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# An International Assessment of Health Care Financing

*Lessons for Developing Countries*

Edited by

**David W. Dunlop**

**Jo. M. Martins**



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An International Assessment  
of Health Care Financing  
*Lessons for Developing Countries*

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David W. Dunlop  
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## *Foreword*

In the past decade, the countries of Southeast Asia and other regions have made significant progress on the health care front. Thanks to a substantial expansion in the provision of health care as a result of rapid economic development, infant and maternal mortality has fallen, life expectancy has increased, total fertility rates are down, and population growth has declined. That expansion is particularly evident in the greater numbers of physicians and nurses per thousand population and in the growing share of total health expenditures in gross domestic product. Although health status in the region could be improved even further—through the extension of primary health care to still disenfranchised groups and an effort to reduce the use of tobacco products—it is clear that much has been and will continue to be accomplished in both preventive and curative health care.

Perhaps the greatest problem countries have experienced thus far lies in financing the costs of such care. The financial pressures are now greater than ever, since more and more older persons are seeking health care and their health problems (such as heart disease and diabetes) tend to be of a chronic and serious nature. This change in overall disease patterns implies that more people are seeking resource-intensive types of health care.

Despite the relatively high growth in income per capita throughout Southeast Asia during the 1980s and early 1990s, many countries there have experienced enough periodic macroeconomic problems to greatly reduce the resources available for all sectors, including health. Unfortunately, even if economic growth improves, competing claims for those resources—in the case of health care, from investment opportunities in other than universal or even voluntary health insurance programs—will continue to make them scarce.

To address this problem, many countries have moved to implement various forms of cost recovery. Because of equity considerations, as well as the fact that the funding requirements in the health sector are so large, health insurance is one option that is receiving particularly close attention.

In view of these developments, the Economic Development Institute (EDI) of the World Bank, together with the Asia Department of the World Bank, the Asian Development Bank, the Canadian Department of Health and Welfare, the U.K. Overseas Development Agency, the U.S. Agency for International Development, and the World Health Organization sponsored a regional seminar on health financing and health insurance in Asia, which was held in Bali, Indonesia, from December 10 to 14, 1990. Ministers and other senior government officials from ministries of finance, planning, health, and social security in Fiji, Indonesia, the Republic of Korea, Malaysia, Papua New Guinea, the Philippines, and Thailand met with observers from China, Kenya, Morocco, and Nigeria to discuss their country's health financing problems and assess the experience of a number of countries that have implemented various types of health insurance in an effort to deal with their health financing problems. Seminar participants were particularly interested in learning how programs of

insurance were implemented, how they were working a number of years later, what problems might be expected, and how they might be addressed.

At least two other international meetings have been held in the past several years to consider issues related to developing and implementing health insurance: one in Seoul, Korea, in March 1989; and the other in Taipei, Taiwan, in December 1989. The EDI meeting was the only one to consider the policy problems and difficulties of developing and implementing health insurance within a framework for assessing various health financing options. This framework provided a set of criteria for assessing the performance of any set of health financing options. These criteria were used to examine the various approaches to health insurance adopted in a number of the world's more affluent countries. These approaches were judged by their population coverage and financial access; the containment of health care costs/expenditures; efficiency of resource use; equity across income and other groups in financing health care; the degree of consumer choice available to those included in the insurance program; and the program's incentives for technological innovation in the delivery and financing of health care.

This volume opens with a discussion of the important role of health insurance at this time in developing countries. Attention is also given to the macroeconomic context in which health financing takes place in developing countries, the growth of the health sector as development progresses, and the linkages between health financing, health status, and indicators of development. Other chapters are devoted to health financing and the use of health insurance in a set of six countries. Their experience can provide public policy officials in other countries with considerable insight into the fundamental ingredients of an effective health financing strategy.

These studies will enable policymakers to better evaluate the various forms of health financing already in existence in their own country; the tradeoffs involved in incorporating a pluralistic set of providers of care, both public and private; and the potential for including a mix of financing options, including user charges, within a health financing strategy for each country. Since health care financing policy inevitably requires the balancing of a number of competing outcomes and future costs, these case studies should also provide some insight into the short- and longer-term implications of a country's own choices. The volume closes with a set of general lessons and some preliminary conclusions about the relationships between health insurance, GDP growth, and health expenditures.

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# **Part I**

## **The Conceptual Framework**





# 1

## *Introduction*

*David W. Dunlop and Jo. M. Martins*

During the 1980s the global economy suffered serious disruptions in its long-term growth as a result of significant energy price changes and the buildup of unsustainable levels of debt. To adjust to these changes, many countries undertook policy initiatives aimed at restructuring their economies. One question that aroused considerable debate in this process was whether country governments needed to provide and finance all types of health care, despite the increase in both the numbers of health care personnel and expenditures on health since the 1960s (table 1-1). This question gained further attention following the widespread pledges made at the Alma Ata Conference in 1977 to achieve health for all by the year 2000 through a strategy of primary health care (see, for example, Dunlop 1982; WHO 1988).

Many countries have not been able to sustain their prior commitments to either the provision or the financing of health care. They have been focusing increasing attention on alternative financing options, notably health insurance. Indeed, some governments have viewed this option as an alternative to direct support for the health sector via the public budget.

### **Why the Topic of Health Financing Is Important**

With the decline in government commitments to health care, the policy debate regarding the financing of health care has revolved around two questions in particular. First, what is the appropriate role for the government and other institutions in financing health care? Second, should the government intervene—and if so, how—in health care markets where private sector initiatives may provide services most efficiently, especially for certain employed subgroups of the population, but by so doing may also create inequities of access to services for a country's poor? By the early 1990s, many policy analysts had begun to entertain the idea that health insurance implemented on a national basis, as in some of the more affluent countries of the Organisation for Economic Co-operation and Development, might be one means of resolving the health financing problem. This mechanism—if appropriately configured in terms of subsidy targeting, the design of the benefit package, and reimbursement policies—might also make it possible to maintain private initiatives in the health sector and at the same time reduce the inequity of access.

Another growing concern is that major economic dislocations may occur if the problem of financing health care is not resolved. To begin with, significant inefficiencies may arise in those subsets of the health sector that are experiencing financing difficulties. This problem would be particularly acute where pharmaceutical and other resources that use foreign exchange are not readily available to personnel located in a particular health facility (see Dunlop and Over 1988). Similar inefficiencies may occur if skilled personnel (e.g., physi-

Table 1-1. Trends in Health Resource Availability and Expenditures in Asian and Selected Affluent Countries, 1960–91

Country	Popu- lation (millions)	GDP per capita	Population/doctor					Population/nurse					Health expenditure share of GDP			Total expenditure per capita (U.S. dollars)		
			1960	1961	1977	1984	1990	1960	1961	1977	1984	1990	1961	1982	1990	1982	Other years	1990
Bangladesh	106.5	160	—	—	8,780	6,730	7,202	—	—	56,880	8,980	9,003	—	—	5.2	—	—	6.22
Brazil	147.47	2,020	2,560	—	1,700	1,080	684	2,770	—	—	1,080	2,280	—	—	4.6	—	—	153.34
Canada	26.25	15,160	910	855	560	510	453	300	129	130	510	96	5.5	8.9	9.0	1,010.82	—	1,945.33
China	1,111.90	290	3,010	—	1,160	1,000	721	2,850	—	480	1,700	1,442	—	2.7	3.2	8.22	—	10.60
Fiji	0.74	1,570	—	—	—	—	2,229	—	—	—	—	372	—	—	3.3	—	1992	68.26
Germany	61.64	14,400	670	—	490	380	365	450	—	260	380	215	—	7.0	8.1	871.80	—	1,510.64
India	811.82	300	4,850	—	3,620	2,520	2,455	9,630	—	6,430	1,700	2,232	—	—	4.5	—	—	15.44
Indonesia	179.14	450	46,780	—	13,640	9,460	7,135	—	—	8,850	1,260	2,548	—	2.6	2.0	15.03	—	11.63
Japan	123.12	15,760	930	—	850	660	607	460	—	290	660	337	—	6.0	6.7	605.63	—	1,536.85
Korea, Rep. of	42.38	2,690	3,540	—	1,990	1,170	1,390	3,220	—	550	1,170	1,390	—	—	3.6	—	—	403.98
Malaysia	17.32	1,810	7,470	—	8,730	1,930	2,720	1,780	—	1,290	1,930	697	—	—	3.0	—	—	58.58
Nepal	18.44	160	72,870	—	35,250	32,710	17,031	—	—	53,540	4,680	6,308	—	—	4.2	—	—	6.93
Papua New Guinea	3.59	700	14,390	—	14,040	6,160	12,870	2,450	—	1,930	890	1,589	—	—	4.5	—	—	30.14
Philippines	60.10	590	6,930	1,613	2,760	6,700	8,229	—	4,348	3,110	2,740	2,655	—	2.2	2.6	18.23	—	21.50
Sri Lanka	16.81	400	4,490	4,630	6,750	5,520	7,297	4,150	1,613	2,050	1,290	1,431	3.7	3.2	3.5	10.25	—	17.88
Thailand	55.45	850	8,000	—	8,150	6,290	4,947	4,900	—	3,540	710	899	—	2.5	5.0	19.56	1979	55.22
United Kingdom	57.20	10,420	1,090	909	750	—	612	420	470	300	—	306	4.0	5.3	6.0	513.35	—	882.01
United States	249.41	18,530	750	775	570	470	420	340	241	150	470	150	5.5	10.7	11.8	1,402.65	—	1,520.90

— Not available.

Source: International Monetary Fund, *International Financial Statistics Yearbook*, Various Years; World Bank, *World Development Report* /1981,1989,1993b; Abel-Smith (1967); Griffin (1992); World Bank (1993a).

cians) are not compensated according to the opportunity wage in the private market for their services. Such inefficiencies often erode the effectiveness and quality of service to such an extent that consumers are forced to seek health care from other providing entities. This further exacerbates the inefficiency problem. Since publicly supported facilities tend to be a bellwether of declines in service quality, those segments of the public that have traditionally relied on these facilities will no longer be assured of receiving efficacious or appropriate health care. Inequities may therefore develop in the care available to certain population groups, and over time these inequities may contribute to political unrest. Furthermore, where health care financing is inadequate, private sector forces tend to take hold as each cadre of health personnel seeks to obtain its opportunity wage. In such instances, the socially positive externalities of public health services—for example, immunizations, maternal and child health care, and family planning (all individually consumed)—will not be produced in the desired quantities, and there will be a general disregard for public health concerns.

It is widely believed that health insurance has the potential to stem the inefficient use of resources and the decline in the quality of public sector service. The complicating factor here is that health insurance may be implemented in many ways, through various types of supporting institutions. Among the prominent instruments used are provider reimbursement incentives and a variety of government regulatory jurisdictions. Furthermore, multiple private insurance entities can operate in the health care market alongside public entities. Their varied programs can have different health, social, and financial outcomes, depending on how sector financing problems are addressed in conjunction with efforts to control unnecessary costs and services, improve the efficiency of service provision, and ensure the equitable distribution of service use throughout the population of a country. The specific nature of these issues is examined in the chapters that follow.

### **Relationships between Health Financing, Macroeconomic Performance, and Health Status**

For developing countries, in particular, the financing of any sector, including health care, can have important implications for macroeconomic management. That is to say, any change in health financing policy, through the introduction of health insurance, for example, can have a long-term impact on fiscal policy, the national allocation of resources, and economic growth. To ensure that such changes have beneficial effects, it is vital to understand (a) the relationship between the growth in national income and health sector expenditures; (b) the effect of health care expenditure on health status, and thus on productivity and economic growth; and (c) the relationship between preventive health and economic growth. The concluding chapter of this volume presents some preliminary empirical findings about whether health insurance changes the relationship between income and health expenditure and has an effect on the rate of inflation in both the health sector and the economy as a whole.

#### *GDP Growth and Health Expenditures*

What is the relationship between growth in national income and health sector expenditures, and what does this relationship mean in the context of developing countries? Over the past fifteen years a number of studies have examined this relationship in the member countries of the Organisation for Economic Co-operation and Development (OECD) (see Anderson and Benham 1970:73–95; Newhouse 1977:115–25, 1987:159–67; Parkin, McGuire, and Yule 1987:109–27; Schieber and Poullier 1989:1–8; Gerdtham and Jonsson 1991:227–34). The aggregate real income elasticity of demand for health expenditures (as a proxy for medical care) in twenty OECD countries has been estimated to be about 1.3 for the period 1975–87

and 1.7 for the period 1960–75 (Schieber and Poullier 1989). These results were obtained by estimating country-specific income elasticities from time-series data and then deriving a simple mean value for the twenty countries. According to more recent information from six of the largest OECD countries (the United States, United Kingdom, Canada, Japan, France, and Germany) over the period 1980–90, the estimated elasticity of real per capita health spending in relation to the gross domestic product ranged from a low of 0.62 (in the United Kingdom) to 2.35 (in France), with the simple mean being 1.04 (Schieber and others 1992:7, table 6). Other estimating procedures based on cross-sectional data across twenty or so OECD countries at a particular point in time have produced similar results. The cross-sectional statistical analyses have had to correct for possible variations in GDP and health sector specific purchasing power and exchange rate variations across countries (see Parkin and others 1987; Gerdtham and Jonsson 1991). After correcting for these possible biases, Gerdtham and Jonsson found that aggregate health expenditure income elasticity in 1985 ranged from 1.24 to 1.43 in twenty-two OECD countries, depending on corrections for purchasing power parity and exchange rate considerations.<sup>1</sup>

Some information on the income elasticity of demand for health care services is also available for less affluent countries (see table 1-2). Cross-sectional data from household expenditure surveys in the mid-1960s, for example, provide estimates of 1.20 for Kenya and 1.56 for Uganda. A recent analysis of health financing in Asia (Griffin 1990:7) has calculated the elasticity of health spending with respect to per capita GDP for the region as a whole to be about 1.3.<sup>2</sup> Estimates from another study range from 1.5 for ten cities in Latin America as of 1968 to 1.17 for Brazil as of 1974 (Musgrove 1983:245–57). Although the studies cited do not represent a fully comprehensive review, they suggest that health care spending in developing countries in an aggregate sense is probably elastic with respect to income over the range of observations available.

This similar finding in three regions of the world lends support to Newhouse's (1977) observation that health care is a luxury good. As Musgrove (1983:253) has pointed out,

Total health care spending is a normal good, with an income elasticity declining toward one, but private health care is a luxury relative to publicly-provided free or subsidized care. Therefore, private health care spending can have an elasticity above one even at very high incomes, because as incomes rise, private services replace public services; and, at a given level of income, private spending will be higher where fewer public services are available.

Since the 1980s represented a period in which per capita income in many poorer nations declined, health expenditures there may have declined more than proportionately as well, especially among the least affluent residing there (World Bank 1990:43). The evidence from many countries bears out this suggestion. The decline occurs both in private household expenditures and in government expenditures for health services, in response to drops in income and tax revenues. In the South Pacific member countries of the World Bank, for example, real per capita health expenditures declined by as much as 75 percent over the 1980s (World Bank 1993a). Similar declines were also reported in Africa (Vogel 1990), the Caribbean, and Latin America (Musgrove 1987, 1988).

These empirical findings about the relationship between health spending and income can be of assistance in designing health insurance financing in developing countries. They suggest, for example, that market segmentation is warranted for the benefit packages going to the more and the less affluent members of society. Cross-subsidization between the more and less affluent is also possible. To financially sustain the health care provided by public agencies, the government in combination with health insurance could provide a basic package of promotive, preventive, and curative health services and health promotion

Table 1-2. Relationship between Health Expenditures and Growth in GDP, as Reported in Selected Studies

Study	Location	Period	Type of data	Elasticity estimate: health expenditure with respect to income (GDP)		
<i>High-income Countries</i>						
Newhouse (1977)	OECD	1968-72	Aggregate	at Mean	1.26 low	1.31 high
Parkin and others (1987)	OECD	1980	Aggregate		0.80 low	1.57 high
United States (1989)	OECD	1960-75	Aggregate		1.70	
	OECD	1975-87	Aggregate		1.30	
OECD (1987)	OECD	1960-84	Aggregate		1.60	
Gerdtham/Jonsson (1991)	OECD	1985	Aggregate		1.24 low	1.43 high
United States (1989)	Australia	1975-87	Aggregate		0.90	
	Austria	1975-87	Aggregate		0.80	
	Belgium	1975-87	Aggregate		1.60	
	Canada	1975-87	Aggregate		0.90	
	Denmark	1975-87	Aggregate		0.90	
	Finland	1975-87	Aggregate		0.90	
	France	1975-87	Aggregate		3.10	
	Germany	1975-87	Aggregate		0.90	
	Greece	1975-87	Aggregate		2.50	
	Iceland	1975-87	Aggregate		1.50	
	Ireland	1975-87	Aggregate		1.50	
	Italy	1975-87	Aggregate		1.70	
	Japan	1975-87	Aggregate		1.40	
	Netherlands	1975-87	Aggregate		1.10	
	Norway	1975-87	Aggregate		2.00	
	Spain	1975-87	Aggregate		1.10	
	Sweden	1975-87	Aggregate		1.00	
	Switzerland	1975-87	Aggregate		1.00	
	United Kingdom	1975-87	Aggregate		1.00	
	United States	1975-87	Aggregate		1.10	
<i>Less Affluent Countries</i>						
Griffin (1990)	All Asia	ca. 1985	Aggregate		1.30	
Gbesemete and Gerdham (1992)	30 countries in Africa	1985-90	Aggregate		0.89 low	1.07 high
	Uganda	1963	Household		1.56	
Massell and Heyer (1969)	Kenya (Nairobi)	1963/4	Household		1.20	
	Kenya (Nairobi)	1963/4	Household		1.08	
Musgrove (1983)	Ten cities in Latin America <sup>a</sup>	1968	Household		1.50	
Musgrove (1983)	Brazil	1974	Household		1.17	

a. The ten cities were in Chile, Columbia, Ecuador, Peru, and Venezuela.

