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## Why Competition in Health Care Has Failed: What Would It Take to Make It Work?

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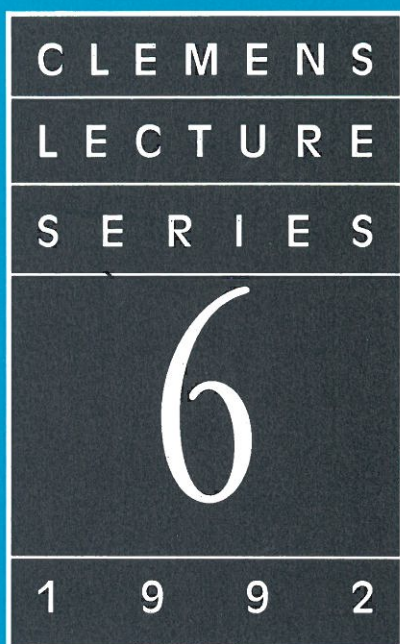
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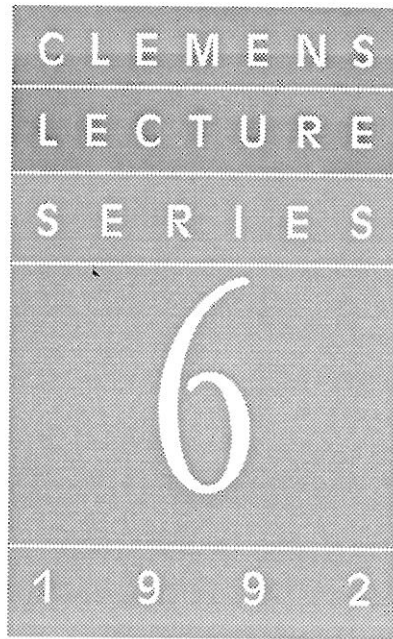
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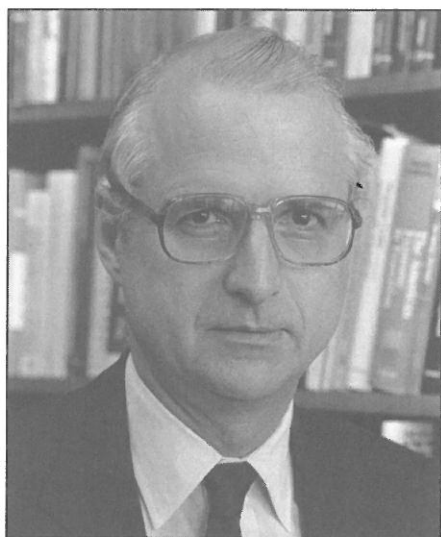


# Why Competition In Health Care Has Failed: What Would It Take To Make It Work?

Lecture by

**Alain C. Enthoven**

September 17, 1992  
Saint John's University  
Collegeville, Minnesota



## Alain C. Enthoven

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# Why “Competition” In Health Care Has Failed: What Would It Take To Make It Work?

Alain C. Enthoven

## Introduction

National Health Expenditures per capita, adjusted for general inflation, grew about 4.5 percent per year from 1980 to 1990. Total expenditures grew from about 9.1 percent to 12.3 percent of the GNP.<sup>1</sup> These rates of growth and spending are widely considered to be unsustainable and excessive. In the same years, we heard a great deal of official rhetoric about the superiority of “competition” and free markets over “regulation,” and we saw the proliferation and rapid expansion of Health Maintenance Organizations (HMOs) and Preferred Provider Insurance (PPI). However one wants to characterize the public policies and private employer cost containment strategies of the 1980s, they clearly failed to bring health expenditure growth rates down to acceptable levels.

Some say “competition failed.” I say “competition has not been tried.” My goal in this lecture is to clarify the meaning of “competition” as it relates to health care. My purpose here is not to persuade the reader that “competition” will work, or that it is the best policy. I will leave that to other occasions. Many will be daunted by the list of things that must be done just to try it. They may conclude - as many have - that “competition” cannot work in health care. My purpose is to clarify what must be done if one wants to attempt a solution to the problem of health care expenditure growth that is based on incentives and competition in a decentralized private market.

The word “competition” in the economic sphere, as used by economists, if not qualified by some phrase indicating the contrary, means price competition. When there is price competition, suppliers compete to serve customers who are using their own money or are otherwise motivated to obtain maximum value for the money they spend. “Price competition” does not mean that price is the only factor influencing the customer’s choice. Quality and product features also enter in. It just means that price is one of the factors. And one of the striking features of the United States health care economy, as we have configured it, is how little price competition there is.

Why isn’t there more price competition?

## The Traditional Theory of Market Failure in Health Care

The traditional (and correct) answer to this question given by economists is the effect of the presence of insurance on people's incentives.<sup>2</sup> The incidence of illness and the cost of treatment are uncertain. People are risk averse; so they want insurance. Moreover, access to health care has a special moral quality in our society. We want people to have access and financial coverage. But for insured people, after they have exceeded their annual deductibles, the cost of more care is small, often zero. So insured people choose to buy more care - and their physicians acting as their agents recommend and provide more care - than they would buy if they were paying for it themselves. And they generally do not shop around for lower-priced services: because they have established a relationship with a doctor, because they are sick, because meaningful price information is often hard to come by, but especially because they are insured and someone else pays most or all of the cost anyway.

Insurance policies are usually designed to moderate this incentive effect by including coinsurance (e.g., patient pays 25 percent of the bill) and deductibles, (e.g., the patient pays the first \$200 of covered expenses each year). The RAND Health Insurance Experiment showed that coinsurance does indeed moderate people's use of health services.<sup>3</sup> But the cost-restraining effect of coinsurance is limited by the fact that health care expenditures in a given year are highly concentrated among the patients who have the highest costs that year. Typically, 70 percent of health care expenditures are on behalf of the 10 percent of people with the highest costs.<sup>4</sup> (Membership in the top ten percent changes from year to year.) The demand for financial protection is usually translated into limits on annual out-of-pocket spending. Thus, most of the money is spent on people who have passed, or can expect to pass, their out-of-pocket spending limits. For them coinsurance has little or no moderating effect.

In a static world, the incentive effect of insurance would lead to a higher level of expenditure than there would be if there were no insurance. But this would not account for a **rising** level of expenditure. To explain a rising level of per capita expenditure by the incentive effect of insurance, one must think about the long run consequences of a cost-unconscious environment. In the short run, professional and patient attitudes and expectations, professional standards of care, numbers and types of doctors, and technology are given. But a cost-unconscious economic environment can and does change them profoundly over the long run. For example, decisions about development of costly technologies are profoundly affected by the fact that the doctors and patients who make the decisions to use them will not have to pay for them. Potential investors in the development of technologies that will have high costs and low benefits in terms of improved health outcomes can be more confident their products can be sold than they would be if doctors and patients deciding on their use had to pay for them themselves. In the face of great uncertainty about how much therapy is enough, professional standards drift upwards in the direction of more expenditure. And decisions about choice of a medical career must be similarly affected. One's

chances of a well-paid career in open-heart surgery are much greater if the patients deciding whether or not to have the operations don't have to pay for the surgery.

