The economics of health in a post-industrial society

VICTOR R. FUCHS

The most important, and perhaps the most surprising, finding of health economics is this: Holding constant the state of medical technology and other health-determining variables, the marginal contribution of medical care to health is very small in modern nations. Those who advocate ever more physicians, nurses, hospitals, and the like are either mistaken or have in mind objectives other than the improvement of the health of the population.

The earliest studies that reported this conclusion were greeted with skepticism in some quarters because the analyses typically relied on mortality as the measure of health. Mortality, it was said, is a rather crude index of health. It was suggested that more sophisticated measures would reveal the favorable effects of greater numbers of physicians, nurses, and hospital beds. A recent RAND study, however, based on six more specific indicators of ill health (cholesterol levels, varicose veins, high blood pressure, abnormal chest X-ray, abnormal electrocardiogram, and a periodontal index) provides striking confirmation of the results based on mortality. Variations in the amount of health resources available across 39 metropolitan areas of the United States had no systematic effect on these health measures taken alone or in combination.

The lack of correlation between medical care and health is ap-
parent in many countries other than the United States. In Great Britain, for instance, the National Health Service (NHS) has undoubtedly served to reduce sharply class differences in access to medical care, but the traditionally large class differentials in infant mortality and life expectancy are no smaller three decades after the establishment of NHS. Also, despite free access to medical care, time lost from work because of sickness has actually increased greatly in Britain in recent decades. The number of sick days depends on many factors in addition to health, but these data hardly support the notion that there has been a large payoff from the NHS in that area. The discrepancy between health and medical care is even sharper in the USSR. In recent years there has apparently been a deterioration in health as measured either by infant mortality or life expectancy, even though the Soviet medical-care system is said to have improved.

There are several reasons why an increase in medical resources, given a reasonable quantity as a base, does not have much effect on health. First, if physicians are scarce, they tend to concentrate on those patients for whom their attention is likely to make the most difference. As doctors become more plentiful, they naturally tend to spend more time on patients less in need of attention. Second, patients also alter their behavior, depending upon how easy or difficult it is to get to see a physician. When physicians are more numerous, patients tend to seek attention for more trivial conditions. Third, many of the most effective interventions, such as vaccinations or treatment of bacterial infections, require only modest amounts of resources. Quite often, one “shot” goes a long way. On the other hand, the long-term benefits of some of the most expensive procedures, such as open-heart surgery or organ transplants, are still in doubt. Fourth, there is the problem of “iatrogenic disease”—illness that arises as a result of medical care. Because medical and surgical interventions are more complex and extensive than ever before, they carry with them greater risk. Sometimes too much care, or the wrong care, can be more deleterious to health than no care at all. Finally, it is becoming abundantly clear that factors other than medical care (for example, genes, environment, life style) play crucial roles in many of the most important health problems.

To this point the question we have been considering has been, in effect, what will be the results of increasing the quantity of physicians, nurses, and hospitals, in the absence of a change in the way care is delivered. Yet for a full understanding of the issue, we must examine another question as well: What will be the effects on
health of a given quantity of physicians, nurses, and hospitals if there has been some advance in medical science?

**Progress in medical science**

It seems to me that some writers, in their answers to this question, have overstated the “medical care doesn’t matter” argument. For example, there is no doubt that medical progress was slow until well into the 20th century. But from about 1935 to about 1955—a period which marked the introduction of anti-infectious drugs—major improvements in health were recorded in all industrial nations. The decreases in mortality were far greater than could be attributed to general economic advance, increases in the quantity of medical care, or similar changes.

With some delay, the application of new knowledge also improved health in the less-developed countries, and at unprecedented speed. Life expectancy, which in 1940 averaged only 39 years in Asia, Africa, and Latin America, rose to 60 years by 1970—an increase I believe largely attributable to the introduction of modern medical and public-health technology. By contrast, in the United States the same change in life expectancy—from 39 to 60 years—required three-quarters of a century, from 1855 to 1930, because health technology was developing so slowly at that time.