Source: As cited in the table.

activities for the poor. For the more affluent, the package of health insurance benefits might include private surgical care in combination with strategically designed user charges for health services provided on a private basis, which could be used to subsidize the services consumed by the less affluent.

### **Health Expenditure and Health Status, Labor Productivity, and Economic Development**

**DETERMINANTS OF HEALTH STATUS.** Health status—as typically indicated by factors such as the infant mortality rate, life expectancy, and days of healthy life—is determined by various aspects of human consumption and welfare, including health care, nutrition, education, housing, water supply, environmental pollution, lifestyle, and income. Empirical studies of the strength of these determinants on indicators of health status have been conducted by a number of authors (see, for example, Hicks 1980; Wheeler 1980; Wolfe 1985; WHO 1986; Musgrove 1987; Wolfe and Berman 1987; Over 1992a; World Bank 1993b). These investigations have applied various regression techniques to household cross-sectional information (see Wolfe and Berman on Nicaragua), as well as to cross-sectional country information for various groupings of countries (Hicks, for example, provides eighty-three observations from 1960 to 1977; Over covers the years 1940–79, Wheeler 1960–77, and the World Bank 1993). All these studies have found that nutrition, education, and income have a positive and statistically significant relationship to health status.

In the studies cited above, indicators of health status were also found to be influenced by lifestyle and environmental pollution; and health care, via health spending, appeared to be positively associated with improved life expectancy. This latter finding, however, has not been confirmed by empirical studies reviewing the association between health status indicators, especially infant mortality, and health spending in both Latin America and Africa during the mid- and late 1980s, when declines in per capita incomes and health expenditures occurred in most countries in both regions (see Musgrove 1988 on Latin America and Elmendorf 1993 on Africa).

The level of health expenditures is affected by a nation's health status via several pathways. First, the poorer a nation's health status, the heavier the burden of disease (BOD), which generally is due to a high prevalence of diseases that primarily affect infants, mothers, and children and that tend to be easy to prevent or treat at relatively low cost (World Bank 1993b). Thus, if a country's health status is low, the resources required to assist those afflicted tends to be relatively low; initial financing requirements are also low, though they will increase as preventable illness related to birth and childhood is addressed (Dunlop 1973). Second, if a country's health status is low and it has a high BOD, average labor productivity of the population will be lower than it might otherwise be, and income will be lower and, via the relationship between GDP and health spending discussed above, health expenditures will be concomitantly less. The capacity for rapidly increasing labor productivity will also be dampened, since many in the population are in poor health. Finally, depending on the extent to which countries invest in programs such as education, nutrition, and environmental pollution, a country's health status may be concomitantly higher or lower than it would be otherwise and thus would affect the level of health expenditures. The reported findings above suggest that health expenditures could be lower for a given health status in countries that have invested in improved nutrition, basic education (especially for women), and reductions in pollution.

DETERMINANTS OF ECONOMIC DEVELOPMENT AND THE ROLE OF HEALTH. Empirical work has been done on the role of health in economic development, as measured by GNP or GDP per capita (Galenson and Pyatt 1964; Barlow 1968; Harbison, Maruhnic, and Resnick 1970; Hicks 1980; Wheeler 1980; Musgrove 1987; Over 1992a, 1992b). Barlow and Over used macroeconomic models to examine this relationship, the former via the health effects of malaria and the latter via the effects of AIDS on labor and capital productivity. Musgrove (1987) also developed a schematic model to show how health improvements may affect indicators of macroeconomic performance. The pathways in each show how improvements in health status, as indicated by the infant mortality rate (IMR) and life expectancy, and changes in fertility and mortality are linked to changes in health care consumption and human welfare, and how these changes are linked to aggregate economic performance via production and consumption. The Barlow model was used to estimate the aggregate economic impact of improvements in health status in Sri Lanka during the 1950s as a result of a reduction in the incidence of malaria. These effects, simulated through 1975, included the aggregate gain of a simultaneous investment in family planning. The Over model was used to assess the economic impact of AIDS on a number of countries in Africa: here it was found that the disease may retard economic growth by an average of about 1 percent per year. Given the past economic performance in these countries, such an impact would amount to a 25 to 30 percent reduction in economic performance.

The other studies have used country cross-sectional information from the 1950s, 1960s, and 1970s to empirically assess the relationship between health and income growth. The Galenson and Pyatt analysis is especially noteworthy, since it explicitly defines this relationship in terms of the determinants of labor productivity. Besides nutrition and education indicators, health service supply variables such as population per nurse, physician, and hospital bed were found to be statistically significant, particularly among the poorest countries, reflecting the impact of inequity of resource supply on health status and thereby labor productivity. The findings were supported not only by single-equation models that defined unidirectional causality between health and other human resource development variables, but also by simultaneous equations that allowed for the possibility of causality in both directions (see Wheeler 1980).

In addition, research has been conducted on two distinct linkages between health and population growth. One is a direct linkage—between health improvements and mortality, especially among infants—reflected in rising population growth. The other is an indirect linkage occurring when reduced infant mortality dampens the demand for additional pregnancies, and population growth is thereby reduced. Evidence from single-country studies (see Barlow 1968, on Sri Lanka; Cross 1978, on Cuba; and Barnum 1983, on Nepal) supports both links. It has also been shown that the reduced demand for children following declines in child mortality cancels out the direct impact of increased population, if health and family planning programs designed to achieve both are implemented (see Barlow 1968). The World Bank's analysis of this linkage (1984, 1986) provides similar and complementary evidence suggesting that a reduction in mortality of one child per household will yield a decline in desired family size of about 0.5 children per household.

Some important evidence also comes from India, which in 1917 experienced one of the most extensive influenza pandemics of this century. Total agricultural output dropped significantly as a result of this event, because it decimated the supply of labor for key agricultural tasks (Schultz 1968). India's economic progress was adversely affected for several years thereafter owing to the number of deaths or long-term health problems from the virulent strain of influenza, as well as the resulting nutritional losses. Other examples

of the macroeconomic losses associated with the lack of preventive health interventions can be found in the country studies of malaria (Barlow 1968) and AIDS (Over 1992b) described earlier.

Some evidence is also available on the economic impact of immunizations and child survival. For example, Barnum (1981; Barnum and others 1980) has shown that the economic benefits of child survival programs in Kenya and Colombia clearly outweigh the costs of such interventions simply by reducing the demand for children. With a reduction in the expected infant mortality rate, people appear to have a greater incentive to invest in the quality rather than the number of offspring. Furthermore, primary health care, when developed to more widely distribute the benefits of preventive health programs, eventually helped increase health status and economic progress in a number of South Pacific countries (World Bank 1993a), as well as Cuba (Cross 1978).

The above linkages clarifying the role of health development have two important implications for health financing and the role of health insurance in an overall health financing strategy. First, the health financing policy developed must ensure that labor productivity gains arising from preventive health care programs are widely disseminated, especially among the poor. This includes family planning and reproductive health services, which should be made available as widely as possible and in a timely manner. In this context, health insurance benefit packages and feasibility studies should be designed to include the cost of essential services yielding high disease reduction, and their financing from premium receipts should be incorporated. Benefits for medical care should be linked to the use of prevention programs. Second, the health financing strategy should continue to contribute to the widespread availability and use of essential health care services. If health insurance programs do not include these features, they are likely to produce less effective results.

### **Implications for the Role and Design of Health Insurance Programs in Developing Countries**

Health insurance is but one of a number of options for financing health care (de Ferranti 1985; World Bank 1987). Direct government financing and private user charges are other options that have been used in almost all countries, with varying benefits and costs. Now that information about each option has become more accessible, the prospects for systematic assessment of their impacts has greatly improved. In 1980 little was known about the extent of financing, equity implications, or institutional requirements for implementation, let alone the very existence of such options. Over the past twelve years, however, enough evidence has been amassed to better assess the strengths of each. The time has therefore arrived to improve our understanding of the role of health insurance in sustaining and distributing the benefits of health care services to a growing world population.

Another important point to consider is that the design of a health insurance program determines the extent to which it can act as an effective tool for developing and financing health services within the constraints of a given country's costs and coverage. There are no apparent conceptual reasons preventing health insurance from financing health promotion and primary preventive services that can be considered "public goods," in the sense that the benefits they confer on the individual cannot be separated from the benefits accruing to other members of the community. However, health insurance programs do not usually cover such services, and central or local governments in the more industrialized countries often finance and deliver these services separately. When these services are cost-effective, their supply and financing often avoid the use of more costly remedial care covered by health insurance. The first priority of health insurance should be to cover health events that



lead to large financial losses. It is obvious that the capacity of the poor to cope with financial losses is low. Thus, lower thresholds need to be established for them or separate arrangements need to be made if they are to be protected from relatively large financial losses. This design priority is consistent with the participatory savings schemes that have recently been uncovered in many low-income countries of Latin America and Asia.

The second priority should be to cover ambulatory care by tying it to certain minimum quantities of preventive services. This approach would enhance health status and would be a cost-effective way to increase preventive services coverage. Further, it has been demonstrated in the United Kingdom that doctors will allocate time in their practice for preventive health service delivery if they are reimbursed for the service. The third important design element is a built-in system for periodic modification in response to changes in a country's income, the health care delivery system, and disease patterns. As the case studies in the following chapters attest, such changes will not come often but will have to be accommodated through the costs and equity requirements of the health care financing system.

The case studies in this volume were prepared in 1990 and therefore reflect the situation in the selected countries at the time of writing. These systems have continued to evolve since then. As a result, their efficiency, effectiveness, and equity have changed, along with their impact on the affected populations. An assessment of the full effect of the more recent changes can only be speculative, because not enough time has elapsed to assess their full impact. The usefulness of the case studies is not diminished by their dated information: they represent dated but actual models that illustrate the importance of the cumulative effect of past policy decisions on present systems and their place in basic policy concerns. It should also be emphasized that this book is concerned with methods of health financing and their impact on relevant policy variables. Health insurance is examined within this context.

The text is divided into three main parts. The first includes this introduction and presents a framework for reviewing health financing, including health insurance. It focuses on four policy issues: equity, overall cost control, efficiency in the use of resources, and consumer choice. This framework is the basis for the review of the case studies in part II. The cases were selected to give a range of alternatives from health systems that have already gone through an evolutionary process. They also offer a range of geographical and historical perspectives. The systems illustrated differ widely not only in their financing and organization (as in the case of the United States and the United Kingdom), but also in the length of their history (which is quite long for Germany, for example, but fairly short for the Republic of Korea). All of the cases demonstrate how deliberate action or its absence has affected the major policy variables, namely, those concerned with equity, overall affordability, efficiency, and consumer choice. The volume concludes with some of the lessons that can be gathered from both the discussion of the framework and the case studies.

## Notes

1. These results are also consistent with those obtained for a large sample of countries in the mid-1970s by Kravis, Heston, and Summers (1982). Estimates of the price and income elasticity of demand for medical care in this study were -0.5 and 1.4, respectively.

2. Griffin's report does not make clear how this figure was estimated, the countries included in the data set, or the period to which the figure applies.

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# 2

## *A Framework for Assessing Health Financing Strategies and the Role of Health Insurance*

*William C. Hsiao*

All developing countries face three major health policy questions: how to mobilize sufficient funds to finance health care, how to allocate those funds and organize health care delivery to produce the most health benefits for the largest number of people, and how to control the costs of that care.

Because government funds are limited, health care must compete for its share with many other worthy programs, such as economic development, roads and transportation, communications, and education. Unfortunately, many developing countries have had to reduce their governmental funding (in real terms) for health care since the global economic downturn of the early 1980s. Consequently, many nations have not been able to adequately fund existing hospitals, clinics, primary care, and prevention programs. At the same time, expectations and the demand for health care have steadily risen, only to put added strain on government budgets.

These are but the immediate problems. A more long-term concern is that the rapid developments in expensive medical technology and new drugs have inflated health care costs even beyond what affluent nations can afford. In addition, recent demographic changes in many developing countries have burdened government budgets with a twin epidemiological problem: infectious and parasitic diseases still ravage the rural population, while the urban population suffers increasingly from chronic illness. When the government allocates funds to meet the pressing demands of powerful urban residents for expensive curative medicine to treat chronic illness, it leaves fewer financial resources for rural people.

These are the difficult circumstances in which developing countries must decide how to structure the financing of their health care. To complicate matters further, they must tailor their policies to their individual political and economic realities, as well as their social values and culture. A central question for all countries in establishing an appropriate financing mechanism, however, will be where to place the locus of decisionmaking: Should it lie with the consumers, providers, the government, insurance plans, or other financiers? The locus of power determines who will receive the services, how resources will be allocated, and how health care will be organized and delivered. In addition, the financing scheme adopted will become the foundation for the nation's health care system in the decades ahead.

### **Policy Objectives and Major Considerations**

Although the immediate concern of many developing countries is to mobilize enough funds to support health activities, decisionmakers must keep an eye on their country's overall

policy goals if they are to select the best financing approach for their particular circumstances. Around the world, several policy goals stand out: to provide universal and equal access to reasonable health care, to keep health care expenditures at an affordable level, and to make effective use of resources.

The likelihood of achieving these goals and the resultant cost to society depend greatly on the method of financing. Whoever possesses the financial power can determine where health care resources will be directed and how they will be used. There is by no means a consensus on where the power should be placed to most effectively achieve a nation's goals. Some take health care to be like other consumer goods and therefore argue that control over what services to buy and at what price should rest with the consumer. In this view—known as the demand-side argument—private organizations should provide the health services. Competition for the consumer's dollar is expected to constrain the behavior of these providers. Others would argue that control should rest on the supply side. Since health care has many distinctive features, they point out, serious market failures can occur, most notably because private insurance reduces price sensitivity among both consumers and providers and physicians tend to have control over medical decisions. They would prefer to see power concentrated in some public or quasi-public agency (perhaps organized on a community or regional basis), which uses the payment system, technology assessment, and capital planning to constrain the behavior of providers.

How a nation structures its system of financing, payment, and delivery of health care can have an enormous effect on the behavior of the key actors in the system: the patients, hospital administrators, physicians, pharmacists, and insurance providers. The behavior of these actors is constrained and motivated by the structure of the system and its incentives, and their reactions determine health care outcomes.

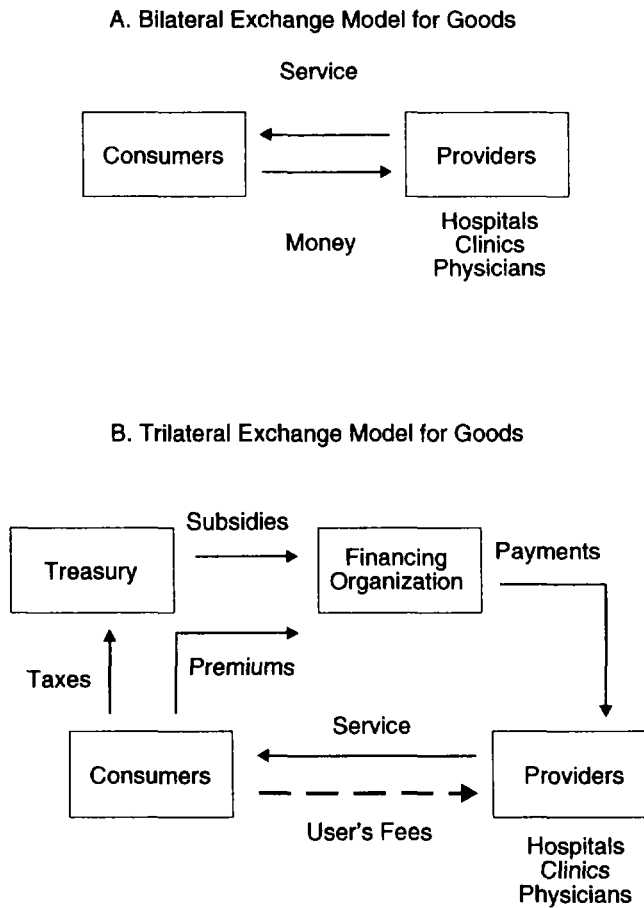
### System of Health Care Financing and Organization in Affluent Nations

A number of factors have led affluent nations to organize the financing of health services in specific ways. Instead of relying totally on free choice and bilateral exchange between consumers and providers (as shown in figure 2-1A), where the consumers pay the providers fully and directly for services, these countries have introduced a formal financing organization to pool the financial risks. This financing organization pays the provider. Thus the bilateral relationship is altered and becomes a trilateral relationship (see figure 2-1B).

