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SHOULD MEDICAL CARE BE FREE? COST SHARING AND HEALTH
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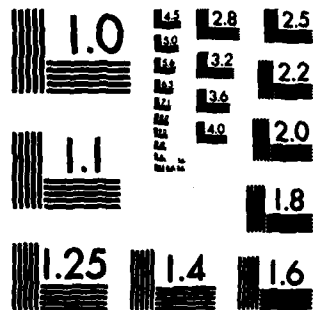
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SHOULD MEDICAL CARE BE FREE?
COST SHARING AND HEALTH FINANCING POLICY

Joseph P. Newhouse

June 1982

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Debate over the wisdom of having patients pay for some or all of their medical care services has persisted for many years, so much so that this issue has traditionally been a litmus test of one's liberal or conservative sentiments. Although the debate has been quite animated, assertions have been more common than facts. Only in the past decade has systematic inquiry into the effects of cost sharing taken place. This effort has produced most of the knowledge described below. Despite the great strides that have been made, much remains unknown. Fortunately, research is currently underway that should add substantially to our knowledge over the next few years.

Most political liberals believe medical services should be free to users. They fear that cost sharing deters people from seeking services that would improve or maintain their health. Perhaps for this reason they often characterize free access to medical services as a right that should be granted by a mature society. Many liberals also believe that cost sharing weighs more heavily on the poor and is therefore inequitable. At its extreme this view holds that the middle class by and large ignores any cost sharing or treats it as a minor irritant, but that cost sharing strongly influences the willingness of the poor to seek professional help.

A final argument in the liberal arsenal is that cost sharing, especially for ambulatory services, actually increases costs. The mechanisms are said to be twofold. First, cost sharing could deter some individuals from seeking care at an early stage of an illness when care would be cheaper and possibly more efficacious. Second, if ambulatory care is costly but inpatient care is free, physicians may hospitalize

patients who could be treated on an ambulatory basis simply to avoid the cost sharing.

Conservatives, by contrast, have argued that unless care is costly, people will abuse the medical care system. Many services will then be used with little or no resulting benefit.

Both sides tend to agree that individuals should be protected against very large out-of-pocket expenditures, although liberals maintain that it is not sufficient merely to enact so-called catastrophic insurance. They argue that to do so would further skew the distribution of medical resources toward high technology, expensive procedures. (Implicitly they presume that on average the benefits of such procedures do not match their costs.)

Underlying much of the political debate is the further issue of who should control resource allocation in medical care. Conservatives tend to see medical care as not very different from other goods and services and believe that the delivery system can, will, and should respond to the market signals sent by consumers. Liberals, on the other hand, tend to think of patients, rather than consumers, and picture the patient as uninformed, readily influenced by physicians whose interests may not completely coincide with those of the patient, and forced to make important decisions while under the stress of being ill. Liberals therefore tend to see a strong need for public sector regulation or even public sector production of medical care services.

The issue of cost sharing is somewhat distinct from the issue of strong regulation; both could co-exist (even the British National Health Service has occasionally used cost sharing for certain services such as prescription drugs and eyeglasses). But by and large liberals tend to

favor strong regulation and no cost sharing, whereas conservatives tend to favor little regulation and substantial cost sharing.

Recently a third position has emerged, one that downplays cost sharing (i.e., paying for care at the time of use), but advocates price competition among organized groups of providers, such as Health Maintenance Organizations. The price competition would take place through differences in premiums that prospective enrollees would pay to join such groups. Whatever the attractions of this position, even its supporters concede that it is simply not feasible to arrive at such a system in the next several years. As a practical matter, the majority of Americans will be receiving their care from fee-for-service physicians for many years to come. The issue then is whether they should have to pay something at the time of use -- and, if so, how much.

Cost Sharing and Use

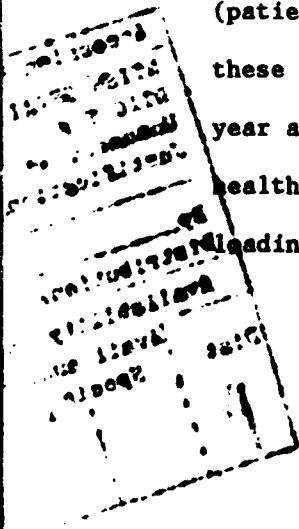
In the days when few facts were available, some individuals believed that cost sharing would not make a difference in the behavior of patients. They argued that cost sharing is directed at the patient, but the physician controls the amount of use. Although perhaps intuitively appealing, enough evidence has now accumulated to conclude that this argument is invalid -- cost sharing does affect behavior. Not only is the argument factually wrong, its logic is also deficient. Clearly the patient controls some decisions, such as the initial visit and the decision to fill a prescription. Moreover, the physician may well consider the patient's insurance coverage when making decisions, such as in ordering tests or recommending admission to the hospital.