Combine cost-unconscious demand with a growing supply of specialist physicians searching for new ways to make themselves more useful to patients and a great deal of new technology development induced by the cost-unconscious demand, and it is not difficult to explain rising per capita expenditures.

The development of institutions to moderate the effects of cost-unconscious demand was blocked for many years by the insistence of the medical profession on a set of principles Charles Weller has called "Guild Free Choice."<sup>5</sup> These principles and their economic consequences were as follows:<sup>6</sup>

1. "Free choice of doctor by the patient." This means that the insurer has no bargaining power with the doctor because it cannot say to the doctor, "My insured patients will not go to you if you do not agree to a negotiated price."
2. "Free choice of prescription by the doctor, without outside interference." This prevents the insurer from applying quality assurance or utilization controls.
3. "Direct negotiation between doctor and patient regarding fees, without outside interference." This excludes the third-party payor who would be likely to have information, bargaining power, and an incentive to negotiate to hold down fees.
4. "Fee for service payment." This allows physicians maximum control over their incomes by increasing the services provided.

These principles dominated the health care economy well into the 1980s, and their effects are still important. But the 1980s saw major developments whose purposes were to counteract the cost-increasing effects both of cost-unconscious demand engendered by insurance and of the "guild free choice" principles.

The most important development was the rapid expansion of Health Maintenance Organizations (HMOs). HMOs integrate the insurance function and the delivery of care into a single organization, so that the premium paid reflects, among other factors, the ability of the HMO's providers to organize and deliver care efficiently. HMOs contract selectively with groups of physicians or individual physicians. In group, staff and network model HMOs, groups of physicians are paid on the basis of a periodic per capita amount, set in advance, independent of the number of services actually provided. These physicians prosper by satisfying their patients (so they will stay enrolled) while solving their medical problems at a low cost. HMOs can be thought of as an agreement between doctors and patients that doctors will deliver only "cost-worthy" care. Thus, the incentive effects of insurance and fee-for-service are attenuated or eliminated, at least as they affect the doctors. The incentive effect of insurance might still be present in patient decision-making. But doctors are the dominant influence on decisions regarding very costly care. And HMO members usually face copayments for doctor office visits, which gives them some incentive to be cost-conscious in seeking primary care.

Given this incentive framework, one would expect group practice HMOs to

do a number of things to improve quality and cut cost, including: selecting doctors for quality and efficient practice patterns, monitoring their performance and offering education when needed; matching numbers and types of doctors to the needs of the population served, thus correcting the specialty imbalance seen in the traditional sector; concentrating complex procedures in regional centers to gain economies of scale and experience; and more. HMOs do this in varying degrees, and there is good evidence that some reduce cost substantially.<sup>7,8</sup> In a randomized controlled trial comparing fee-for-service and a group practice HMO in Seattle, RAND, a leading public policy research institute, found the HMO cut cost 28 percent compared to the traditional fee-for-service third-party payment sector. Let me emphasize that I am referring here to permanent reductions in the cost of care through superior organization and management; not temporary reductions through price discounts.

From 1980 to 1990, HMO membership grew from about 9 to 34 million.<sup>9</sup>

Another form of health care financing and delivery plan is Preferred Provider Insurance (PPI), a part-way step from traditional coverage to HMOs. There are no industry-wide standards for defining Preferred Provider Insurance or counting the number of people covered under it. Generally, the definition of PPI includes contractual arrangements with selected providers to provide comprehensive services for negotiated fees, formal programs of quality assurance and utilization review, and significant financial incentives for patients to use contracting providers. The key differences between PPI and HMOs are that (1) in PPI, providers are not at risk for the total cost of services, so they have much less incentive to reorganize care for greater efficiency, and (2) patients get some, albeit reduced, insurance coverage for care from noncontracting providers, whereas HMO-patients usually get none (except for emergency care).

Preferred Provider Insurance was virtually nonexistent before 1982, the year in which the California legislature overturned provisions of the insurance code that were based on "guild free choice" principles, and replaced them with a specific authorization of selective provider contracting by insurers. In subsequent years, most other states followed California's example. By one estimate, over 38 million people were covered by some form of PPI by 1990.<sup>10</sup>

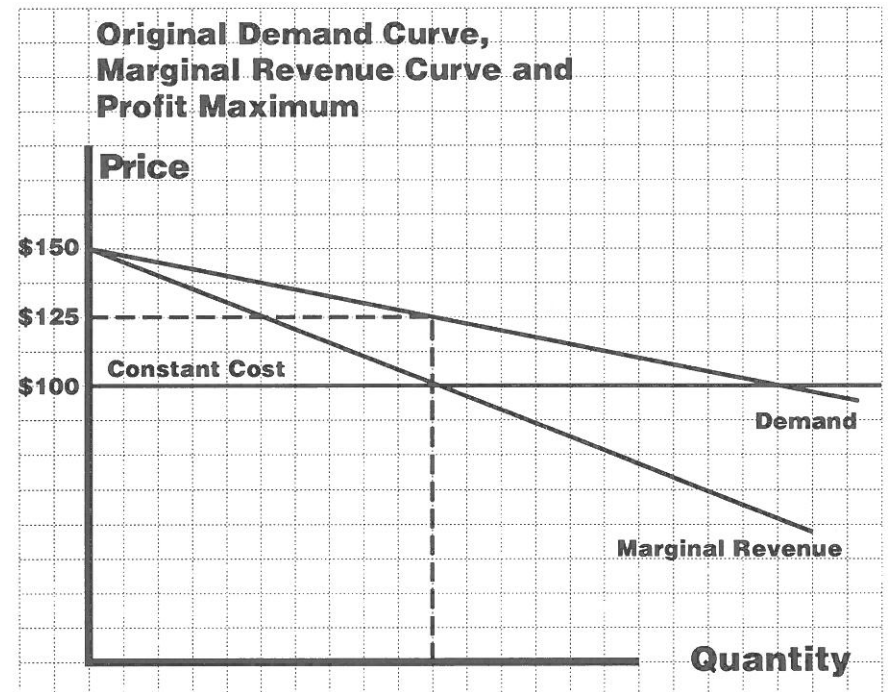
These trends raise two questions which this lecture will address. First, if HMOs and PPI do truly reduce cost, why have they not taken over the whole health care financing system? Of course, one might answer that since legal barriers to their development were removed, their growth has been quite spectacular. Another decade like the last one is likely to see most Americans covered under such arrangements. More important, **why hasn't competition among HMOs and PPI noticeably attenuated the growth in health expenditures?** I will acknowledge it has not. And does the answer to this question suggest some things that could be changed so that HMOs and PPI would slow expenditure growth?