In the trilateral model, the organization that provides the financing has a dual role: to mobilize funds and to pay out the funds to providers of health care. The organization obtains its revenues through taxes or insurance premiums paid by thousands of insured individuals. This arrangement, known as a plan in North America, consolidates fiscal power. The method adopted by the plan to mobilize funds determines who will bear the financial burden of health care costs. The plan also specifies who will have financial access to health care (it stipulates who will be covered) and how resources will be allocated (it stipulates what services will be covered and the method by which providers will be paid). The institutional context in which the plan operates and the method it uses to maintain fiscal balance determines whether the system can control total health expenditures.

The plan must also define the criteria and rates used in paying providers. Since money is a strong incentive for providers, the payment system is what motivates them to offer their services. The payment to hospitals can be based on a prospective budget, a fee for service, or a charge per day, per admission, or per diagnosis-related group. A fee-for-service, capitation, or salary system may be used to pay physicians. The system of payment has an effect on efficiency and quality. Under the fee-for-service system, hospitals and physicians

Figure 2-1. The Financing and Organization of Health Care: Two Models



Source: Compiled by the author.

have an incentive to deliver more units of service, regardless of their medical necessity. If hospitals are paid on a planned or actual number of beds occupied, they have an incentive to keep their beds fully occupied by increasing the patient length of stay per admission. When physicians are paid a salary, they have an incentive to see as few patients as possible, and this may result in waiting lines.

Access, efficiency, and quality are also affected by the payment rates. If higher rates are paid for curative medicine, the incentive structure will be tilted in that direction, drawing medical professionals and capital investment to this service. If the payment rate is tilted in favor of primary care and prevention, resources will swing in that direction. Thus payment rates determine resource allocation and use.

The nature of the ownership and organization of hospitals, clinics, and pharmacies also has great bearing on the efficiency of a health system. According to economic theory, owner-operated, for-profit firms will be highly efficient in a competitive environment because they will be motivated to earn the largest possible profit. The nonprofit firm, not driven by profit motives, will operate less efficiently. Organization is also a critical factor because health

Table 2-1. Systems of Financing, Payment, and Delivery Organization in Selected Affluent Countries

<i>Country</i>	<i>Financing</i>	<i>Ownership</i>	<i>Payment</i>	<i>Organization</i>
Canada	General taxation, central or regional government	Mixed public and private	Global budget and single channel	Services not integrated
France	Mandated social insurance (multiple public and private plans)	Mixed public and private	Global budget and single channel	Services not integrated
Germany	Mandated social insurance (multiple public and private plans)	Mixed public and private	Global budget and single channel	Services not integrated
Japan	Mandated social insurance (multiple public and private plans)	Mixed public and private	Global budget and single channel	Services not integrated
Republic of Korea	Mandated social insurance (multiple public and private plans)	Mixed public and private	Global budget and single channel	Services integrated
Singapore	Pluralistic, universal provision by public hospitals, with private insurance "opt-out"	Mixed public and private	No limit on expenditures	Services not integrated
Spain	Social insurance, government plan	Mixed public and private	No limit on expenditures	Services not integrated
Sweden	General taxation, local government	Public	Global budget	Services integrated
United Kingdom	General taxation	Public	Global budget	Services integrated
United States	Pluralistic, free choice, and competition	Mixed public and private	No limit on expenditures	Services not integrated

*Source:* Compiled by the author.



services are so numerous and diverse. Whether they fall in the category of primary care, secondary care, tertiary care, or chronic illness care, how these services are integrated through formal referral systems will affect their overall efficiency, cost, and quality.

As mentioned earlier, various strategies are available to determine the supply of facilities and health personnel, as well as the total expenditure on health. One strategy relies on the free market. Another relies on the government to establish a health care policy and a global budget for this purpose, with regional arrangements to oversee facilities and equipment (so as to minimize duplication), technology assessment (so as to control the diffusion of medical technology), and manpower policy. The macropolicies would focus on the availability of services, the efficiency of the health system, and its total costs.

The central health care concern of affluent nations over the past twenty years has not been how to finance health care, but how to control the costs of such care. Other than the United States, all of these nations have compulsory universal health insurance financed either through a social insurance scheme or a general tax. But organized financing reduces the economic constraints on both patients and providers, and thus allows health expenditures to escalate rapidly. Since the affluent countries have already established that financing, payment, and delivery must be integrated in order to control health expenditures, the central question they are now debating is which integrative system will be most effective in this respect. Developing countries, too, must recognize that financing health care is not the sole objective of health care policy: such policy must also endeavor to design an integrative system of financing, payment, and delivery that can achieve society's goals. Table 2-1 shows the kinds of financing, payment, and delivery systems adopted by various affluent nations. They can be divided into three main categories, defined by the source of financing: a general tax, social insurance, or pluralistic provisions.

### *General Tax Financing*

General tax financing consists of three types: central government financing with direct public provision of services or a mixture of public and private provision; regional government financing with direct or indirect provision of services; and county government financing with direct public provision of services.

CENTRAL GOVERNMENT FINANCING WITH DIRECT PUBLIC OR PRIVATE PROVISION OF SERVICES. Many nations have chosen to finance health care through general taxation. This means the government allocates a portion of its annual budget for health care. Each year, the health budget competes directly for funds with education, transportation, agricultural development, housing, defense, and other government programs. The best-known examples of general tax financing for health care are in the United Kingdom and other Commonwealth nations.

General tax financing can shift the locus of decisionmaking from the consumers to the central government, which determines how the resources will be allocated. Various options are available. The government may choose what the International Labor Organization (1949) terms "the direct provision" of hospital and medical services. In this case, the government directly owns, operates, and manages health care facilities. Physicians may be salaried employees or independent practitioners. (Often only specialists are employees of the hospitals, while primary care physicians receive their compensation on a capitation or fee-for-service basis.) With this approach, the financing, payment, and organization of delivery are integrated to the fullest extent possible.

General tax financing has a serious shortcoming. Health care has to compete directly with other social and economic programs for a portion of the government's budget. As expensive

medical technology and new drugs develop, the financing demands increase, but the budget may be unable to meet these demands, especially during periods of slower economic growth, and thus be unable to improve health facilities and expand technology at a reasonable rate. That was the situation in the United Kingdom not long ago. Consequently, there was a serious shortage of some curative services and long queues developed.

REGIONAL GOVERNMENT FINANCING WITH DIRECT OR INDIRECT PROVISION OF SERVICES. Health care can also be jointly financed by the federal and provincial (state) governments, as exemplified by Canada. There the federal government provides a fixed sum, indexed to the gross national product, to each province for health care. The provincial government has to use its own tax revenues to finance the balance of health care costs. Hence, the provinces have a strong interest in controlling cost. Another distinctive feature of Canada's approach is that the payment and organization of services are not handled directly by the government, as in the United Kingdom. Rather, services are provided indirectly: that is, the insurance plan contracts with both public and private providers for services. Canada has a mixture of public and private hospitals, and its physicians practice as independent entrepreneurs and receive payments on a fee-for-service basis. Patients have the freedom to choose any physician or hospital. To control resource allocation and health expenditure inflation, Canada uses a supply-side strategy: the locus of decisionmaking lies in the provincial governments. Standardized payments for physician services are made through a single channel, which also monitors the volume of services and their appropriateness. Several provinces have established a single budget for the services under their jurisdiction through negotiations between the government (the payers) and providers. This is also known as a global budget, but in this case it applies to the province as a whole, rather than the nation.

COUNTY GOVERNMENT FINANCING WITH DIRECT PUBLIC PROVISION OF SERVICES. Some nations use the general tax approach but decentralize responsibility to the county government. In Sweden, for example, the county government, the Landsting, provides the funds and also delivers the health services to its residents. The Swedish approach is sometimes referred to as "direct democracy" (see Culyer 1989) since local taxes are linked to a highly visible local service. Under this system, the locus of decisionmaking rests with the county government, but that power is checked through a community-based democracy. In Sweden, hospitals are owned and managed by the county government. Most physicians are paid a salary by the hospitals, but some practice as independent entrepreneurs, paid on a fee-for-service basis.

The main drawback of this system is that not every county can support the same level of services, since some counties are rich and some are poor. The central government is therefore called upon to provide subsidies to the poor counties. One developing country that has adopted local financing with direct provision is China. Under its collective agricultural system, China relied on the local community to finance and deliver basic health care to most of the rural population, but the disparity in health care and morbidity between the rich and poor communities was pronounced (Hsiao 1984).

### *Social Insurance*

There are two types of social insurance programs to provide universal health insurance coverage. One type is a government-run plan with a standardized benefit structure and contribution rates. This plan is usually financed through a combination of payroll and general taxes. The second type consists of varied plans (public and private), which thus offer

the consumer a choice, but insurance is still compulsory. In this case, the government specifies a standard benefit structure and the actuarial standards with which the private plans must comply.

The great advantage of the social insurance approach is that it is not viewed as a social welfare benefit, but as a benefit earned through citizen contributions to an insurance plan (Meyers 1981). People appear to be more willing to pay when they perceive a direct relationship between their contributions and the insurance benefit. Affluent nations have found that social insurance plans have wider public support and are more stable than social welfare programs (Ron, Abel-Smith, and Tamburi 1990).

One lesson to be learned from affluent nations is that when fiscal power over health insurance is concentrated in social or private insurance plans, the health ministry has limited influence on the allocation of health care resources. As a result, preventive services may become underfunded. This has been the experience of the Medicare program in the United States.

**GOVERNMENT PLAN.** A government-run social insurance plan usually obtains funds from three sources: payroll taxes on employers, payroll taxes on employees, and a contribution from general taxes. The locus of decisionmaking power is centralized, for it rests with the administrators of the public insurance plan. A well-designed public social insurance plan establishes an independent fund so that its actuarial (financial) soundness can be easily ascertained apart from the government's general budget. The contribution rates are legislated to fully finance the anticipated outlays over the next several decades.

A public plan may provide health services to its insured either directly or indirectly. Many nations have chosen the former system and thus both own and operate hospitals, clinics, and health stations. Spain and Portugal are notable examples. By integrating financing and service delivery, and thereby removing the administrative work of submitting and paying claims from the shoulders of the care provider, these countries believe that they have improved the efficiency of their systems.

The difficulty with such plans, however, is that they are subjected to many political pressures, which affect both resource allocation decisions and payment policy to providers. With the aging of the population and the rapid inflation of health care costs, the increasing cost of the benefits could become an unbearable burden for future generations. This is a current concern in the United States and many South American nations (see Meyers 1981; McGreevy 1990).

Moreover, when hospitals and clinics are owned and managed by a public insurance program, political patronage may become an overriding factor in capital and personnel decisions. In addition, medical care will tend to become bureaucratized, with an attendant decline in the quality of services and efficiency, and a steep increase in costs. Patients, however, have no other choice.

**MANDATED PRIVATE AND PUBLIC PLANS.** The government may mandate that everyone must purchase health insurance but leave it to citizens to choose from among several public or private plans, mostly offered by nonprofit firms. In many countries, these insurance plans are called "sickness funds." Such funds can also be established by large industrial enterprises, trade unions, and local governments. Usually governments use general taxes to subsidize the premiums for the elderly, disabled, farmers, and low-income people. Germany, Japan, France, and the Republic of Korea are the most prominent examples of this kind of system.

In most cases, health services are provided indirectly, and the plans differ primarily in whether the nation has established a global budget to limit the total health expenditures and

uses a single channel for paying providers. Germany, Japan, and France set a global prospective budget, and all insurance plans pay their claims through a single channel, which sets a standardized method and rate for medical services. This has been called the “single-pipe” payment system (Reinhardt 1989), and it appears to have enabled these nations to control health care cost inflation. Korea, which does not set a global budget, has experienced rapid inflation of its health care costs (De Geynt 1991).

The organization of health care delivery varies under different social insurance schemes. In Japan, most specialists are salaried hospital staff and therefore physician and hospital services are integrated. In contrast, insurance plans in Germany and France treat physicians and hospitals as separate entities. As a result, medical services are less integrated when patients are hospitalized, and costs are more difficult to control, because there is less coordination and less substitution of services between hospital and physician.

The mandated social insurance scheme is able to avoid many of the political pressures and bureaucratic shortcomings of the public plan. The difficulty, however, is that multiple insurance plans often give rise to adverse selection, because of the uneven age distribution among plans. In Germany, for example, locally based sickness funds were originally organized to cover farmers in their region, but as younger people moved to the cities to seek higher-paying jobs, these plans were left with an increasingly elderly population. Consequently, their premium rates had to be increased sharply. This created inequities in financing among sickness funds because the health risks were not adequately pooled. The government had to cross-subsidize sickness funds in order to even out the risks assumed by the different sickness funds.

### *Pluralistic Design*

Pluralistic designs provide health coverage in one of two ways: through public hospitals with private insurance “opt-outs,” or through free choice and market competition.

UNIVERSAL PROVISION BY PUBLIC HOSPITALS WITH PRIVATE INSURANCE “OPT-OUTS”. Several nations offer universal coverage through public hospitals but permit citizens to purchase private insurance if they wish. This is the case in Singapore. All citizens have the right to obtain hospital and medical services from salaried physicians at public hospitals, which are funded by general taxes or social insurance, but they can “opt out” of this system by purchasing private insurance. Patients thus have a wider choice of services, including services provided by private hospitals and private-practicing physicians, and higher-grade services in public hospitals. Nevertheless, the people who opt out still have to pay the taxes that fund the public insurance or facilities.

This approach decentralizes the locus of decisionmaking and gives greater discretion to higher-income people who can and want to pay higher prices to have wider choices. The demand for expensive curative medical services by these privately insured people could dominate resource allocation and cause expenditures to rise. Many senior physicians limit the hours they will treat public patients so that they can devote more of their time to private patients whom they can charge higher fees. Over time, public hospitals deteriorate because of the lack of universal support. Eventually, health care becomes a two-tiered system burdened by rising operating costs because of inadequate market constraints on the private sector.

FREE CHOICE AND MARKET COMPETITION. Yet another financing option is the free-market approach, the underlying principle of which is that consumer choice and market competi-

tion can best produce efficient health care and control its costs. This approach has been adopted by the United States. The U.S. government offers an income tax incentive for citizens to choose health insurance through their place of employment.<sup>1</sup> It then tries to fill in the gaps left by employment-based insurance through public programs. A public insurance program, Medicare, was introduced in 1966 to cover the elderly population. In addition, about half of low-income people are covered through an income-tested program, Medicaid, which is jointly financed by the federal and state governments but managed by the states. In spite of these "gap fillings," at the time of writing 12 percent (33 million) of Americans are not covered by insurance. This uncovered population includes employees of small firms, workers in low-wage industries, part-time workers, workers between jobs, and their dependents.

Under the free choice and market competition approach, the locus of decisionmaking remains with the consumer. According to its advocates, this pluralistic approach to financing means that the private insurance plans have to compete for the consumer's dollar and therefore will seek the financing and delivery arrangements that best meet consumers' preferences. Consumer demand will force insurance plans and health maintenance organizations to compete on price. The insurance plans, in turn, will pressure providers into delivering the highest quality of care at the minimum cost (Enthoven and Kronick 1989). This theory, however, has not been borne out by experience since health expenditures in the United States have risen steadily over the past decade.

Several factors may impede this expected market competition. First, adverse selection by the consumer makes it difficult to establish effective competition among insurance plans. Second, physicians dominate medical affairs on the supply side, with the result that power on the demand side becomes diffused, among the many insurance plans and consumers there. When one type of insurance plan (such as managed care) is effective in controlling the costs paid by the plan, the providers just pass the increased cost on to other types of insurance plans.

### **An Assessment of Alternative Systems of Financing, Payment, and Delivery Organization**

The performance of the systems outlined in the preceding section are assessed in table 2-2. The assessment is based on six criteria that represent common goals that nations throughout the world have set for their health care systems: universal coverage, equal access, control of expenditures, efficient use of resources, equity in financing, and consumer choice.

