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Improving the Delivery of Health Services

Victor R. Fuchs

As a fair warning to the reader, it must be stated at the outset that the many things that are good and right about our present health care system will not be discussed here. Instead, I shall concentrate on what can be done to make it better. The problem of improving the delivery of health services will be discussed from three aspects. First, there is the question of improvement measured purely in medical terms, that is, more effective health care. Second, there is the problem of achieving a more equitable distribution of health services. And finally, I shall consider the question of how to attain greater efficiency in the production of health services.

Improvement in the quality of medical care is something for which doctors and scientists are constantly striving, and one might think that there is not much that an economist can contribute to these efforts. This is essentially correct. Finding a better way to treat herniated discs, for instance, is primarily a technological task; and we must rely on those with training in the appropriate technology for a solution.

There are, however, two things that an economist can say about this question of better health services. The first is to point out that the best solution to a problem from a technological point of view is not always best from a social point of view. The reason is that the best technological solution may require the use of more resources than some alternative solution, and the allocation of scarce resources among competing goals is essentially an economic problem, not a technological one.

Most physicians tend to define optimum care without regard to cost.

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This would be acceptable if resources were not scarce or if people had no goal other than better health. But resources are scarce, and people do have other goals, and therefore the optimum amount of care must be redefined. In plain language, the optimum requires allocating existing resources between medical care and other uses so that the last dollar's worth spent in each use brings the same amount of satisfaction or benefit to the consumer. Some practicing physicians have a good intuitive grasp of this principle, but others ignore it or fail to apply it with consistency to the broad problems of health care.

Recently I heard a well-trained, dedicated physician speak about new techniques for early detection of breast cancer through mass X-ray screening. The talk was most interesting and enlightening until the physician started to assert that the program was "worth doing." At that point his statements bordered on the irresponsible, because it was apparent that he did not have a set of rational criteria for deciding whether a program was "worth doing" or not. Questions concerning benefits and costs (both monetary and nonmonetary) and the like had been given only casual attention.

Coming closer to home, consider, for instance, the treatment of fracture of the forearm in children. An economist at the Palto Alto Medical Research Foundation found that the cost of such treatment rose very rapidly between 1951 and 1965, not so much because fees of individual physicians or charges of individual hospitals had increased, but because of changes in the way particular cases were handled.¹ In 1965, there was much greater use of orthopaedic surgeons and much greater use of hospitalization. That these changes represented better medical care can be accepted without a doubt. The real question is whether the improvements in outcome were sufficiently great to justify the additional costs. Maybe they were; I am certainly not saying that they were not. I am simply trying to indicate the kind of question that will be asked of physicians with increasing frequency in the future. And please note that the answer that the saving of a single life is worth any cost is unacceptable. The actions of society belie this assumption in a thousand ways every day. Moreover, the choice need not be between saving lives or not, but between alternative programs, that is, allocating scarce resources in order to save as many lives as possible.

A second point worth noting about better medical care is that it is not synonymous with more care. A substantial amount of evidence is accumulating that points to widespread overprescribing, overhospital-

¹A. A. Scitovsky, "Changes in the Costs of Treatment of Selected Illnesses, 1951-65," *American Economic Review*, 57, 1967, pp. 1182-95.

izing, overtesting, and overuse of surgery. The economist notes with concern that frequently financial incentives seem to encourage rather than discourage practices that are harmful to health as well as wasteful of resources. For instance, the data on the disparate amounts of surgery performed on federal government employees, depending upon the type of health insurance plan that they are enrolled in, are rather alarming. According to the latest report, government employees and dependents covered by Blue Shield have four times as many tonsillectomies as those covered in group health plans. They have twice as many appendectomies, and twice as much female surgery, such as mastectomy and hysterectomy. It is possible, of course, to interpret the data as saying that those enrolled in group practice plans are being denied needed surgery, but in either case such disparities deserve more careful attention from the medical profession than they have thus far received. If current methods of financing and paying for medical care are a significant source of difficulty, physicians and economists can work together to devise new institutional arrangements that will be conducive to better care.

A second aspect of improving the delivery of health services is concerned with providing a more egalitarian distribution. The traditional system in this country was based on ability to pay, tempered by philanthropy, and the benevolence and judgment of physicians and hospital administrators. We are now experiencing strong pressures to change that system in the direction of distribution more in accordance with medical need. The country seems to be reaching a consensus that health services should be more evenly distributed than in the past.

This question, too, is only in part an economic one. Decisions concerning what is fair or just distribution of medical care (or anything else) must be based primarily on normative judgments rather than positive analysis. However, given society's objectives with regard to distribution, the economist can indicate how the pursuit of these objectives may conflict with other goals, and he can help in the search for efficient methods of implementing the objectives. For instance, given current social attitudes, it might be more efficient to develop a systematic approach to subsidizing medical care for the poor instead of depending on the discretion of physicians. How then to proceed?

