

Facts and Myths about Health Care and the Health Sector

A. Basic Facts about the Health Sector

Certain basic facts about the health sector and health care are not widely known. This section explains what macroeconomists should know on this subject as they participate in the formulation of health policies.

- *There is a trade-off between equity and efficiency.* Equity becomes a paramount consideration when everyone needs basic health care to maintain life and relieve pain and suffering. Without insurance, health expenses can also be a primary cause of falling into poverty. Therefore, basic health care and risk protection have to be equitably distributed, and price should not be used as the primary rationing tool. This implies a significant trade-off between equity and efficiency. A society's social values and political philosophy influence how a country approaches this trade-off.
- *Resource allocation within the health sector also involves complex trade-offs.* The trade-off goes beyond equity and efficiency. Health systems are developed to achieve multiple outcomes. Contrary to simplistic belief, the allocation of resources in the sector cannot be based solely on cost-effectiveness, with effectiveness measured only as health gains. The uncertainty of potentially large financial burdens arising from serious illness creates a legitimate demand for insurance against expensive hospital services. In public and private financing of health care, resource allocation has to aim at three common objectives: improving the population's health, protecting people from financial catastrophe, and meeting the public's expectations regarding the availability of health care services. These multiple goals inevitably imply difficult trade-offs.
- *Markets alone cannot produce efficient outcomes in the health care sector.* The health care sector consists of more than a dozen markets, most of which suffer serious failure owing to an asymmetry of information, imperfect agency relationships, barriers to entry, and moral hazard. Evidence shows that the supply side (technology and induced demand) drives health cost inflation more than consumer demand. Specific market failure examples

such as adverse selection (Rothschild and Stiglitz, 1976; and Cutler, 1996) and risk selection⁶ (Luft, 1986; and Holahan, 1997) seriously impair the efficient operation of insurance markets. Moral hazard from insurance also produces inefficiency. In the service-provision market, physicians have the market power to practice price discrimination (Kessel, 1958) and induce demand (Yip, 1998). In factor markets, patent law protections offer monopolistic profits for pharmaceutical products. Licensing laws restrict free entry and competition. These market failures cause inefficiency, high health expenditure inflation, and inequity. International experience has taught us that some of these market failures can be corrected, but others are beyond our current capability to address. In summary, a blanket policy to allow the health sector to operate fully on a free market basis will not yield efficient outcomes. Market competition can be used only selectively for the benefit of a country's health and welfare.

- *The distribution of health expenditure is highly skewed.* In rich and poor countries alike, approximately 20–25 percent of a country's total health expenditure in any year is spent on 1 percent of the population, and approximately 50 percent of expenditure is spent on 5 percent of the population. For 20–25 percent of the population, there is no spending for health care in a given year. Table 1 gives the contingency table of U.S. health expenditure (that is, percent of health expenditure by percent of the population), which is fairly typical of most countries. One-third of expenditure is concentrated on only five medical conditions (Table 2). But our ability to predict which individuals are at highest risk in any given year is very limited. Thus, this skewed distribution has at least three important economic implications: (1) health insurance is necessary, as shown in the seminal paper by Kenneth Arrow (1963); (2) adverse selection inhibits the establishment of a stable health insurance market, as shown by substantial empirical evidence (Rothschild and Stiglitz, 1976; and Cutler and Zeckhauser, 2000); and (3) risk selection by insurers leaves the burden of covering the high-risk population to the government (Davis, 1975) and reduces the quality of medical services (Newhouse, 1992).
- *The supply side has a greater impact on health care efficiency, quality, and spending than does the demand side.* Moral hazard on the demand side is well known. What is less understood and measured is the fact that monopolistic power on the supply side has a greater impact on efficiency, quality, and spending. A U.S. government-funded (\$100 million) study by the RAND Corporation in the early 1970s measured the price elasticity of demand for medical services in the United States and found the elasticity of health

⁶This refers to situations in which insurance companies select among potential insurees.

Table 1. United States: Contingency Table of Health Care Expenditure, 2002

(All age groups)

Percent of Total Population	Percent of Total Health Care Expenditure
1	22
5	49
10	64
50	97

Source: Yu and Ezzati-Rice (2005).

Table 2. United States: Health Expenditure for Five Most Costly Conditions, 2002

Condition	Health and Expenditure (In Billions of Dollars)	Percent of Total Health Expenditure
1 Heart disease	70.0	8.3
2 Trauma	55.8	6.9
3 Cancer	48.4	6.0
4 Mental disorder	47.5	5.9
5 Pulmonary conditions	45.3	5.6
Total	267.0	32.7

Source: Olin and Rhoades (2005).

expenditure to be about 0.2 (Newhouse, 1977). Other studies have found an elasticity range of 0.1 to 0.4 for low-income countries. It is, however, important to note that the elasticity could be greater than 1.0 for poor families in low-income countries (Gertler and van der Gaag, 1990; and van der Gaag, 1991).