The assessment of how the different financing methods influence the achievement of policy goals is imprecise, because at present there are no unequivocal and consistent measurements available. Therefore, the ordinal scores shown in table 2-2 should be considered suggestive only. The usefulness of the matrix is to point to the relevance of the nature of financing methods to the attainment of given policy goals. [This paragraph was added by the editors to clarify table 2-2.]

#### *Universal coverage*

A primary goal of a developed nation's health care system is to provide every citizen with coverage or to make basic health care universally available. The experience of the United States illustrates that universal coverage cannot be achieved through a free market alone. Price competition in an insurance market, along with adverse selection, drives insurance firms to insure the most healthy people. Most of the elderly, disabled, and sick are left

Table 2-2. Assessment of Alternative Methods of Financing, Payment, and Delivery Organization in Affluent Nations

<i>Method of financing</i>	<i>Equity</i>			<i>Cost control</i>	<i>Efficient use of resources</i>	<i>Consumer choice</i>
	<i>Universal coverage</i>	<i>Equal access</i>	<i>Equity in financing</i>			
<i>General tax</i>						
Central government, direct provisions (e.g., United Kingdom)	Yes	High	Progressive	Strong (supply)	Moderate	Low
Regional government, indirect provision (e.g., Canada)	Yes	High	Progressive	Strong (supply)	High	High
Local government, direct provision (e.g., Sweden)	Yes	Moderate	Progressive	Strong (supply)	High	Moderate
<i>Social insurance</i>						
Government, direct provision (e.g., Spain)	Yes	High	Mildly regressive	Strong (supply)	Moderate	Low
Mandated insurance with global budget (e.g., Germany, Japan)	Yes	Moderate/high	Regressive	Strong (supply)	Moderate	High
Mandated insurance without global budget (e.g., Republic of Korea)	Yes	Moderate	Regressive	Weak (demand)	Low	High
<i>Pluralistic</i>						
Universal provision by public hospitals with private insurance "opt-out" (e.g., Australia, Singapore)	Yes	Moderate	Mildly progressive	Weak (demand)	Low	High
Free choice and market competition (e.g., United States)	No	Low	Regressive	Weak (demand)	Low	High

Source: Compiled by the author.

uncovered. At the same time, young adults and healthy people may not want to purchase insurance. If they do, they want their risks to be pooled separately so that they can pay the lowest premium. Furthermore, the poor cannot afford the insurance costs. The result of these market forces leaves a large portion of the population uninsured.

Affluent nations have learned that universal coverage can only be attained through some type of compulsory program. The government can use a general tax or government-run social insurance to cover everyone, or it can mandate that all citizens should enroll in a public or private insurance plan and provide subsidies for the poor and high-risk populations such as the elderly and disabled.

### *Equal Access*

Universal coverage does not ensure reasonably equal access to health care by all citizens. Equal access can only be achieved through a fairly even distribution of health facilities and health professionals across regions. The availability of health facilities depends on two factors: capital investments and the payment policy for recurrent costs and for physician services. Both factors are influenced by the locus of financial power. Market competition draws the resources to those who can pay more. Since income is not evenly distributed across communities, supply is uneven. In most nations with financing based on self-pay or pluralistic financing, the number of physicians and hospital beds per 100,000 people can differ as much as four- or fivefold between rich and poor communities.

In contrast, general tax and social insurance financing places decisionmaking in the hands of a government agency. The political process usually produces a more even distribution of capital investments across regions.

The distribution of health professionals and capital investments is also affected by payment policy. Physicians have a natural tendency to gravitate toward medical centers located in cities. If more favorable payment rates are given to urban medical services, there is a further concentration of hospitals, physicians, dentists, and nurses in cities.

### *Controlling Health Expenditures*

During the past few decades, health expenditures in most nations have been rising at a faster rate than the per capita income. As governments and consumers find health expenditure taking a larger share of their income, they look for ways to control the rate of increase.

One option is to constrain the supply side. Countries such as the United Kingdom and Sweden, which use general tax financing along with direct provision of services, have successfully constrained inflation in the area of health care through the governmental budget process, where health care has to compete with other public programs. Another supply-side approach, if services are provided indirectly, is to allow the payment system to moderate inflation. Affluent nations have found two such measures to be effective: a prospective global budget and incentive structure. Without a global budget with payments made through a single channel, the financing system gives providers full control over price and volume. In addition, the system of payment system can be used to control the incentive structure of providers and thereby keep expenditures down. Hospital payment based on a per day basis, for example, encourages longer length of stay, whereas payment based on diagnosis-related groups (DRGs) induces hospitals to discharge patients earlier. Higher payment rates for primary care services encourages physicians to supply those rather than more expensive services.

Some nations employ a demand-side strategy to try to constrain inflation in the health care field. The United States, Korea, and Singapore have adopted this approach. Korea

established a very high rate of cost-sharing by patients (De Geynt 1991). The United States developed a more sophisticated competitive strategy known as managed competition, attributable in large part to Alain Enthoven. Under this scheme, consumers can choose between competing insurance plans and health maintenance organizations (HMOs). At the same time, cost sharing for the consumer is increased. The strategy chosen by Singapore was to have employers and employees contribute to an individual saving fund for each employee. This savings fund, known as the Medisave plan, can only be used to pay for medical services. Any unused balance can be bequeathed to the individual's survivors. At the time of obtaining a health service, the consumer pays 100 percent of the cost of health care by drawing on his or her Medisave fund. The empirical evidence to date suggests that the demand-side strategies do not seem to have been effective in constraining the increases in health expenditures.

### *Efficient Use of Resources*

The extent to which resources are used efficiently depends on three factors: resource allocation, technology diffusion, and administrative efficiency.

Resources may be allocated among prevention, primary care, and curative medicine. The effectiveness of prevention and primary care as measured by cost-benefit ratios has long been documented. Consumers, however, have not demonstrated a strong willingness to pay for prevention and primary care in comparison with curative medicine. Perhaps this is because a sick person knows for certain that he or she will personally benefit from health care and thus has a strong incentive to pay for relief from suffering. Moreover, prevention and primary care do not necessarily produce immediate benefits. These services tend to reduce the probability that a person will become ill in the future or that a minor illness will become a serious one, rather than relieving immediate suffering or remedying life-threatening conditions.

The resource problem created by many new technologies is that they are adopted before their benefits are clearly demonstrated. Hospitals rush to install them in order to attract consumers, whose lack of medical knowledge usually leads them to choose the provider that offers the latest and most dazzling technology. Hospitals and physicians also want sophisticated technology for prestige and profit. Unless capital outlays are carefully planned, equipment and facilities may proliferate, with considerable duplication and waste.

In the area of administrative efficiency, the pluralistic or free-choice approach incurs higher administrative costs than other financing strategies. Hospitals and clinics must prepare information and submit claims to insurance plans that have different requirements. Meanwhile, the insurance companies have to review the claims, monitor utilization, and pay for services, as well as market their product.

Equally important, the pluralistic or free-choice method of financing cannot exert sufficient market pressure to ensure that hospitals and clinics are managed efficiently. The strategy of directly providing services in public hospitals and clinics has not proved any better, however, in large part because of political patronage and bureaucratic inefficiency. The administration of public institutions in many nations seems to be less efficient than that of private hospitals and clinics. A financing system that provides services indirectly while controlling health expenditures through a global budget seems to be capable of imposing fiscal discipline on the total system without bureaucratizing hospitals and clinics.

### *Equity in Financing*

Progressivity is a fundamental equity principle in financing. For any compulsory social program, the amount that people pay in taxes should be proportional to their ability to pay.



Income tax rates are usually set to rise as a person's taxable income increases, so general tax financing is a progressive tool. Social insurance is usually financed from a payroll tax with a limit on the maximum amount of income subject to the tax, which makes it mildly regressive. Employment-based private insurance (as in the United States) charges high- or low-paid employees the same amount, regardless of their income. Thus it is regressive.

Another equity consideration in health care financing is risk pooling. In an insurance plan, the healthy members subsidize the cost of the less healthy members. General tax financing plans or public social insurance plans pool the risks of all the people in a region or a nation. Mandated social insurance plans pool the risk of smaller population groups, such as occupational groups. Employment-based private plans are the least equitable, because persons who can be employed full-time tend to be the healthiest members of the population, rather than the disabled or the elderly. Therefore those people with a high health risk are not pooled and are excluded.

### *Consumer Choice*

Consumers make choices regarding three kinds of care providers: primary care physicians, medical specialists, and hospitals. Nations that provide services directly usually allow consumers a choice on primary care physicians but restrict the choice on hospitals and specialists. This is the case in the United Kingdom and Sweden.

Financing plans that provide services indirectly usually give consumers greater choice in selecting their hospitals and physicians. This is the case in Canada, Germany, Japan, and Korea. The greatest degree of consumer choice is offered under the pluralistic system of financing, as exemplified by the U.S. system. Consumers can freely choose primary care physicians, specialists, and hospitals according to their income and insurance coverage.

### **Lessons from the Assessment and Implications for Developing Countries**

Although developing countries may not necessarily find solutions to their specific problems in the experience of affluent nations, that experience can help them avoid mistakes. Most notably, it shows that some types of health care systems are more successful in achieving some health care policy goals than others.

### *Important Lessons*

Affluent nations have learned that health care differs from normal private goods and commodities. In order to provide social protection for their citizens and to promote solidarity among their peoples, all affluent nations have organized the financing for health care into explicit systems. Such action changed the usual bilateral exchange relationship between consumers and providers into a trilateral relationship. In this trilateral model, the government must decide the locus of financial decisionmaking, which will influence the allocation and use of resources.

Another significant lesson is that the financing of health care cannot be treated in isolation from the organization of payment and delivery. These aspects of health care must be integrated if a nation is to achieve universal and equal access to health care, control health expenditures, and ensure efficient use of resources.

Affluent nations have tried two major approaches to attain their goals: demand-side and supply-side strategies. Demand-side strategies rely on market competition and consumer choice to achieve efficiency. Here, the locus of decisionmaking lies with the consumer, who is allowed to choose both the health insurance and health services. But a demand-side strategy cannot produce universal coverage or equal access to health care without strong

government regulation, nor is it effective in controlling health expenditures or promoting efficient use of resources. In the United States, Korea, and Singapore—three nations that have tried to control health care costs through demand-side strategy—the rates of increase in expenditure have continued or even accelerated. Under a free market, facilities and equipment may be widely duplicated, and new medical technology proliferates before it is even proven.

Most affluent nations have employed a supply-side strategy to achieve their national goals. They have relied on either general tax financing or compulsory social insurance to achieve universal coverage and more equal access to health care for their citizens. In this way, they have also been able to exercise greater control over increases in health expenditure, either through the budgetary process or through a global budget for health care established through negotiations between the financiers and providers.

Nations with universal coverage provide services either directly or indirectly. In the former system, patients have less choice as to provider, and the health care system frequently develops bureaucratic features. The method of indirect provision seems to offer patients more freedom of choice and fewer bureaucratic problems.

In conclusion, *developing countries can learn that controlling health expenditures while providing universal coverage and equal access to health care has not been achieved through market mechanisms in the more affluent countries.* The locus of decisionmaking must be centralized to some central or regional authority that can conduct bilateral negotiations with providers to set an effective global budget. Coverage must be made compulsory to ensure universal coverage, and the government must take a strong lead in capital and manpower distribution and payment policy in order to even out the distribution of services. Finally, the indirect provision of services seems to offer more efficiency and greater consumer choice of provider.

### *Implications for Current Health Financing Problems in Developing Countries*

The most urgent problem for developing countries is that their governments lack the funds needed to finance health services expected by their citizens. Hospitals and health stations need to be built, qualified health personnel need to be trained, and imported equipment, drugs, and supplies need to be paid for with foreign exchange. Few developing countries would be able to allocate enough general taxes to finance the expansion and improvement of health care.

The financing problem is not without a solution, however. To begin with, it can be divided into two parts: into its urban and rural components. A balanced and parallel development strategy could be used to mobilize financial resources for each.

In the urban sector, industrialization is expanding and workers' real incomes are rising. Here the government can organize a social insurance program to cover workers employed by large firms, or it can rely on private insurance or staff-model HMOs. Either option will make it possible to mobilize more funds for health care. Efforts in the urban sector will create a greater imbalance between urban and rural areas, however, because health care will follow "the money." The government must offset this effect by offering technical and managerial support for the rural communities, to enable them to develop their own system of financing in accordance with local conditions. At the same time, the government should allocate resources to fund cost-effective prevention and primary care programs. Health care for the urban poor also has to rely on government financing.

Another problem for developing countries is that they lack the information and managerial infrastructure required to establish and manage insurance plans or community financing. It is particularly difficult to develop insurance plans when hospitals and clinics do not have a uniform system of cost accounting and clinical records. If claim payments for services

rendered cannot be verified and reasonable costs ascertained, fraud and abuse will become prevalent.

The solutions to these problems are clear. First, developing nations need to transfer knowledge from abroad in the fields of insurance, community financing, cost accounting systems, and clinical recordkeeping. They should seek foreign aid and technical assistance from world organizations and affluent countries to build the base of knowledge required to develop insurance schemes or community financing.

If a nation decides to follow a supply-side strategy, knowledge must be acquired and specialists trained in global budget systems, capital planning, technology assessment, payment structure, and rate setting. Nations throughout the world—affluent and developing—all have to decide on the objectives of their health care system. Financing strategy is merely a means of achieving these objectives. Affluent nations have tried various financing options and their experiences offer valuable lessons. Each developing country can evaluate the strengths and weaknesses of each option and select the best one for its purpose and its particular circumstances. If a nation does not make a decision on health care financing, that in itself is a decision. A nondecision leaves health care financing and delivery to consumer choice and the free market, and the consequences of such a decision are clear.

## Notes

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1. The health insurance premiums paid by employers for their employees' health insurance are not subject to income tax to employees. The U.S. Treasury estimated that in 1989 the government lost \$43 billion in tax revenues it otherwise would have collected. This tax credit approach can be extended to produce universal coverage by giving the poor and near-poor population vouchers, financed by the Treasury, so they also can choose an insurance plan.

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# Part II

## Country Case Studies



# 3

## *The Japanese Health Care System: A Stepwise Approach to Universal Coverage*

*Naoki Ikegami and Toshihiko Hasegawa*

In 1926 Japan became the first non-Western country to introduce social insurance and in 1961 to achieve universal coverage. It therefore offers the developing nations a model of how Western health care technologies and systems might be adapted to their circumstances.

Japan's eclectic approach has been highly successful: Japan has one of the lowest infant mortality rates in the world and the longest life expectancy rate, yet the proportion of GDP devoted to health has remained at about 6.6 percent (Kousei Tokei Kyoukai 1989). At present, the health care system is facing a new challenge. The factors that contributed to its success—rapid expansion through heavy reliance on the private sector; emphasis on acute illness, especially among workers; the rapid adoption of new technologies through the hierarchically structured medical profession; and equity in the provision of services—have created an increasing demand for services among the rapidly growing elderly population and for higher-quality care among the increasingly affluent public.

Japan is a constitutional monarchy of 122 million persons. Because nearly two-thirds of the land (377,719 square kilometers) is mountainous forests, most of its people live in the urban megalopolis stretching from Tokyo through Osaka to northern Kyushu. The country is divided into 47 prefectures and 3,268 municipalities, whose leading officials are elected by direct ballot. Despite the extensive system of local government, the country's policymaking process is highly centralized. This characteristic, together with Japan's ethnic homogeneity, has made its society extremely cohesive. It also enjoys one of the world's highest per capita incomes, as a result of sustained economic growth since the end of World War II.

This chapter examines the policy options available to developing nations in the light of Japan's experience with delivering and financing health care. It covers both the history and present structure of Japan's system, with special attention to its approach to payment and its strengths and weaknesses.

### **Historical Background**

The history of health care in Japan can be divided into two periods: the indigenous period, from early times to the late nineteenth century; and the Western period that followed.

#### *The Indigenous System*

Little is known about Japan's original health practices. Purification rituals still widely performed in the native religion of Shintoism indicate a high regard for cleanliness and a

general fear of contamination. According to historical records, Japan adopted Chinese medical practices at the end of the fourth century and followed them until the latter half of the nineteenth century. Chinese medicine is based on a philosophy of balance (between the opposites Yin and Yang) and harmony (between five elements in the body resembling the Medieval and Renaissance concept of the humors in the West). This holistic approach to health care is still reflected in the preference for noninvasive procedures; the dispensing of medicine forms a large part of the practitioner's services. These traditions have provided the infrastructure for the development of Japan's health care system and have contributed to its distinctive characteristics.

