health insurance proposal based on regulated competition in the private sector," to the Carter Administration (Enthoven, 1977 and 1978). CCHP built on Ellwood, McClure, and Fleming's ideas and added design proposals to deal with such issues as financing, biased selection, market segmentation, information costs, and equity. Havighurst (1978) attacked "professional restraints on innovation in health care financing" from the perspective of antitrust law. By the end of the 1970's, the idea of a price-competitive health care economy had attained intellectual respectability and a significant following in Congress.

This article responds to an invitation to appraise subsequent developments from the point of view of the competition idea. Clearly a great deal has changed in recent years. The increase in HMO membership accelerated and reached 21 million by the end of 1985, up 26 percent from a year earlier (InterStudy, 1986). Preferred provider insurance (PPI) has grown explosively as traditional insurers have taken advantage of legislative changes and a buyers' market to discount prices and establish effective utilization controls. By the summer of 1986, the number of persons covered by PPI probably exceeded 10 million. Guild free choice is breaking down. Selective purchasing of services by competitive medical plans (CMP's) appears well on its way to becoming the dominant form of purchasing of health care. (Ellwood's phrase "competitive medical plan" is now a legal term for a health care financing and delivery organization that meets certain HMO-like criteria defined in Section 1876 of the Social Security Act. However, I use it here in its original sense as a generic term for HMO's, PPI, and similar concepts that link premiums and the ability of a limited set of contracting providers to control cost.)

Of course, the health care system is being buffeted by some large forces that exist independently of competition. Public finances are strained. The voters have overwhelmingly opposed increased taxes. The reductions in defense spending as a share of gross national product (GNP) that freed resources for health care in the 1970's are no longer possible. So governments have been making fundamental changes in the rules of the game in order to gain freedom to

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cut health care outlays. The number of physicians per capita has increased substantially in the past decade. Short-stay hospital beds are in excess supply. Employers and consumers were aroused by the increase in health care costs, and they have become better informed and tougher purchasers. So major changes would have occurred even in the absence of competition. And these changes are motivating and facilitating the transition to a competitive system. However, while a competitive health care economy appears to be coming fast, it has not yet arrived.

Need for managed competition

Many proponents and critics of the competition idea share the misconception that "competition" means a market made up of health care financing and delivery plans on the supply side and individual consumers on the demand side, without a carefully drawn set of rules designed to mitigate the effects of the market failures endemic to health care financing and delivery, and without mediation by some form of collective action on the demand side. Such a market does not work. It cannot produce efficiency and equity. Health insurance and health care markets are not naturally competitive. Health insurance markets are vulnerable to many failures that result from attempts by insurers to select risks, segment markets, and protect themselves from "free riders."

The concept of competition that can achieve efficiency and equity, at least to a satisfactory degree, and that the procompetition reformers recommend, may be clarified by contrasting it with several concepts that do not work. For reasons I will explain, a free market in which health plans compete without rules to serve individual consumers cannot work. Vouchers alone—giving people certificates worth so much money and letting them go out and shop for health insurance in a free market—cannot solve the problems.

Experience has shown that even Fleming's "structured competition" and my "regulated competition" do not quite describe the practical successes we have seen nor what is needed to achieve efficiency and equity in health care financing and delivery. Both terms have been taken to suggest that the intent was to structure the market by a set of rules laid down once and for all. Whatever set of rules one proposes, critics can always dream up ways that health plans might get around them to their advantage. The critics hypothesized a contest between intelligent, adaptive health care plans and a rigid, unchanging set of rules—an unequal contest at best. As they identified actual or hypothetical problems, I would often reply, "I think that problem could be managed using the following tools" This has led me to believe that a more accurate characterization of what actually works would be managed competition.

Managed competition must involve intelligent, active agents on the demand side, contracting with health care plans and continuously structuring and

adjusting the market to overcome attempts to avoid price competition. I call these agents "sponsors"; they play a central role in managed competition. A sponsor is an agency that assures the members of a defined population group of the opportunity to buy health care coverage. The sponsor contracts with health plans concerning benefits covered, prices, enrollment procedures, and other conditions of participation. The sponsor also subsidizes the beneficiaries' purchases to discourage free riders and to achieve equity. Sponsors may be public or private. Their behavior is influenced by laws and public subsidies. The main sponsors in our society are employers, unions, health and welfare trusts, and government agencies. The Health Care Financing Administration (HCFA) is the sponsor for Medicare beneficiaries. Managed competition also connotes the ability to use judgment to achieve goals in the face of uncertainty, to be able to negotiate, and to make decisions on the basis of imperfect information. It takes more than mere passive administration of rules to make this market work.

Unfinished business

With only about 30 million Americans, or 13 percent of the population, in some sort of competitive medical plan, one can hardly say that price competition is today the dominant mode of economic organization. A great deal remains to be done to achieve the goals envisioned by the procompetition reformers. Roughly 30 million Americans or more lack coverage. There is a need for sponsors for the unsponsored as well as a need for an equitable system of subsidies for everyone's insurance. Though this is changing, many Americans still remain under employer-pay-all arrangements—despite a need for cost-conscious demand. PPI is a useful transition device, but it is not much more than a price-discount arrangement. For potential economies to be achieved, there is a need for more cohesive organized systems of care. It is also necessary to develop high-quality, cost-effective medical practice, good models of adaptation to competitive markets by academic medical centers, and a means of efficient transition to a long-term balance of supply and demand in the markets for physicians and hospital services. I develop these points in the second half of this article.

This article has implications for management in both the public and private sectors. Perhaps the most important implication for the public sector is that the role of HCFA needs to be recast from that of administrator of an insurance entitlement program to that of sponsor using competition to achieve the maximum benefit for Medicare beneficiaries. The main implication for private sector sponsors is that, if they want to use competition to achieve greater benefits or lower costs for their sponsored groups, their job is more dynamic and complex than many have understood. Employers cannot remain passive and expect competition to work magic for them without some intelligent effort on their part.

To some readers, what I have written here may appear as a major change in views, even a repudiation of the competition idea as they understand it. That would not be a correct impression. I still believe in the same principles that formed the basis for Consumer Choice Health Plan and the competition strategy. However, circumstances have changed. And there has been a great deal of research, debate, and discussion since 1977. I now see much more clearly than in 1977 the need for an active and extensive role for sponsors as an essential part of a successful competition strategy. I see this article primarily as a needed clarification of what I wrote in the 1970's. Now, as then, I see competition as a strategy to use market forces to reform the delivery system to make it produce good-quality, cost-effective care for all. I do not see it as a detailed, unchanging blueprint.