It is clear that the pace at which medical progress contributes to the improvement of health is neither steady nor predictable. During the 1960’s many “breakthroughs” in medical science were hailed, and expenditures for medical care rose appreciably, but the favorable consequences for health were quite limited. In recent years, however, U.S. death rates—especially from heart disease—have decreased rapidly. For men and women at most ages, the probability of death from arteriosclerotic heart disease in 1975 was 20 to 25 percent lower than in 1968. The technologically-inclined attribute most of this decrease to better control of hypertension, special coronary-care units, open-heart surgery, and other medical innovations. Other observers tend to credit changes in diet, smoking, exercise, and other aspects of personal behavior. We do not know the true explanation; I suspect there is some validity to both points of view.

**Income, education, and good health**

For most of human history, income has been the primary determinant of health and life expectancy—the major explanation for differ-
ences in health among nations and among groups within a nation. The effect of income on health is still observed in the less-developed nations, but in the United States the correlation has tended to disappear. This is true when health is measured by mortality, or by indicators such as high blood pressure, varicose veins, cholesterol levels, and abnormal X-rays or cardiograms, or by subjective evaluation of health status. Other things equal, there is no longer any systematic effect of income on health, except possibly at the deepest levels of poverty.

In the past, economic growth and technological change not only served to increase average life expectancy, but also resulted in a dramatic reduction in inequality in life expectancy among different economic classes. The principal reason for the reduction is that general economic growth, even if unaccompanied by any reduction in income inequality, has more favorable effects on the health of the very poor than on those who have already attained a standard of living well above subsistence. A second reason is that the most effective medical discoveries of the past half-century, such as antibiotics, have typically been both relatively low in cost and widely available.

Not only has the distribution of life expectancy become much more nearly equal within the U.S. white population, but the difference between white and nonwhite life expectancy has also been reduced substantially in this century. In 1900, life expectancy for whites was 47 percent higher than for nonwhites; in 1975 the differential was 8 percent. The overall reduction in inequality of life expectancy bears a strong relation to reduction in inequality by income class. In 1900, those with short life expectancy were disproportionately from the lower half of the income distribution. Now, with the correlation between income and life expectancy much weaker, we can say that with respect to the most precious good of all, life itself, the United States is approaching an egalitarian distribution.

Despite the general trend toward equality in life expectancy, there is one factor that consistently appears as a significant correlate of good health: education. The same research by health economists that has revealed the small marginal contributions of medical care and income to health has reported a strong positive relation between health and years of schooling. In the United States, regardless of the way health is measured (mortality, morbidity, symptoms, or subjective evaluation), and regardless of the unit of observation (individuals, city or state averages), years of schooling usually emerges as the most powerful correlate of good health. Michael Grossman,
an economist who has done extensive research on this question, has
tended to interpret this relationship as evidence that *schooling in-
creases the individual's efficiency in producing health*, although he
recognizes that some causality may run from better health to more
schooling. The way schooling contributes to efficiency in producing
health has never been made explicit, but Grossman has speculated
that persons with more education might choose healthier diets, be
more aware of health risks, choose healthier occupations, and use
medical care more wisely.

I accept the "efficiency" hypothesis, but I think that it needs some
qualification. Education, for instance, seems to have little connection
with the more knowledgeable use of medical resources. Recent re-
search on surgical utilization casts doubt on the proposition that the
better-educated use medical care differently than do the less-
educated. While the probability of surgery is much lower for the
highly educated than for the rest of the U.S. population, a new
study by Louis Garrison shows that the highly educated who do
undergo surgery enter the hospital at the same stage of disease as
do the less-educated. He also finds that the better-educated patients
choose the same kinds of physicians, have about the same length of
stay, and apart from the fact that their general health is a little
better than average, have about the same outcomes from surgery.
Thus, at least in the context of in-hospital surgery, there is little
support for the "efficiency" effect in the use of medical care.

