NBER WORKING PAPER SERIES

HEALTH, GOVERNMENT, AND IRVING FISHER

Victor R. Fuchs

Working Paper 6710
http://www.nber.org/papers/w6710

NATIONAL BUREAU OF ECONOMIC RESEARCH
1050 Massachusetts Avenue
Cambridge, MA 02138
August 1998

Thanks are due the Robert Wood Johnson and Andrew W. Mellon Foundations for financial support of my work. A preliminary version of this paper was presented at the "Conference on Themes in Economics Suggested by the Contributions of Irving Fisher," at Yale University, May 8-9, 1998. Any opinions expressed are those of the author and not those of the National Bureau of Economic Research.

Health, Government, and Irving Fisher
Victor R. Fuchs
NBER Working Paper No. 6710
August 1998
JEL No. I18

ABSTRACT

This paper provides a few historical notes on government involvement in health, followed by a summary of the theoretical arguments that economists offer in its support. Irving Fisher's views and recommendations about health are examined in the light of today's perceptions concerning health, health economics, and health policy. The wide variety of roles that the U.S. and other governments currently play in health is reviewed and the ability of economics to explain these roles is assessed. The consequences of government involvement for the health of populations, for expenditures on health care, and for political and social stability are examined. The paper concludes with an overview of new worldwide trends in health policy and some probable explanations for these trends.

Victor R. Fuchs
Henry J. Kaiser, Jr. Professor Emeritus
Stanford University
30 Alta Road
Stanford, CA 94305-8006
and NBER
claire@vf.stanford.edu

In the fifty years since the death of Irving Fisher, the U.S. Government's role in health has expanded enormously. Fisher would have approved; indeed, he devoted an enormous amount of time and energy to advocating such expansion. His perceptions and recommendations about health were often on the mark, but some strayed from the theoretical and empirical rigor one would expect from the foremost American economist of his time. Some of his writings about health can serve as an object lesson of what can go wrong when a brilliant analyst and keen observer becomes a crusading social reformer. This paper also illustrates the strengths and the limitations of economics in explaining such a complex phenomenon as government's role in health.

I begin with a few historical notes on government involvement, followed by a summary of the theoretical arguments that economists offer in its support. I then consider several of Fisher's health-related "enthusiasms" in the light of today's perceptions concerning health, health economics, and health policy. The wide variety of roles that the U.S. and other governments currently play in health is reviewed and the ability of economics to explain these roles is assessed. This is followed by an examination of the consequences of government involvement for the health of populations, for expenditures on health care, and for political and social stability. The paper concludes with an overview of new worldwide trends in health policy and some probable explanations for these trends.

Historical Notes

Although government involvement in health on a large scale is largely a 20th century phenomenon, some precursers can be traced back for thousands of years. One of the earliest interventions for which we have written record is the Mosaic prohibition on the eating of pork and shellfish. There are also references to the construction of hospitals in India by an emperor who ruled three centuries before the birth of Christ. In the Western World prior to the rise of nation-states, religious institutions tended to dominate health-related activities, especially the construction of hospitals to provide the poor with a place to die.

In the 17th century the King of Sweden built several hospitals to house soldiers returning from European wars. Many of these soldiers had contracted the "French disease," as syphilis was commonly known. (In France it was referred to as the "Italian disease.") Inasmuch as there was no effective cure for syphilis at that time, one possible motivation was the state's desire to isolate these soldiers from the rest of the Swedish population. A similar goal may have motivated one of the first major forays of the U.S. government into health, namely the construction of merchant marine hospitals in major ports in the early 19th century.

In the mid-19th century there was a strong public health movement in England led by Sir Edwin Chadwick, a follower of Jeremy Bentham. Chadwick, along with Nassau W. Senior, produced a report in 1834 that led to increased government supervision over health and safety. Throughout his life, Chadwick gave particular emphasis to improvements in sanitary conditions and other reforms designed to reduce the toll of communicable diseases. Although not an economist, he welcomed the application of economics to problems of health policy, writing, "When the moralist and the sentimentalist fails, he will have as a last resource to call on the aid of the economist."