Managed competition

Market failure

In a free market made up of CMP's on the supply side and individual consumers on the demand side, without carefully drawn rules and without sponsors, the health care plans would be free to pursue profits or survival using numerous competitive strategies that would destroy efficiency and equity and that individual consumers would be powerless to counteract. These strategies would include risk selection, segmentation, product differentiation that raises information costs, discontinuity in coverage, refusals to insure certain individuals, biased information regarding coverage and quality, and erection of entry barriers. The main evidence that this would happen is the parlous state of the great majority of unsponsored people in our health care economy.

But experience with successful models of competition suggests that tools are available to enable sponsors to use competition to achieve a reasonable degree of efficiency and equity for their sponsored populations. Most of these tools are expressed in contracts between the sponsor and the health plans. One purpose of the contracts is to structure the competition to make it work.

For the most part, we do not have free markets in health insurance in the United States. Our health care financing system is largely made up of government-sponsored programs, such as Medicare and Medicaid, and tax-subsidized, employer-sponsored health insurance in both the public and private sectors. This insurance is subject to various laws and regulations, such as the continuity-of-coverage provisions recently added to the tax code.

In this section, I enumerate the major market failures that would be likely to occur in a free market, or even a regulated market made up of health plans and unsponsored individuals. In each case, I briefly explain the problem and indicate some of the tools available to sponsors to correct it. In some cases, use of these tools involves limiting consumers' choices.

Tradeoffs have to be made. We must give up competition and choice in some dimensions in order to achieve more effective competition in other dimensions. I do not believe we can achieve anything like perfect competition. But successful experiences to date suggest that our society should be able to achieve a satisfactory workable competition with results superior to those in any other existing model.

Risk selection

The most prominent feature of markets for health care coverage in which individuals have a choice of plan is that health risks or expected medical costs may be distributed unevenly among the different plans (biased selection), and achievement of a favorable selection may be very advantageous to an insurer. Biased selection may result from insurer action, consumer action, or the interaction of the two as insurers manipulate consumers' choices.

If an insurer must quote one premium to all members of a group, and if it can influence the composition of the group, the insurer will find it advantageous to exclude people with relatively high expected costs from that group. This will permit it to make a greater profit or to offer a lower price, if there is competition. Many techniques exist for doing this, including medical review of applicants for coverage and refusal to cover people with serious health problems, exclusion or limitation of coverage of care for preexisting conditions, underwriting criteria, and manipulation of the coverage to induce the good and bad risks to identify themselves by the coverage they choose. Newhouse and others have hypothesized that discrimination against the sick by underservice and by pressure to disenroll is the likely consequence (Newhouse, 1982).

In extreme cases, this may lead to cancellation of coverage or refusal to renew a policy, producing widespread lack of coverage, concentrated among many of the people who need coverage most. Many people will perceive such outcomes as unjust, for example, to the widow who has had cancer and who depended on her husband's employment group for coverage.

If not constrained to insure a whole group for the same premium, insurers and insureds may seek to subdivide each group into subgroups with higher and lower costs and to charge separate premiums to each subgroup. Or a different insurer might contract with each subgroup. This could theoretically lead to complete segmentation of the market to the level of individual risks (Rothschild and Stiglitz, 1976; Pauly, 1984). One problem here would be inequity. In the absence of action to the contrary, the sick would pay the full expected costs of their care.

Insureds may know more about their expected medical needs than insurers, even if the latter have access to medical records. So the insurers seek to induce those who expect greater medical needs to identify themselves by selecting lower rather than higher deductibles; the insurers then charge a higher

premium for the low-deductible coverage. The out-of-pocket outlays of the sick may be raised far above those of the well. A competition in raising deductibles to attract better risks might ensue, and many might be unable to buy the insurance coverage they would choose to buy if they could get it at an actuarially fair price.

How this all plays out would depend on specific rules, if any, and circumstances. But a free market of health plans and individual consumers is likely to be characterized by some combination of high premiums, poor coverage (high deductibles, exclusions, and unavailability of insurance to some people) of the sick, and discrimination against them.

The sponsor's job in a system of managed competition is to structure and manage the process to prevent these outcomes. The following is an inventory of tools that sponsors can use.

Pricing—The perverse incentives in biased selection occur because the insurer cannot charge each insured a price equal to the latter's true expected medical costs (plus administration) because of either institutional requirements on the insurer or private information known to insureds but not available to insurers, or both. One important part of the successful management of this problem is to attenuate the incentives for biased selection by a system of accurate pricing. In the extreme, one could imagine a sponsor soliciting a competitive bid for a year's comprehensive care from each health plan for each insured. Then, for example, the sponsor could offer to pay the price of the low bidder on behalf of each insured, leaving it to the insured to decide whether he or she wanted to pay the extra cost to join a higher-priced health plan. Of course, the transaction costs of such individual pricing would be enormous, so practical sponsors and insurers adopt approximations that fall far short of that extreme.

The general term for these approximations is "risk rating." Persons or groups are identified by certain characteristics that help predict medical expense, and a price is quoted for insuring people in each subgroup. Risk rating can be used to accomplish two important things. First, the incentive to discriminate against the sick can be minimized by allowing the plans to charge higher prices for the care of people in categories with greater predicted costs. And second, inequity can be avoided by tying the sponsor's contributions to the costs in each category, thus protecting the sick from higher costs. Such a system does not have to be even near-perfect in order to be workable, especially when used with other incentives and contractual provisions described in this section.

The largest-scale system of risk rating now in operation is the Medicare HMO/CMP option under Section 1876 of the Social Security Act. Medicare beneficiaries are grouped by age, sex, county of residence, and welfare, institutional, and disability status, and by presence of end stage renal disease. The HMO of the beneficiary's choice is paid an amount related to what a beneficiary of similar characteristics would have cost Medicare under the fee-for-service

system. Participating HMO's or CMP's must charge all beneficiaries the same price for the same benefits. The system was created to protect the government from adverse risk selection, but its most important benefit is likely to be to give health plans an incentive to serve older, sicker beneficiaries. Various critics are now finding that there is some initial risk selection against the government even within the existing set of risk adjustments (Eggers, 1980; Eggers and Prihoda, 1982). But this formula is no more than a first approximation. Better predictors of resource use can and should be developed.

In CCHP, I proposed a system of community rating by actuarial category, in which I envisioned that factors similar to those in the Medicare system would be used initially, to be followed by a more refined system using patient-specific diagnostic information. American Airlines found that the HMO's serving its employees were benefiting from favorable age selection. So the company identified the average amounts it was paying for individual and family coverages by age and employee (by 10-year groups) and announced that it would contribute those amounts. More refined variations of these themes are possible. That more sponsors have not yet gone to sophisticated forms of risk rating may reflect the newness of the problem and the lack of research on risk-adjustment techniques, or it may reflect the relatively low perceived value of risk rating in relation to the increased cost of operating such a rating system. This is the sort of balancing that competitive markets should induce people to do.