## Demand Curves and Inelastic Demand

To address these questions, it is necessary to use some basic concepts of economic analysis. (This lecture is being written primarily for people who have had and can barely recall an introductory economics course. I apologize to my fellow economists for the degree of simplification. I hope economists will learn something useful from later parts of this lecture. People who know all about inelastic demand should skip this section.)

First, the demand curve is a schedule relating the price a supplier charges and the quantity of goods or services it sells. Demand curves normally slope downward, reflecting the usual fact that if a supplier cuts price, it will attract more customers.

Figure 1 shows a hypothetical demand curve for HMO membership in an employment group of 2500. Assume, for illustration, that employees are offered a choice of a fee-for-service "free choice of provider" plan with a premium of \$150 and an HMO with a variable but lower premium. The coverages are the same. Essentially this HMO offers cost reduction in exchange for members accepting a limited set of providers and adherence to utilization controls. The "product" of this assumed HMO is cost containment. The curve is drawn to reflect the assumption that for every dollar of premium reduction, 50 employees decide to



**FIGURE 1**

choose the HMO. This is artificial but it will illustrate the basic economics of health care.<sup>11</sup>

In deciding where to set its price, the HMO's management knows that if it reduces price, two things happen: first, it loses revenue on the customers it has, and second, it gains more customers. The sum of these effects is described by the marginal revenue curve, the change in total revenue when quantity is increased by one unit. The marginal revenue curve associated with this demand curve is also shown in Figure 1.

Next, assume that this HMO can deliver services for a constant (average and marginal) cost of \$100 per member per month.

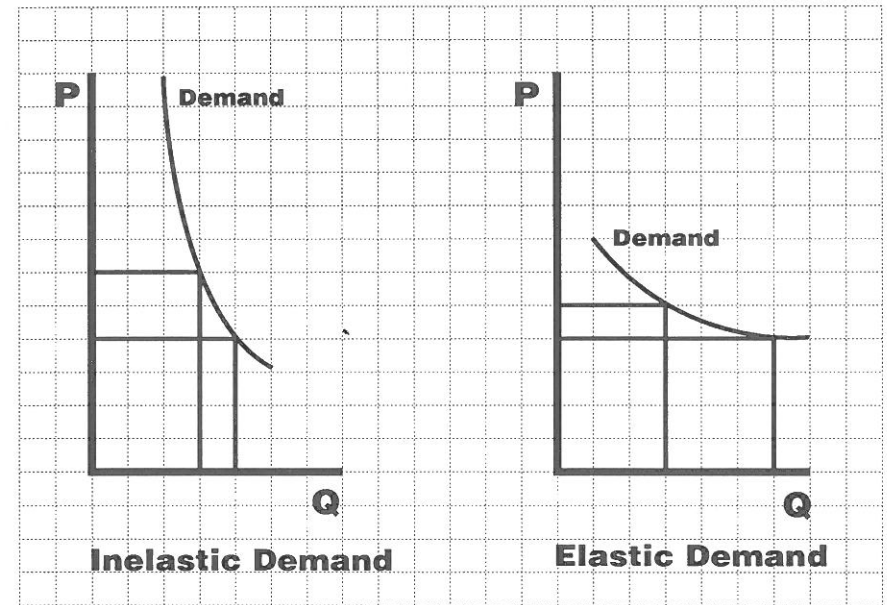
Economic theory tells us that this HMO can maximize its profit by choosing the price and quantity at which marginal revenue equals marginal cost. If marginal revenue exceeds marginal cost, the HMO can increase profits by cutting price and attracting more members. In this case, the HMO maximizes profit by setting its premium at \$125, in which case 1,250 employees decide to join it. (The algebraic derivation is shown in the Appendix.)

To complete our analytical tool kit, every demand curve at every point has a property called *price elasticity of demand*: the proportional change in quantity (or number of subscribers) divided by the proportional change in price. It measures the responsiveness (hence, elasticity) of consumers to any change in the price. It is related to, but is not exactly the same as the slope of the demand curve. Generally the elasticity of demand will be different at different points along the curve.

Demand may be **inelastic**, meaning that, at the point in question, the demand curve is so steep that the supplier can increase revenue by increasing price. That is, if demand is inelastic, the percentage loss in subscribers caused by a price increase is less than the percentage increase in price, so revenue increases. For example, a 10% rise in price causes *less* than a 10% drop in sales. If a seller faces inelastic demand, its incentive is always to raise price because by raising price it can realize more revenue (and, in addition, its total costs will go down since it will be producing and selling less).

On the other hand, demand may be **elastic**, meaning roughly that the demand curve may be flatter, in which case, for example, a 10 percent increase in price would lead to more than a 10 percent loss in subscribers, so that the HMO would lose revenue by raising price. Elastic demand is necessary for there to be an incentive to lower price. But it may not be sufficient. In fact, for there to be an incentive to reduce price, marginal revenue must exceed marginal cost. The more elastic is the demand curve, the greater is the reward, in increased revenue, for reducing price, and the lower is the price (relative to marginal cost) that the supplier finds in its best interest to charge.

Inelastic and elastic demand are illustrated in Figure 2. Total revenue (price times quantity) is measured by the area of the rectangle under the demand curve. In the case of inelastic demand, total revenue is greater when price is higher. In the case of elastic demand, total revenue is greater when price is lower.



**FIGURE 2**

Readers of introductory economics texts are likely to get the impression that the elasticity of a demand curve is like a natural law, given by technology and consumer tastes. But in fact, the elasticity of demand is something that suppliers, purchasers and public policy can and do influence a great deal. So if health care costs are a concern, it is in the interest of purchasers and the general public to take action to make the demand curve for health care more elastic - to increase the incentives of providers to reduce price and cost.

My basic contention is that various actions by suppliers, purchasers and government and other characteristics of the markets in which HMOs and PPI compete have combined to produce inelastic demand for health care financing and delivery organizations. Many HMOs can raise price with little or no loss in revenue.

Moreover, and this is my key point, there are policies that can be pursued by government and by purchasers that would make the demand curves faced by HMOs and PPI much more elastic, and that would thereby intensify price competition.



## Sponsors and Managed Competition

Markets for most goods and services are normally made up of suppliers on one side and individual purchasers on the other. That is the case in automobile or homeowner insurance and to a limited extent in health insurance. Some national health care financing reform proposals are based on that model.<sup>12,13</sup> In my view, that model is unworkable in health insurance for a number of reasons, and it is not the model that actually works in most of private health insurance in the U.S.A.