The most plausible explanation for the lower surgery rates of
the highly educated is that they have less need for surgery—that is,
they are in better health. The question remains, why? One explana-
tion that I favor is that both schooling and health are manifesta-
tions of differences among individuals in the willingness and/or
ability to invest in human capital. Both schooling and health-related
activities involve incurring current costs for the sake of future
benefits, and it seems quite clear that individuals differ in their
willingness to make such far-sighted investments.

Recent preliminary research gives some support to the view that
individual differences in willingness and ability to delay gratifica-
tion are related to health. A colleague and I surveyed a group
of young adults to ascertain their "rate of time discount" with re-
spect to receiving money awards and paying fines. The time-discount
rate can serve as a rough measure of the degree to which individ-
uals are willing to postpone satisfaction over time. An individual
with a low discount rate, for example, is one who is willing to delay
reward over a longer period of time, or willing to accept a smaller
reward for any given period of delay, than is a person with a high discount rate. In our research, my colleague was interested in the pattern of the rates—how they changed with length of time involved, the size of the award, and the like. I added a few questions about the respondents' health and then looked at the relation between health and discount rate. I found a strong, statistically significant negative relation between the rate of discount and the subjective assessment of health. Of the 25 percent of the sample with the lowest discount rates, 63 percent reported themselves in excellent health; of the quarter with the highest rates, only 32 percent reported themselves in excellent health.

Some recent statistics from England provide additional support for my view of the correlation between health and schooling. A study of cigarette smoking revealed that among men in social class I (the highly educated) the proportion who smoked fell almost by half between 1958 and 1975. In contrast, among men in social class V (the poorly educated) the proportion scarcely changed. It seems unlikely that this difference in behavior arises primarily because the poorly educated have not heard about the dangers of smoking or do not understand the implications for health. It is more likely that they are unwilling (or unable) to give up a present pleasure for a distant and uncertain benefit. I suspect that if one compared these two groups of men with regard to other aspects of behavior that involve using foresight or delaying satisfaction (such as saving versus buying on credit), one would find similar differences.

The growth of medical care

Despite the conclusion supported by these findings—that health is much more dependent on non-medical factors than on the quantity of medical care—the growth of expenditures for medical care has been unrelenting. For at least the past three decades (and probably for much longer) the share of gross national product devoted to medical care has steadily increased in the United States and elsewhere. In several countries, the portion of national resources devoted to health is rapidly approaching 10 percent. There are several possible explanations for the rapid growth of health care as an industry.

One popular, but I believe exaggerated, explanation for the relative growth of service industries in general is the growth of per capita income. But with respect to health care, higher income is clearly not a direct causal factor. Precise estimates of the income
elasticity of the demand for health care differ, but almost all investigators agree that the demand for health care does not rise in direct proportion to a rise in per capita income. People behave as if health care were a "necessity," not a "luxury."

Thus, the growth in medical care's share of the GNP and of total employment is not attributable to rising income. Rather, the employment trend in the medical industry reflects a change in the character of health care itself. Labor "input" per patient, especially in hospitals, has grown at an extremely rapid rate. In 1976, there were 304 full-time-equivalent employees per 100 patients in American short-term hospitals, compared with 178 per 100 patients in 1950. The character of hospital activity has also changed greatly since 1950. Each patient now has many more tests and X-rays, more complex surgery is performed, and new treatment facilities—such as intensive-care units—have proliferated.

I use the word "activity" rather than "output" deliberately, because we are far from knowing how much this increased activity has resulted in better health. Some changes in medical technology, such as the anti-infectious drugs mentioned previously, have clearly raised productivity enormously, but the only thing we know with certainty about some of the other technological changes is that they have greatly raised expenditures.

**Medical Technology.** The explosion of medical technology—the vast expansion in the character and scope of interventions that physicians can undertake—has, unquestionably, been a major factor in the growth of health expenditures in recent decades. Familiar examples include renal dialysis, open-heart surgery, organ transplants, and high-energy cancer treatments. These innovations may or may not make large contributions to improved health, but relative ineffectiveness does not deter their use.