In the late 19th century, Bismarck introduced national health insurance to Germany. Although this event is much celebrated today among enthusiasts for national health insurance, it was not Bismarck's original legislative objective, and he thought so little of it that he failed to mention it in his autobiography. Bismarck's original objective was insurance for workers who were injured and disabled in industrial accidents. He was frustrated in this attempt by a coalition of liberals (free market advocates), conservatives, and organizations that were already in the business of selling such insurance. As an alternative, he accepted health insurance even though there was little reason to think that medical care had much to offer the population at that time in terms of improved health. Several years earlier, a prominent American physician had asserted that if the entire pharmacopaeia were sent to the bottom of the sea, it would be so much the better for mankind and so much the worse for the fishes. Indeed, most medical historians believe that at the time of Bismarck's initiative and for several decades thereafter, a random patient with a random disease consulting a random physician had no better than a 50-50 chance of benefitting from the encounter.

Two political imperatives undoubtedly fueled Bismarck's desire to achieve some kind of social legislation. First, he was continually trying to consolidate allegiance to the German nation-state, which he had created out of an array of smaller kingdoms, principalities, duchys, and other political units.

Second, he wished to blunt the political appeal of the socialist and working-class parties which were regaining strength after the abortive uprisings in the middle of the 19th century.

In 1911 Japan suddenly entered the health scene when the emperor created a sick fund for the poor; this was followed by the construction of a hospital in 1912 (Ikegami 1998). The precipitating event appears to have been the discovery in 1910 of a plot to assassinate the emperor. This discovery had a profound effect on the Japanese ruling classes; it reflected deep unrest among the mass of workers who were being brought into a newly industrializing, urban society.

Subsequent historical highlights include the introduction of compulsory health insurance for workers by Lloyd George in England in 1912, a Soviet system of national health insurance introduced by Lenin after the Bolshevik Revolution, the British National Health Service initiated by Beveridge and Bevan in 1945, the Canadian federal-provincial plans (hospital care in the late 1950s and physician services in the late 1960s), and the U.S. programs of Medicare and Medicaid enacted in 1965. In nearly all cases these plans built on previous systems of medical organization and finance that reflected particular national traditions, values, and circumstances (Abel-Smith 1964).

In reviewing these interventions it is apparent that the earlier ones were dominated by concern about externalities, especially the desire to prevent the spread of communicable infectious diseases. Beginning with Germany in the late 19th century and for most of this century, the primary emphasis shifted to insuring access to medical care, the provision of which is seen to be politically and socially important, independent of its effects on health.

Economists' Rationales

Economics provides several theoretical rationales for government intervention in health, mostly under the general rubric of "market failure." The concept that is most frequently invoked is "externalities." First and foremost are the externalities associated with communicable infectious diseases, which were the major source of mortality and morbidity until well into the 20th century. Most of the important early government interventions were aimed at reducing the spread of these diseases. These interventions could be justified without assuming any interdependent utilities among individuals. When my health depends upon my neighbor's health, I have a strong interest in his staying well, even if I would be otherwise indifferent about his well-being.

With the decline in importance of infectious diseases and the rise of heart disease, cancer, and stroke as the major causes of mortality and morbidity, the traditional rationale of externalities became less compelling. Even economists who are strong supporters of national health insurance do not rely on the externality argument. Lester Thurow (1974), for instance, has noted that "Once a society gets beyond public health measures and communicable diseases, medical care does not generate externalities." Although governments did not abandon public health measures, the emphasis of intervention changed to providing access to personal medical care. The rationale for collective provision draws in part on the idea of "philanthropic externalities" (Pauly 1971). It assumes some interdependence of utilities—that is, individuals derive utility from knowing that other (sick) individuals are receiving medical care. Voluntary philanthropy is likely to be less than socially optimal because each individual's giving tends to be based on his or her private satisfaction, ignoring the effects on others. The solution may be compulsory philanthropy, that is, government programs.

When discussing market imperfections in health, it is useful to distinguish between the market for health insurance and the market for medical care itself. Neither market experiences major problems from monopoly or monopsony, but that may change as a result of the current wave of mergers (Fuchs 1997). Both markets suffer extensively from problems of information. In the insurance market the buyer typically has more information than the seller; this can lead to adverse selection and the breakdown of the market (Rothschild and Stiglitz 1976). In health care the asymmetry is reversed, with the seller typically having more information than the buyer. This has led to reliance on professional norms (Arrow 1963) and to government regulation.