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What is the evidence that cost sharing affects behavior? The best studies are based on three sources: designed experiments, natural experiments, and premiums charged for different health insurance policies. Generally the results of these disparate sources are consistent. They indicate that as a representative person changes from having no insurance coverage whatever to full coverage, use of hospital services, office visits, dental visits, and drugs roughly doubles. Moreover, the increased use tends to persist over time. Lesser changes in the amount of cost sharing have proportionately reduced effects. Indeed, the factor of two estimate is derived by piecing together findings from a variety of studies, most of which do not consider a pure situation in which a group moves from no insurance to full insurance, but rather from some sort of partial insurance to another sort of partial insurance.

Some of the evidence used in formulating this estimate was derived from the following sources: (1) The Rand Health Insurance Study, a designed (randomized) experiment whose objective was, in part, to determine the consequences of varying the amounts of cost sharing for the demand for care; (2) A natural experiment that took place among the employees of Stanford University when their coinsurance rate for ambulatory services was changed from 0 (full coverage) to 25 percent (patients pay 25 percent of the bill). The visits made by a cohort of these employees were measured during the year before the change, the year after the change, and five years after the change. (3) Changes in health insurance premiums as coinsurance rates change. Provided the loading or retention rate charged by the insurance company does not



change as the coinsurance rate changes (insurance companies assert this is true), one can compute how much overall expenditure changes with the coinsurance rate.

The structure of benefits, as well as their level, has also been an issue, because insurance for hospital stays has traditionally been much more complete than for office visits. There are two reasons for the more extensive hospital coverage. Because hospitalization poses a greater risk of very large expenses, insurance against such expenses is more appealing. Second, administrative charges as a percentage of premium are less for hospital bills because the cost of processing a claim does not rise very much with the size of the claim. The result has been complete or nearly complete coverage of hospital bills, but much scantier coverage of office visits.

Some have characterized the incomplete coverage for office visits as penny wise and pound foolish and have advocated free office visits as a cost saving device. Two designed experiments and one natural experiment have addressed this issue. Both designed experiments indicate that cost sharing for ambulatory services lowers total expenditure (i.e., the less ambulatory care, the less hospitalization), whereas the natural experiment indicates the opposite. Precisely because it was a natural experiment, however, the control group was not equivalent to the experimental group; hence, the weight of the evidence favors the notion that cost sharing for ambulatory services lowers rather than raises overall utilization and expenditure. Such a reduction in office visits, of course, may adversely affect the patient's health. The relationship between cost sharing and health will be addressed below.

All the findings just described come from studying changes in the behavior of a small group of persons, for example, the employees of a single firm. Can such findings be used equally well to predict what might happen if cost sharing changed for a large group of individuals or the entire population? Most analysts agree that they would not apply to a marked decline in cost sharing. The resulting increased demand would set in motion various rationing mechanisms, such as increased waiting times to an appointment. Then actual use would not increase by the full amount of the demand increase. Over time, however, the delivery system could be expected to respond (e.g., by adding more personnel), and use would rise toward the level of demand induced by the expanded insurance coverage.

There is considerable disagreement about whether the small group response would be observed if cost sharing for some service, say physician office visits, markedly increased. Some argue that use would be much less affected than one might conclude from the study of small groups. They assume that physicians have income targets (note this assumption means physicians will not necessarily take advantage of an opportunity to earn more!) and also have unexploited ability to create demand. If additional cost sharing caused demand per physician to fall, physicians would find their incomes falling short of their targets. They would seek to offset that decline by creating demand, utilizing such mechanisms as additional ordering of tests or advising the patient to return more frequently for followup. Such generation of additional demand would continue until the target income was again achieved.

The evidence supporting this line of reasoning is rather sparse and highly disputed. Some find no credible evidence that physicians have not already fully exploited any ability or desire they may have to create demand, while others believe that physicians are capable of fully offsetting virtually any demand decrease that may befall them. The most compelling piece of evidence on this issue comes from what at first may appear to be an unrelated fact. As their numbers have increased, physicians of various specialties have been diffusing into previously unserved towns. The rate of growth of given types of specialists has been faster in small towns than in large metropolitan areas. If physicians had a target income and if they could manipulate demand so as to fully offset a fall in demand per physician, this diffusion of physicians ought not to occur. Physicians would simply continue to accumulate in the towns where they are already located, which, one could assume, were the more attractive ones.