Some researchers have noted that people who switch to HMO's tend to have used fewer health care resources in the year preceding their enrollment than others in their cohort who did not switch (Eggers, 1980; Jackson-Beeck and Kleinman, 1983). This is not surprising. It reflects the fact that people not under the active care of a physician are more likely to switch physicians than those who are. If changing health plans entails changing physicians, as is often the case at least with "closed panel" HMO's, then people under active care are less likely to change health plans. In itself, this is far from conclusive evidence of persistent favorable selection in the long run.

Other factors come into play. There is regression toward the mean—the well get sick and the sick get well or die (Blumberg, 1984; Welch, 1985). HMO's also find that their sick members stay with them while the healthy members are more likely to leave (Gold, 1981). Many other factors would need to be considered before reaching such a conclusion, but a sponsor seriously concerned about this phenomenon might negotiate for a price structure that includes a first-year discount. In other words, detection of such biases is not a reason to consider the competition strategy seriously flawed or unfeasible; it may be a reason to develop more accurate pricing schemes.

Standardized benefit packages—One of the main tools insurers can use to select risks is design of the benefit package, that is, selection of the lists of services included and excluded and the schedules of

coinsurance, copayments, and deductibles. Exclude coverage of outpatient drugs, and patients with chronic conditions treated by drugs will choose a coverage that includes drugs. A relatively high deductible, with a correspondingly reduced premium, will tend to attract good risks.

The sponsor must control the benefit packages offered in order to prevent their being manipulated by health plans to select risks. In a group in which all the competitors are HMO's, the simplest and most effective way to achieve this may be to require all to cover the same standard package of basic health services. In other circumstances, however, the fee-for-service alternative may prove to be relatively more attractive to beneficiaries with stronger provider attachments. Thus, raising the deductible and lowering the premium in the fee-for-service (FFS) coverage may be an effective way to make it attractive to about the same risk mix as that attracted by the HMO's. (Raising the deductible and lowering the premium in the FFS coverage effectively lowers the price for those anticipating little or no medical expense and raises the price for those anticipating high expenses. Thus, such a change can be expected to induce some good risks to switch from the HMO to FFS and some bad risks to switch from FFS to the HMO.)

Annual enrollment process—In the successful, employment-based, multiple-choice systems like the FEHBP, there is an annual enrollment period managed by the sponsor. The beneficiaries deal with the employee benefits office, and the benefits office notifies the health plans of who has enrolled in which plan for the coming year. Usually employers manage the contacts between employees and health plans to avoid lost work time and to structure a fair competition. There are several advantages to this procedure, one of which is to deprive health plans of a tool for selecting risks. (Direct interaction between a health plan's sales representative and a potential subscriber in the process of enrollment gives the health plan an opportunity to ask questions about health status and to discourage enrollment of the chronically ill.)

Unfortunately, the Medicare HMO/CMP program and at least some Medicaid programs are configured in such a way that health plans deal directly with beneficiaries in the enrollment process. There are several important disadvantages to this procedure, including adding to marketing costs, attenuating price competition, and increasing the opportunities for health plans to select healthy beneficiaries. Even worse is the provision allowing beneficiaries to disenroll on a month's notice instead of having them be "locked in" for a year at a time as discussed in the next section. Legislation should be enacted to require the Medicare and Medicaid programs to follow the more successful procedure used in the private sector.

Continuity of coverage—Disenrollment can be as important as enrollment in the selection of risks. Sponsors must manage the process to prevent health plans from dumping bad risks, as discussed in the

next section. Among other things, contracts should be written to ensure that subscribers can keep their coverage through the contract year and can renew it in subsequent years. Contracts should also provide for automatic coverage of newborns to prevent health plans from avoiding the risks of neonatal care. Indeed, continuity of coverage is an important goal in itself, beyond its implications for risk selection, and should be a basic law governing all health care coverage contracts.

Surveillance by sponsor—The general understanding between sponsors and health plans reflected in contracts between them should be that health plans will participate equitably in covering the sponsor's entire group of beneficiaries, that they will seek to provide good quality care economically, and that they will not play games to select risks. In matters so complex, there is no such thing as a perfect contract. Enduring business relationships in the private sector are usually built on such understanding and trust. Sponsors should monitor health plans' performance, watch for signs of inappropriate risk-selecting behavior, and take corrective action. Sponsors must be free to use judgment based on reasonable but less-than-conclusive evidence. Graduated responses should be available to sponsors, short of termination of entire contracts. For example, sponsors should be able to freeze new enrollments if a health plan is doing a poor job.

In theoretical writings on this subject, one finds scenarios of sophisticated risk-selecting behavior, such as patterns of systematic discrimination against the chronically ill (Newhouse, 1982.) I believe there are good reasons why such behavior does not seem to happen much in practice, at least in the employment-related sector. People come in families and employment groups. A health plan that seeks to discourage reenrollment by one chronically ill person risks losing the membership of other family members and colleagues who are healthy. And it risks antagonizing the employee benefits office. Moreover, a health plan that tried to make a systematic business practice of such behavior would risk repelling the best doctors and nurses. Such a practice would have a negative impact on corporate culture, and it would risk inspiring negative publicity by "whistle blowers." Some of these disincentives to discrimination against the chronically ill may be weaker in the market to serve relatively isolated Medicare beneficiaries than in the employment-related market. Collective action by Medicare beneficiaries may be an important part of a successful system.

A scenario that I find much more persuasive is based on the insight that a health plan's expenditures in a given year are likely to be concentrated on a few of the members. The Rand health insurance experiment found that 28 percent of expenses were associated with 1 percent of the enrollees (Newhouse et al., 1981). This suggests that a health plan could benefit by finding subtle ways to persuade its sickest 1 percent to disenroll. Picture the kindly doctor saying to the patient's family, "We aren't as well set up to

take care of that kind of case as they are at a prominent fee-for-service provider; you'd get better care by switching to them." But even this is easier said than done. It is inhibited by the usual annual periods of enrollment.

But an alert sponsor who is concerned about such behavior is not powerless in the face of it. First, a sponsor should check out a health plan before offering it. And high on the inspection list should be the plan's tertiary care arrangements. If such arrangements are not adequate, the plan should not be offered until corrective action is taken. Second, sponsors should monitor disenrollments. One technique would be to ask each subscriber changing health plans to fill out a brief questionnaire indicating reasons for the change. If a pattern of inappropriate behavior emerges, the sponsor may demand corrective action. (However, the number of people involved will be small, so such a pattern of behavior may be difficult to detect.) Third, the sponsor might negotiate for a pricing scheme that indemnifies the health plan for the incidence of certain very costly cases to reduce the incentive to disenroll patients at high risk for tertiary care.