Japan's emphasis on social welfare can also be traced to China, where the family was the center of the social order and caring for the elderly and infirm was the prescribed duty of the head of the family. Although this system never developed to the extent that it did in China, family care is still the cornerstone of social welfare in Japan. The selfless practice of charity is a Christian concept quite foreign to the ethical duties emphasized in Confucianism and the granting of mundane wishes characteristic of popular Buddhist and Shinto beliefs. This difference may have been the main reason that Japan did not introduce institutional care for the indigent and ill until it came under the influence of the West in the late nineteenth century (Sakai 1982).

Instead, medical care was administered on an ambulatory basis. By the middle of the eighteenth century, medical practitioners were well-recognized members of society, most of whom followed the Chinese school. A few, however, practiced Western medicine, which had been introduced by the Portuguese in the sixteenth century and later continued by the Dutch. Guilds restricting entry into the profession did not exist, and practitioners were free to open practices wherever they wished. By the time of the first national census in 1871, about 87 of every 100,000 people declared medical practice as their occupation, and practitioners could be found even in remote villages (Fuse 1979).

Although the system relied more or less on competitive market principles, the commercial element in medical care was officially played down. Payment was euphemistically made for only the medication dispensed by the practitioner; the technical skills were provided without charge as a humane service (Ikegami 1989a). Under the prevailing honorarium system, practitioners did not bill their patients but were paid what moral obligation dictated. The payment was usually made in the middle or at the end of the year, when accounts were settled. In theory, the rich paid munificently, to cover the services provided to the indigent.

### *The Change to the Western System*

After 1868 the government attempted to westernize all aspects of Japanese society. Under this policy, Western medicine, which had earlier been restricted to surgery and gynecology, eclipsed traditional Chinese medicine. From 1883 on, only those who had studied Western medicine—the German school was chosen as the model—were able to obtain a medical license. During the transitional period, however, existing practitioners and their sons were granted a license without being obliged to take any examinations. This ensured that health care would continue to be delivered in the rural areas and to the urban poor, since the fully qualified physician was initially available mainly to the rich. The old method of dispensing drugs and herbal medicine and the honorarium payment continued until the twentieth century. The extent to which the practitioners declined to demand payment is not known.

Gradually, the hierarchy among practitioners was restructured on the basis of their educational qualifications. At the pinnacle were the graduates of Tokyo University, who provided the faculty of the other medical schools and filled the key positions in the public



hospitals. For the most part, health care, as well as the education of physicians, was left to the private sector. The main function of public hospitals was to provide teaching facilities, care for the military, and a place to control communicable and venereal diseases. They came to be regarded as centers of excellence with no stigma of charity and were patronized by the rich. Most graduates of private medical schools went into private practice, since they were usually denied access to academic careers and positions in prestigious hospitals. Thus the pattern was set: physicians in the small public sector held the leading positions in the academic and clinical fields; those in the larger private sector had less prestigious jobs. In both sectors, the nursing of patients, including the provision of bedding and food, remained a family responsibility, even when the patient was hospitalized. Since hospitals did not feel constrained by the honorarium method of payment, they initiated the Western practice of requesting payment immediately after the delivery of a service, and based the fee on a predetermined schedule.

### *The Emergence of Social Insurance*

The early advocates of social insurance were those who believed the government needed to play a greater role in social welfare to counteract the socialist movement that had accompanied industrialization. Following an assassination attempt on the emperor in 1910, a charity endowment under imperial patronage was established to provide medical care for the indigent. After some initial success, this effort petered out because of a shortage of funds. Industrialists argued that what was really needed was not charity to save those who were already poor, but more positive measures to break the vicious circle of illness that led to poverty. They also had more practical concerns about the need to maintain a healthy and productive work force.

They could rely on two models to address this problem. On the provider side were the *Jippi Shinryoujyo* (cost-price clinics), so named because they usually charged a half or a third of the rates of private practitioners. These clinics were started by Umeshiro Suzuki, the manager of a pulp factory. In 1911, Suzuki decided to open the company clinic to local residents, and this experience led him to establish other such clinics, which became extremely popular despite the virulent opposition of the medical profession (Souda 1989). On the financing side, there were the mutual aid associations introduced at the beginning of this century. They were based on the German social insurance model, except that they were operated as individual enterprises by managers as one aspect of their paternalistic management. At first, their benefits were restricted to occupational injuries, but they were expanded later to include general medical care.

These two models formed the basis of the social insurance system that emerged in 1926. Fees were set at a level 20 percent below the customary charges and covered only manual workers in large corporations, that is, enterprises having more than 300 employees. Benefits centered on the ambulatory treatment of acute illness and injuries. Treatment was delivered largely by private practitioners in the community (Saguchi 1982) and was financed through insurance societies individually organized by the enterprises. Although only about two million workers were initially enrolled, the introduction of social insurance was a remarkable achievement because none of the interested parties were particularly enthusiastic: managers feared malingering workers would become a problem; workers did not like having to pay for half of the premiums, especially since they had to shoulder half the cost for occupational injuries as well; and physicians objected to the low fees (Powell and Anezaki 1990). That it did succeed may be attributed to the need for a healthy work force and the fear of the socialist movement among both the general public and the political establishment.

Although the rank and file of the medical profession were opposed the idea, the chairman of the Japan Medical Association sought to reconcile its members to the program and actually drew up the original fee schedule. This was based on a scale of relative values, with the actual monetary value of each point to be calculated from the global budget presented to each local medical association. Few physicians fully comprehended what the consequences of this new financing mechanism would be. Most became resigned to the reduction in fees because they believed it applied only to the poorer patients and would be offset by the expected decline in uncompensated care (a 20 percent reduction was calculated on the basis of the bad-debts ratio). As the number covered by social insurance increased, however, the fee schedule came to be applied to a larger percentage of the population. Moreover, the fees turned out to be lower than the originally planned markdown of 20 percent because high volume drove the monetary value of the fee down (as it did in the modern German system) (Fuse 1979).

In 1935 social insurance for health care was extended to all manual workers belonging to enterprises employing five or more persons. In 1940, the coverage was extended to the workers' dependents, who also had to pay half the costs of their coverage. A similar scheme for white-collar workers was introduced at this time.

### *Health Coverage for the Rural Population*

It was especially difficult to provide health care in rural areas, where delivery was as much a problem as financing. Rural areas had not benefited from industrialization and their situation grew even more dire when the Great Depression caused farm produce prices to cave in and also brought unemployed urban workers back to the country. An added problem was that fewer physicians were willing to practice in rural areas. Traditional practitioners in the rural areas who had been granted licenses under a grandfather clause in the new program had dwindled in number, and as they retired or died they were not replaced by those who had completed the formal requirements under the new system. The number of rural towns and villages without any physicians increased from 1,960 in 1923 to 3,243 in 1936; they represented 33 percent of all towns and villages at that time.

There appeared to be two workable options. One was to give direct responsibility for delivering health care to community agricultural cooperative societies, the first of which had been established in 1919. They financed the capital and operating expenses of clinics and hospitals in their respective areas through voluntary contributions from all households. By the end of 1936, a total of 738 such societies were providing services to half a million people; they had 2,791 beds and employed a total of 461 physicians. The other option was to rely on mutual aid organizations, which had an even longer history. They contracted with the local physicians to care for their members at a predetermined remuneration, which was some form of payment in kind (usually rice) made on a yearly basis.

The national health insurance system introduced in 1938 had its roots in these two organizations. Thus it was patterned after them primarily in the form of "ordinary associations" organized and administered at the lowest level of local government. As soon as such an association covered more than two-thirds of eligible residents, the prefectural governor could order all other residents to join it. Another form it sometimes took was that of "special associations" organized by members of the same trade who were self-employed (such as barbers). In both cases, the household was the unit insured, which meant that any dependents were covered. National health insurance differed from employee-based insurance in that each insurer was free to set the benefit package, the method of contracting with

providers, and the premium level. In most cases, it included services by the public health nurses who proved to be very energetic in the drive to improve health standards. Co-payment rates varied but were usually half of the charges. National health insurance was also available to self-employed workers in urban areas, but it proved more successful in rural areas, where community support was far easier to gain (Higuchi 1974).

### *World War II and the Postwar Period*

World War II and the war in China that preceded it greatly hastened the development of social insurance in Japan, in part because of the army's concern about the poor health of the draftees. It was largely through the army's efforts that the Ministry of Health and Welfare was established in 1938. One of its more successful programs was to promote the use of maternal and child care booklets containing personal health records. These booklets were issued to every expectant mother. Because of the lack of resources, however, the hasty and mandatory measures taken by the national health insurance program to increase the population covered backfired. Thus after the numbers enrolled initially increased, from 523,223 in 1938 to a peak of 41.8 million in 1946, they fell to 23.1 million in 1952 and did not recover until 1960 (Higuchi 1974).

Major reforms were carried out by the allied forces during the period of occupation from 1945 to 1951. Article 25 of the new constitution adopted in 1947 stipulates that the government is responsible for providing an adequate minimum amount to help all Japanese realize a healthy and culturally enriching life. This formed the basis for Japan's public assistance programs. Medical schools that were below standard were either closed or upgraded. Under the Medical Service Law of 1948, hospitals were reorganized so that some basic nursing, nutrition, and sanitation standards could be imposed. The primary responsibility for providing nursing care during hospitalization moved from the family to the nurse. Despite some success, the fundamental structure of the Japanese health care system has remained remarkably resistant to change.

Several aspects of the Japanese system as it has evolved in recent years could be of considerable interest to developing nations. The first is the central government's subsidy to national health insurance. Initially, it was discretionally based on general budgetary limits. But in 1955 it became open-ended and was legislated so that subsidies amounted to 20 percent of the cost of medical care, one-third of the cost of public health nurses, and all administrative costs. This paved the way for universal health insurance in 1961, when the last remaining communities without national health insurance finally established their plans. The subsidies have been increased to keep up with the expansion of benefits, which has included a decrease in the co-payment rate in 1968 (from 50 percent to 30 percent), the reimbursement of any co-payment exceeding a monthly total of ¥30,000, and the establishment of free medical care for the elderly (1973).<sup>1</sup> The ratio of the national government's subsidies has since been increased to 50 percent. Even when subsidies were provided according to a fixed ratio, the government exercised some leverage; the subsidies were decreased if the rate of contribution in a particular community was low. In recent years, communities having high medical expenditures have become the subject of a special inquiry.

Another interesting feature of Japan's system is its uniform fee schedule. Up to World War II, national negotiations determined only the relative value of points on the fee scale, and the actual fees were set through the global budget presented to the local medical association. After intensive lobbying by the Japanese Medical Association, which included

tactics such as a “doctors’ strike,” legislation in 1958 made fees nationally uniform for all health plans without any budgeted global limits. Henceforth, the payment of medical services would have to follow the fees centrally negotiated for the employees’ social insurance. The legislation also stipulated that separate accounts had to be maintained according to the insurance budget and the health facilities’ budget, and this made it difficult to integrate the financing and delivery systems. On the positive side, this arrangement made it possible to pay all providers the same amount irrespective of the insurance scheme. On the negative side, it created rigid requirements for meeting local conditions (Higuchi 1979).

Cost containment has recently become the overriding concern of Japan’s system. This aspect of the system is discussed later under the section on the health financing system.

### *Old Features and Current Characteristics*

The foregoing discussion demonstrates a fairly smooth transition to universal coverage without a radical transformation of the system. This was possible in part because the Japanese, with the recent exception of the elderly, have never expected medical care to be provided free of charge. Public assistance or charity has never played a significant role in their lives. It was because people disliked being under an obligation to physicians that the honorarium method of payment became the norm and made the cost-price clinics so popular. Also, the shift to Western medicine in the latter half of the nineteenth century made allowances for the traditional practitioners of the time by granting them licenses under a grandfather clause in the new program. Third, the social insurance system with its accompanying controlling mechanism and the infrastructure for economic growth were established in the 1950s before the advent of the massive explosion in high-cost medical technology.

It should be emphasized that the primary goal of Japan’s health care policy was not to immediately establish an equitable health delivery system, but to see that some kind of health service was provided at an affordable price. The system was essentially designed after older institutions that had evolved more by accident than by design. Retrospectively, it was quite logical to rely largely on an employee-based insurance scheme for an urban setting and a community-based scheme for a rural setting. Local autonomy in defining the benefits and payment mechanism was found to be particularly important for the latter. These two schemes were unified under a uniform fee schedule in 1958 as a result of lobbying by physicians.

### **The Delivery System**

The government has traditionally taken a *laissez-faire* attitude toward the delivery system. The notion that physicians should have the freedom to open their own practices and that patients should be able to choose a clinic or hospital is deeply ingrained. Since most hospitals in Japan began as physicians’ clinics, nearly all of them maintain a large outpatient department. Each hospital employs its own physicians; those working in clinics generally have no access to hospital facilities. As a consequence, care remains largely fragmented. Each institution basically competes for its market share by offering as attractive a range of services as possible. There is some overlap in the function of hospitals (which are defined as medical facilities with more than twenty beds) and clinics (those with fewer than twenty beds). Some 32 percent of the clinics have beds, and they hospitalize 9 percent of the total number of inpatients. One-third of outpatient visits are made to hospitals (MHW 1989a).

**Table 3-1. Regional Differences in Medical Facilities and Personnel, 1987**  
(per 1,000 population)

<i>Facility/personnel</i>	<i>National mean</i>	<i>Highest prefecture</i>	<i>Lowest prefecture</i>
Hospitals	0.08	0.19	0.05
Psychiatric	0.01	0.02	0.01
General	0.07	0.17	0.04
Hospital beds	12.94	26.05	8.57
Psychiatric	2.84	5.67	1.59
General	9.50	19.82	6.41
Clinics	0.64	0.91	0.40
Dental clinics	0.39	0.68	0.29
Physicians <sup>a</sup>	1.57	2.16	0.97
Dentists <sup>a</sup>	0.55	0.94	0.33
Pharmacists <sup>a</sup>	1.12	1.80	0.66
Nurses <sup>b</sup>	3.04	4.70	1.52
Practical nurses <sup>b</sup>	2.62	5.36	1.40

a. 1986.

b. 1988.

Source: Medical Care Facilities Survey, Japan, tables 26, 30, 52, 113; Survey of Physician, Dentists, and Pharmacists, Japan, tables 20, 38; Report of Health Administration, Japan, table 155.

### *Private Sector Dominance*

Between 1960 and 1987 the private sector increased its share of hospitals from 66.8 percent to 80.6 percent of the total number and its share of hospital beds from 42 percent to 66 percent. Also by 1987, most clinics were in the private sector: the proportion had reached 93.5 percent for medical clinics and 99.3 percent for dental clinics. In Japan, "private" usually means an organization owned and managed by a physician, whereas "public" includes such quasi-public organizations as the Red Cross. In either case, the directors are all physicians and have the ultimate responsibility for clinical and administrative matters. The Medical Service Act of 1947 continued to restrict investor-owned health care organizations and constrained vertical integration.

This private sector dominance explains the large number of facilities, their small size, and the regional differences in their distribution (see table 3-1). Not counting clinic beds, there are 12.9 hospital beds per 1,000 population, one of the highest such ratios in the world. In 1960 there were 9.1 hospital beds per 1,000 population. Prefectures differ greatly in the availability of resources per capita. The number of clinics, physicians, dentists, and pharmacists tends to be higher in Tokyo and Osaka, but there are more hospital beds and nurses in the outlying regions of Hokkaido (the north) and the west (MHW 1988, 1989a, 1989b).

Health legislation was enacted in 1985 to remedy these inequities. Prefectural governors became responsible for setting a ceiling on the number of hospital beds in each service area. The trouble was that many hospitals had hurriedly opened or expanded before the formal enactment of the bed ceiling in each prefecture. A more fundamental problem is that no funds have been made available for restructuring the delivery system and thus it is difficult to meet increased needs within the existing bed quota. The planning approach in this case obviously seems to be incompatible with a delivery system dominated by the private sector.

**Table 3-2. Number of Personnel per 100 Beds in General Hospitals According to Ownership, 1987**

<i>Personnel</i>	<i>Total average</i> ( <i>n</i> = 8,749)	<i>Ministry of Health and Welfare</i>			
		<i>Welfare hospitals</i> ( <i>n</i> = 239)	<i>Private hospitals</i> ( <i>n</i> = 3,088)	<i>Prefectural hospitals</i> ( <i>n</i> = 3,088)	<i>Teaching hospitals</i> ( <i>n</i> = 168)
Total	84.6	66.9	71.6	99.4	145.8
Physicians	9.8	6.3	6.8	12.4	40.4
Dentists	0.6	0.1	0.1	0.4	6.4
Pharmacists	2.2	1.2	2.1	2.4	3.3
Midwives	1.1	0.9	0.3	2.2	1.9
Nurses	21.9	25.8	8.0	42.9	44.8
Practical nurses	14.5	7.0	19.4	8.6	5.8
Nurse aides	7.1	5.2	9.0	2.2	6.5
Allied health personnel	9.5	5.9	7.3	11.4	14.9
Administrative staff	9.4	6.1	9.2	7.9	14.2
Others	8.7	8.3	9.5	9.1	7.6
Bed occupancy rate (percent)	(82.4)	(76.0)	(81.6)	(80.0)	(81.7)

*Source:* Medical Care Facilities Survey, Japan, table 106; Report from Hospitals, Japan, table 34.