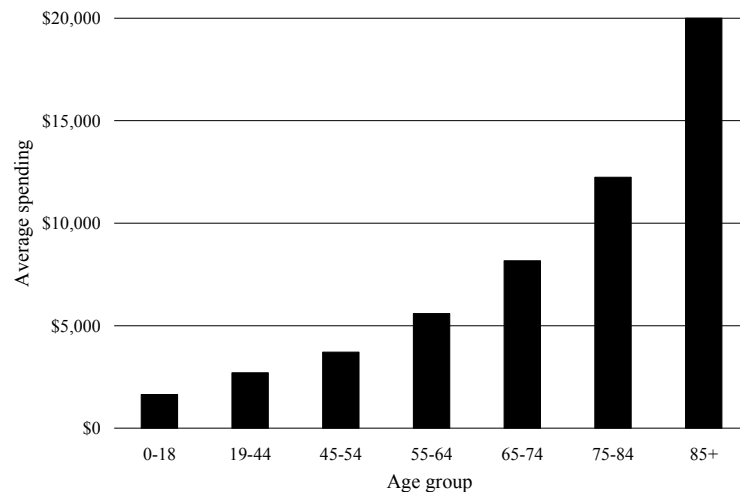
- On the supply side, the asymmetry of information between the physician and the patient as well as the urgency of some medical conditions give physicians the power to *induce* demand and set prices. The elasticity of *induced* demand (that is, the elasticity of prescribed demand to price) has

not been rigorously measured because of data limitations. Nonetheless, the U.S. government accepted the value of 0.5 for policy planning purposes. For low-income countries, the stylized facts show that this elasticity is much higher than in the United States, because professional ethics and quality regulations are less developed. It is well known that physicians in low-income countries can drastically change the types of drugs prescribed, tests ordered, and length of hospital stay ordered, in response to price changes that affect their income. The vast number of case studies indicate that the elasticity of *inducement* would be near 1.0 in these countries. In summary, the elasticity of *induced* demand is comparatively larger than the price elasticity of demand.

- In advanced economies, where there is an adequate stock of physicians, an increase in the aggregate supply of physicians raises total health expenditure. This is because disease etiologies provide almost endless opportunities for specialization. An increase in the number of physicians usually leads to growth in subspecialties, which leads to a greater number of referrals. Consequently, the quantity of services and health spending rises. This has happened, for example, in the United States, further fragmenting health care with questionable benefit for many patients. In summary, to promote efficiency and manage expenditure inflation, it is more important to control the supply side than to regulate demand.
- *Per capita health spending increases with age.* Figure 3 shows that, in the United States, individuals between ages 65 and 74 typically spend three times more on health care than those aged 18–64. This ratio increases to four times for the group aged 75–84. Other advanced economies show similar relationships.⁷ By 2010, most advanced economies will begin to experience an accelerated rate of increase in the elderly dependency ratio, with the ratio tripling for many by 2030. Middle-income and low-income countries are experiencing similar demographic transitions, though starting a decade or two later (Heller, 1998). As a country's population ages, pay-as-you-go (PAYG) methods of public financing for health care will place an increasing tax burden on the working-age population. This burden will have an impact on both the labor market and the national saving rate.

⁷This relationship may be moderated somewhat to the extent that increased life expectancy is associated with improved health status, but the extent to which the elderly delay the point at which higher medical costs are borne remains an important source of uncertainty (see Heller, 2004; and Economic Policy Committee and European Commission, 2006).

Figure 3. United States: Average Health Care Expenditure by Age Group, 1999
(In dollars)



Source: U.S. Government, Center for Medicare and Medicaid Service (2005).

B. Myths about Health Care Systems

As discussed, health policy deliberations are hampered not only by ignorance about the basic facts, but also by the prevalence of several widely held myths. Some of these are based on standard neoclassical economic theory that is itself unsupported by empirical evidence. Nonetheless, these myths have strongly influenced policy debates around the world, particularly in the United States. Five such myths are debunked below, in the hope that policymaking can be based on solid evidence.

- Myth #1: National or social insurance restricts patients' choice of providers; private insurance gives much greater choice.

This myth is widely held in the United States and has distorted the public's understanding of social insurance. In fact, Canadians, covered under social insurance, have total freedom to choose providers under their national health insurance, and Germans have much greater freedom of choice under their social insurance than do Americans under private insurance and managed-care plans.