Segmentation and product differentiation

Health care coverage does not naturally come in a simple, clean comprehensive package that can easily be compared with other packages. There are endless possibilities for differentiating one package from another by including, limiting, or excluding any of a long list of specific coverages: maternity, eye care, hearing care, mental health, drugs, etc. As well as being a tool for selecting risks, benefit package design can be used to segment the market to avoid price competition and to differentiate the product in ways that make price comparisons very difficult.

As an example of market segmentation, at Stanford in the 1970's we had two prepaid health plan alternatives, Kaiser Permanente and a prepaid health plan based on the Palo Alto Medical Clinic. The Kaiser plan covered normal maternity while the other did not. Scitovsky, McCall, and Benham (1978) found that there was a strong association between income, location of residence, and choice of plan. So the market was segmented to begin with. But this difference in coverage tended to divide the families into those planning or expecting pregnancies and those not, thus further segmenting the market and attenuating price competition. That is, this segmentation reduced the number of people who would seriously consider both plans and modify their choice in response to a change in price.

A market of CMP's is particularly easy to segment because health care is largely a locally provided service. It is more difficult, for example, to segment the market for small cars in Palo Alto because cars are shipped there from locations as distant as Japan and Germany. But only about four or five HMO's conveniently serve the residents of Palo Alto.

Such segmentation can be characterized as catering to different bundles of tastes and therefore may be utility-increasing. But it comes at the expense of price competition. If the sponsor wants to increase the focus of competition on price, a good strategy is to contract with the different health plans to offer identical or very similar coverage. This still leaves ample opportunity for differentiation by system and style of care. Anything that inhibits people from changing health plans at the periodic enrollment attenuates competition. Exclusion of coverage for preexisting conditions is such a practice.

A related problem is opportunistic risk selection by patients—switching plans from year to year because of changes in expected medical needs. One proposed response to this problem is to deter such switches by rules or by taxing them. But the trouble with deterring plan switches is that this attenuates price competition. Preventing opportunistic risk selection without deterring annual change of plan is another reason to require that all coverages be equally comprehensive. And it is a reason for believing that a successful model of annual choice should not offer choices that cater to differing degrees of risk aversion. For example, the offering of high and low options—long a practice in the FEHBP—is a serious error in the design of a competitive system. It is an open invitation to opportunistic risk selection and can lead to instability in the marketplace as adverse selection drives up the price of the high option. If one carrier offers both a high and a low option, as in the FEHBP, cross-subsidies from one option to the other might attenuate this instability. But this would simply invite another carrier to offer the same low option at a lower price.

I believe the net of these considerations will lead most sponsors to favor a strategy of contracting with health plans to offer substantially the same coverages and to make them compete on the basis of price and perceived quality of care and service.

Information cost

At best, health care coverages are complex and difficult to understand, evaluate, and compare. Insurers can make it worse if they are free to do so. It is difficult to write contract language that cuts cleanly through the ambiguities of medical need and practice. This fact can impair the efficiency of the market. If the sponsor does not contract for coverages that are easily compared, people will find it very costly (in terms of their own time) to achieve a sufficient understanding of the different plans to enable them to choose with confidence. When they find an alternative that seems satisfactory, they will be deterred by the "information cost" from considering other alternatives.

A sponsor who wishes to use competition to improve the welfare of the sponsored population can contract for coverages that are easy to compare. In addition, the sponsor can gather and publish information that facilitates comparison and improves

consumer understanding. Examples might include surveys of the sponsored population to report what consumers do and do not like about the various health plans, along with surveys of people who switch away from health plans explaining why they changed. Economies of scale would be realized if a group of sponsors, such as an employer coalition, developed such information.

There is concern about costly and abusive marketing that seems to occur in the Medicare and Medicaid markets. The Southern California prepaid health plan scandals of the early 1970's were marked by reports of door-to-door salesmen in white coats misrepresenting services. This kind of problem seems to occur much less or not at all in markets that serve private sector employees. I believe such problems can be minimized by the sponsor managing the enrollment process and providing good information to the beneficiaries.

I have mentioned several reasons for a sponsor to require all participating CMP's to offer a standard benefit package—to counter risk selection and segmentation and to reduce information cost. I believe these reasons create a strong presumption in favor of standardization. But there are also valid reasons for departing from a standard package. At Stanford, we have adjusted the deductibles in our fee-for-service preferred provider coverage to reduce the premium and make it attractive to a similar mix of risks as the HMO populations. And a sponsor might want to allow a CMP to offer an innovative benefit that was attractive to some members of the covered group, without selecting risks, but that the other CMP's were unwilling to offer. I doubt that allowing those willing to cover chiropractic to do so would cause significant biased selection. The bottom line of this issue is that the sponsor should control and adjust the benefit packages for the benefit of the covered population and should not allow the health plans to select the coverage they offer for purposes of risk selection and segmentation.

One of the central ideas of the competition strategy is the CMP that links providers and coverage so that the provider community is divided into competing economic units. A sponsor can enhance competition by adding health plans that add provider groups to the competition. Numerous PPI plans, individual practice associations (IPA's), and conventional, "free-choice" coverages that offer virtually all providers in a community do not create or add to competition in this sense. Adding more such coverages adds to consumer information costs and increases opportunities for risk-selection games without enhancing competition. Thus, I do not believe that all the duplicative, fee-for-service, free-choice coverages in the FEHBP make that program more competitive in the sense of improving the efficiency of health care delivery.

Discontinuity of coverage

In a free-market situation, insurers would seek to drop coverage of people with chronic diseases as soon as the contract period expired or to raise the price of coverage to reflect the patient's new condition. The latter might be an equity problem, as discussed in the "equity" section. The former creates a problem of discontinuity of coverage. Some insurance plans have tricky exclusions, "air pockets" such as no automatic coverage of newborns, that people do not notice until they are in need. The sponsor can negotiate contract terms that provide for continuity of coverage, including clear provisions regarding coverage of dependents. Such action by the sponsor can reassure the insureds that they can switch plans without fear that the new plan will have some tricky exclusions they did not see.

Free riders

As experience in the free-market segment of the U.S. health care economy shows, a free market is likely to lead to the noncoverage or undercoverage of large numbers of people. The insurers do not want to insure people with greater-than-average risks for the price of average risks, and some people with below-average risks do not want to buy insurance at prices appropriate to average risks. The possibility of risk rating has not solved this problem. If permitted to do so, many consumers will seek a free ride and wait to buy insurance until they become sick. Thus, insurers must adopt elaborate strategies to prevent free riding. In fact, most insurance companies have withdrawn from the market for individual unsponsored coverage. What remains is poor coverage at high prices.