In the past I have referred to the proclivity of physicians to employ new technologies, simply because they exist, as the "technological imperative." Recent economic research, however, provides a different explanation for the emphasis on expensive treatments that yield little in lives saved—while preventive treatments with higher productivity are denied resources. This tendency may be fully consistent with consumer preferences regarding the kinds of health services they are willing to pay for. The amount most people are willing to pay for a given reduction in the probability of death is positively related to the level of the probability. Thus, a person facing almost certain death would usually be willing to pay a great deal for even a small increment in the chance of survival; that same
person, facing a low probability of death, would not pay nearly as much for the same increment in survival probability.

For example, imagine a program to treat cancer that costs $1 million per life saved, and another program to lower the probability of getting cancer that costs only $500,000 per life saved. People might be more willing to pay for the treatment if sick, than to pay for the prevention if well. This behavior is not necessarily "irrational," nor need it be the result of some "death-denying" psychological quirk. We do not think it odd that a thirsty man will pay a large amount for a small drink of water if there is very little available, but is not willing to pay much for a drink when he is not particularly thirsty.

The medical profession has frequently been criticized for failing to allocate resources so as to maximize the number of lives saved, but some of this criticism may be unjustified—at least in the sense that the emphasis on heroic efforts in life-threatening situations, at the expense of preventive measures, may actually be a reasonable response to consumer preferences. It follows that if we seek a health-care system that does what people want it to do, we should not expect the most efficient outcome in terms of costs per life saved.

Other causes

Government, Family, and Religion. There are three non-medical factors that I believe have also contributed substantially to the growth of the health-care industry: the growth of government, the decline in importance of the family, and the weakening of traditional religion. The subsidization of health care by government clearly induces additional demand. Nearly all health economists who have studied the price elasticity of demand for health care have found that a decrease in price does not result in as proportionally great an increase in demand—but all have found some increase in demand accompanying a drop in price. It follows that a reduction in the price of medical care (at the time of utilization) through public (or private) insurance increases the quantity demanded.

The effects of the decline of the family and of traditional religion are more difficult to quantify, but I shall offer a few examples to convey the flavor of the argument. Consider nursing homes. In the U.S. they are by far the fastest-growing component of health care; their share of total health spending climbed from less than 2 percent in 1960 to almost 8 percent in 1977. Nursing-home ex-
penditures now exceed spending for drugs or for dentists' services; the only larger categories are hospitals and physicians' services. But what is a nursing home and what services does it provide? I would argue that it provides very little that was not provided in the past at home by the family. Indeed, in some cases it does not provide as much.

To be sure, the growth of nursing homes is attributable in part to growth in the relative number of the aged. But more important, in my opinion, is the growth in female labor-force participation (no one is at home) and the mobility of the population. Elderly widows comprise the bulk of the nursing-home population, and there has been a tremendous increase in the percentage of widows 65 and over who live alone. In 1950 that figure was 25 percent; in 1976 it was 65 percent. True enough, rising income makes living alone possible and helps pay for nursing-home care; but my main point is that a considerable amount of what we think of as an increase in health care is not an increase at all, but a substitute for care that was formerly provided within the family.

Not only does purchased medical care in part take the place of the family, but I believe that it is frequently a modern substitute for religion. This is most obvious in the case of mental illness. The similarity between psychiatry and religion has been frequently discussed; it needs to be emphasized, however, that many visits to physicians who are not psychiatrists are undertaken for purposes other than specific diagnostic or therapeutic intervention. The patient may be seeking sympathy, or reassurance, or help in facing death (his own or that of someone close to him). The patient may want to unburden himself to an authority figure who will keep his secrets confidential. There may be a desire to find someone to assume responsibility for a difficult decision, or there may be a need for validation of a course of action already decided upon. The ability to state, "The doctor says I should (or shouldn't) do this" often is worth a great deal.