Thus, it seems extremely unlikely that physicians could fully offset a demand decrease stemming from increased cost sharing, although they may be able to offset it partially. If, at an extreme, physicians could not create any additional demand, the decline in use would be approximately the same in the case of the large group as in that of the small group (i.e., proportionate to a factor of two, depending upon how much cost sharing increased). But if cost sharing increased for many people, so that demand fell on a large scale, it seems quite possible that physicians might treat certain cases more intensively than they otherwise would (e.g., conduct longer visits). If so, use and expenditure would not decline by as much as in the small group case.

(Many economists would not term such behavior demand creation, but that may be a matter of semantics.) How much--if at all--results when many people's insurance changed might diverge from those observed when only a few people's insurance changed is presently an unresolved issue.

Cost Sharing and Competition

Changes in expenditure are not necessarily proportional to changes in use, because expenditure is also affected by the prices charged for medical services. How does cost sharing affect the price of services?

In a usual market the consumer has an incentive to seek the most favorable combination of product and price; any monies saved from doing so can be used to purchase other goods or services. Because their customers are seeking to minimize cost for a given product, sellers have an incentive to maintain low (competitive) prices; if they do not, their patrons are likely to leave them.

Certain types of cost sharing diminish the patient's incentive to search out low cost suppliers of medical services. If this incentive is diminished, prices will not necessarily be at the competitive level. A copayment (a fixed payment per visit by the consumer) completely eliminates any concern about price. If it costs \$5 to see any physician, there is obviously no incentive for the patient to find an economical physician and hence no incentive for physicians to keep their prices down. Coinsurance (the patient pays a fixed percentage of the bill) blunts, but does not eliminate, the patient's incentive to pay attention to price. If, for example, there is a coinsurance rate of 20 percent, the insurance policy will pick up 80 percent of the price

difference between any two physicians; hence, the patient tends to be relatively less concerned with price and more concerned with other aspects about the physician, such as convenience of location, than would be the case if the patient paid the entire price difference. An indemnity type policy (the insured is liable for any charges per visit above a certain amount) will produce the usual incentives to search if the level of the indemnity is below the price being charged by most physicians. So too will a policy with a deductible sufficiently large that most people will not exceed it most of the time. Individuals who do not anticipate exceeding the deductible will behave as if the dollars they save from using a cheaper physician can be used to purchase other goods or services.

It follows that for outpatient services, moderate deductibles provide a basis for price competition. Consider decisions as to whether to fill a prescription at a full price but convenient pharmacy or at a discount chain, or whether to try to have a refraction done by an ophthalmologist or an optometrist, or whether to try to find a cheaper pediatrician. Patients with moderate deductibles may well take any price difference into consideration when making such decisions.

Moderate deductibles, however, will not provide a basis for price competition among hospitals, nor among physicians such as surgeons and anesthesiologists who primarily serve hospitalized patients. In order for price competition to be effective, patients must pay most or all of any price difference among hospitals (or physicians). This would imply deductibles much larger than most persons are likely to want, given the financial exposure involved, or that society would consider reasonable. Thus, moderate deductibles could promote competitive prices for

outpatient services, but could not be expected to do so for inpatient services.

If cost sharing is to promote competitive prices for hospital services, it must be of the indemnity form. In principle, an indemnity makes the patient liable for any costs above a certain amount per unit of service, such as a day. Indemnities are, however, hard to write for hospital services because of the variety of charges made in a hospital. It is not sufficient to place a limit of, say, \$100 per day on what a policy might pay for room and board, because hospitals could simply lower room and board rates and raise rates for ancillary services. Ancillary services are quite numerous, and it would be cumbersome to write a limit for each, especially if the limits required frequent updating. One proposed solution is to vary an individual's premium for health insurance with the costliness (case-mix adjusted) of the hospital(s) the person elected to use; the details of such a proposal, however, take us well beyond a discussion of cost sharing.

Cost Sharing and Equity

Some arguments against cost sharing reflect notions of equity. If cost sharing affects the poor more than the middle class or causes use to vary markedly with income, many would characterize it as inequitable.

The evidence suggests that if cost sharing is the same for all income classes, it could well affect the poor more than the middle class. When copayments of \$1.50 for office visits were introduced into the Saskatchewan health insurance plan, use by the poor and by those in large families decreased proportionately more than did use in the

average family. By contrast, in the Rand Health Insurance Experiment, where cost sharing was less for the poor, demand by the poor decreased by roughly the same proportion as the demand of the remainder of the population. Thus, if cost sharing is related to income, it need not bear more heavily on the poor.