The sponsor can use various tools to achieve universal coverage within its group. Usually coverage is not optional, in the sense that individual members can take the money that would have been spent on their coverage and spend it on something else. For example, many employers offer a substantial subsidy usable only as a contribution toward the premium of a contracting plan, thus giving even the healthy an incentive to insure. In addition, the employer may provide for automatic enrollment in the cheapest plan for all eligible group members who do not make a choice.

Equity

In a free market, without countervailing rules or sponsors, people with chronic diseases would find themselves paying, through premiums or out of pocket, the extra costs associated with their illness. Health plans would want to charge each person a premium sufficient to cover his or her expected medical cost plus administrative cost and profit. This would produce a situation that many would consider inequitable and contrary to the spirit of social insurance. Generally speaking, health insurance, as we and the other democracies know it, entails those who

are well bearing most of the costs of those who are sick. Yet as explained earlier, allowing health plans to charge more to care for predictably sicker people is probably necessary to prevent discrimination against the sick and to take away an important incentive for risk selection. Sponsors can resolve this conflict by adjusting the subsidies to the predicted need of each class of beneficiary. Thus, a central idea of the competition strategy is to shift the locus of cross-subsidies of the sick by the well from the health plans and hospitals to the sponsors. In competition, health plans and hospitals cannot be expected to cross-subsidize. For to the extent that they tried to charge low-cost patients more in order to subsidize high-cost patients, other health plans and hospitals would offer lower prices to cover or care for low-cost patients and take away the source of the subsidies. In effect, many sponsors have been cross-subsidizing within their groups for years by buying experience-rated insurance for their groups.

Quality

Some aspects of quality of care and service can be judged adequately by individual patients and their families. But some very important aspects, such as whether effective medical care makes sick patients better, are statistical matters that can only be judged on the experience of large populations. This is a very undeveloped area, but one in which large sponsors have a much better chance than unaffiliated individuals to develop or obtain the data to evaluate quality.

Even without sophisticated quality measures, complaints can inspire the benefits manager to confer with the health plan about ways to improve service. In the case of the Medicare program, complaints to members of Congress obviously can inspire high-level attention. There are at least several things, short of refusing to renew the contract, that the benefits manager can do about a health plan giving poor service. The list would include: (1) warning beneficiaries about patterns of complaints; (2) suspending all new enrollments in a plan, or suspending all new enrollments in a particular area or category (e.g., in an area where service appears poor); or (3) possibly allowing those who are dissatisfied to leave a plan in midyear. (This would have to be managed carefully to prevent abuse.) Ultimately, to be effective in negotiating for quality improvements, the sponsor must be free not to renew the contract without being tied up in court for years.

The whole area of quality assurance is too large and complex to be discussed here. Let me mention a few key points. First, a competitive market will not automatically produce high-quality care. Suppliers to a competitive market seek to produce what the purchasers want. If the purchasers do not measure and demand good-quality care, there is little reason to expect they will get it. It is hard for consumers to judge the technical quality of care. The great majority do not repeatedly experience major episodes of care

that might help them to become experienced consumers. Consumers need help in judging which providers have good batting averages and which do not. Thus, quality evaluation is an appropriate role for sponsors. McClure correctly emphasizes the importance of concerned purchasers and coalitions of purchasers "buying right," that is, buying for quality and efficiency and not just for discount prices. (McClure, 1985a and 1985b).

Second, for a sponsor to do a good job of quality evaluation, it must have data. Public sector sponsors also need data to satisfy demands for accountability in the use of public funds. This article is not the place to recommend a complete data set. But an illustrative list of what a sponsor might reasonably want to know might include the following: some data on the health status of the sponsored population (for example, to serve as a basis for risk-adjusted pricing); some data on treatments and risk-adjusted outcomes; hospital use by diagnosis; physician encounter data (to evaluate access and to review how certain types of patients are treated); and details on who disenrolls and why. Data are costly to collect, provide, and interpret. So I do not mean to endorse blanket unilateral demands for large amounts of data that might amount to little more than a fishing expedition. Each demand should be justified on its own merits with benefits balanced against costs. But if sponsors are buying a service, they have a responsibility to figure out what it is they are buying and whether their beneficiaries are receiving it.

Entry barriers and procompetitive action

Finally, the presence of even several health plans in an area does not guarantee that competition will be lively. The market may be segmented, or a pattern of "live and let live" may evolve. Potential new entrants to a given market, such as national HMO firms, may perceive that the costs of entry are high because to succeed they would have to take patients away from established HMO's and not just the unorganized fee-for-service sector. Sponsors so inclined can act to encourage entry of new competitors in cases in which they consider the existing degree of competition to be inadequate. A group of employers could together invite an HMO company to open a branch in their area and could promise support in the enrollment process. Such invitations influenced Kaiser-Permanente's decisions to enter several markets.

In sum, as critics of the competition idea point out, many serious failures would be likely to occur in a market made up of health plans and individual consumers unprotected by rules and unaided by sponsors. But we have seen large group buyers, such as the Federal Office of Personnel Management, the State of California's Public Employees' Retirement System, the University of California, Stanford University, and a number of large industrial employers, structure workable models of competition and manage them successfully, some for 25 years. These organizations have done so without using all

the tools I have described. If large buyers have the motivation, the freedom, and the understanding to use all of these tools and to develop new ones, it seems reasonable to suppose that an efficient and equitable health care system will evolve to serve sponsored populations. But such good results will not occur automatically. This is not a market in which the invisible hand will do the job. Some visible hands, which I call sponsors, must manage the demand side to make the market achieve desirable results.

Sponsors

The concept of managed competition puts a heavy burden on sponsors. Who are sponsors? Who is equipped to carry this burden? Today, the main sponsors are government, large employers, unions, and labor-management health and welfare trusts. The Federal Government sponsors Medicare beneficiaries, Federal employees and their dependents, military personnel and their dependents, and various other population groups. State Medicaid programs sponsor Medicaid-eligibles, etc. The ideal sponsor would be well equipped for these tasks and would be motivated solely by the goal of obtaining the most high-quality health care possible for the beneficiaries within the funds available. Who should be the sponsors? There is a great deal of ideology on both sides of the question as to whether the public sector or the private sector ought to do the sponsoring, and if it be the public sector, whether it should be a Federal or State responsibility. The record is mixed. There is no ideal sponsor. There is much room for innovation in developing institutions for this purpose.