In an earlier day priests, ministers, and rabbis met many of these demands. For some persons they still do—but today many find a white coat more reassuring than a black one, a medical center more impressive than a cathedral. One interesting statistic reveals the change in the customary site of death. In an earlier day dying was usually a private affair, attended by family and friends, and legitimized by priest, or shaman, or witch doctor. Today, in most Western nations, more than half of all deaths occur in hospitals. The physician is now our chief ambassador to death.
The growth of government

The expansion of government in all aspects of health is a major political phenomenon requiring separate consideration. There are several possible explanations for this trend in post-industrial society.

One likely reason is the ever-increasing complexity of modern life. Consumers are now faced with a bewildering array of goods and services and they feel a great need for information about them. There can be significant economies of scale in the provision of information about the quality of beef, the purity of drugs, and the safety of airlines; it may, therefore, be more efficient to have a single agency, the government, provide that information.

Many observers also believe that urbanization and the growth of population and income have increased the importance of externalities, so that there is legitimate scope for the government to do more than simply provide information. A health-related externality exists if Smith's consumption or other actions have favorable (or unfavorable) effects on Brown's health, but these effects are not reflected in the prices Smith faces and there is no feasible way for Smith and Brown to make a private arrangement that would cause Smith to take these effects into account. Familiar examples in this category include vaccinations (positive externality) and air pollution (negative externality). When externalities exist, the solution most economists prefer is to use subsidies or taxes to bring private costs (or benefits) into line with social benefits (or costs). Direct regulation which compels or forbids certain activities outright should generally be avoided unless the costs of administering the subsidies or taxes are unreasonably high.

A special kind of externality discussed by Guido Calabresi and Philip Bobbitt in their recent book Tragic Choices concerns society's unwillingness to see some of its members (typically the very poor) take unusual risks or pursue degrading activities. This kind of externality sometimes results in a demand for health-related government regulation. An example is the inhibition regarding the sale of kidneys or other organs by living donors. It seems to me that issues of this character are really just matters of taste; they have more to do with "aesthetic" considerations than with a moral or practical concern for the health of members of society. The importance of taste and social conventions in these matters is nicely illustrated by the fact that society readily permits individuals to work in coal mines and to pursue other activities that are far more dangerous to health than is the loss of one kidney.

But modern governments clearly go far beyond providing infor-
mation or dealing with obvious health-related externalities. In the United States especially, the government, in the name of health and safety, now undertakes detailed regulation and control of thousands of products and activities. One possible reason for the proliferation of government interventions is that they serve as a form of "pre-commitment" concerning certain kinds of behavior. In other words, Brown may vote for laws which force persons in Smith’s circumstances to behave in ways contrary to Smith’s preference in order to pre-commit himself (Brown) if his circumstances should change to those of Smith. For example, Brown may think that if he were to become poor he might be tempted to sell a kidney. He therefore now votes to make such sales illegal in order to prevent himself from ever taking such action. Health insurance can be regarded as a form of pre-commitment; the insured is pre-committing himself to disregard price in making decisions about the utilization of care. Compulsory health insurance can be viewed as pre-commitment to buy insurance regardless of changes in income or other circumstances.

Conventional economic analysis regards "pre-commitment" as irrational; why should anyone ever want to gratuitously restrict his options? Economist Richard Thaler has suggested an answer: "pre-commitment" may be a rational strategy for dealing with problems of self-control. Such problems can arise when there is tension between alternative behaviors which have very different implications for our welfare in the short and long run. For instance, in the short run I may get pleasure from smoking or from spending, but I also know that in the long run I will suffer from smoking or from a lack of savings. I may pre-commit myself by taking a job where smoking is prohibited, and I may join a Christmas Club.

The growth of government can also be viewed as a substitute for family or church as the principal institution assisting individuals in time of economic or social misfortune. Private insurance could conceivably do the same job, but problems of "free riders" (those who don’t buy insurance and then need help anyway), adverse selection (the tendency for the worst risks to buy the insurance), or excessive sales and administrative costs may make universal, compulsory programs the more sensible way to proceed. Moreover, a principal thrust of many government programs is to combine insurance with redistribution. Indeed, I believe that an unrelenting pressure for a more egalitarian society is one of the most important explanations for the growth of government in health and other areas.