### *Low Staffing Ratios*

As of 1987, the staffing ratio of Japanese hospitals was one-half to one-quarter of that of other OECD countries (OECD 1987). This figure has increased in recent years. The total number of personnel per 100 beds in general hospitals is still only 84.6; about half of that number are nursing staff (see table 3-2). The number of physicians is 9.8 (including 2.0 full-time equivalents being part-time physicians); allied health personnel 9.5, and administrative staff 9.4. There has been a continuing debate over whether the staffing level is low because of insufficient funding, as providers maintain, or because the intensity of care does not warrant it, as the insurers argue. It should also be noted that where the patient requires a great deal of nursing care, the family or the nurse's aide hired by the family makes a significant contribution.

The staffing ratio varies widely, depending on ownership, and does not necessarily reflect the intensity of care. Ministry of Health and Welfare hospitals have the lowest staffing ratio, at 66.9 per 100 hospital beds. Private hospitals have the second lowest, at 71.6, and most of the nursing staff are practical nurses. Prefectural hospitals have one of the highest ratios, at 99.4. Teaching hospitals, irrespective of ownership, have the highest staffing ratio, at 145.8, but even in those hospitals the nursing ratio is only slightly more than one nurse for every two beds.

The total number of personnel per clinic is 6.7 for all clinics and 5.1 for clinics without beds. There are 1.2 physicians per clinic because most clinics are solo practices. Pharmaceuticals are usually dispensed by physicians or their assistants, since very few pharmacists are employed in the clinics. On average, clinics without beds have a small nursing staff, few of whom are fully qualified (MHW 1989a).

Table 3-3. Japan's Utilization Rates Compared with Those of the United States, 1987-86

<i>Form of utilization</i>	<i>Japan</i>	<i>United States</i>
Outpatient physician consultation (per capita)	14.2 (1978)	4.6 (1981)
Hospital admission rates (percentage of population) <sup>a</sup>	6.7 (1983)	17.0 (1981)
Average length of stay (days) general hospitals <sup>b</sup>	43.8 (1984)	Acute hospitals Nursing homes Total
		7.3 (1985) 401.0 20.4
Number of surgical operations (per 1,000 population) <sup>c</sup>	22.0 (1984)	91.0 (1986)

Note: Figures in parentheses show date of survey.

a. From OECD (1987), table 35, 30.

b. Based on Shimura (1989), table 10.

c. Calculated from Japan's 1984 Patient Survey and the U.S. 1986 AHA Survey.

### *High Ratio of Diagnostic Equipment*

Hospitals and clinics in Japan have a wide range of sophisticated medical equipment. In 1987, 30.7 percent of the hospitals had whole-body scanners (this figure is up from 15.1 percent in 1984), and 9.5 percent had head scanners. Some clinics also had scanners, so that the total number of head scanners throughout the country was 1,174, and whole-body scanners totaled 3,400. The number of nuclear magnetic resonance scanners was 119. Clinics also have a high ratio of ultrasonic imagers, gastric fiberoscopes, and electroencephalographs. About two-thirds of the clinics can perform diagnostic X rays and electrocardiograms. In contrast, only 18 percent of the hospitals have intensive care units and 5.8 percent have cardiac care units (MHW 1989a). The Japanese seem to have a preference for noninvasive diagnostic procedures because of their ties to traditional Chinese medicine, which are also shared by the domestic producers of equipment (Ikegami 1988).

### *Utilization Rates*

Japan's outpatient consultation rate is the highest in the world, three times that of the United States (OECD 1987). In contrast, hospital admission rates are only about a third of those in the United States (see table 3-3). Clearly, Japan places considerable emphasis on ambulatory care. Many hospitals in Japan function as nursing homes; thus the average length of stay for all general hospitals amounts to 43.8 days. When the average length of stay for acute hospitals (7.3 days) and nursing homes in the United States are combined, it is still only half that of Japanese general hospitals (Shimura 1989). Inpatient utilization rates may be lower in Japan because of the lower procedure rates. Extrapolating from a two-week national survey of discharged patients, there were an estimated 2.7 million operations per year in 1984 (22 per thousand population) (MHW 1986a). This rate is about one-quarter of the per capita rate of the United States, which has the highest rate of operations in the world (AHA 1987).

## The Financing System

In contrast to delivery, the government has always been active in the financing of the health care system because of its desire to maintain equity between insurance plans and to contain costs. The present system consists of three categories of insurance (see table 3-4).

First, there is insurance for employees and their dependents. It, in turn, can be divided into four types: government-managed health insurance for those employed in small companies (which covers 27.0 percent of the population); society-managed health insurance for those employed in large companies (which covers 24.7 percent); seamen's insurance (which covers 0.4 percent); and mutual aid associations for national and local government employees and for private school employees (which covers 9.8 percent).

The second system is for the self-employed, pensioners, and their dependents. It can be divided into ordinary national health insurance (NHI) with the municipal government acting as insurer (it covers 33.6 percent) and the NHI associations with members in the same trade such as physicians or barbers (these cover 3.0 percent). All Japanese, including the elderly, are members of either of these systems.

The third insurance system is actually a secondary insurance plan created by the Geriatric Health Act (GHA) in 1983. It pays for all health care expenditure incurred by those seventy and older; this group makes up 7.4 percent of the population (MHW 1989c). Services are mainly benefits in kind, with only the co-payment paid directly to the provider.

Under employee health insurance, the insured get medical benefits that represent 90 percent of their fees; their dependents' benefits are 80 and 70 percent, respectively for inpatient and outpatient services (table 3-5). Under the NHI system, coverage is 70 percent for both the household head and their dependents. There is a limit to the amount that has to be paid per month because a mechanism is in place to reimburse high-cost medical expenses. When the monthly co-payment exceeds ¥57,000, the balance is paid back to the patient. Those suffering from some chronic diseases are subjected to a lower ceiling.

The monthly premium for employees' health insurance schemes is based on a fixed share of income, averaging about 8 percent of the standard monthly salary. Employers and employees each pay an equal amount, but there is a limit to the required contribution. In society-managed health insurance, the employers tend to contribute a larger share. The government subsidizes 16.4 percent of the cost for the government-managed health insurance but pays only for the administrative expenses for the other employees' plans. Under the NHI plan, contributions are based on the individual's income and assets and averages ¥137,118 per household. The national government subsidizes about 50 percent of the benefit costs, in addition to which the municipal government pays any deficits out of its general expenditure budget. Under the GHA plan, which is for those over seventy, outpatient charges are ¥800 per month and inpatient charges ¥400 per day. These are financed from a central pool, to which the national government provides 30 percent, prefectural government 5 percent, and municipal government 5 percent; the rest is provided by insurers who contribute a sum inversely proportional to the ratio of those aged seventy and over to total members.

## *Health Care Expenditure*

The official estimates of health care expenditure in Japan are calculated from social insurance returns, which amount to 5.15 percent of the gross national product and 6.60 percent of the gross domestic product (Kousei Tokei Kyokai 1989). These estimates include the patients' co-payment but exclude preventive health outlays and grants to public hospitals and other health expenditures. The official estimate for 1984 was 6.29 percent of GDP. The



Table 3-4. Present Status of the Health Insurance Plans, 1989

<i>Plan</i>	<i>Category</i>	<i>Insurer</i>	<i>Number of insured persons including dependents (1,000 persons)</i>	<i>Percentage of total</i>
Employees' health insurance	Government-managed health insurance	National government	33,430	27.0
	Society-managed health insurance	1,814 health insurance societies	30,545	24.7
	Seamen's insurance	National government	506	0.4
	Mutual aid associations	27 MAAs (national) 54 MAAs (local) 1 MAAs (private schools)	12,147	9.8
Self-employed and pensioner health insurance	National health insurance	3,262 municipal governments	41,560	33.6
	NHI associations	167 associations	3,649	3.0
Geriatric health insurance		Municipal governments	8,975	7.4

Source: Outline of Health Insurance, *Shakai Hoken Junpo* 1669 (1989), p. 36.

Table 3-5. Insurance Benefits and Contributions, 1989

Plan	Category	Medical care benefit (%)		Share of total bills (%)	High-cost medical expenses	Insurance benefits (cash)	Insurance contribution	National government subsidy
		Insured	Dependent					
Employees' health insurance	Government-managed health insurance	90	Inpatient Outpatient	80 70	Patients maximum deductible ¥57,000 (¥31,800 for low-income persons)  Abatement for patients suffering from diseases requiring costly treatment (patient deductible is ¥10,000 for hemophiliacs and those suffering from chronic insufficiency of the kidneys requiring regular dialysis)	Injury and sickness allowance; maternity allowance; delivery expenses; etc.	8.3% of monthly income plus special insurance contribution of 1% for bonus income	16.4% of benefit costs
	Society-managed health insurance						8.137% (average for all societies)	¥7,750 million benefit cost
	Seamen's insurance						8.3%	¥2,700 million benefit costs as rate and fixed Administrative
Self-employed and pensioner health insurance	National health insurance NHI associations	70	70			Midwifery expenses; funeral allowances; etc. (optional)	Contribution based on individual income and assets; average per household, ¥137,118	50% of benefits 32-52% of benefit costs
							Contributions made according to relevant scheme	20% (local government; insurer 70%)
Geriatric health insurance		100% with co-payment of 800 per month for outpatients, 400 per day for inpatients (maximum two months)		Not applicable				

Source: Outline of Health Insurance, *Shakai Hoken Junpo* 1669 (1989), p. 36.

Table 3-6. Indices of Per Capita Income, Consumer Price Index, Health Care Expenditure, and Ratio of Health Care Expenditure to GNP and GDP, 1955–58

Year	Per capita income (1960 = 100)	CPI (1960 = 100)	Health care expenditure (1960 = 100)	Health care expenditure as percentage of GNP	Health care expenditure as percentage of GDP
1955	55	92	58	2.77	3.42
1960	100	100	100	2.46	3.03
1965	192	133	274	3.33	4.18
1970	414	175	610	3.32	4.09
1975	786	300	1,582	4.26	5.22
1980	1,210	412	2,926	4.89	6.01
1985	1,508	472	3,911	4.98	6.30
1986	1,563	473	4,168	5.10	6.45
1987	1,606	473	4,414	5.15	6.60

Source: 1989 *Trends in the Nation's Health, Japan*, p. 230.

health care expenditure index has risen over seventy-six times from 1955 to 1987, which amounts to more than twice the increase in per capita income (see table 3-6). This is reflected in its ratio to GNP, which has increased from 2.77 percent to 5.15 percent. Nevertheless, economic growth has helped to curtail the real elasticities of total health expenditure to GDP over the 1960–84 period to 1.4, which is below the mean of 1.6 for the OECD countries (OECD 1987).

### Source of Funds

Of the total health care expenditure under social insurance, just over half is funded by insurance contributions, a third by the government, and the rest by patient charges (see table 3-7). Under the government's expansionary fiscal policies of 1955–83, the proportion it contributed more than doubled, from 15.9 percent of the total to 36.4 percent. Insurance contributions also increased, from 45.5 percent to 55.6 percent. Patient charges, however, dropped sharply, from 38.7 percent to 11.1 percent, owing to a reduction in the co-payment for NHI subscribers (from the original 50 percent to 30 percent) and the concomitant increase in the central government's subsidy. In 1973, medical care for those over the age of seventy became free, and the co-payment ceiling on high-cost medical expenses was introduced.

After 1983, a major fiscal deficit forced the government to place more emphasis on cost containment. Since then, its contributions have decreased and patient charges have gone up slightly, largely as a result of the Geriatric Health Act of 1982, which introduced cross-subsidization among the insurance plans for the financing of geriatric care and a token co-payment by the elderly. Another cost-cutting measure, taken in 1984, reduced the 100 percent benefit for employees to 90 percent of the fee (Kousei Tokei Kyoukai 1989).

### Distribution

The expanded role of the hospitals in the delivery system is reflected in their increased share of the health care expenditure. Although the proportion devoted to general medical care (total minus dental care and drugs dispensed in the pharmacy from physicians' prescrip-

**Table 3-7. Change in the Composition of Sources of Funds, 1955–87**  
(percent)

Year	Government's contribution			Insurers' contribution		Total
	Central	Local	Total	contribution	Patient charges	
1955	11.6	4.2	15.9	45.5	38.7	100.00
1960	15.7	4.0	19.6	50.4	30.0	100.00
1965	22.1	3.9	25.9	53.5	20.6	100.00
1970	24.2	3.5	27.6	53.0	19.3	100.00
1975	28.9	4.6	33.5	53.5	13.0	100.00
1980	30.4	5.1	35.5	53.2	11.3	100.00
1981	30.3	5.1	35.4	53.5	11.1	100.00
1982	30.4	5.2	35.6	53.6	10.8	100.00
1983	30.6	5.7	36.4	52.5	11.1	100.00
1984	28.6	5.9	34.5	53.7	11.9	100.00
1985	26.6	6.8	33.4	54.3	11.3	100.00
1986	26.1	6.9	33.1	54.6	12.3	100.00
1987	24.9	6.7	31.6	55.6	12.7	100.00

Source: 1989 *Trends in the Nation's Health, Japan*, p. 231

tions) has remained fairly constant, at about 88 percent of the total health expenditure, that for hospital inpatient and outpatient care increased from 48.1 percent in 1962 to 58.9 percent in 1987 (table 3-8). In 1962, the proportion of the expenditure by hospitals on outpatient care was about half that of the clinics; by 1987, the difference had narrowed to 18.8 percent for hospitals against 25.5 percent for clinics. In general, the proportion for inpatient care has increased at the expense of outpatient care. In 1962 inpatient care constituted only 38.2 percent versus 49.4 percent for outpatient care; in 1987, their ratio was nearly equal, 43.2 percent versus 44.3 percent (Kousei Tokei Kyoukai 1989). This change is largely due to the increase in the hospitalization of the elderly.

### *Payment Mechanism*

Despite the various systems of financing, payment to the provider is based on a single fee schedule. Although providers essentially collect a fee for their service according to the number of procedures they have performed, the price of each is precisely spelled out in the nationally uniform itemized fee schedule, known as the point-fee system (one point equals ¥10). Only the services listed in the schedule can be charged to the patient and insurer. No allowance is made for professional expertise or the quality of care, and the payment is the same no matter who performs the service or where, as long as the provider is legally qualified (as a physician, nurse, or other allied health professional). Extra charges cannot be claimed, except for room charges and a very restricted range of specialized services. Thus, the individual provider is paid without consideration of cost or what the consumer is prepared to pay. The hospital's revenue is expected to pay not only for its operating expenses but also for capital investment. The private sector, in particular, has few other sources of revenue besides that paid by social insurance. This payment system has been of crucial importance in keeping expenditures down and in determining the use of health resources in Japan.

The structure of the present payment schedule dates back to 1958, although some elements can be traced to the schedule designed by the Japan Medical Association in 1927, which was based on the service-inclusive price of one standard drug per day. Over the years, the

Table 3-8. Change in the Composition of Health Care Expenditure, Hospitals and Clinics, 1962–87  
(percent)

Year	General medical care			General inpatient care			General outpatient care			Dental care	Pharmacy <sup>a</sup>	Total
	Hospitals	Clinics	Total	Hospitals	Clinics	Total	Hospitals	Clinics	Total			
1962	48.1	39.5	87.6	33.8	4.4	38.2	14.3	35.1	49.4	12.4	—	100.00
1965	49.0	40.8	89.8	32.4	4.2	36.6	16.6	36.6	53.3	10.2	—	100.00
1970	48.6	41.6	90.2	31.3	4.0	35.3	17.3	37.6	54.9	9.8	—	100.00
1975	50.9	40.3	91.2	34.9	4.3	39.3	16.0	36.0	52.0	8.8	—	100.00
1980	52.6	35.4	87.9	36.2	4.2	40.3	16.4	31.2	47.6	10.7	1.4	100.00
1985	57.5	30.1	87.6	40.6	3.6	44.2	16.9	26.5	43.4	10.5	1.9	100.00
1986	57.6	29.8	87.4	40.5	3.4	43.8	17.1	26.5	43.6	10.5	2.0	100.00
1987	58.9	28.6	87.5	40.2	3.1	43.2	18.8	25.5	44.3	10.3	2.2	100.00

— Not available.

a. Includes only drugs dispensed according to physicians' prescriptions.

Source: 1989 Trends in the Nation's Health, Japan, p. 232.

schedule has been revised now and then to compensate for the increase in personnel expenses and inflation and to set fees for new technologies. These changes are based on periodic surveys of the financial condition of health care facilities. Fees were revised, for example, when the deficit became so large that it threatened to adversely affect health services in general. The fees for a new technology are usually set by comparing it to the nearest procedure. They are not based on calculations of the procedure's likely average cost.