Among the reasons the market for health insurance does not work at the individual level are the following:

1. Insurers have strong incentives to group their customers by expected medical costs and to charge people in each group a premium that reflects their expected costs. This practice is known as experience rating or underwriting. The consequence is that those people having high predicted medical costs face high premiums. Many sick people find such premiums unaffordable, or at least find paying them less attractive than going without insurance and taking their chances that they will receive free care.
2. Healthy individuals face strong incentives to "free ride," that is, to go without insurance or with minimal coverage until they get sick, at which point they seek to buy more comprehensive coverage.
3. Partly because of the behaviors induced by these incentives, the administrative costs of individual health insurance policies are very high, 40 percent of medical claims or more. This creates more of an incentive for relatively healthy people to go without insurance. Rather than bear the risks and expenses of covering individuals who are sick, even at high price that would cover their expected costs, most insurers choose not to cover them at any price.
4. Health insurance contracts are very complex and difficult to understand and administer. Insurers deliberately make them complex in order to segment markets (see below), and to make it difficult for consumers to compare prices. Only experts are able to understand and compare policies.

The model of private health insurance that works - the one that covers most employed people - is group insurance. The model that works best includes a sponsor, a large active, informed collective purchasing agent that contracts on behalf of a group of insured people, and that either buys one coverage for all, or offers a limited menu of different health plans to individuals for their choice. Most sponsors are employers, but the federal Medicare program and labor-management health and welfare trusts are also sponsors. Examples of large employers that offer their employees such a multiple choice of health care coverage include the federal government, many states (including California and Minnesota) and Stanford University. While some HMOs and some PPI plans compete in the market for unsponsored individuals, most of their business is in sponsored groups. Sponsors contract with health plans and set the rules for competition among them.

Thus, some of my diagnosis of inelastic demand and my prescription for how to ameliorate it will refer to sponsor behavior.

## Factors that Artificially Reduce Demand for HMOs.

If HMOs reduce cost and offer more value for money, why are not more people enrolled in them? The reasons are many and complex, with deep roots in history. Here I want to focus on reasons that are important today, that can be illuminated by economic analysis, and that can, to some extent, be changed.

### Employers That Do Not Offer HMOs

First, as just noted, the great majority of the private market for coverage is through sponsored groups, mainly employers. The HMO Act of 1973 required employers of 25 or more employees to offer their employees one group practice HMO and one individual practice HMO, if such organizations served their areas and asked to be offered. Still some employers, such as St. John's University and The College of St. Benedict, do not offer HMOs, while others offer only the required minimum.

### Large Employers

Large employers may choose not to offer their employees the opportunity to enroll in HMOs for a variety of reasons. First, some employers are concerned about administrative cost and complexity. Second, some find that HMO facilities are not convenient to where their employees live. Or, some consider that HMOs give lower quality care, though they almost invariably lack the information needed to support that conclusion. Third, they do not know how to manage biased risk selection. They are concerned that the HMOs will sign up the young healthy employees, leaving the older sicker employees in the company fee-for-service plan. This will drive up the premiums of the fee-for-service plans. Then they fear (with good reason) that the HMOs will raise their premiums to the level of the fee-for-service premiums, and the process will raise their overall costs. Fourth, some benefits managers see HMOs as threats to their own bureaucratic empires. Fifth, the benefits covered by HMOs are tightly regulated by the federal and state governments, and some of the benefits they are required to cover are costly. On the other hand, under the Employee Retirement Income Security Act (ERISA) of 1974, the federal government pre-empted the regulation of employee benefits, but it has not imposed on self-funded employer health benefit plans the same requirements it has imposed on HMOs. Many employers prefer the additional freedom they can have by designing their own benefit plans under ERISA.

The fact that many large employers do offer HMOs suggests that there are workable solutions to these problems. For example, HMO facilities would be more convenient if we had more of them. This is a "catch 22." In some areas we don't have HMOs because we don't have HMOs! Concerns over quality might be alleviated by better publicly available, standardized information on health out-

comes produced by different health care organizations. As for ERISA, competition would work better if all competitors had to play by the same rules. For example, the HMO Act requires HMOs to cover 20 mental health visits per year, but the federal government does not impose a similar requirement on tax-favored employer-paid self-funded plans. A rational public policy aimed at encouraging consumers to choose efficient health plans would not impose on such plans regulatory burdens heavier than those imposed on their competitors.

### Small Employment Groups

Roughly half the American work force is employed in groups of 100 or less or is self-employed. Such groups - and even larger ones - are too small to spread risk, to achieve economies of scale in administration, to manage competition effectively or to offer choice of health plan at the individual employee level. For present purposes, the last is the key problem.

Consider a firm of 50 employees presently covered by a traditional free-choice of-provider plan. The sales representative of an efficient group practice HMO appears, proposes her HMO to be offered as a choice for each employee for a premium 25 percent below that of the traditional plan. The CEO of the firm, eager to achieve a 25 percent cost reduction, asks the insurance company for its reaction. Following the typical pattern in this situation, the insurance company refuses to participate in an individual choice of plan arrangement for this employer. It argues that this would split the group, raising administrative costs to unacceptable levels; that this would lead to poorly managed competition in which the healthy young people with no doctor-patient ties would choose the HMO and the insurance company would get the bad risks. So the CEO finds this is an all-or-none choice. He consults his colleagues, and perhaps his spouse, and finds that some of them have strong ties to doctors who are not members of the HMO's medical group. And he encounters strong resistance on the part of a few to the idea of switching to the HMO. So he declines the HMO's offer. A 25 percent price advantage cannot move this business!

One effective way to correct this problem - and the other special problems of the small employment group market - would be to pool all small employment groups in an area into one large purchasing cooperative which would function like a very large employment group, offering multiple choice of plan at the individual level to each employee. A working example of this is the California Public Employees Retirement System which offers multiple choice of plan, not only to state employees, but also to the employees of over 850 participating local government agencies, some of which have as few as two employees. The Jackson Hole Group initiative proposes covering all of America with Health Insurance Purchasing Cooperatives that would perform this function.<sup>14</sup>

A few large insurance companies have made large investments in developing HMOs and Preferred Provider networks - notably Prudential, CIGNA and Blue Cross/Blue Shield. But most insurance companies have not done so and would not be able to compete effectively in a system of Health Insurance Pur-

chasing Cooperatives offering price-competitive individual choice of plan. Executives of these companies argue for choice of plan at the employment group level rather than at the individual level. They argue for this on the grounds that individual choice makes the market more susceptible to the problems of biased risk selection. I see this as an effort on their part to block an important step toward opening this large market to HMOs.