The conditions of modern life seem to compel a more equal sharing of material goods and political power. In *Equality and*
Efficiency: The Big Tradeoff, Arthur Okun assumes this occurs because people have a “preference” for equality. Perhaps some do, but it is also possible that many who have power and goods would rather not share them; their ability to maintain inequality, however, may vary with circumstances. It seems to me that the more affluent and the more complex a society becomes, the more it depends on the willing, cooperative, conscientious efforts of the people who work in that society and the more difficult it is to obtain satisfactory effort through the use of force.

When the main task at hand consisted of hauling large blocks of stone from the river to the pyramid, it was a relatively simple matter to rope a dozen slaves together and use a whip and the threat of starvation to secure compliance. In feudal societies the predominantly agricultural workforce was kept in line despite huge inequalities in income through force, the need for protection, the limited mobility of the poor, and through the promise of Heaven and the threat of Hell. But when a nation’s workers are airplane mechanics, teachers, and operating-room nurses, for example, it is clear that such techniques will not do. A few dissatisfied air-traffic controllers can change the pace of a continent. Even such low-paid work as the changing of tires in a tire store involves considerable potential for disruption. It would be very expensive to check every bolt on every wheel, but the management lives in constant fear that a few carelessly tightened bolts will allow a wheel to fall off and result in a million-dollar suit against the company.

The preoccupation with equality or the appearance of equality is evident in many discussions about health. With respect to the British National Health Service, for instance, economists John and Sylvia Jewkes have argued that “The driving force behind [its] creation... was not the search for efficiency or for profitable social investment. It was something quite different: It was a surging national desire to share something equally.” As noted earlier, the effects of the establishment of the NHS seem consistent with that view.

Or think of the buckets of ink that have been spilled over the issue of regional inequality in the physician-to-population ratios in Canada, the United States, and most other countries. In the United States at least, this interminable discussion has proceeded without any evidence that health is adversely affected by a low physician-to-population ratio. Indeed, in the U.S. one cannot even show that the number of physician visits per capita is significantly lower in areas that have been identified as “medically under-served.” Moreover, the oft-heard argument that an overall increase in the number of phy-
sicians will result in a reduction in regional inequality seems to be without empirical foundation.

The more one examines this issue the more puzzling it appears. Nearly everyone says regional inequality in physician supply is bad, but no one quite explains why. Nearly everyone says it should be reduced, but not much is done about reducing it. In California, for a long while, we had the spectacle of the state's political leaders voicing loud complaints about how difficult it was to get physicians to settle in rural areas at the same time that they were setting fee schedules for MediCal (Medicaid) patients that reimbursed rural physicians at a lower rate than their urban counterparts. In my view, national health insurance and other governmental interventions in health are best viewed as political acts undertaken for political and social objectives relatively unrelated to the health of the population. This seems to be an inescapable conclusion from the evidence now available.

**Theories of the Right and Left**

The foregoing analysis gives us some basis for evaluating the general positions advanced by the Right and the Left about medical care, particularly concerning the role of government in the health field. The positions of conservatives and radicals are usually clearcut and often provocative. In my judgment, however, they are ultimately unsatisfactory either as analysis of how we have come to our present position or as prescription for our future direction.

For the most part, conservatives argue against large-scale government intervention in medical care, consistent with their general tendency to recommend a decentralized price system as the most efficient mechanism allocating scarce resources. Frankly, it's a shame that we need to be reminded of this—surely theory and experience combine to teach us that the alternative (some sort of centralized control) will usually be much less efficient.

To this extent, conservatives offer a potentially valuable critique of current trends in the health-care industry. But where the Right goes wrong is in their lack of historical understanding of the sources of those current trends. The conservative response to the growth of national health insurance around the world is to castigate it as one more deplorable trend towards socialism. When pressed for an explanation of the trend, the Right offers two unsatisfactory types of response. First, there is the "people are stupid" explanation. The same people who are supposedly so knowledgeable when running
businesses or choosing occupations or spending money are suddenly presumed foolish, irrational, or worse when they must make choices about government health policy. This is an easy out, but not a very convincing one. If there is some widespread behavior that we do not understand, let's not automatically attribute it to the other fellow's ignorance or irrationality.