Efficiency considerations are not the only ones offered by economists in support of government involvement in health. Redistributive objectives also play a role (Poterba 1996). While income determines access to most goods and services, it is often argued that income should not determine access to life itself. Although most health care does not involve life or death, this argument still carries considerable weight, partly because it is often difficult to determine with certainty which care will extend life and which will not.

Redistribution tied to particular commodities (such as health care) is often criticized by economists as less efficient than redistribution of income, but an efficiency argument can be made for redistribution tied to health care along the following lines. Assume that an economy is in a state of equilibrium with regard to redistribution. Then someone gets sick, and society may wish to redistribute

additional resources to that individual. But in order to do so by a cash transfer, there would first have to be a determination as to how sick the person is and how much redistribution would restore the equilibrium. Thus, two parallel medical care systems, one to establish the amount of money and the other to deliver whatever care the individual chose to purchase, would be needed. Furthermore, it is usually difficult to determine at the onset of a disease how much redistribution would be appropriate, so this process would have to continue on an iterative basis.

Some economists offer a paternalistic rationale in support of government health programs such as national health insurance. Lester Thurow (1974, p. 193), for example, has argued that if society desires to raise each family up to some minimum level of real welfare, it may be more efficient to do it through in-kind transfers than through cash grants because many individuals may not be competent to make such allocation decisions on their own.

The conventional view of paternalism involves at least two individuals; e.g., Jones thinks that he has a better understanding of what is in Smith's best interest than Smith does. There is another variation, however, which involves only one individual who is concerned about bad decisions that he might make in the future. In this two-self model, Jones at time t wishes to precommit in order to prevent Jones at time $t+n$ from making poor choices. Support for health insurance and other government interventions can be viewed as a form of precommitment.

Fisher on Health

After his several-year bout with tuberculosis at the age of 31, Fisher developed a life-long interest in health and health policy. His illness also led to his becoming a "partaker in public movements for the betterment of mankind" as a complement to his theoretical work (Fisher 1925). His concern with health problems and health policy was expressed in many forms, including publications, letters, speeches, testimony, and active leadership of several groups dedicated to policy reforms. His principal enthusiasms included expansion of public health programs, a vegetarian diet, annual physical exams, national health insurance, prohibition of alcohol, and eugenics.

Public Health

In his advocacy of an expanded public health effort and systematic collection of vital statistics, Fisher was on the side of the angels. At the time he began his public health crusade (1907), impure

milk and milk products were especially dangerous to infants and young children. Improper handling of garbage and the transmission of disease by insects and vermin posed major health problems for the population. Unlike many European countries, the U.S. had no accurate birth statistics and less than half the population lived in states with registration of deaths. Fisher argued (correctly, I believe) that the absence of timely, reliable statistics impeded attempts to improve the health of the population. Although he thought that industrial child labor imperiled children's health, he did not favor its abolition at the time. Showing the economist's appreciation of tradeoffs, he judged it to do less harm than the alternative—exposure to hookworm disease on polluted farms (Fisher 1909).

Diet

Fisher's advice about diet provides a good example of being right for the wrong reason. Although not an uncompromising vegetarian, he believed that "flesh-abstainers" were much healthier than "flesh-eaters," and he conducted experiments with Yale undergraduates as subjects to prove the point. The essence of his dietary theory was that carbohydrates were good for health and proteins were bad. Thus he favored vegetables and grains over animal products. Most of today's nutrition experts would endorse his recommendations regarding carbohydrates, and many urge a reduction in consumption of animal products. Their opposition to animal products, however, is not because they are protein-rich, but because many of them contain a high percentage of fat. Excess consumption of fat is believed to increase the risk of heart disease, cancer, and possibly other diseases.

A curious omission in Fisher's discussion of changes in diet and other health-related behaviors is the fact that the costs and benefits of these investments in health usually occur at different points in time. The theorist who pioneered in the analysis of intertemporal choice, the economist who eagerly accepted the concept of "living capital" (an early version of "human capital") and argued that it was five times as important as physical capital, showed little inclination to inquire systematically about rates of return to investment in health relative to other forms of investment.

Annual Physical Exams

One area where Fisher did make some claim for "cost effectiveness" for his recommendation is in the advocacy of annual physical examinations. He believed that life insurance companies could profit by providing such exams to their policyholders. It is possible that Fisher was correct at the time, although the subsequent failure of this recommendation to catch on in a sustained way suggests that it

did not meet the market test. Today many health experts question the value of general annual physical exams. Some specialized screenings, however, such as mammagrams or Pap smears, are deemed cost-effective for appropriate populations at appropriate intervals.