### Employer Contribution Policies

Every employment group has its own story with its own policies and idiosyncrasies. Most employers' policies are variations on what I will call the typical case. Originally - perhaps starting back in the 1950s or 1960s - the typical employer offered its employees a single traditional fee-for-service (FFS) free-choice-of-provider coverage. There were several reasons for doing this. Health insurance was an attractive fringe benefit that was valuable in competing for employees. Management wanted it for themselves. It was cheap (roughly 2 percent of payroll). It was tax deductible to the employer and tax free without limit to the employee. And covered health benefits were a great source of bargaining prizes for unions. In the minds of many employees, health insurance fully paid by the employer became normal, an entitlement.

Traditional fee-for-service (FFS) and third-party payment creates no accountability for cost in the health care system. There is no organization or provider who is accountable for per capita cost. The incentives for providers are cost-increasing: insurance pays providers more for doing more, whether or not more is necessary or beneficial to the patient. Among alternative treatments producing similar health outcomes and provided by equally reputable doctors, this payment system rewards the doctors who choose the most costly treatment.

In the 1970s and 1980s, HMOs began to appear in substantial numbers. The typical large employer reaction was to offer HMOs and to pay their premiums in full as long as the premiums did not exceed those of the traditional coverage. Why not? It saved them some money. Thus, either way, coverage was free to the employee. Many employees joined HMOs because they were attracted by the quality of their medical groups or by their more extensive coverage (e.g., preventive services such as well baby visits not covered by traditional insurance).

The consequence of this was to put HMOs into the same state of cost-unconscious demand as fee-for-service providers. This employer policy made the demand curve faced by the HMO vertical, perfectly inelastic, up to the price of the traditional coverage. The HMO could not attract additional subscribers by cutting price; it would not lose subscribers by raising price, up to the price of the traditional coverage. The strong incentive in this situation is to "shadow price," i.e., set price just under the price of the fee-for-service coverage, and to spend much of the money on expanded coverage or improved service to attract customers.

In the 1980s, some employers modified their policies in various ways, usu-

ally without changing the essentials. Many adopted some form of preferred provider insurance in replacement of the traditional free-choice coverage. **But few made the different health plans compete on price.** There are no good surveys that report this aspect of employer contribution policies. But my students and I have interviewed dozens of employers and HMO marketing managers. Though there are signs of change, the current situation is discouraging. The great majority of employers, in one way or another, structure their health benefit offerings in such a way as to deprive the HMOs serving their employees of the normal marketplace reward for cutting, or restraining price, i.e., more customers. The effect is to reduce greatly the incentive to cut or restrain price. Indeed, the incentive HMOs often face is to raise price and to use part of the money to improve service.

Of course, there are some weak incentives to restrain cost and price. The employer might choose not to offer the HMO if it wasn't priced appreciably below the fee-for-service plan. Still, once offered, the HMO has only to keep its price a safe distance below the premium of the fee-for-service plan to avoid having its contract terminated.

The logical alternative to this policy would appear to be for the employer to offer choices of plan, including the most efficient HMOs, and to make a fixed dollar defined contribution toward the premium of the plan of the employee's choice - a contribution that does not vary with choice of plan, and that does not exceed the price of the low-priced plan. The employee pays the difference between that contribution and the premium of the plan of his choice. Then, if the employee chooses a less costly plan, he saves the difference in premium. More important, if an HMO cuts premiums, it can attract more customers, thus earning the normal marketplace reward for doing so.

By itself, this policy might or might not be enough to make demand price elastic, or elastic enough to motivate price reduction, but it would obviously be a long step in that direction.

The policy I am describing has been adopted, for example, by the State of Minnesota and its employees, and by Stanford University, to mention two. The State of Minnesota offers its employees a choice of several HMOs, and pays the price of the low-priced plan serving each county. With some exceptions, the federal government also has structured its employee health plan offerings on the basis of a defined contribution.

Why do employers persist in this apparently irrational policy when an apparently rational alternative is available? I do not have a completely satisfactory explanation. Several factors enter in. For one, unions have won employer-paid traditional coverage as a bargaining prize, and union leaders who want to keep their jobs are understandably reluctant to suggest willingness to give it up. Many executives want the traditional free-choice coverage for themselves and fear it would not survive in a competitive market, or they want to make their employer subsidize the extra cost of their chosen coverage. Employers look at health care finance as an insurance problem, not a problem in organization of medical care.

Employees look at this as a labor-management compensation issue, not a health care purchasing issue. Employers considering the change in policy see a certain short-term cost in bad employee relations followed by an uncertain possible long-term gain in health care cost savings. But perhaps the most important factor is that this is a collective action problem. One employer acting alone cannot change the whole health care system. If one employer in a market area converts to defined contributions while the rest stay on the "open-ended system," it will find its health care costs will continue to rise with those of the inflationary system in general. For the policy of defined contributions to be effective in controlling cost, it is necessary that most - or at least a critical mass - of employers in a market area adopt the policy.

Thus, collective action is needed. For example, the federal government should enact a limit on tax-free employer contributions to employee health benefits and require that all tax-favored employee health benefit plans be based on defined contributions. (For discussion of the relevant tax laws, see below.)

As I mentioned earlier, there are many variations on the pattern of employer contribution policies I have described. For example, one apparently equitable policy, followed by some employers, is for the employer to offer a choice of plan and to pay 80 percent of the premium for whichever plan the employee chooses. The trouble with this is that the employee acts on the premium differences he experiences and in the case of this policy, he pays only 20 percent of the true premium difference. Worse yet, the HMO considering cutting price by a dollar gets only 20 percent of the increased subscribers it would get if the employer had a defined contribution policy.

Using our previous example, suppose the HMO charged a premium of \$100 while the fee-for-service coverage cost \$150. Under this 80 percent policy, the employer would be paying \$120 toward the fee-for-service coverage, \$80 toward the HMO. The employee considering the choice would save only \$10 per month by joining the HMO, even though the HMO was doing the job for \$50 less.

It can be shown that, compared to the original situation that would have occurred when employees were using their own money, HMO membership will now be only 250, one-fifth as great. The effect of this policy is shown in Figure 3. Demand Curve I represents the situation in which people are paying the premium difference with their own money. Demand Curve III reflects the employer's policy of paying 80 percent of either premium.