Not all conservatives subscribe to the "people are stupid" theory. A substantial number try to explain the growth of national health insurance and similar (in their view) misguided legislation as the triumph of special interests over the general public interest. The research strategy is to identify the special groups that benefit from policies that seem to result in a general welfare loss (and many economists believe national health insurance fits that category because it encourages excessive utilization). A second task is to figure out how these groups are able to assert and maintain their interest over that of the majority. Sometimes this approach is useful, but with respect to explaining the growth of national health insurance, it has not been notably successful. Indeed, in the United States, one special-interest group that has benefited greatly from Medicare and Medicaid has been the physicians—and they were in the forefront of the groups who opposed such legislation.

What the Right apparently cannot accept—but neither can it refute—is the hypothesis that national health insurance comes to developed countries not out of ignorance, not out of irrationality, not at the behest of narrowly defined special-interest groups, but because most of the people want it, because it meets certain needs better than alternative forms of organization. That these needs are often political, social, and psychological rather than physiological is one of the most important points of this essay. Thus, it seems to me that the fulminations of the Right against the ever-increasing role of government in health are often misdirected. The constant assertions that this or that regulation or subsidy is irrational and inefficient often fall on deaf ears simply because the majority doesn't see it that way.

Let us turn now to the Left. And let us again begin on a positive note. We should be grateful to the Left for two reasons. First, they remind us that a decentralized price system isn't always the best way to allocate scarce resources. There are things such as externalities and transaction costs which may mean that some allocation problems are better handled by institutions other than the market. And there are, as we have seen, reasons of this sort which may justify government intervention in the health field.
More importantly, the Left at its best makes a contribution by keeping before us a vision of a just society. Like the prophets of old, they scold, they warn, they preach. The big problem with the Left is not their inability to identify important problems. It is their "analysis" of the causes and their proposed solutions that must give one pause. Who among us does not think that health is better than illness, life better than death? But to state worthwhile goals is one thing; to have some good ideas about how to reach them is another.

Among the Leftist critiques of health and medical care there is, for example, the naive reformist position typified by, say, John Kenneth Galbraith. According to this view, the problem is one of insufficient public funds. If only we had more hospitals, more physicians, more medical schools, and so on, the problem would be solved. This at a time when, in the United States, there is excess hospital capacity in every major metropolitan area, when general surgeons are carrying what they themselves agree is only 40 percent of a reasonable workload (and there is widespread suspicion that many of the operations should not be done), and when iatrogenic illness (arising out of the medical-care process itself) is a major problem! That so many on the Left can still believe so many shibboleths is a tribute to the triumph of ideology over analysis. This view, that "more is better," has been sufficiently refuted by the findings I have reviewed in the first part of this paper.

There is another type of Leftist critique, however, which is slightly more sophisticated and far more radical. Far from simply prescribing "more medical care," these critics argue that the "system" is at fault. The trouble, we are told, is that providers are oriented to profits rather than to health, that if only we made the system more "democratic," placed public health at top priority, put physicians on salaries, and so on, all would be well. Would it? Right now in the U.S. about 95 percent of the hospital industry is in the hands of nonprofit organizations, either public or private, yet the escalation in costs in these hospitals has been tremendous, and the emphasis on complex, esoteric technology very great. When we look at other systems with other forms of organization and reimbursement, such as in England or Russia, do we see more emphasis on preventive medicine, more action on environmental-health problems, more consumer control of the medical process? The answer is overwhelmingly negative.

Because the Left is so eager to attribute the problems of the world to capitalism, it ignores some basic observations about human behavior. Most of the health problems which they identify existed...
before capitalism and persist in non-capitalist countries. Many problems arise from the conflict between health and other goals, rather than from the evil or selfish intent of physicians. Personal behavior and genetic endowment are far more important to health than is medical care—\textit{whatever the system}. Even when medical care is relevant, health is rarely something one person can give to another. It comes, if at all, from the efforts of physician and patient working together, often in the face of uncertainty and fear.