A superficial examination of the relative values of individual fees for different services does not suggest that Japan's fee schedule necessarily favors ambulatory care and diagnostic procedures, which are its distinguishing features. On the contrary, the relative values for surgical procedures in Japan are much higher than even the customary, prevailing, and reasonable (CPR) charge in the United States, as in the case of coronary bypass surgery. But the extent of the services covered by the fee differs in the two countries. In Japan, it is an all-inclusive fee. Physicians providing services in the hospital do not bill the patient separately, and the fee is meant to cover all costs arising from performing the procedure. Note, too, that Japanese physicians see a large number of outpatients. According to a national one-day survey of clinics without beds, the average number of patients each clinic physician sees a day is 49, and 13 percent see more than 100 (MHW 1985). Thus although Japan's first consultation fee may be one-third that of the European mean, and one consultation fee may be one-third that of the European mean and one-tenth that of the U.S. mean (according to 1984 figures), this difference is expected to be compensated by the larger case load.

### *Payment Process*

The billing to the insurers and the actual payment to the providers is made through the intermediary payment funds established in each prefecture. At the beginning of each month, every hospital and clinic presents these clearinghouses with detailed itemized bills for the patients provided with care in the past month. As already noted, physicians do not bill the patient separately, and those working in hospitals receive their remuneration in the form of a salary. These bills are then inspected by the physicians' panel of the payment fund to see if the services have been appropriate. Monthly bills in excess of ¥5 million are given special reviews at the national level. The insurers pay the payment funds for the total amount of the bills they owe. Some insurance societies further review the bills themselves before making their payment. The weakness in the evaluation is that the only criteria used are whether the services are appropriate to the patient's age, sex, and diagnosis. Of the approximately 1.6 billion claims submitted in any one year, only about 1.25 percent are judged to have provided excessive service and will have the payment reduced as a result. Health care institutions generally see a reduction as a warning and are likely to curtail the future use of the services in question. Thus, the claims review acts as means of containing costs.

### *Fee Schedule Negotiations*

Negotiations over the fee schedule are of the utmost importance both to the provider and the consumer and therefore are usually heated. The actual negotiations are conducted by the Central Social Medical Care Council of the MHW. At present, the council consists of eight representatives from the providers (five physicians, two dentists, and one pharmacist), eight from the payers (four from insurers, and two each from management and labor), and four representatives of the public interest (one lawyer and three economists, one of whom chairs the council).

Providers and payers are always at loggerheads, usually over the income level of physicians. Payers point out that despite the financial deficit in some facilities, physicians in general have a high income compared with that of other workers and international standards. Physicians counter that they work longer hours and are being asked to ignore their capital and personal investment in their work. Another common topic of debate is whether to raise the fees for the services provided more by clinics than by hospitals, or the other way around. Clinical specialties also frequently disagree over which should get what share of the total increase.

The actual increase in points for each item is decided by a complicated process. Since radical changes are difficult to make with so many opposing contenders and the average cost of a service is also difficult to calculate under a uniform system, an incremental approach is taken toward revisions. Between 1965 and 1978 fees were revised by dividing the items covered into four broad categories: physician's technical services were tied to increases in per capita GNP; personnel expenses (excluding physicians) were tied to the average wage; material items to the consumer price index; and pharmaceutical items to current market price surveys. This approach has prevented clinical specialties from gaining a more advantageous position over time.

Until recently, these limits tended to keep the relative power balance in the hands of providers, favoring the services performed by physicians in clinics over hospital services. The incremental approach favors them because the original 1927 schedule was first devised primarily for their services. The Japan Hospital Association (JMA), which has generally represented the interests of physicians and clinics, has not been directly represented, but all five physicians in the Central Social Medical Care Council were nominated by the JMA. In contrast, hospital physicians tend to be divided between public hospitals offering high technologies and private hospitals, where more basic care is provided. Specialty societies have not gained much power because of medical school rivalries and the lack of development in specialty certifications.

### *Average Daily Cost of Medical Care*

The price control exerted through the fee schedule accounts in large part for the low average daily cost of medical care in Japan. The average cost per day for inpatient care is ¥13,523, of which 54.0 percent is for basic hospitalization (room charges plus nursing care), 20.5 percent for medication (drugs and injections), and 11.5 percent for diagnostic and other examinations. Providers cite this low cost as the reason why staffing has been kept at a low level. The average cost per day for outpatient care is ¥4,329, 44.2 percent of which is for medication and 18.4 percent for examinations. Hospitals have higher charges than clinics: 1.6 times higher for inpatient care, 1.8 for outpatient care. These figures are from surveys of the monthly insurance bills presented to the insurer, based on the fee schedule. The actual cost to the provider would be different.

Between 1976 and 1987 medication costs for inpatients (for drugs and injections) decreased from 26.3 percent to 20.5 percent of total costs. Over the same period, examinations increased from 8.2 percent to 11.5 percent. Changes were even more marked for outpatient care, where medications fell from 53.1 percent to 44.2 percent and examinations increased from 14.4 percent to a high of 19.4 percent and then fell back to 18.4 percent. These changes have been achieved by actually reducing fees: that is, the reimbursement price of medication was cut by nearly one-half between 1981 and 1986, while multiple laboratory examinations were reimbursed at a lower rate (since 1988, repeat examinations during the same month have also been reimbursed at a lower rate). Despite these efforts, the average daily charges

roughly doubled for both inpatient and outpatient care during this period, with the increase greater for outpatient care (MHW 1978, 1982, 1985, 1989e).

### *Managing Physician Behavior through the Fee System*

One prominent goal of Japan's health policy has been to discourage physicians from dispensing excessive medications. This has been pursued by steadily lowering the price of medications since the fee schedule revision of 1981, while increasing the fee for writing prescriptions to an outside pharmacy. Japan still does not have a network of pharmacies to serve patients, however, and since the pharmacists bill the insurers separately, there is no way to check whether the dispensed drugs were appropriate or not. To add to the problem, some physicians and pharmacists privately agree to divide the profits of dispensing drugs.

The fee schedule has also been used to achieve other objectives, such as shortening the length of hospitalization. Basic hospitalization charges have therefore been graded by the length of stay. The daily fee for those hospitalized for more than six months is now about half that for those hospitalized for less than one week. Fees have also been introduced for writing referral letters between clinics and hospitals, and for home visits to the bedridden by physicians and nurses. The effect of these changes on provider behavior remains to be seen, however.

### *Physicians' Income*

As mentioned earlier, one controversial issue is what income is appropriate for physicians. The average income of physicians has declined in recent years, as a result of schedule revisions and also the increased ratio of physicians employed by hospitals as opposed to those in private practice. In part, these developments reflect the rapid increase in physicians: the number of entrants into medical school increased from 2,820 in 1960 to a peak of 8,620 in 1980. An oversupply of physicians is now projected and the plan is to decrease their number by 10 percent by 1995 (Kousei Tokei Kyoukai 1989). From 1976 to 1986 the number of physicians per 1,000 population increased from 1.2 to 1.6. During this period, the proportion of physicians owning clinics or hospitals decreased from 46.6 percent to 34.3 percent (MHW 1988), while their average annual income fell from 8.2 times to 6.8 times the average for all workers. The income of hospital-employed physicians has always been less than half that of the physicians in open practice and at present is only 2.4 times that of the average in 1987 for all workers (Niki 1989).

### **The Public and Preventive Health Sector**

The MHW has always taken an active role in the delivery of public and preventive health services. It maintains close control through the local government health department and the system of 850 health centers responsible for both environmental and preventive health. These centers were established to combat tuberculosis and other infectious diseases. New screening services and home care have been started under a system of project grants. The MHW specifies the conditions for grants and covers one-third of the total cost, while the rest comes equally from the prefectures and municipalities. The authority to give grants rests with the divisions in the bureaus, but the conditions they have imposed have led to inefficient practices: health centers, maternal and child health centers, and geriatric welfare centers, for example, must be housed in different buildings to qualify for a grant. The central government exercises considerable power over the prefectures, and thus it is not surprising



that more than half of their health department directors have been seconded from the Ministry of Health and Welfare.

In 1987 health care expenditures accounted for 7.5 percent of the central government's total expenditures. It is difficult to judge exactly how much went to public health, however. On the basis of grants in aid, which are specifically for public health purposes, outlays in this area account for only 2 percent of the central government's health care expenditures. In contrast, local governments allocate 46.6 percent to public health, which raises the total ratio to 23.1 percent (table 3-9). Most of local government's funds go into sanitation measures, primarily garbage collection (MHW 1989f).

The government's preventive health measures are heavily concentrated in mass screenings of people for possible risk factors or disease, which have become so popular that every Japanese now has an average of one checkup per year (Hismachi 1988). The annual checkup provided at a nominal charge under the GHA for all those over the age of forty consists of a general examination, urinalysis, and checking of blood pressure, serum GOT, GPT, and cholesterol. A third of the population undergoes a more detailed examination, including electrocardiogram, eye tests, and anemia and blood sugar examinations. Separate tests are run for gastric and uterine cancer (beginning at age thirty-five) and for lung and breast cancer. The mandatory screening for school children includes an electrocardiogram. The efficacy let alone the effectiveness of these measures has not yet been rigorously evaluated (Ikegami 1988). The examinations are largely contracted out to local medical associations, which have developed a stronger voice in recent years. The next large item in the category of preventive health is the spa sanatoriums directly maintained by insurers. The total sum for these public and preventive measures amounts to about 3.3 percent of the official health care expenditure. By comparison, health insurance societies allocate 6 percent of their total expenditure to these activities (Federation of Insurance Societies 1989).

### **Success of the System**

The Japanese system has performed well in several respects: its health outcomes have been exceptionally good, the accessibility to and quality of health care are high, and costs have been kept relatively low.

#### *Exceptionally Good Health Outcomes*

Measured by the infant mortality and life expectancy at birth, Japan's health record has been impressive. Infant mortality has declined from a level of 124.1 per thousand births in 1930 to the present 5.0. During this period, life expectancy at birth for males has increased from 44.82 to 75.61 years, while for females it has risen from 46.54 to 81.39. Although social factors not directly related to the health care system—such as the high literacy rate and the relative equality of income—play a more significant role, it must be emphasized that these outcomes are among the best in the world. At least part of the credit for the low infant mortality rate goes to the public health measures focused on maternal and child care.

#### *High Accessibility and Equality*

The reliance on the private sector has led to a plentiful supply of health facilities, and assured a high geographical accessibility, with the exception of some isolated hamlets. The economic barriers have been removed by universal health insurance and there is unrestricted access to all hospitals and clinics. All these features have given Japan the highest outpatient

**Table 3-9. Government Health Care Expenditure, Fiscal 1987**  
(millions of yen)

<i>Expenditure</i>	<i>Central government<sup>a</sup></i>	<i>Local government<sup>b</sup></i>	<i>Total<sup>c</sup></i>
General government expenditure	54.1 (100)	63.2 (100)	117.3 (100)
MHW expenditure	10.1 (18.7)	—	
Health care expenditure	4.0 (7.5) (100)	3.6 (5.8) (100)	7.7 (6.5) (100)
Public and preventive health expenditure	0.8 (0.1) (2.0)	1.7 (2.7) (46.6)	1.8 (1.5) (23.1)
Other health care expenditure	4.0 (7.4) (98.0)	1.9 (2.9) (53.4)	5.9 (5.0) (76.9)

a. Central government health care expenditure consists of aid to health insurance (72.6 percent), public welfare medical care assistance (15.1 percent), and grants (13.3 percent). Central government public and preventive health expenditure has been calculated from the grants-in-aid to specific programs (such as screening).

b. Local government health care expenditure consists of aid to public hospitals and NHI (51.5 percent); sanitation measures, including garbage collection (40.5 percent); operation of health centers (6.1 percent); and tuberculosis control (1.9 percent).

c. Does not include health expenditures coming under the Ministries of Education, Labor, or the Self-Defense Agency.

*Source:* Compiled from the 1989 *Handbook for Ministry of Health and Welfare Grants* and 1989 *Trends in the Nation's Health, Japan*.

consultation rate in the world. Emergency care is also readily accessible through the free public ambulance system operated by the local government fire department. What a patient earns makes no difference. According to a survey made of the NHI in Tokyo, neither the utilization rate nor the health care expenditure per person was affected by the income level (Tokyo 1988). In a national survey performed in 1985, of those who had experienced an illness but had not seen a physician, only 0.4 percent gave economic reasons for not doing so (MHW 1986b).

Equality of service level has been maintained because there exists no economic pressure to discriminate service delivery according to the patients' insurance plan since providers are paid in exactly the same way (the same fee schedule also applies to those receiving public assistance). Moreover, it is illegal to request extra payment other than room charges and a very restricted range of new technologies still undergoing assessment (such as lithotripsy). Hospitals are not allowed to provide better food for the patients in private rooms. Giving personal gifts to physicians is a fairly widespread custom, especially after discharge from the hospital, but it is not obligatory and their monetary value is usually not too high except for private room patients in hospitals of private medical schools.

### *Relatively Low Cost*

As has been mentioned, health care expenditure amounts to only 5.15 percent of Japan's GNP. This is low even when the method of calculation and Japan's still relatively young population are taken into consideration. The percentage increased rapidly from the mid-

Table 3-10. Ten Leading Causes of Death, 1899-1987

Rank	1889	1930	1935	1951	1981	1987
1.	Pneumonia and bronchitis	Gastroenteritis	Tuberculosis all forms	Cerebrovascular disease	Neoplasm	Neoplasm
2.	Cerebrovascular disease	Pneumonia and bronchitis	Pneumonia and bronchitis	Tuberculosis, all forms	Cerebrovascular disease	Heart disease
3.	Tuberculosis, all forms	Tuberculosis, all forms	Gastroenteritis	Pneumonia and bronchitis	Heart disease	Cerebrovascular disease
4.	Gastroenteritis	Cerebrovascular disease	Cerebrovascular disease	Neoplasm	Pneumonia and bronchitis	Pneumonia and bronchitis
5.	Old age	Old age	Old age	Old age	Old age	Accidents
6.	—	—	—	Gastroenteritis	Accidents	Old age deterioration
7.	—	—	—	Heart disease	Suicide	Suicide
8.	—	—	—	Other disease, peculiar newborn	Chronic hepatic disease and cirrhosis	Chronic hepatic disease and cirrhosis
9.	—	—	—	Accidents	Hypertension	Nephritis and nephrosis
10.	—	—	—	Nephritis and nephrosis	Nephritis and nephrosis	Hypertension

— Not available.

Source: 1989 Trends in the Nation's Health, Japan.

1950s until the late 1970s (it started from a level of 2.77 percent in 1955), but the momentum has slackened in the past decade or so. The uniform fee system can be credited in large part with keeping costs down. Whereas the consumer price index increased 4.90 times and average wages 13.87 times over the period 1955–83, health care fees increased only 2.76 times (Matsuura 1986). The JMA calculates the real rate of increase to have been only 2.45 percent over the period 1981–88 (Yoshida 1989). The fee system not only seems resistant to inflation, it also tends to reward physicians in clinics engaged in primary care rather than specialists providing tertiary care. The second factor behind the low costs is the emphasis on ambulatory care and on diagnostic procedures rather than hospitalization and surgical procedures. The third reason may be the dominance of the private sector, where organizations must maintain their efficiency if they are to survive. In the private sector, there is little professional division of labor, and an employee may play several roles. In general, allied health personnel are not as specialized as their counterparts in the West.

### Failures of the System

The system has experienced its most difficult problems in responding to Japan's aging society and maintaining an even quality of care.

### *Responding to the Aging Society*

With the steady improvement in Japan's health indices, the elderly population has experienced substantial growth. Both birth and death rates have declined to one-third the level of 1930. The ratio of the population sixty-five and over has grown from about 5 percent in the 1950s to the present level of 11 percent. These changes have had major effects on the health care system. When vital statistics were first compiled, the leading causes of death were gastroenteritis, pneumonia, and bronchitis (table 3-10). In the years spanning World War II, tuberculosis became the major cause of death and was referred to as the "national disease." Since then, cerebrovascular disease, then neoplasm, and heart disease have become the most frequent causes of death. This shift has been reflected in utilization rates. As late as 1960, the combined utilization rate for inpatient and outpatient care differed little from one age group to another, except for a peak in the early childhood years. The rate for all age groups rose up to 1970, with a sharp peak in the fifty-five to sixty-nine age groups. After 1970, the utilization rate for the elderly increased sharply, with a decline in all other age groups (Kousei Tokei Kyokai 1989). This trend is closely related to the introduction of "free" medical care in 1973.