Public sector agencies are often criticized for their inflexibility, for the inability of their managements to use judgment because of the constraints of administrative procedures acts, the requirements to treat everyone equally and with due process, and procurement laws. Legislatures are vulnerable to provider pressures. For example, they mandate coverages for the economic benefit of provider groups. Until 1982, the whole Medicare program was shaped by provider insistence on the guild free choice model. The loyalty of the Federal Government is naturally divided. Providers make campaign contributions too. Because of the well-focused pressures of organized provider groups, HCFA cannot single-mindedly pursue the best interests of its beneficiaries, however much its managers would like to. Government is often criticized for the short-term orientation of its elected leaders and for substituting symbolic manipulation for real reform (Mayhew, 1974). Moreover, government is often an unreliable business partner; it must make sudden budget cuts and break contracts in response to changes in public mood.

However, despite these problems, the record of the public sector as sponsor is not bad. Medicare's HMO/CMP option has the most accurate and refined risk-rating system in operation, and its design has many other features of a good managed-competition

model. HCFA has been the leader in research, demonstration projects, and data development. For many years, the FEHBP and the similar health benefits plan of the State of California's Public Employees' Retirement system have been among the best-designed and most successful examples of competitive health coverage systems. Both could doubtless benefit from design improvements. But overall they have been successful in offering beneficiaries a range of cost-conscious choice, in encouraging new CMP's to enter their markets, and in managing to moderate many of the problems I have identified as threats to a successful competitive model. However, for their first 25 years of operation, both had to work in a market of excess demand for providers' services created by the guild free choice system. By themselves they did not and could not be expected to create a competitive health care economy. But they made important contributions to that development.

Private sector employers also suffer from limitations as sponsors. Most are too small and lacking in resources to do the job I have outlined. Employers lack interest in continuity of coverage. They exclude coverage for preexisting conditions, and they drop coverage for employees who leave the group, unless they are forced to maintain it by law or a collective bargaining agreement. Some employers manipulate the system for short-term advantages, for example, by seeking to dump bad health risks onto community-rated plans. Most employers, even large ones, are oriented mainly to short-term profits. The priorities of their managements have to be in their own product markets, not in promoting the health of employees. Many benefits managers have a poor understanding of health issues. And long-term issues of health economics can easily be subordinated to politics within unions and between employers and unions. While we have some fine examples of large benevolent employers, even devoted private sector advocates must admit that most employers have a long way to go to achieve the role of ideal benevolent agents for the health care of employees.

There is a need for innovation in sponsor institutions and in public policy to guide private sector sponsors in socially responsible directions. For example, the continuity-of-coverage provisions in the Consolidated Omnibus Budget Reconciliation Act of 1986 were a significant step toward ensuring people the opportunity to maintain coverage even after they lost membership in the sponsored group. Some people may be concerned that making employer cross-subsidies explicit would motivate companies to avoid hiring or to dump older employees. Most companies have experience-rated insurance or they self-insure, so they have been paying the extra costs of older, sicker employees for years, and this problem has occurred but has not been severe.

The Federal Government subsidizes the coverage of employed people through the tax system. Various proposals have been made to modify the form of these subsidies in the interests of incentives reform

and equity. If discrimination against older employees because of health care costs were a serious concern, one policy to help correct this would be a system of risk-rated Federal subsidies for everyone's health insurance. In other words, instead of subsidizing people's coverage on the basis of their employer's contribution and their marginal tax rate, as is the case today, the Federal Government might subsidize coverage using factors analogous to the Medicare adjusted average per capita cost factors. Many of the shortcomings of private sector employers might be substantially ameliorated by the development of employer coalitions or "community buyer systems" such as the Minnesota Coalition on Health Care Costs (Kenney, 1985).

The ability of HCFA to serve as a sponsor for Medicare beneficiaries could be enhanced by legislative changes granting it greater authority to negotiate, use judgment, and to make graduated intermediate responses to shortcomings in the HMO's and CMP's that serve Medicare beneficiaries. And some of the inevitable shortcomings of HCFA might well be compensated by developing local health care cooperatives that would gather and publish evaluative information on competing health plans (Firman, 1985). Developing such cooperatives would be a worthy object of support by foundations and HCFA demonstration project funds.

In theory, a managed-competition system could be sponsored either by public or private sector sponsors, or by some form of public-private partnership. In CCHP, I proposed that the system be managed either entirely by the Federal government or by the States acting under Federal standards as do the provinces in Canada. In part, this was because CCHP was a response to ex-President Carter's promise to establish a national health insurance system. I attacked the present job-related system of health insurance on a number of grounds, especially that it excludes millions of people, adds greatly to the costs for new health plans to enter a market, and adds greatly to administrative cost and complexity (Enthoven, 1978 and 1980). Europeans interested in managed competition will naturally think in terms of government as sponsor. But I see no present prospect of our society abandoning the job-related system. Its worst consequences could be alleviated by establishment of public sector "sponsors for the unsponsored" to move toward universal health insurance as discussed later in the "people without coverage" section. And study of the European and Canadian systems has impressed me with the rigidity of centralized government systems. There are advantages in a decentralized system of sponsors.

Decisions about levels of coverage need to be made collectively, but they can be made at the level of sponsored groups and do not need to be made nationally. A decentralized approach leaves room for innovation, experimentation, and adaptation to local conditions.

Who needs this message?

I believe the concept of managed competition needs to be understood better than it is now by at least four groups of people.

Free-market and voucher advocates

Advocacy of free-market and voucher approaches in health care, education, and elsewhere is popular these days. And the ideas of consumer choice and competition obviously have much to recommend them. But advocates of these ideas should consider carefully the specific institutional features of each market. In particular, they should look to patterns of successful competition for their model of a competitive health care economy rather than to naive, untested models that pit unaided consumers against health plans in a free market. Such models are bound to be ineffective; people who understand health insurance and health care know they cannot work.

Economists

An economist is someone who tries to prove that what works in practice also works in theory, except in health care. Some health economists seek to prove that what works in practice cannot work in theory.

A potentially valuable function of economic analysis is to help us understand what works, why it works, and how successful arrangements can be extended to cover more people. Despite the theoretical literature on why competition cannot work, we have some large-scale, long-term examples of practical success in competitive health care arrangements. While imperfect in their designs, programs like the FEHBP and the similar program for California State employees have not been destroyed by biased selection or segmentation, nor have they been marked by discrimination against the sick. Economic analysis can suggest design principles and useful management tools to make competitive arrangements work more effectively.

Employers

Many employers, though large-scale purchasers of health care, have been uninvolved, uninformed, and surprised by the appearance of such problems as biased selection. Employers in some communities have continued in the employer-pays-all mode and then expressed surprise that competition was not lowering costs. This situation is changing. Reflection on the reasons for managed competition should help employers form an agenda for action. Understanding managed competition should help them understand the active role they must play and some of the tools available to them. As noted earlier, competition will not automatically produce good-quality, cost-effective care. As McClure argues so persuasively, that will only occur if employers "buy right" (McClure, 1985a and 1985b).