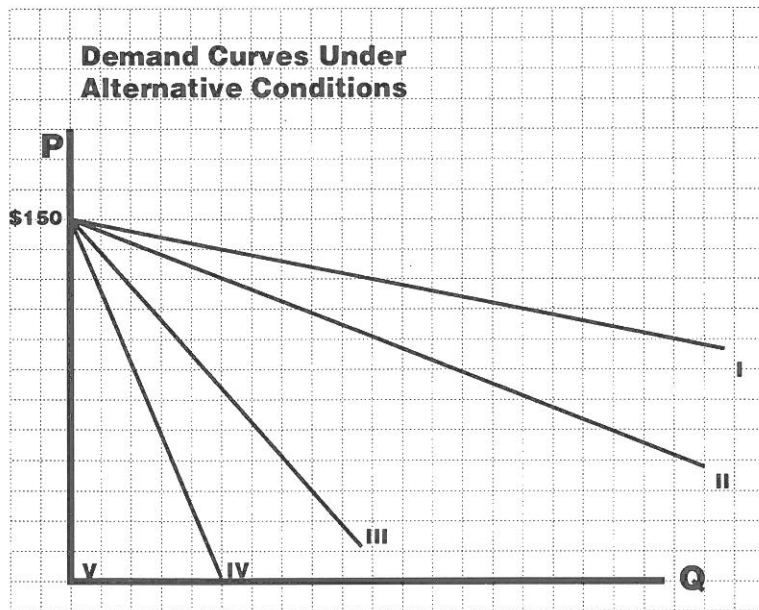
Economists speak of efficient and inefficient allocation of resources. An allocation is inefficient if one can hypothesize a reallocation that would make some parties better off while making no parties worse off. In that sense, the employer's 80 percent contribution policy is inefficient. Here is how to see that.

**Table I**

		Employer Pays	Employee Pays
<b>Case I:</b>	Employer pays flat \$100		
	1250 employees choose FFS	100	50
	1250 employees choose HMO	100	25
<b>Case II:</b>	Employer pays 80%		
	2250 employees choose FFS	120	30
	250 employees choose HMO	100	25

From Table 1, one can see that in Case II, there are 1,000 employees who chose FFS because the HMO cost them only \$5 less but who would have chosen the HMO if it had cost them \$25 less.

Imagine that the employer calls each of those who chose FFS into a room, one at a time and offers a secret deal: "I'll offer you \$10 to switch to the HMO. You were paying \$30 for FFS. You can have the HMO for \$15, instead of \$25." We know from our original demand curve that for each dollar of price difference, 50 people will switch. So 500 (\$10 times 50) people will accept the deal. These employees must be better off because they chose to switch - to change to the HMO for a \$15 saving. The employer is better off because each of these employees costs it \$110 instead of \$120.



**FIGURE 3**

As a practical matter, this sort of reallocation may be hard to do because the word will get around and the employees who originally chose the HMO will also want the additional \$10. It is surprising, however, how many employees cheerfully accept the lower employer contributions paid on their behalf when they join the HMO. I suppose the explanation is that they were given a choice and they chose what they saw as the preferable alternative, so they don't feel they are in a position to complain. Moreover, employers do not usually inform employees about full premium costs and employer contributions.

In sum, then, a major reason why demand for HMOs is often much less than it could be if employee preferences were given full play is employer contribution policies that distort employee choices.

### The Internal Revenue Code

Economists have frequently pointed out that because employer contributions to employee health care coverage are free of federal and state income and payroll taxes the Internal Revenue Code and its state counterparts distort employee incentives.<sup>15</sup>

Sections 105 and 106 of the Internal Revenue Code provide that employer contributions to health insurance and health care are tax-free to the employee without limit. Considering federal and state income and payroll taxes, many people are in the 35 to 40 percent combined marginal tax bracket, or even higher. I will use 40 percent here for illustration. This means that when employers and employees are considering how to divide up an additional \$100 of total compensation, they know that if they take it in taxable wages and salary, they will only receive \$60 net after tax. If they take it in additional health benefits, they will get whatever benefit the full \$100 buys them.

Section 125 of the Internal Revenue Code provides that, for tax purposes, an employee can characterize his own premium contribution as "employer-paid" for tax purposes (through the vehicle of "salary reduction"), and thus make his premium contributions in pre-tax dollars.

In our illustrative example, suppose the employer makes defined contributions of \$100 toward either the FFS plan or the HMO. In pretax dollars, the employee faces a price difference of \$25 (i.e., \$150 minus \$125). But in after-tax dollars, the difference is reduced to 60 percent of that or \$15.

The tax provision is, in effect, a heavy tax on cost containment, and its effect is to reduce significantly the demand for HMO membership.

It means that the HMO that cuts its price by a dollar gets the increased membership that goes with a 60 cent price cut, not the increase that would go with a dollar price cut.

It can be shown (see Appendix) that the effect of the tax code in our example is to reduce HMO membership by 40 percent, from 1,250 to 750. The effect is also illustrated in Figure 3 by Demand Curve II. The tax code shifts the demand curve for HMOs to the left.

In a nation with a health care cost crisis, it makes no sense to tax cost con-

tainment.

Figure 3 also shows Demand Curve IV which combines the demand reducing effects of the tax code and the employer's policy of paying 80 percent of the premium. In this case, if the HMO charges its profit maximizing price, HMO membership becomes 150, twelve percent of what it would have been if undistorted consumer preferences ruled. Finally Demand Curve V depicts the "employer pay all" case. Demand for this HMO's product of cost reduction is reduced to zero!

### **Factors that Make Demand Curves for HMOs Inelastic**

This brings us to the second major question: why hasn't competition among HMOs attenuated the growth in health expenditures? Why hasn't price competition forced HMOs to manage more effectively to innovate to cut cost and restrain price? My answer is that many factors have worked to create price inelastic demand for individual HMOs.

The aggregate demand for a good or service like wheat, gasoline, or health care may be very inelastic, while the demand curve faced by an individual producer - a farmer, gas station or HMO - can be very elastic because the products of other suppliers are on offer and are good substitutes. It is the elasticity of its own demand curve that determines the incentive an HMO has to cut price.

Why are demand curves for HMOs of low elasticity? (That is, they may be elastic in the sense that cutting price will increase revenue. But they are not elastic enough to drive them to compete on price, to bring price close to marginal cost, and to seek aggressively ways to cut cost.) Some of the factors I have already mentioned can reduce the elasticity of demand.

### **Employers that Restrict the Number of HMOs Offered**

For example, if a large employer offers two HMOs when it could offer four or six, it may be reducing the price elasticity of demand of the HMOs it offers. If the additional HMOs are perceived by employees to be good substitutes for the HMOs already on offer, the elasticity of demand faced by the two HMOs on offer will be increased by offering the additional competitors.

In terms of the example I have been using to illustrate shifting demand curves, suppose the employer now identified a second HMO that contracted with the same doctors, used similar utilization controls, and was seen by employees to be a perfect substitute for the first HMO. Neither HMO could charge a penny more than the other because if it did, all its members would switch to the other HMO. While the demand curve for HMOs in general would be downward sloping, as in Figure 1, the demand curve for each HMO would become flat, and competition would drive each to offer a price of \$100, equal to its marginal cost. In that case, with free consumer choice not biased by the employer's contribution policy or the tax code, all 2,500 employees would join an HMO.

As noted above, the present structure of the market for health insurance in small employment groups reduces the elasticity of demand for all carriers. I gave

an example in which a twenty-five percent price advantage is not good enough to attract the business of the group because some members of the group have strong attachments to non-HMO providers. The same would be the case if all members of the group were with one HMO. A second HMO would have a difficult time winning the group's business - on an all or none basis - if some employees had strong attachments to the doctors in the first HMO.