Some reformers would create a national health service. They would finance medical care out of taxation and would make it freely available to all, presumably on a first-come, first-served basis, like the public parks. Such an approach runs several risks. First, it might have some seriously unfavorable effects on the quality of medical care. This service,

unlike many items we buy, must be produced on a local basis. Furthermore, the "product" is highly personalized. These characteristics suggest that reliance upon remote control and supervision would be a mistake. Second, it might well result in fewer resources being allocated to medical care, because this field would have to compete with all the others for a share of the federal budget. Those persons who value medical care more highly than other goods and services would find it difficult to allocate their budgets in ways that seem best to them. Finally, the idea of a national health service takes the goal of more equal distribution and drives it to the ultimate extreme in ways that are likely to be harmful to both freedom and efficiency. We should recall Lord Acton's comment on the French Revolution: "The finest opportunity ever given to the world was thrown away because the passion for equality made vain the hope of freedom."

A very different approach would be the creation of special health programs for the poor. This has the advantage of recognizing the obvious truth that the great majority of people must pay for their medical care one way or another and that little is to be gained by pretending that if it is paid out of taxes the cost is being borne by someone else. A major disadvantage to this approach is the unfavorable aspects of a sharply delimited two-class medical system. It may well be with medical care as with education that separate systems are inherently unequal.

My preference is for a system which would subsidize the premiums of the poor for membership in plans and groups that also serve large numbers of the nonpoor. The latter's premiums would be paid by themselves or their employers. Under such a system the physician would know only that a person was a paid-up member and would not be concerned with the source of the payment. Membership in some plan or group that at least meets nationally established minimum levels would be compulsory for all, but there would be free choice of plan or group wherever practicable, including the right to buy more than the minimum level if desired. If these plans and groups were truly consumer-oriented, and if they negotiated at arm's length with the producers of medical care regarding price and quality, I think most of the objectives of greater equality could probably be served without sacrificing efficiency and freedom.²

While I am on this subject, may I add that statements by well-meaning social reformers about the provision of "highest quality care to all" are unrealistic and probably do more harm than good. If we

² See my "The Growing Demand for Medical Care" below.

can assume that the President of the United States gets the highest quality care, it should be clear that the provision of that level of care for everyone is currently impossible. Furthermore, even if we were much wealthier than we now are, it would require the diversion of resources away from the production of other things that people would rather have. It is also clear that no useful purpose would be served by providing the President with less care simply to meet some arbitrary goal of equality. I use the President as an extreme example, but the same point applies down the line. Every health system in the world contains elements of inequality based on position, political connections, family ties, or other factors. A system that provides a floor for everyone but a ceiling for none does not strike me as being less just and probably would be a good deal more rational.

The third aspect of improving the delivery of health services concerns producing them more efficiently. Whatever the state of the art of medicine at any given time, and whatever the equity of the distribution pattern, a case can always be made for increasing the efficiency of production. This would result in either more medical care for the same amount of resources or the use of fewer resources to produce the same amount of medical care.

The fundamental problem is to design a more rational system of delivery. Some of the principal areas requiring attention are hospitals, physicians' practices, and drugs.

The problem of hospital efficiency is threefold. First there is the matter of improving efficiency within individual hospitals. It is very important to provide hospital boards and managers with the proper incentives. Present methods of reimbursement, based largely on cost, do not do this, and other methods must be found. One approach worth considering is reimbursement based on the average cost of a group of hospitals with similar characteristics. Under such a system, inefficient hospitals would be under strong pressure to bring down their costs, while efficient hospitals would find themselves with extra funds which they could spend to improve the range and quality of services offered. This is an oversimplification, of course, and great care must be taken to maintain standards when applying such formulae.

Greater efficiency in hospitals also requires more rational organization of the hospital industry. The traditional pattern of fiercely guarded independence for each hospital frequently serves to raise the costs of all. Some remedies are being sought through areawide planning. Systems of hospitals under common management and control might also improve efficiency. No other American industry clings so tena-

ciously to the single-establishment pattern of organization in the face of dramatic improvements in transportation and communication.

A third and equally important road to greater efficiency for hospitals is through more judicious utilization. It is a sad commentary on the present system that it took a severe bed shortage for physicians to discover that early ambulation and early discharge are actually better for the patient in many cases. Have all the potential economies of this type been explored? The average length of stay for hernia surgery is now about seven days, but in the Shouldice Clinic in Toronto the average stay is two to three days. I am told that their mortality and recurrence rates compare favorably with those of any hospital in the United States.