National Health Insurance

Irving Fisher was one of the first prominent Americans to advocate national health insurance (NHI). The arguments he advanced in support of NHI illustrate strengths and weaknesses of this complex man. Fisher readily appreciated the fact that the market for individual insurance would tend to be inefficient and unstable; thus he recommended compulsory universal coverage. He believed—and subsequent experience tends to support his view—that national health insurance would result in substantial savings in administrative and sales costs.

More dubious was his belief that the great virtue of NHI would lie in the prevention of illness. One must also question his assumption that the portions of the premium paid by the employer or by government would not be at the expense of the workers through effects on wages, prices, or taxes. This assumption, unfortunately, was still alive and well during the debate over the Clinton health plan (Fuchs 1994), although decisively rejected by health economists and economic theorists (Fuchs 1996).

While Fisher was quick to appreciate the theoretical points that supported NHI, he apparently never considered the dead-weight loss that might be expected from reducing the marginal cost of health care to zero. Or, if he did consider it, he decided not to confront the issue. In addition to theoretical lapses, Fisher was particularly weak in his attempt to muster empirical (historical) support for NHI. Consider his reading of the blessings Germany was supposed to have realized from national health insurance after its introduction by Bismarck in 1883: "Her wonderful industrial progress since that time, her comparative freedom from poverty, reduction in the death rate, advancement in hygiene, and the physical preparedness of her soldiery, are presumably due, in considerable measure, to health insurance" (Fisher 1917). It would be difficult to find convincing support for any one of those claims; taken as a whole, the statement would hardly warrant inclusion in a speech by a politician, let alone in a publication by a distinguished social scientist.

Prohibition of Alcohol

If alcohol is viewed purely as a health problem, Fisher's lifelong crusade against drinking had and still has strong empirical support. At present, excess consumption of alcohol is a major contributor

to morbidity and mortality in the United States. Fisher probably went too far, however, in asserting that alcohol was an unequivocal evil that had no benefits. He says he reached this conclusion after a "thoroughly disinterested study" on the basis of statistics and physiology (Fisher 1912). Most health experts see no harm from moderate consumption of alcohol, and many now believe there may be some positive effects on health, especially from wine.

Advocating abstention from alcohol is one thing; Fisher's enthusiastic embrace of Prohibition before its enactment and his endorsement of its effects afterwards is another. In testimony before a Senate Subcommittee in 1926, Fisher stated "In my opinion, the good done by Prohibition greatly overbalances the harm, not because I underestimate the harm done—at least I do not think I do—but simply because the good is so great. Moreover, the harm should be only temporary, while we are adjusting ourselves to the revolutionary change. The good should last forever" (Fisher 1926).

In reaching this conclusion, one wonders how much weight Fisher gave to the fact that Prohibition denied millions of Americans a source of pleasure, and turned millions of others into lawbreakers? How much weight did he give to the corruption and violent crime induced by Prohibition? And how did he compare the good (better health, less absenteeism, etc.) with the harm to reach his conclusion? We know that reasonable men and women with access to the same facts urged repeal of Prohibition, presumably because they weighted good and harm differently; in short, because they had different values. In failing to make his values explicit, and in failing to show how his values interacted with his analyses to reach policy conclusions, Fisher was doing what many leading economists before and after him have done, but that does not make it right.

Eugenics

In my judgment the least commendable of Fisher's health "enthusiasms" (perhaps "passions" would be more accurate) is his embrace of eugenics. His writings on this subject are a curious mixture of mysticism, pseudo science, and policy. Fisher (1913) believed that "eugenics is hygiene raised to the highest power" and that in the future it would be "the essential foundation of ethics." He also wrote that "we shall realize the dream of the founder of this science, Sir Francis Galton, and will link up eugenics with religion." Fisher held at times a Lamarckian view of evolution. He believed that changes in conditions of living could lead to what he called "racial degeneration," and he asserted that "It is easily practical to alter and improve the human race, and to do so in a very short time."