Governmental agencies

To get the most health care for the beneficiaries from the available funds, HCFA's role needs to be recast from managing an insurance program to sponsoring beneficiaries in a competitive market, as already discussed. HCFA's procedures should be modeled on successful designs in the FEHBP and the private sector. For example, in each market area there should be a single, coordinated, open enrollment managed and run by HCFA or a local broker agency contracting with HCFA. HCFA should produce or contract to have produced useful information for consumers. Communities and senior citizens' groups should become involved. States should follow similar principles.

Unfinished business of the competition agenda

Sometimes I am asked, "Now that competition is here, are you satisfied with the result?" I answer, "It isn't and I'm not."

Competition is coming, and we can see some encouraging changes in national expenditure trends. For example, hospital use and hospital employment have declined markedly since 1983. Declining rates of cost increase and even some premium reductions reflect these changes. But it would be impossible to sort out how much of this is attributable to competition as opposed to other factors, such as the Medicare prospective payment system (PPS) and fee freeze, physician and hospital bed surpluses, and tougher employer stances on benefits and utilization. Here are my specific comments on the state of the U.S. health care economy from the competition perspective.

Competition is not here yet

The number of people enrolled in CMP's has been growing rapidly, but as of mid-1986, it stood at roughly 30 million or around 12 to 13 percent of the population. The process has a long way to go.

One principle of the competition strategy is cost-conscious choice. Those who choose a health plan that costs more on a risk-adjusted basis should have to pay the extra cost with their own net-after-tax dollars. Those who generate savings by making economical choices get to keep those savings. This principle is not yet widespread. While the situation is changing rapidly, many employers who offer choices of plan still pay the full price of coverage, at least up to the level of premiums for traditional coverage. This puts the health plans under no pressure to hold down their prices. This employer practice grew up in part because of collective bargaining and in part because of the open-ended exclusion of employer contributions for health benefits from the taxable incomes of employees (Enthoven, 1984). The May 1984 Internal Revenue Service (IRS) ruling on "cafeteria plans" under Section 125 of the Internal Revenue Code

enables employees to have what are in fact their contributions to their health care coverage characterized as employer contributions and to have them paid with pretax dollars (Enthoven, 1985). The effect is that, at the margin, upper-income groups can buy an additional dollar's worth of health benefits at a cost in after-tax income of only 65 cents or less.

To correct this, we need to limit the amount of employer contributions that can be tax-free to the employee, as has been proposed in several bills introduced in Congress.

Medicare remains largely a fee-for-service system, even under prospective payment. That is, it pays physicians more for doing more, whether or not more is beneficial to the patient. The Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) defined a far better model for Medicare, one in which the government contributes a fixed prospective payment to the HMO or CMP of the beneficiary's choice based on the expected cost to Medicare of each beneficiary. Thus, at least to a good approximation, the government makes a risk-specific contribution, and the patient's contribution reflects the efficiency of the health plan. As enacted in 1982, this HMO/CMP option has some deficiencies. Eventually, Medicare capitation payments need to be phased to a national uniform amount, adjusted for local area wages, as in PPS. With some corrections, this would clearly be the best model for taxpayers and patients. Capitation payments are vastly easier for the government to control. And the per-capita mode of payment allows the beneficiary to benefit from an economical choice. The government would be wise to encourage the rapid implementation of this option on a "managed-competition" basis.

People without coverage

Traditionally hospitals were charitable institutions created to serve the poor. Most of them still enjoy tax exemptions. And traditionally doctors gave free care to the poor. The enactment of Medicare and Medicaid reduced dependence on charity care. But still, 10 years after their enactment, large numbers of people were without public or private coverage for health care. Farley estimated that in 1977, about 9 percent of all persons under 65 years of age went all year without coverage, while an additional 9.4 percent went part of the year without (Farley, 1984). The total number without coverage on any given date is uncertain. But it appears to be at least roughly 30 million.

Lack of coverage has meant lack of care (Davis and Rowland, 1983), in some instances, and reliance on uncompensated, i.e., charity and bad-debt care provided by doctors and hospitals in others. For example, Sloan, Blumstein, and Perrin (1986) estimated that hospitals provided \$6.2 billion in uncompensated care in 1982.

Hospitals were able to do this in the guild free choice era because they could raise their charges to insured patients by enough to cover the cost. But they will not be able to do this in the era of PPS and

competition. Competition systematically attacks such cross-subsidies. Cost-conscious buyers shop for the lowest price. If a hospital seeks to load extra charges into its prices to cover uncompensated care, it will lose business to other hospitals that do not. Increasingly hospitals find that under PPS, selective contracting by Medicaid, and CMP's, nobody is willing to pick up the tab, and financial survival comes to depend on avoiding patients who lack coverage. This motivates development of many techniques for reducing the number of nonpaying patients and for promptly transferring those who do get through to the county hospital. At the same time, the county hospitals are financially strained.

Thus the elimination of cross-subsidies via competition is a bad deal for the uninsured sick poor, who are already burdened enough by their sickness and their poverty. And it is a bad deal for the rest of us. In many cases, early care denied means a greater burden of late care. And since many of the uninsured are in households in which the head does work, at least part-time, lack of care can mean reduced ability to work, pay taxes, and support the family. Many who are insured today may not be so fortunate in the future.

The insured have two things the uninsured do not have—subsidies and sponsors. As noted earlier, the great majority of insured people 65 years of age and under have tax-subsidized, employer-sponsored coverage. Ginsburg (1982) estimated that in 1983, the tax benefit per household from the exclusion of employer contributions from the taxable incomes of employees was \$622 per household in the \$50,000-to-\$100,000 income range, and \$83 per household in the \$10,000-to-\$15,000 range. This was in part because average employer contributions were nearly five times as large for the former as for the latter. I recently estimated that the tax subsidy for employer-paid health insurance has a potential to cost the Federal budget roughly \$50 billion in 1986 (Enthoven, 1985). The great majority of this tax subsidy goes to households with incomes above the median. If the justification for this tax subsidy is to promote the wide spread of health insurance, just the opposite relationship to income would make more sense. That is, subsidies should be larger for lower-income people, whose decisions to insure are likely to be more influenced by the cost. Upper-income people will generally want to insure even without subsidies.

This situation would be substantially improved by enactment of the Health Equity and Incentives Reform Act recently introduced by Senator Durenberger (Durenberger, 1986). That bill provides for limited subsidies, independent of income, for health insurance for all people, whether employed or not. In addition, we need to create tax-subsidized sponsor agencies, probably at the State government level, to sponsor health coverage for people who are not sponsored by their employers or an existing public program.

Fleming's and my original competition proposals were for universal health insurance with subsidies and

government-sponsored coverage for everyone. In view of the predictable effects of competition on cross-subsidies within hospitals and health plans, we did not consider that competition would produce acceptable results except in the context of health care coverage for everyone.