One of the strongest generalizations warranted by a comparative study of medical care in modern nations is the inability of planning agencies, insurance funds, hospital boards, and other lay authorities to control completely the medical profession. In country after country the introduction of national health insurance was marked by significant concessions to physicians with respect to methods and levels of reimbursement, procedures for reviewing the quantity and quality of care, geographical and specialty choice, and control over allied (competing?) professions.

There are, I think, some very subtle factors at work here. The effectiveness of medical care depends in considerable measure on a bond of mutual confidence between physician and patient. Too much external control can break that bond. Moreover, physicians, like priests or magicians, can fill their roles effectively only if set apart from the common run of mankind. A medical profession that was completely subservient to lay authority would be, in several respects, a less effective profession. This is not to say that fee-for-service reimbursement never leads to over-utilization, or that licensure laws are completely in the public interest, or that present institutional arrangements are ideal. It is to say that many of the most difficult problems of health and medical care transcend particular forms of economic and political organization—a conclusion that the Left leaves out.

\textbf{By way of conclusion}

What speculative generalizations do I draw from a broad economic survey of health and medical care in modern society?

For one thing, I am impressed by the widespread confusion between process and product, the tendency to identify medical care with health even though the connection is a fairly limited one. I wonder if that same confusion does not exist in other aspects of society, for example, schooling vis-à-vis learning, litigation vis-à-vis justice, or police work vis-à-vis public safety?
The growth of big government in modern society stands as a major challenge for social analysis. My reading of its role in health and medical care leads me to emphasize two factors—the decline of other institutions and the pressure for a more egalitarian society. It seems clear to me that the success of the market system in the Western world was attributable in no small measure to the existence of strong non-market institutions such as the family and religion. The fruits of the market system—science, technology, urbanization, affluence—are undermining these institutions, which were the foundation of the social order. Human beings need more than an abundance of material goods. They need a sense of purpose in life—secure relationships with other human beings—something or someone to believe in. With the decline of the family and of religion, the inability of the market system to meet such needs becomes obvious, and the state rushes in to fill the vacuum. But it does so imperfectly because it is so large and so impersonal.

The affluence and complexity of modern life also contribute to the pressure for more equality, and the government is now the chief institution for undertaking redistributive functions. This is not to suggest that the pressure for equality is always met quickly and fully. On the contrary, much legislation is designed to give symbolic recognition of the ideal of equality, but does not involve significant redistribution. This is not necessarily to be condemned; a preoccupation with equality and the neglect of other goals can be socially harmful. It is useful to 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."

For all its weakness, the family is probably still the greatest single barrier to equality in post-industrial society. As long as mothers and fathers pass on to their offspring their own particular genetic endowment and their own special heritage and values, attempts to achieve complete equality will be frustrated. At some point we shall have to ask whether that last increment of equality is worth the loss of so valuable an institution as the family—one that can stand as a refuge from impersonal markets and authoritarian government.

Government also grows because the majority frequently sees no feasible alternative for dealing with the complexity and interdependence of modern life. The point which I think needs emphasis is that the cumulative impact of the growth of government is to weaken (and ultimately destroy) other useful institutions such as the market, the family, and private associations of a religious, fraternal, and
philanthropic character. Thus, we should be wary of the constant expansion of government, and especially centralized government, not only because any particular proposed expansion is "inefficient"—it may well pass a comprehensive cost-benefit test for a majority of the population—but because there are other goals besides efficiency.

For me the key word is balance, both in the goals that we set and in the institutions that we nourish in order to pursue these goals. I value freedom and justice and efficiency, and economics tells me that I may have to give up a little of one goal to insure the partial achievement of others. Moreover, I believe the best way to seek multiple goals is through a multiplicity of institutions—the market, government, the family, and others. No single institution is superior for all goals. And diversification—be it of institutions, genes, or security holdings—is the best assurance of stability and survival in the face of an uncertain future.