Similarly, employer contribution policies and the provisions of the Internal Revenue Code can reduce the price elasticity of demand, though they do not necessarily do so.<sup>16</sup> There are other factors that work against elastic demand.

### **Product Differentiation and Market Segmentation**

Health insurance contracts cover a myriad of different goods and services, with various schedules and formulas as to what will be paid by the consumer and what by the insurer, deductibles, out-of-pocket spending limits, limits on covered services measured in physical amounts or dollars. Some contracts do cover, while others do not cover, for example, well-baby care, screening tests, allergy tests, allergy injections, vision exams, eye glasses, hearing tests, immunizations, prescription drugs, durable medical equipment (e.g., wheel chairs), medical sundries (e.g., needles to deliver insulin), natural childbirth classes, family planning and various infertility treatments, mental health services, speech, physical, or occupational therapy, acupuncture, biofeedback, dental care, and on and on. Or they cover each of these with varying copayments, coinsurance rates, or limitations.

A popular strategy among health insurers of all types is "product differentiation," that is, offering a complex package that differs from that of any other carrier to make it difficult, even for an expert, to make side-by-side value for money comparisons. They do this to get the consumer's attention off the price and onto features that can be sold. The goal is to reduce the sensitivity of consumer choices to price. Product differentiation could occur even in situations in which all consumers' tastes were the same.

Segmentation refers to a similar strategy exercised when consumer tastes or needs and wants are not all the same. The idea is for suppliers to divide up the total market into subgroups, each with different bundles of preferences, and to tailor different packages that appeal to different subgroups. The goal is to reduce to a minimum the number of people, as it were, standing in the middle, ready to change from one plan to another because of a change in price.

My favorite example of market segmentation occurred in Palo Alto in the 1970s. Stanford University employees had a choice between a Palo Alto Clinic prepaid-plan that did not include coverage for normal delivery, and which could therefore offer a lower premium than otherwise, and Kaiser Permanente which covered maternity costs in full. Those planning or expecting babies had a strong incentive to choose Kaiser; those not planning or expecting babies, to choose the Palo Alto Clinic plan. This factor served to reduce the number of people who would choose one way or the other based on variations in price.

The market for health insurance is easy to segment because there is great variability among people with respect to their expected medical needs. To each family, some of the coverages just mentioned are important, others are not.

In a world of HMOs, there are many ways to segment the market. The list includes:

1. By coverage contract features as just explained.
2. By capabilities. Plan A has excellent pediatricians and sports medicine, attractive to young families. Plan B is strong in vision and hearing care, etc.
3. By geographic location, including avoiding placing clinics in areas where poor people live.
4. By service levels. Plan A offers a lower price, but longer waiting times which is not much of a problem for people who value their time less. Plan B offers better customer service and caters to people who value their time more.

A sponsor who wants to counteract product differentiation and market segmentation should do the following:

1. Standardize coverage contracts. The Board of California's Public Employees Retirement System has recently voted to standardize all the HMO contracts for active employees and their dependents for the 22 HMOs serving their beneficiaries.
2. Monitor each HMO's capabilities in each medical specialty and require an adequate level of competence, and convenient access to specialty care.
3. Monitor geographic locations and require broad geographic coverage in a given service area.

Our experience in California's Public Employees Retirement System suggests that there are several persuasive reasons for standardizing the coverage contracts besides blocking market segmentation and product differentiation. One is to simplify administration. With a standard coverage, benefits management personnel need master the details and interpretations of only one contract instead of many. Another is that it gives management real control of the covered benefits. If there are many plans, each with many provisions, management cannot effectively understand and control them all. And another is that standardization deters the use of benefits package design to select a favorable mix of health risks (see below).

I appreciate that it sounds unAmerican in some circles to recommend a standard benefits package. I have heard the idea denounced as "one size fits all thinking." Isn't it better to cater to a great variety of tastes by offering a variety of benefits packages? Won't standardization stifle innovation?

The need for standardization for the purpose of combating market segmentation and making demand more price elastic is at the level of each sponsored group. At least these reasons do not argue that every sponsored group must have the same package. Stanford employees could have their standard coverage, while California state employees had a different one.

It is a matter of a value judgment. If one believes that costs are not too high, so the need for price competition is not compelling, then it might make sense

to prefer the blessings of variety and attenuated price competition. But if one believes costs are too high and that the need to sharpen incentives for cost and price reduction is compelling, then standardization of benefits is an important tool.

Yet another reason why people may be reluctant to change from one health plan to another to save premium dollars, when coverages are not standardized, is fear of hidden "air pockets" in the new coverage that they won't discover until they hit them. For example, in the bold print Plan A and Plan B may both "cover" organ transplants, but in the fine print Plan B may exclude payment for the harvesting and transportation of the organ. People understandably suspect that the lower-priced plan might have achieved its lower costs by excluding coverage for some costly services they might one day need. For example, federal employees might choose Blue Cross/Blue Shield "high option" coverage because of the reputation of Blue Cross Blue Shield as a broadly-based nonprofit organization, and the confidence that gives them that the coverage is solid. They might be reluctant to change to the National Association of Government Employees plan for a \$20 per month premium saving because they are uncertain about the quality of the coverage and don't know how to evaluate it. A standardized coverage contract can remove this uncertainty and increase consumer willingness to respond to price changes.

### Biased Risk Selection

Health risks can fall unevenly when people are given a choice of health plan ("biased risk selection"). Some HMOs might enroll a disproportionately high number of patients with medical conditions that are costly to treat such as AIDS, cancer or heart disease. Selecting favorable risks, and especially avoiding bad ones, can be an important source of profit for a health plan. This possibility raises important issues of equity and incentives. One good reason for the sponsor to design its program to mitigate biased risk selection and to compensate those health plans that get the bad risks, is to minimize the incentive to select risks, to focus each health plan's incentives on improving quality and cutting cost.

From the present point of view, if Plan A gets the bad risks and Plan B gets the good, Plan A's costs will be higher, and its price will have to be higher than Plan B's because of adverse selection. That fact makes it easier for Plan B to raise its price. In effect, its demand curve is likely to be less elastic because of Plan A's higher price.

The sponsor can correct for this by "risk adjusting" the premiums.<sup>17</sup> This is a very complex subject in itself. But the essence of the idea is to measure the relative expected medical costs in each group, based on variables such as age, sex, retiree status and diagnostic information, and to make compensatory payments in the form of surcharges on the premiums of those plans getting favorable selection and subsidies to those getting unfavorable selection. If the premiums are "risk adjusted" Plan B will find itself in much sharper price competition with Plan A.