Fisher was particularly eager to apply his beliefs about eugenics to immigration policy. He wrote that "The generally higher intelligence of recent immigrants from Northern and Western Europe is definitely established, as is the fact that the immigrants who have been coming during the past few decades, mostly Southern and Eastern Europeans, have been steadily deteriorating in intelligence." He concluded, "It is high time for the American people to put a stop to such degradation of American citizenship, and such a wrecking of the future American race."

In his defense, it must be said that Fisher was far from alone in holding these views. Indeed, leading scholars in many fields reached similar conclusions and advocated similar policies. With the benefit of hindsight, however, we can see that the reasoning borders on the irrational, the scientific underpinnings were deeply flawed, and the policy recommendations misguided.

Government Involvement in Health: What? Why?

Two themes dominate the story of government and health in the 20th century. First and foremost, government involvement in health has *expanded* greatly in every industrialized nation. Countries may embrace free markets, may privatize some industries and deregulate others, but when it comes to health insurance and health care, governments in these same countries own facilities, provide care, subsidize insurance, regulate drugs, license personnel, promote health, and more. Even in the United States, which is virtually alone in not having national health insurance, government pays directly for almost half of all medical care, and subsidizes private purchase of care through favorable tax treatment.

Second, the *form* of government intervention in health varies greatly from country to country. Some finance medical care out of general tax revenue, others use ear-marked taxes, still others rely on mandates and/or subsidies for health insurance plans. Ownership of hospitals is public in one country and private in another; private hospitals may be non-profit (religious or secular) or for-profit. Physicians may be government employees or in private practice and, if the latter, may be compensated fee-for-service, by salary, or by some form of capitation. U.S. health care is particularly rich in diversity; the institutional arrangements for financing, organizing, and reimbursing care include virtually all of the possibilities evident in countries across the world.

How well have economists explained the great expansion of government in health? The answer, unfortunately, is "hardly at all." Some economists, such as Milton Friedman, have argued that the

expansion is all a vast policy mistake. But George Stigler (1975) has noted that, "If an economic policy has been adopted by many communities, or if it is persistently pursued by society over a long span of time, it is fruitful to assume that the real effects were known and desired." Twenty years ago I proposed a menu of possible explanations, including the ever-increasing complexity of modern life, an increase in psychological externalities resulting from urbanization and improvements in communications, the declining importance of family and church as providers of insurance and regulators of behavior, and the pressure for a more egalitarian society (Fuchs 1978). The last point was made earlier by British economists Sylvia and John Jewkes when they wrote that the driving force behind the creation of the British National Health Service was not a search for efficiency so much as a surging national desire to share something equally (Jewkes and Jewkes 1963).

With respect to explaining the diversity of institutional arrangements for government in health, James Poterba's review of the "choice of instrument problem" suggests that economists have barely scratched the surface (Poterba 1996). He believes redistributive concerns have been important in U.S. government health policy, but the use of tax breaks as a major instrument seems inconsistent with such a goal. Also, a recent study by McClellan and Skinner (1997) concludes that the benefits of Medicare are positively correlated with income. In his comment on the Poterba paper, Richard Zeckhauser (1996) agrees with the general conclusion that economics does a poor job of explaining inter-country and inter-temporal variation in social policy. He argues that if economists wish to make more of an impact they will need "an improved knowledge of the real game, including both empirical realities and matters of institutional design and politics."

As an example of how a narrow application of economics can fall short of explicating a policy choice, consider a country choosing between two plans for financing health care. The first plan relies on a proportional payroll tax earmarked for health care. The second relies on a mandated contribution to a health insurance fund, also proportional to payroll. Most economists would see no difference between the plans, but the public might view them very differently because the tax would be collected and administered by the department of finance (e.g., the Treasury) while the mandated contribution would be received and administered by the department of social insurance (e.g., the Department of Health and Human Services). The public might (correctly) believe that the two departments differed markedly in efficiency, honesty, and ability to withstand partisan political pressure. Moreover, the perceived differences might lead to favoring the first plan in one country and the second in another.

Consequences of Government Involvement

Public health efforts by government have undoubtedly done a great deal to improve health. Immunization programs have led to the eradication of many serious communicable diseases; cleaner water and air have reduced morbidity and mortality. Some public health efforts undoubtedly overreach, and some health progress would have occurred as a corollary of rising real income, but the gains in health recorded in the late 19th and early 20th centuries were primarily attributable to public health programs. Even today, no country seriously considers turning over all public health activities to the interplay of demand and supply in a free market that would ignore externalities.