Need to organize the system

The full benefits of competition will not be achieved until the competing health plans become systems organized to produce quality and economy. Preferred provider insurance is a useful transition step, but it does not organize the system. For the most part, it just discounts price and imposes some utilization control.

Organized systems can do many things with greater quality and economy than unorganized individual providers selling discount medicine. First, organized systems can match resources used to the needs of the population served. For example, they can employ just the right numbers in the surgical specialties for full operating schedules. One of the negative consequences of an excess of surgeons in the fee-for-service sector is likely to be reduced proficiency because of reduced caseloads. Second, organized systems can more easily arrange care in less-costly settings such as home and surgicenters. By doing so, the "no care zone" that can threaten patients discharged early can be avoided. Third, organized systems are better placed to evaluate and control the use of technology. Doctors in such systems can look to their peers for recommendations on drugs and other new technologies. Fourth, organized systems are better placed for the efficient use of paramedicals and other support personnel.

Organized systems are growing. Hospital staffs made up of independent doctors are becoming more cohesive. However, this development will take time.

Developing quality cost-effective medical practice

Medical practice in the open-ended era—that is, medical practice as we know it—was not characterized by careful, disciplined evaluation of benefits versus costs and risks. There were, and are, wide variations in practice patterns and not much gathering of evidence as to which patterns best balance benefits, risks, and costs. Literature on systematic medical decisionmaking was practically nonexistent as recently as the late 1970's. New methods of evaluation and analysis are developing rapidly. But they are still largely the property of a few in academic medicine. It will probably take another generation before much of this finds its way into medical practice. Managed competition can be expected to increase the demand for evaluated medical care.

Risk-adjusted monitoring of outcomes—that is, a fair assessment of the medical outcomes produced by different providers—is in its infancy. Blumberg (1986) recently reported he could find only one such system

in actual operation. Organized systems serving defined populations offer the opportunity to develop outcome monitoring and systematic action to correct deficiencies. The potential is large. One may hope that eventually market forces driven by quality-conscious buyers will energize this development and that good quality-assurance systems will be translated into competitive advantage. As previously noted, that depends a lot on the sponsors.

Support for medical education

In the open-ended era, the extra costs of graduate medical education and some clinical research were reimbursed through cost-unconscious systems of payment for patient care. Cost-conscious competition attacks such implicit cross-subsidies. Increasingly, cost-conscious payers are willing to pay only the costs of efficiently delivered care. Medicare PPS includes reimbursement for Medicare's share of the costs of graduate medical education, but Medicare cannot be the sole support of this activity. Our society needs a stable, long-term policy for the support of graduate medical education that is systematically responsive to the Nation's medical personnel needs. A program of vouchers for graduates of approved medical schools usable at approved residency programs of their choice would seem most likely to assure this (*Commonwealth Fund*, 1985).

Development of competitive systems of health care delivery has largely bypassed the academic medical centers. These institutions are not set up to be cost-conscious providers of service. With few exceptions, we lack good models illustrating how academic medical centers can participate in the competitive system. I believe that the responsibility for developing innovative approaches lies primarily with the academic medical centers. But supportive public policies may also be needed. Academic medical centers are a very important part of our medical care system. The 332 non-Federal, short-term, teaching hospitals affiliated with the Association of American Medical Colleges admit about 20 percent of all patients hospitalized in the United States (Colloton, 1982). And of course they train most of our future doctors. It would be helpful to the cause of economy in health care if these future doctors were exposed to cost-conscious patterns of care.

Need for an efficient transition

Efficient comprehensive care organizations can take care of their enrolled populations with roughly 1 doctor for 800 people. (Adjustment for age distribution would not change this much.) Our national supply is heading for about 1 for 400 (Tarlov, 1986). Some specialties are in considerable oversupply, and their residency programs continue to turn out more. From the point of view of the general public, the increased supply of physicians confers several advantages. It has improved access to physician services. It has helped to break the guild

free choice cartel by increasing the incentive for doctors to contract with CMP's. It has increased availability of doctors in less well-served areas. And increased supply, combined with cost-conscious demand, can be expected to reduce the price of physicians' services.

But McClure (1985a and 1985b) correctly warns of possible harmful consequences. Physicians in excess supply may be tempted to stop referring patients to other specialists because they need the fees themselves. Specialists in excess supply may not see or treat enough cases to maintain proficiency. Some physicians may be pressured to make up for low prices by increasing volume of services beyond the point that is best for patients' health. There really can be too many doctors from the viewpoint of quality care.

Many compensatory mechanisms will come into play. Not all physicians will be practicing in efficient organizations. Doctors are the gatekeepers of the health care system. They can take back work they have delegated. When well-trained general internists can be hired for, say, \$40,000 per year, it will make less sense to substitute so many paramedicals for doctors. Many physicians will find useful occupations outside of patient care. Lower incomes and the perception of oversupply will reduce the number of applicants to medical schools.

Market forces may work to produce a satisfactory outcome, but there are reasons to be less than fully confident of this. Parts of the market, such as places in medical schools and residency programs, seem to be quite immune to market forces. Lead times in the production of physicians are very long. Some physicians entering practice in 1987 will have entered medical school in 1978, when market conditions were very different. And people make large investments in specialized expertise that is not readily transferrable to other occupations. Excess supply may drive physicians' incomes below their long-run equilibrium levels and below the levels needed to attract medical school applicants of high quality.

McClure recommends that sponsors "buy right" so that good-quality, efficient doctors prosper while others are induced to retire. In addition, support for residency positions should be directed to the students rather than to the teaching hospitals. The market for residency positions should be student-demand-driven rather than supply-driven, because the students are the ones at risk if there is excess supply in the specialties they choose. Finally, the medical education establishment has become too large for our country's needs. Some reduction in medical school capacity would now be timely.

At about 4.4 short-stay beds per 1,000 population, we have roughly twice the number of beds that would be needed if everyone were cared for by an efficient, organized system. The national occupancy rate fell to about 62 percent in the last quarter of 1985, considerably below the rate that corresponds to efficient operation. A shakeout is bound to occur as Medicare PPS and cost-conscious demand meet the

excess supply. For-profit hospitals are likely to shut down when their managements project that the cash-flows they can earn are likely to stay below what the same assets could earn in other uses. But many nonprofit hospitals with long traditions of community support will struggle to survive. I think it is likely that health plans will find it in their interests to contract with the best hospitals and that market forces will sort this out. But community leaders ought to encourage mergers and consolidations leading to reduced capacity and redeployment of facilities into other uses. Governments and foundations ought to resist pleas for bailouts of unneeded hospitals, or they should make their assistance contingent on plans to reduce and redeploy capacity into needed uses.

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