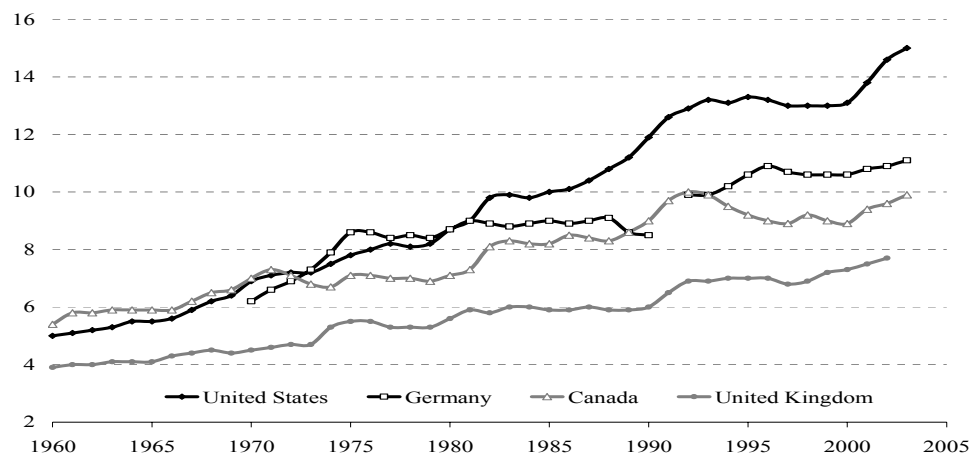
- Myth #2: Health expenditure inflation cannot be managed because it is driven by the demand for services produced by new, cost-increasing technology.

Health expenditure inflation rates have indeed increased since the late 1960s. Economists have hypothesized two reasons for this trend. First, three decades ago, most U.S. economists believed that expenditure inflation was caused by the moral hazard arising from increasing insurance coverage. This hypothesis turned out to be unfounded when insurance coverage in the United States remained level or declined in the 1980s and health expenditure inflation continued unabated. Second, many argue that high health expenditure inflation can be attributed to the rapid advance in, and increasing availability of, expensive medical technologies. Economists argue that new technology is endogenously determined by health insurance (Weisbrod, 1991). This hypothesis is not valid for all types of health insurance, though it might be valid for the United States, which relies largely on private insurance. In OECD countries with extensive insurance coverage, however, wide use of new medical technology still coexists with much lower rates of expenditure inflation.

Evidence shows that all major advanced economies except the United States have been able to manage their health expenditure inflation since the mid-1970s. Prior to the mid-1960s, advanced economies spent 4.0–5.5 percent of GDP for health care and experienced similar health expenditure inflation. In the late 1960s, all advanced economies experienced rising rates. Countries have tried different methods to control and manage this problem. By the mid-1970s, all major advanced economies except the United States were able to keep the total share of national health expenditure in GDP under control. As shown in Figure 4, the rise in expenditure share for the major advanced economies became less steep, whereas the slope of that for the United States remained basically unchanged. These other advanced economies have, however, been adopting new medical technology just as rapidly as the United States. Thus, international experience demonstrates that the main cause of health expenditure inflation is not new medical technologies. The cause is something more fundamental.

Other advanced economies have been able to manage health expenditure inflation pressures by establishing an effective budget constraint over the entire health sector. A “closed” budget encourages greater efficiency, including the curtailing of less cost-effective medical practices. Health expenditure inflation rates differ because most major advanced economies have been able to break the endogenous link between medical technology and health insurance by deciding exogenously on the level of overall health insurance expenditure. The U.S. health financing system provides an “open” budget to the health sector. This gives providers the ability to shift costs from one plan to another. In other words, the United States does not have a hard budget constraint for its health sector.

Figure 4. Selected Countries: Total Health Care Expenditure, 1960–2003
(Percent of GDP)



Source: OECD (2005).

Americans argue that other countries have been able to manage their inflation rates by underinvesting in health care, which has resulted in long waits for certain tests and surgical procedures. However, patients in most advanced economies—the United Kingdom and Canada are the two exceptions—have not had to wait long for nonemergency tests and surgeries. Recently, the United Kingdom has sought to eliminate long waiting lists by increasing its health spending from 6.8 percent of GDP to about 8 percent of GDP (see Aaron, Schwartz, and Cox, 2005). Canadians have had long waits since the late 1980s, owing to the drastic cuts made in health budgets during the economic downturn, but that situation is improving since the economy has revived and the federal government has increased the health budget.

- Myth #3: Government-financed health services inevitably become underfunded, resulting in shortages, inferior quality of services, and long waits.

Besides the public-good elements of the health sector, most countries use general revenue to finance health services for reasons of equity and risk protection. Most countries also accept the principle that health care is a basic need—that it is inappropriate to use price to ration health care according to people's ability and willingness to pay. Because governments of low- and middle-income countries are financially unable to meet all demands, their public health services are usually underfunded. Consequently, these services are rationed by other means, such as long waits for treatment. However, this is not the case for advanced economies. Most have been able to balance

supply with demand. The notable exception is the United Kingdom, which relies on the political process at the central government level to set its national budget for health. U.K. health care has to compete with other national priorities, such as education, social security, and national defense. The public, acting through the political market, seems to be willing to accept wait-rationed treatment.