### **Lack of Comparative Information on Quality**

Many people will be unwilling to switch from familiar and satisfactory HMO A to unfamiliar HMO B in order to save, say, \$25 per month in premium costs if they lack good data that assures them that the quality of care in HMO B is good. Thus, the availability or unavailability of information can have a powerful effect on price elasticity of demand. This is especially true in medical care where the stakes can be very high. Many people equate high price with high quality and they are suspicious that reduced cost may be achieved by reductions in quality.

There is very little reliable information on the comparative quality of care in different hospitals and HMOs. In principle, one would like to have "risk-adjusted measures of outcomes," that is comparative data on such outcomes as mortality, restoration of function, or control of chronic conditions, adjusted to take account of the characteristics of the patients treated.<sup>18</sup> And such data should be collected for all providers, all health plans, according to uniform definitions and standards.

As things stand today, there is very little of such data available. There is an excellent ongoing study of perinatal mortality in California.<sup>19</sup> There are a few limited attempts to gather and report such data in other states. The State of California recently passed legislation that will require a state agency to do a few analyses of a few conditions in a few years.

The problem is that the providers - the hospitals and doctors - in general fear the publication of such information and they use their considerable political power to block it. Government action is needed to compel production of such data according to uniform standards. Sara Singer did a survey of states to ascertain the availability of procedure volume and outcome data by hospital. She found:

"Unfortunately, hospitals believe that information regarding their quality and efficiency is proprietary and should not be released, and they have been quite successful at guarding hospital-specific information."<sup>20</sup>

The Jackson Hole Group has recommended a health care system based on integrated health care financing and delivery organizations that are publicly accountable for cost and quality.<sup>14</sup> Public accountability for quality would be achieved through a system of uniform health outcomes reporting, supervised by a Health Outcomes Standards Board in a manner similar to financial accounting and reporting supervised by the Financial Accounting Standards Board and the Securities and Exchange Commission. Good comparative information on quality could have a powerful effect in increasing people's willingness to change plans because of price.

### **Doctor Patient Ties**

Many people have established relationships with primary care physicians and specialists that they find satisfactory. Beyond the bonds of personal trust, there is an important economic dimension. A doctor-patient relationship can represent a substantial investment in searching, trial and error, and in doctor and patient time for the doctor to acquire insight and understanding about the patient's body, preferences and values. People with strong ties to physicians in HMO A will be reluctant to switch to HMO B to save \$25 per month, even in net after tax dollars, even if they have good data that shows HMO B delivers good quality care. I am not aware of a remedy for the effects of this on price elasticity of demand that might be applied either by government or sponsors. However, it doesn't take everyone, or even a majority of consumers willing to switch to police a market. Roughly 25 percent of Americans change residence every year; many of them have to change primary care physician anyway. Many more have little or no investment in their doctors and are not deterred from switching. If even five or ten percent of consumers are willing to switch plans because of price, the market could be quite competitive.

### **The Long-Run Effect of Competition on the Growth in Per Capita Health Spending**

So far, this discussion has used static concepts of economic analysis, that is, concepts used for comparing stationary states. How would a strategy of price competition with price-elastic demand affect rates of growth in per capita health spending over the long run?

My purpose here is not to persuade you that competition will solve the problem of excessive expenditure growth. We can really find out only by trying. (The same would also be true of such policies as federal "global budgets" and price controls.) My purpose is only to suggest how it might work.

First, under price competition, HMOs would be motivated to do the many things that improve quality and cut cost that I mentioned early in this lecture, such as selecting doctors for quality and efficient practice patterns, matching numbers and types of doctors and other resources to the needs of the population served, concentrating complex procedures in high volume regional centers, and more. The RAND experiment suggests that such a transformation might reduce expenditure per capita for the services covered by health insurance contracts by roughly 25 to 35 percent. The HMO in Seattle that achieved a 28 percent cost reduction did it in the absence of competition from other HMOs and in the absence of price-conscious customers.

What about the long run? I would draw on the experience of other competitive industries.

First, HMOs would match the numbers and types of doctors they retain to the needs of the population served, so that all their doctors would be busy and proficient. They would pay no more than necessary to retain these services.

Market prices for specialties in excess supply would drop, discouraging young doctors from choosing them. In the long run, market prices would reflect the costs of training and the alternative opportunities available to young people considering medical school. Incomes of high-paid specialists would fall. Much more care would be delivered by primary care physicians and their paramedical assistants who can provide good care for less. There wouldn't be an excess of specialists looking for new ways to make themselves useful.

Second, doctors would examine practice patterns critically, gathering outcomes data systematically, to evaluate the effectiveness of alternative therapies. Today wide variations in practice patterns exist, with some therapies costing many times others to produce equivalent results. Gradually these variations would be reduced, and physicians would use the treatments that produce satisfactory outcomes at the least cost. This would be a continuing process.

Third, successful HMOs would adopt and practice Continuous Quality Improvement, the powerful management philosophy pioneered by W. E. Deming and J. Juran, that enabled Japanese manufacturing companies to defeat their American and European competitors in world markets, and that has been adopted by leading American companies.<sup>21</sup> Continuous Quality Improvement would lead to continuing annual productivity gains that would help offset such expenditure-increasing factors as expanding technology and an aging population.

Fourth, the customers for medical technology would become cost-conscious informed purchasers who would make careful evaluations to determine when and how new technologies would be used. New technologies that reduce the total cost of care would experience rapid adoption. New technologies that increase total expenditures but produce significantly better outcomes would be adopted, but only after more careful scrutiny and for clearer indications than today (i.e., more restrictive criteria of who can benefit enough to justify the cost). New technologies whose adoption would increase total expenditures without significantly improving outcomes would not be adopted. (For example, a new drug that cost \$2,000, versus an older drug that cost \$200, that raised heart attack survival from 8 percent to 9 percent might not be adopted, or might be used very sparingly and not in all cases.) This new demand side would change the prospective profitability of investments in research and development of new technologies, making investment in expenditure-reducing technologies relatively much more attractive, whereas in the recent past their ability to reduce health expenditures has been considered irrelevant to purchasers.

## Conclusion

Competition will not work to provide HMOs effective incentives to cut cost and price unless demand is quite price elastic. Price-inelastic demand is not an unchangeable law of nature. It is the consequence of many policies pursued by health care financing and delivery plans, providers, purchasers, and government. Most of the causes of inelastic demand can be addressed by purchasers and government. Employer sponsors and government need to convert to defined contribution health benefit programs, limit tax-free employer contributions to the level of the lowest-priced plan of acceptable quality in each area, standardize benefits coverages within sponsored groups, risk-adjust premiums, gather small employers into large Health Insurance Purchasing Cooperatives, and require production of reliable data on quality, especially as measured by outcomes. A comprehensive strategy is needed, not merely one or two interventions.



## NOTES

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