Some view income-related cost sharing as demeaning. Irrespective of the merits of that view, varying insurance benefits with income undeniably imposes additional administrative costs. How large these costs are depends upon two factors. First, how many income determinations must be made? If benefits change with income for everyone, the administrative load is clearly greater than if they only vary for the poor and are fixed at a specified dollar amount for the middle class. Second, can income be determined by using an existing administrative mechanism or must an entirely new system be created? Present systems for measuring income include the federal income tax system and the systems associated with various income transfer programs such as AFDC and SSI.

Although it is not generally appreciated, the federal income tax, through its medical deduction, already provides a form of income-related cost sharing. In effect, individuals with taxable income have a deductible equalling 3 percent of income and a coinsurance rate equalling one minus their marginal tax rate.

There have been a variety of proposals to alter the cost sharing provisions embodied in the medical deduction; most involve converting the deduction into a credit and making the credit refundable if it exceeds the amount of tax owed. For example, the credit might equal all medical expenditure in excess of 10 percent of income. The additional

administrative costs of income-relating insurance benefits in this fashion would not be nearly so large as creating a whole new system to determine income, but there would potentially be some administrative problems. The poor frequently do not file income tax returns; under this scheme the poor with medical expenses would have to do so. Also, it is difficult to ensure that families who divorce or separate do not unfairly manipulate the system.

Alternatively, insurance benefits could be related to income only for those eligible for existing income transfer programs. Cost sharing for others could be independent of income. Medicaid is one variant of such a scheme, because it mandates no cost sharing for those eligible for the program. Whether the costs and administrative headaches of relating cost sharing to income are worthwhile in terms of equity is a question the political process must resolve.

Cost Sharing and Health

The relationship between cost sharing and health, if any, is probably the most emotion filled of all the issues related to cost sharing. Very little, if anything, is known about this relationship, although the Rand Health Insurance Study should produce a substantial gain in information.

In the political debate, this issue tends to be framed as whether the additional services consumed with free care are necessary or unnecessary. Although necessary and unnecessary are frequently used terms, there is widespread conceptual confusion about their meaning. Physicians tend to define as necessary any service that produces a

positive health benefit, irrespective of its cost. But all goods and services have alternative uses (opportunity costs); hence, the benefits from some medical services may be positive but less than their (opportunity) costs. There is no consensus on whether such services should be classified as necessary.

The conceptual confusion over necessary care is compounded by the lack of knowledge about the benefits of various medical procedures, drugs, and devices. Although it is little appreciated, many common medical procedures have never been rigorously evaluated. Thus, in many cases there is no consensus on the magnitude of the therapeutic benefits.

Irrespective of these conceptual and measurement issues, it seems likely that both necessary and unnecessary services increase as cost sharing falls. Moreover, the mix between necessary and unnecessary services may be related to the initial level of health status. For persons in poorer health additional services may have a higher payoff than for those in better health.

Some advocates of free medical care find such considerations irrelevant. They invoke an argument analogous to Pascal's wager; that is, some of the additional services could improve health and the remainder will cause no harm. Unfortunately the last part of the argument is not correct. False positives, mislabeling, and the inherent risk of certain medical procedures mean that some "unnecessary" services will yield negative medical benefits. In sum, whether free medical care promotes health is an unresolved empirical question, which current research is addressing.

The Difficult Problem of Financing Medical Care

At the heart of the medical care financing problem is the dilemma between protecting the individual against the risk of medical bills while also trying to provide physicians, hospitals, and other medical providers with incentives for efficient production. Free medical care provides maximum protection against risk but minimum incentive for efficient production. A sufficiently large deductible, by contrast, exposes the individual to risk, but does provide a basis for price competition for outpatient services and thus an incentive for efficient production. Nonetheless, even a reasonably large deductible will leave the hospital sector with only a weak incentive for efficient production. Various devices, such as indemnity insurance, might strengthen incentives for hospitals to produce efficiently, but because such devices are not now widespread, one suspects they may be impractical.

Some argue that Health Maintenance Organizations (HMO's) or other similar arrangements can resolve the dilemma by both eliminating risk and providing incentives for efficiency. Unfortunately, a new problem may arise; because an HMO always has an incentive to shunt the sickly patient to another HMO, such individuals may have a difficult time finding care. If such a problem does in fact arise, it does not appear readily susceptible to technical remedy.

The dilemma between risk protection and efficient production is probably why so few developed countries seem satisfied with their financing arrangements for medical services. Although the dilemma seems inescapable, we can now conduct a much more informed debate about the

best road to pursue than we could a decade ago. Moreover, assuming that our willingness to invest in health services research continues, there is every reason to look forward to even sharper focusing of the issues in the future.