The effect of national health insurance programs on health levels is less clear. Proponents argue that NHI improves the health of the population by increasing access to medical care. Critics argue that it worsens health by rationing the introduction of new technology and by constraining the behavior of physicians and hospitals. The effect of national health insurance on health depends on the product of two elasticities: a) the responsiveness of the quantity of medical care to national health insurance and b) the responsiveness of health to changes in the quantity of medical care. In my judgment, in developed countries the product of these two terms is quite small.

Apart from the effects of NHI on average health levels, one might ask whether it has done much to reduce socioeconomic differentials in mortality and morbidity within a country. A reduction in such differentials was one of the principal arguments used to support the introduction of NHI in England and other countries. Here the evidence is more compelling: Universal coverage does not eliminate or even substantially reduce differentials across socioeconomic groups. In England, for instance, infant mortality in the lowest socioeconomic class is double the rate of the highest class, just as it was prior to the introduction of national health insurance (Townsend and Davidson 1982). The relatively homogeneous populations of Scandinavia not only enjoy universal coverage for health care, but also have many other egalitarian social programs. Nevertheless, life expectancy varies considerably across occupations; the age-standardized mortality ratio for male hotel, restaurant, and food service workers is double that for teachers and technical workers (Andersen 1991). A study of age-standardized death rates in Sweden among employed men ages 45-64 found substantial differences across occupations in 1966-70, and slightly greater differentials in 1976-80 (Calltorp 1989).

NHI does reduce differentials in access to care, and that could be a highly-valued social objective, even if it does not reduce differentials in health outcomes. Physicians and other health professionals can offer caring, sympathy, and support. Many patients want physicians to assume responsibility for a difficult decision or to provide validation for a course of action. A government that insures access wins support from large segments of the population. When refugees from the Soviet Union were interviewed in Western Europe after World War II, they invariably praised the West and disparaged life in Russia—with one notable exception. They said they sorely missed the comprehensive health insurance provided by the Soviet state (Field 1967). Conservative politicians, when they come to power, are loathe to retreat from national health insurance, although Prime Minister Thatcher did push through some market-oriented reforms in the organization of the National Health Service.

The consequences of NHI for health care expenditures appear to have been the opposite of expectations. Because insured patients face no financial barrier to the utilization of care, economic theory predicts that the quantity demanded should increase. Perhaps it does, but this does not translate into greater expenditures. Countries with universal health insurance uniformly spend much less on medical care than does the United States. It is clear that countries with universal coverage find other methods to contain health care spending, methods that apparently are more effective than financial constraints on patients. No one knows what the optimal level of expenditures is; thus no claim can be made that NHI is, in the economist's sense, more efficient. Countries with national health insurance contain expenditures in part by using their monopsony power to squeeze down the prices of resources, especially drugs and physicians' services. They also rely heavily on "upstream resource allocation"; i.e., control over capital investment and facilities and equipment, specialty mix of physicians, and the development and diffusion of high-cost new technology. The price paid for such controls is delay or inconvenience in receiving high-tech services, or sometimes not receiving such services at all. Whether such delays or denials have a significant effect on the health of the population is not known with certainty; the available evidence suggests that they do not.

For many countries, NHI is viewed as more than just a device for holding down the growth of health care expenditures. It is valued for its contribution to political stability and social solidarity. This objective is stated most explicitly in the Scandinavian countries, but I believe it is implicit in the support for NHI in other countries as well. Symbols and institutions have always played an important

role in providing cohesion for nation-states. In earlier times religion was a major force, but today many people find a white coat more reassuring than a black one, a medical center more impressive than a cathedral.

New Trends in Health Policy

Health policy is in a state of ferment in nearly all industrialized nations. Rising expenditures for health care, driven primarily by technological and demographic changes, are forcing governments to reexamine and modify long-standing arrangements for financing and delivering care.

One new trend features attempts to place the practice of medicine on a more scientific footing. These attempts appear under different names: "evidence-based medicine," "outcomes research," "clinical guidelines," "the new technology assessment" (Fuchs and Garber 1990). Whatever the name, the idea is the same. Although the practice of medicine will always be partly an art, new information technology, new analytical techniques such as "meta-analysis," and the presence of health professionals who combine clinical and quantitative skills make it possible to improve substantially the scientific basis for medical practice.