- Myth #4: All preventive care is cost-effective.

Policymakers often make the erroneous assumption that the cost of preventing a disease is always less than the cost of treatment. This is not so. Besides the cost of supplies, effective prevention programs often require the identification of the population at risk and compliance by a high proportion of that population with the preventive regimen. These efforts can be very costly. For example, studies show that it is more cost-effective to treat tuberculosis than to prevent it (Borgdorff, Floyd, and Broekmans, 2002). The influenza vaccination is not cost-effective for healthy working adults (Bridges and others, 2000). In addition, some preventive measures produce serious side effects that result in permanent disability. Preventive policy should thus be judiciously based on cost-effectiveness analysis, not on impressions.

- Myth #5: All private sector providers are more efficient than public sector providers.

Similarly, macroeconomists often assume erroneously that private sector production of health insurance and health services is more efficient than public sector production. This is not so. Studies consistently have found that the cost of private insurance is higher than public insurance because of the difference in marketing cost. In the provision of health services, studies in the United States have found that private sector production could be more efficient if there were sufficient competition. On the other hand, Singapore has found that private sector hospitals charge much higher prices for hospital services that are roughly of the same quality as those provided by public hospitals.

C. Basic Health Economics: Health Markets and Market Failures

As noted above, empirical studies of the past three decades have confirmed the presence of serious market failures in the health sector. Most of these failures are caused by factors pervasive in the various markets of the health sector—that is, an asymmetry of information, imperfect agency relationships, and moral hazard.

- In the *financing market*, the asymmetry of information between the consumer and insurer about the former's health condition results in significant adverse selection. The fact that health risks are concentrated in

a small portion of the population results in serious risk-selection efforts by insurers. Although insurance is needed to cover the uncertainty of future illness, insurance creates moral hazard.

- In the *health service provision markets*, one would not expect competition to work when patients suffer from urgent or life-threatening medical problems. In such situations, patients are unlikely to “shop around,” given the absence of sufficient information to discriminate among sources of supply. Moreover, asymmetry of information gives health practitioners strong monopolistic power to set prices and induce demand. Regarding the supply of health practitioners, to ensure patients’ safety, the government and the medical profession have erected high barriers of entry regarding who can practice medicine.
- In the *pharmaceutical and medical-device markets*, patent laws give monopolies to new drugs and new medical technologies in order to encourage research and development. Although these barriers to entry and monopolies have been established for sound social and economic reasons, they have nonetheless impaired the competitiveness and efficient operation of markets.

Recognizing these serious market failures (or the absence of the prerequisite conditions for a workable competitive market), many countries have turned to the government to finance and provide health services. The past 50 years have shown both the benefits and limitations of state action, especially in the promotion of health. Governments have helped to deliver substantial improvements in education, health, and economic security. Without this government role, sustainable development, both economic and social, would have been impossible (see World Bank, 1997b). However, not all experiences with state action in the health sector have been encouraging. Government decisions are, of course, based mostly on bargaining among political alliances. Thus, the relative powers of different interest groups can greatly affect decisions on resource allocation and on those who benefit from and pay for public programs. Often, a disproportionate amount of public health services goes to the affluent and the urban middle class rather than to the poor. Moreover, curative hospital services are favored over cost-effective primary and preventive services.

Because most governments operate by “command and control”—using bureaucratic rules to manage operations—and public facilities usually operate as a monopoly, even the best intentions of bureaucrats can atrophy from a lack of information and insulation from patients. Health practitioners’ interests often begin to supersede those of patients and the general welfare. Politics can then dominate public health services, turning them into major centers for patronage employment, particularly when labor unions become bases of political support. In many low- and middle-income countries, because of the absence of appropriate checks and balances, corruption,

fraud, kickbacks, and under-the-table payments to physicians and nurses have become widespread. Hence, public health services often become unresponsive to the needs of patients, and the efficiency of public health services deteriorates.

How a country finances and provides health care depends on the objectives that country pursues. Because there are serious market and government failures, the policy question is not one of either market or government, but rather the *relative* degree of each and how to harmonize them. The respective roles of the government and of the market are ultimately decided by societal objectives set for the health system, with these objectives shaped by the values embraced by the society. For instance, markets normally cannot produce equitable health or health care because of income, gender, and racial inequalities in a society. If a country gives priority to equity, then the government has to take a primary and strong role in financing health care. In sum, a country's social values and priorities determine the extent to which that country relies on the market as opposed to the government. Nonetheless, it will enhance rational policymaking if objectives are clearly set forth and both market and government failures are well understood.

When there are serious failures of both market and government, sound public policy becomes much more difficult to develop. Policymakers may then choose a strategy that will produce a better, but not the *best*, outcome—in essence, a second-best solution.