This leads to the question of efficiency in the practice of medical care by physicians. This is not a simple subject, partly because, as one doctor recently put it, the physician "has taken over the roles of priest, medicine man, and grandparent combined."³ Many people who visit doctors are, to quote the same article again, "troubled primarily by symptoms arising from their own anxieties, depressions, or guilt." But this raises the question of how well-designed the long years of medical training are to deal with this type of problem? Could not counselors with shorter but more appropriate training be more effective, thus freeing the physician for those tasks that require his special abilities? Of course, the diagnosis of neurosis is not simple and probably requires a highly skilled physician who can rule out other possibilities. It should be feasible, however, to separate the diagnostic and therapeutic tasks.

While there is great concern about the so-called doctor shortage, little mention is made of the considerable waste and excess capacity. The waste is evident in the time physicians spend at tasks that could be performed by someone with considerably shorter, more specialized training. The pediatrician providing well-baby care, the gynecologist attending normal deliveries, and the internist treating common colds might be examples of this phenomenon.

The excess capacity exists primarily in surgery. If you have any doubts about this, just perform for some surgical field the following calculation.⁴ Take the annual number of procedures requiring a skilled surgeon, divide by the number of procedures that a skilled surgeon could perform if he were kept occupied, and compare the result with the actual number of surgical specialists available.

³ M. J. Halberstam, "Who Says Solo Practice is Obsolete?" *Medical Economics*, December 23, 1968.

⁴ H. C. Taylor, Jr., "Objectives and Principles in the Training of the Obstetrician-Gynecologist," *American Journal of Surgery*, 110, 1965, pp. 35-42.

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For surgery as a whole, the figures look something like this: In 1966 about eleven million operations were performed in hospitals in the United States. (Normal deliveries are not included.) There were about 50,000 physicians with primary specialization in surgery (excluding interns, residents, and fellows). If all operations were performed by surgeons, and this certainly was not the case, the average work load would have been about 220 operations per surgeon per year. In New York State, the average would have been 170 operations per surgeon.

There are, to be sure, many qualifications to be entered along with these calculations. An important part of the surgeon's work is diagnosis and preoperative and postoperative care. The surgeon who, upon careful examination, recommends against surgery may often be doing more for health than the one who never leaves the operating room. Also, some operations require more than one surgeon and one resident, and some surgery is performed outside hospitals. But after all allowances are made, including time for teaching and time for attending meetings, it does seem possible that American surgeons as a group may be operating at only about one half of capacity.

Some excess capacity in surgery is probably desirable; but how much? And who is to decide? Organized medicine seems to be saying, let the market decide; but we do not now have a free market for surgical services and I have never met a physician who wanted a free market once he understood what the term implied.

A third area of inefficiency in our present health care system is in the production and distribution of drugs. Consider the manufacturer. According to the latest *Annual Survey of Manufactures* (1966), an average dollar's worth of shipments from drug factories breaks down as follows: 23 cents goes for cost of materials; 7 cents for wages of production workers; 10 cents for other payroll; and 60 cents is allocated to profits, interest, advertising, depreciation, and the like. In most industries this residual category accounts for 20 to 30 per cent of the sales dollar, and even in an industry such as toilet preparations, the fraction spent for materials and labor is higher and the residual is lower than in drugs.

The reasons for this huge margin are too numerous and complex to discuss in detail here. It should be noted that the principal components are the highest profit rate of all manufacturing industries plus large expenditures for research and promotion. Many people believe that the remedy for this situation is a barrage of legislation. Some changes in law may be necessary, but perhaps the physicians themselves could ac-

compish a great deal. If physicians, who are the source of all prescriptions, became more concerned with questions of drug efficacy and drug cost, dramatic savings would be possible.

It is a commonplace to say that we are moving into a new era for medical care in this country. The implications for the physician can be frightening, but they need not be. It is true that the structure and organization of medical care will no longer be determined primarily by the psychological and financial needs of physicians, but a rational system will not ignore these needs. The design of a rational system requires more than technological skill. Some physicians must acquire sophistication concerning the allocation of scarce resources to multiple goals. The principles involved are not difficult to master, and it seems to me that medical care and society will be better served if physicians play a prominent role in laying plans for the future.

In summary, improvements in the delivery of health services require making medical care more effective, producing it more efficiently, and distributing it more equitably. These are all difficult problems. The effort, wisdom, and dedication demanded of physicians is far greater than that required of most men. On the other hand, they are drawn from the top ranks of the youth of each generation; they receive longer and more expensive training than any other professional; and they lay claim to and are accorded more privileges. I sincerely hope that they will be equal to the tremendous tasks that lie ahead.