The pressure behind these attempts is coming primarily from governments and private payors of health care. They suspect that much of current medical practice will not stand up to scientific scrutiny; this kind of research is expected to save money. The results, however, are likely to prove problematical. Some current practice will prove to be ineffective. The new research, however, will also reveal that a great deal of care doesn't do the patient harm and, at considerable cost, may do some good. Public and private health insurance plans that promise to deliver "all necessary care" will then have to explicitly face very difficult choices regarding the care to be made available.

A second new trend that is closely related to the first is explicit priority setting. The state of Oregon, for example, implemented a plan which specifies services and technologies that are available to Medicaid patients and those that are not. The latter list includes many that are clearly effective, at least for some patients, but do not meet the standard of cost-effectiveness as determined by experts and the public. Another indication of this trend is the sponsorship by Sweden, Norway, Finland, the World Health Organization, and the European Union of the First International Conference on Priorities in Health Care in Stockholm in 1996. Participants came from more than 50 countries and from every

continent except Antarctica. Difficult choices regarding the allocation of resources are becoming more pressing every day. These choices include the allocation of resources between health care and other goods and services, between extending life and improving the quality of life, between individuals at different levels of income, between individuals at different stages of the life cycle, and between extending life (at great cost) for patients with low probability of survival and preventive interventions (at lower cost per year of life extended) for individuals who have a high probability of survival. Explicit priority-setting, however, is likely to move very slowly because it is politically explosive.

Another new development, possibly temporary, is a reversal of the long-term trend toward greater equality in health care. The emergence of so-called "two tier" medical care is evident not only in the United States but in other countries that nominally provide the same care to all through national health insurance. In fact, these countries have "escape valves" for those who are willing and able to purchase more than the general standard. Indeed, it may be that the new systems that are emerging might properly be described as "n-tiered." Nations probably will concentrate on providing a basic package of care for all; beyond that, some individuals will purchase more, and some a great deal more, depending upon their circumstances. The argument that income should not determine "who shall live and who shall die" will carry less force than in the past for two reasons. First, it is becoming increasingly clear that life expectancy depends on many factors other than medical care, including occupation, diet, housing, and auto safety, and that individuals with higher income can clearly opt for life-extending choices in those areas. Second, an increasing proportion of medical care expenditures is likely to be directed toward improving the quality of life rather than increasing its length.

* * * * *

As a concomitant of economic development, government involvement in health has been growing for several hundred years and has accelerated in the 20th century. Most of the earlier interventions were public health measures designed to prevent or limit the spread of infectious diseases. Subsequently, the emphasis shifted to broadening access to personal medical care. Economic theory provides numerous rationales for government involvement in health. Most of them address elimination

of inefficiencies resulting from "market failures." In addition, proponents of government involvement frequently invoke redistributive objectives.

Irving Fisher's writings about health policy exhibit a curious range from prescient and judicious recommendations to policy proposals that lack secure theoretical and empirical grounding. The crusading social reformer in Fisher sometimes overwhelmed the brilliant social scientist. As George Stigler (1966) has noted, a scholar "ought to be tolerably open-minded, unemotional and rational. A reformer must promise paradise if his reform is adopted. Reform and research seldom march arm in arm."

Apart from theoretical speculations, economists have not contributed much to the explanation of government involvement in health or of the wide variation in the forms that such involvement takes. To make progress on these questions, economists' traditional theoretical and empirical approaches must be combined with research that focuses on history and institutions. The newest trends in health policy—quantitative analysis of medical practice, explicit priority setting, and a reversal of long-term egalitarian trends—present additional challenges to the study of the role of government in health.

References

Abel-Smith, Brian. 1964. "Major patterns of financing and organization of medical care in countries other than the United States." *Bulletin of the New York Academy of Medicine* 40 (2nd series).

Andersen, O. 1991. "Occupational Impacts on Mortality Declines in the Nordic Countries," in W. Lutz (ed.), *Future Demographic Trends in Europe and North America,* International Institute for Applied Systems Analysis, Laxenburg, Austria (New York: Academic Press, Harcourt-Brace-Jovanovich), 46.

Arrow, Kenneth. 1963. "Uncertainty and the Welfare Economics of Medical Care," *American Economic Review, 53*(5):941-973 (December).

Barber, William (ed.). 1997. *The Works of Irving Fisher* (London: Pickering and Chatto, Ltd.).

Calltorp, J. 1989. "The 'Swedish Model' Under Pressure: How to Maintain Equity and Develop Quality," *Quality Assurance in Health Care 1*(1): 13-22.

Field, Mark G. 1967. *Soviet Socialized Medicine 14.*

Fisher, Irving. 1909. "Summary," *National Vitality, Its Waste and Conservation, Report of the National Conservation Commission: Vol. 3, Senate Document 676,* 60th Congress, 2nd Session.

_____. 1912. Testimony on the Sale of Intoxicating Liquors before a Subcommittee on Excise and Liquor Legislation of the Committee on the District of Columbia, U.S. Senate, March 7, 1912, pp. 1-7 (extracts). (Quoted from Barber's *The Works of Irving Fisher,* Vol. 13, Ch. 4, p. 98.)

_____. 1913. "Eugenics," *The Good Health Magazine*, Vol. 48, No. 11, Nov. 1913. (Quoted from Barber's *The Works of Irving Fisher*, Vol. 13, Ch. 5, p. 161.)

_____. 1917. "The Need for Health Insurance," *American Labor Legislation Review*, March.

_____. 1925. In William Barber, ed., *The Works of Irving Fisher*, Vol. 1, p. 8. (This quote from Fisher is an extract from copy prepared in February 1925 for *Political Economics in Autobiographies.* The volume for which this material was written was published in 1929 by Felix Meiner in Leipzig, Germany.)

_____. 1926. Testimony on the National Prohibition Law before the Subcommittee of the Committee on the Judiciary, U.S. Senate, 69:1, April 5, 1926, 1015-31 (extracts). (Quoted from Barber's *The Works of Irving Fisher*, Vol. 13, Ch. 4, p. 116.)

Fuchs, Victor R. 1997. "Managed Care and Merger Mania," *Journal of the American Medical Association,* 277(11):920-921, March 19.

_____. 1996. "Economics, Values, and Health Care Reform," *The American Economic Review*, 86(1):1-24, March.

_____. 1994. "The Clinton Plan: A Researcher Examines Reform," *Health Affairs* 13(1):102-14 (Spring(I)).

_____. 1978. "Economics, Health, and Post-Industrial Society," The E. S. Woodward Lectures in Economics, presented at the University of British Columbia, Nov. 1-2, 1978. Reprinted in Milbank Memorial Fund Quarterly/*Health and Society* 57(2):153-182, Spring 1979.

_____ and Alan M. Garber. 1990 "The New Technology Assessment," *The New England Journal of Medicine* 323(10):673-677, September 6.

Ikegami, Naoki. 1998. Personal communication.

Jewkes, John, and Sylvia Jewkes. 1963. *Value for Money in Medicine 60.*

McClellan, Mark, and Jonathan Skinner. 1997. "The Incidence of Medicare." Mimeo.

Pauly, Mark V. 1971. *Medical Care at Public Expense: A Study in Applied Welfare Economics* (New York: Praeger).

Poterba, James M. 1996. "Government Intervention in the Markets for Education and Health Care: How and Why?" in Victor R. Fuchs (ed.), *Individual and Social Responsibility: Child Care, Education, Medical Care, and Long-Term Care in America* (Chicago, University of Chicago Press).

Rothschild, M., and J. Stiglitz. 1976. "Equilibrium and Competitive Insurance Markets: An Essay on the Economics of imperfect information, *Quarterly Journal of Economics, 90*: 629-649.

Stigler, George J. 1966. *Chicago Today* (Chicago: University of Chicago Press), Winter, p. 30.

_____. 1975. *The Citizen and the State: Essays on Regulation* (Chicago: University of Chicago Press), p. x.

Thurow, Lester C. 1974. "Cash Versus In-Kind Transfers," *American Economic Review 64*(2) (Papers & Proceedings of the 86th Annual Meeting):190-195 (May).

Townsend, P., and N. Davidson (eds.). 1982. *Inequalities in Health: The Black Report,* (Hartmondsworth, England: Penguin Books).

Zeckhauser, Richard. 1996. Comment on James M. Poterba, "Government Intervention in the Markets for Education and Health Care: How and Why?" in Victor R. Fuchs (ed.), *Individual and Social Responsibility: Child Care, Education, Medical Care, and Long-Term Care in America* (Chicago, University of Chicago Press).