Both the delivery and financing systems have had great difficulty adjusting to the altered needs brought about by this change, partly because it happened so fast. Japan's health care system developed to provide for acute illness and injury of the worker. Since the demand was episodic, fee-for-service seemed an appropriate method of payment and the freedom to choose one's physician was an asset for the patient. Social insurance removed the economic barriers to medical care, while nursing care was left to the family. But with the growing need for geriatric care, the system has shifted its emphasis to continuity, rehabilitation, and nursing care interposed with acute medical care during periods of serious illness. Such needs cannot be met without a community-based social support network. This type of care has been difficult to administer owing to the fragmentation in the delivery system, the procedure-based fee system, and the undeveloped state of social services (for example, there are only 27,105 home helpers in Japan) (MHW 1989g). Furthermore, providers have

managed to evade the real issue by responding to new demands through an increase in checkups and diagnostic equipment. The reason for this state of affairs lies not only with the health care system. When there were fewer elderly, they could be cared for traditionally by their families during what was often a short terminal illness. Today, this period is prolonged, and since more than half of Japan's housewives are employed there are fewer family members available to provide home care. More fundamental is the elders' general lack of self-reliance and determination to combat the aging process (Ikegami 1989b).

As a result, the percentage of the elderly who are institutionalized has increased, despite the fact that 62 percent still live with their children (MHW 1989h). The institutionalization rate for those sixty-five and older increased from 0.9 percent in 1955 to 6.2 percent in 1987 (MHW 1956-89). Seventy-five percent of the elderly who are institutionalized are in hospitals and clinics. From the perspective of the providers, this means that 43 percent of the inpatients are over sixty-five and nearly half (45 percent) of them have been hospitalized for six months or more (MHW 1989i). Both physicians and patients—or more precisely their families—continue to cling to the illusion that a “complete cure” may be achieved. This tendency has been abetted by economic incentives: both parties benefit from the virtually free hospitalization provided by the GHA. Providers can also benefit from hospitalizing less seriously ill patients because the fee system does not take severity into account to any degree. There is no system of assessment units. According to a 1988 survey by the Japan Nurse Association, 33.7 percent of the inpatients had virtually no difficulty performing their everyday functions.

The heavy demand for medical services by the elderly is rapidly changing the structure of the system. The dramatic rise in the utilization rate of the elderly between 1970 and 1975 was primarily due to the legislation providing for their free medical care. In 1987, although those over the age of seventy made up only 7.3 percent of the general population, they accounted for 30.8 percent of the total health care expenditure (Kousei Tokei Kyoukai 1989).

Although the GHA was enacted in 1982 to meet these challenges, the resulting cross-subsidization between plans has reduced the autonomy of the insurance societies. In 1987 they contributed 33 percent of their total expenditure to the GHA pool: this figure is expected to reach 50 percent in 1997. In 1988, the Federation of Insurance Societies (1989) stated that it had a current deficit of ¥2.8 billion. More than a third of the insurance societies have had to raise their contribution rates beyond the 8.3 percent rate levied by government-managed health insurance. The issue is complicated by differing interpretations of equity. The government maintains that everyone should equally share the burden of geriatric care and that those who are able to do so should contribute more. Insurance societies argue that although their contributions are collected one hundred percent from payroll deductions, for those enrolled in the NHI the contribution is only 94 percent. Moreover, they find the basis for calculating the rate unfair because little accurate information is available on the income of the self-employed.

Whatever financing system will be used in the future, caring for the elderly will be a heavy burden. At present, those sixty-five and over account for 11 percent of health care financing. This figure is expected to rise to 16.3 percent by the year 2,000 and to reach the unprecedented level of 23.6 percent in the year 2020 (Kousei Tokei Kyoukai 1989).

### *Uneven Quality*

In Japan's fragmented health delivery system, hospitals and clinics compete for patients, who have unrestricted access. A review process is difficult to implement, however, because of the hierarchical structure of the medical profession. Much of the power and prestige is

concentrated among the professors at medical schools, whose informal patronage and recommendations are the basis for recruiting hospital physicians. Thus there has been little effort to establish objective postgraduate criteria for evaluating individual physicians.

Most hospitals tend to avoid overt and rigorous evaluations since their physicians are usually graduates of the same medical school. The competence of physicians is usually evaluated by their peers, and their public reputation based on the hospital's prestige. This system has given rise to two problems. First, consumers suffer because physicians are prompted to seek employment at university and other prestigious hospitals primarily on the basis of their research rather than their clinical competence. The quest for higher-quality care has also caused extreme congestion and reduced consultation times for outpatients and has forced inpatients to wait in line for their consultations. It is not unheard of for a university professor with several residents assisting him to see about one hundred patients during a single morning's rounds. Second, with the growing concentration of patients in these hospitals, policymakers are facing higher costs with doubtful benefits. Yet this preference is likely to intensify in the future. When the patients have doubts about quality, they turn to the medical centers and would oppose any restrictions on access to them. Although the volume is heavy, few such centers have the ability to treat patients in a given specialty. Consequently, they can hardly function as centers of excellence.

### **Importance of the Procedure-Based Uniform Fee Schedule**

Japan's procedure-based uniform fee schedule is the most important factor to have shaped the nation's health care system. It has also been the greatest driving force for containing costs. Because the government has to subsidize the NHI and government-managed health insurance at a fixed rate, it is under pressure to contain public expenditure. Furthermore, insurance societies recognize that they would not directly benefit from an increase in their contributions because they cannot negotiate for higher-quality medical coverage—their free hand is limited to preventive activities not listed in the schedule. Their obligation under the GHA to cross-subsidize the medical care of the elderly has also made them eager to pursue global cost containment.

For its part, the JMA has actively supported the procedure-based uniform fee schedule because this payment system upholds their cardinal principle of paying physicians a fee for their service. In any case, under Japan's fragmented and functionally undifferentiated delivery system it would be very hard to introduce an alternative method of payment, such as capitation. Differential payment for specialists would also be difficult to administer because detailed formal qualifications have not been established. In its 1987 Interim Report the government acknowledged that the present method of payment would continue in the future. Although the fee schedule itself and the economic incentives it provides are the product of the country's unique sociohistorical conditions—that is, institutional care developed late in its history and practitioners providing ambulatory care became the predominant care givers—it would be useful to analyze its advantages and disadvantages from a policy perspective.

Because payment is made on a fee-for-service basis, the fee schedule provides the economic incentive for the physicians to work. At the same time, by controlling the fee schedule, the government is able to not only curtail the total health care expenditure but also encourage the provision of individual procedures by setting the fee higher than the expected cost. The rapid diffusion of renal dialysis was encouraged by a policy decision to set the fee at a high level. As has been mentioned, equality has also been realized by rigidly maintaining a uniform fee schedule and by strictly forbidding claims for extra payment.

But there are drawbacks to this system. It is extremely difficult to decide which procedures are effective and should be encouraged, and which are ineffective and should be discouraged. Because the effectiveness of the technology must be evaluated in the situational context, the proof of its efficacy by no means indicates that it would be effective in any setting in which it was applied. Even in the case of renal dialysis, there have been claims that in some cases dialysis has been started before it was truly warranted. In other areas such as drugs, there are numerous possibilities for technology creep, such as the expanded use in situations where its efficacy has not yet been proved. Under the present system of reviewing medical claims, the appropriateness of the procedure can only be evaluated on the basis of the patient's age, sex, and diagnosis. Providers argue that the diagnostic criteria are too rigid. To reduce the risk of not getting paid, they often add a diagnosis to fit the procedure. It is quite common for five or six diagnoses to appear on a patient's bill.

Another problem is that the incentive to pursue efficiency remains confined to measures to lower the cost of the procedure itself, to lower the provider's cost as much as possible. Initiatives to lower the total cost of the patient's medical service would not be financially rewarding. New regulations have been enforced, but these have further complicated billing procedures and added to administrative costs. In the case of medication, the pharmaceutical industry counteracted the fee reduction by stepping up the introduction of new products. Although under current regulations the fee for a new drug can be no more than 7 percent higher than that for a preexisting similar product, its patent will protect it from fierce price cutting by its competitors. Because of this mechanism, the industry has suffered no great loss in its profit margin (JPMA 1989). This has led to the extensive use of third-generation antibiotics (Iglehart 1988).

The most serious drawback of the fee schedule is that quality has been sacrificed to quantitative growth. Although it does create an incentive to provide services, there is no mechanism to ensure high standards. Since fees tend to be set at the lowest workable level, conscientious service is penalized. Still, the schedule's advantages are said to outweigh these defects, and it remains central to Japan's health care systems.

The limits of economic incentives must also be recognized. Although the fee system may have been instrumental in helping Japan attain the highest per capita rate of renal dialysis, Japan still has one of the lowest organ transplant rates in the developed world. By the end of 1987, only 5,328 renal transplants had been performed (Kousei Tokei Kyoukai 1989).

## **Policy Implications for Developing Nations**

Japan's experience with health care brings to light several issues that developing nations should take into consideration when designing their own systems. These issues pertain to equality and efficiency, the possibility of mixing public and private financing, the possibility of combining formal and informal care, the public and private mix in health care delivery, accessibility and quality, and the difficulty of introducing change.

### ***Equality and Efficiency***

The key issue in formulating health policy is whether to put the emphasis on equality or on efficiency. If equality is the primary concern, then the goal should be to achieve a uniform system of health care, regardless of an individual's financial status or locality. The medical profession has conflicting views about this issue. Some are opposed to the practical means required to achieve equality—that is, universal health insurance—but in theory they agree

with the ends. In their opinion, professional qualifications ensure a uniform standard of quality. The profession's goal of uniform quality of service rests on a philosophy of paternalism as opposed to consumerism. Professionals do not necessarily see any inconsistency in their attitude; they would like to believe that an allocation function can be exercised through the discretion of each physician.

If greater value is placed on efficiency, then a plural system of health services is needed. The consumer or, more precisely, the sponsors acting in their interests will choose the best coverage package according to market principles of marginal benefit and marginal cost. Complete equality would be rejected as being unattainable and the government's direct financial responsibility would center on ensuring a decent minimum coverage. Because professional qualifications themselves do not guarantee a uniform standard in health delivery, the physician's performance must be carefully evaluated under this competitive model.

This equality-efficiency issue has little to do with ownership. A white paper published in the United Kingdom ("Working for Patients") calls for the creation of an internal market within the framework of a publicly financed and publicly managed national health service. But Japan's delivery system, which is dominated by the private sector, also emphasizes equality. In this sense, then, it would be better not to regard Japan's system as a market-oriented one. Despite the fact that providers do compete for patients and consumers have freedom of choice, the former are paid in exactly the same way under the uniform fee schedule and the latter do not really have any information about the level of quality. Indeed, one argument used to justify the present legal restriction on advertising in Japan states that since each and every provider satisfies the standard level, there is no need for such advertising (Kousei Gyousei Kenkyukai 1987). Efforts to differentiate payment have been fiercely resisted by the JMA to such a degree that this subject cannot be openly discussed. To back their argument, providers can ultimately call on the need for absolute equality in health care. Yet, in practice, providers privately do feel that there is a quality difference and discreetly promote their services. At the same time, patients shop around for the best physician by relying on the grapevine for information.

From an operational point of view, the central question is whether it is possible for sponsors to evaluate health services. In other words, can policymakers afford to make a public decision to give priority to efficiency rather than equality when the public opposes an openly multitier health care system. From a practical point of view, this problem has been difficult for Japan to resolve because it has few programs to ensure quality. From an ideological point of view, the difficulty is that the government's basic policy objective has been to achieve national uniformity and equality.

### *Public/Private Mix in Financing*

Much depends on whether the emphasis falls on equality or efficiency. If the policy goal is to establish a uniform system, then a public, single financing system is more cost-effective. But if the government's responsibility is confined to providing a decent minimum for those unable to afford better care, then a plural source of funding coming largely from the private sector is the obvious solution. Here safeguards have to be made to prevent "skimming" of healthy members. This phenomenon is by no means confined to health insurance. Even in the case of social insurance, individual insurers in Japan tend to jealously guard their existing privileges—in the form of more extensive free checkups, subsidized vacations in sanatoriums owned by the insurance society, sanatoriums, partial payback of the co-payments—which are made possible by having a more healthy membership.



Japan's experience shows that establishing a nationally uniform system of payment has a far greater impact on the shape of the health care system than the continued existence of plural sources of funds. By the nature of the system itself, insurers lose their autonomy in deciding benefits and setting the fee schedule. Higuchi (1974) has pointed out that Japan has experienced a steady decline in the number of medical facilities owned and run by insurance carriers since their loss of autonomy under the NHI Act of 1958. The uniform system of payment highlights differences in co-payments and benefits, eventually creating pressure for central government subsidies to resolve the problem. It should also be noted that strict rules forbidding extra charges curtails the development of private health insurance. In addition, with changes in industrial structure and with young people leaving rural areas, there is a disproportionate enrollment of the elderly in some of the insurance plans. To remedy this situation, there needs to be a system of cross-subsidization that eventually minimizes any substantial differences between the plans, as is currently occurring in Japan. Thus what may start as a system of mutual cooperation for closed segments of society will probably end up as a nationally uniform social security system.

In the case of developing nations, if the ultimate goal is to create a nationally uniform system, a pragmatic solution would be, at one stage in the future, to establish a uniform system of payment. The remaining inequities could be gradually decreased by increasing government subsidies following the example set by Japan. It would be very difficult to start with a uniform system because setting the fees at the present level of private practice would be prohibitively expensive; at the same time, bringing the whole level down to what is affordable would be politically infeasible. Nevertheless, if a single-tier health care system is the goal, plans must be made for the eventual unification of the schemes, if only because of the growing elderly population. Conversely, if greater emphasis is to be placed on efficiency, then the existing insurance plans should have the freedom to negotiate with the providers. In this case, the eventual goal would be to integrate financing and delivery within each competing independent plan.

### *Formal and Informal Care*

In any given country, a great deal of health care is provided by the family. Even in the West, the formal system can never handle the full load of taking care of the elderly without the active support of the family. In the case of Japan, their support is taken more for granted and often extends to hospitalization. As a result, hospitals in Japan evolved without any infrastructure of social welfare. This arrangement worked well in the days when diseases were acute and families large. Demographic and social changes have now made family support increasingly difficult to maintain. The low staffing level is only partly compensated by the relatively low intensity of care required by the patients as part of a deliberate admission policy. Families have had to hire private nurses or aides who ostensibly act as their surrogates. Social insurance usually does not fully cover this expense, and the quality of such care tends to suffer.

Developing countries that share the Confucian tradition of filial piety and whose hospitals have also not developed from social institutions will probably face a similar quandary in the future. Both from a moral and fiscal point of view, it would be good policy to encourage informal care. But, with the more elderly, a disproportionate burden will be placed on the family carers. Although it would not be expedient to deny the right of those wishing to take care of the elderly, every effort should be made to develop a social support system in time to meet the challenge of the aging society.

***Public-Private Mix in Delivery***

In Japan the medical associations have effectively blocked the appearance of investor-owned hospitals. At the same time, private practitioners have asked the public sector to provide those services poorly paid for by the fee system, such as high-technology medicine. Since these services are of greater interest professionally, the chance to perform them has compensated for the salaried physician's lower income. It must be remembered that historically Japanese public hospitals have had a reputation for being centers of excellence. Until recently, this arrangement led to a coexistence of the two sectors. As a result, aggressive marketing is still relatively unknown even in the private sector because of legal restrictions and because hospitals are owned by physicians who devote their energies to clinical practice. Faced with the fact that more and more of the quality-conscious public are turning to the public sector, providers in the private sector are finding it difficult to counter this trend. Regulations have blocked their vertical integration and have hindered efforts to raise capital. The recent health planning legislation has further curtailed competition by limiting the number of hospital beds and by requiring a special permit from the Ministry of Health and Welfare itself to open another new hospital in a different prefecture.

For the developing countries, it would be difficult to socialize their delivery system entirely. Therefore, the two primary issues for them to consider are whether encouraging private sector development is justified, and whether a distinction should be made between the for-profit, investor-owned hospitals and the physician-owned or nonprofit organizations. Private sector development would make it possible to respond to a perceived health problem more flexibly and rapidly, and it would be more economical for the government if the initial outlay were made by private capital. A decision to encourage the private sector would be very difficult to reverse, however. Such a decision should always be taken in conjunction with measures for evaluating the quality of care. In addition, regulations to constrain competition must be periodically reviewed to check whether the provider or the consumer is benefiting most.

***Accessibility and Quality***

Given a choice, the consumer would like unrestricted and immediate access to the foremost specialist in the hospital with the latest equipment. But even if there were no resource constraints, the best would still not be collectively available because a specialist must have a steady flow of patients whose conditions match his specialty in order to maintain his expertise. So there must be a functional differentiation between primary, secondary, and tertiary levels of care, and an appropriate referral system between the levels. Although many obstacles stand in the way of achieving such a rational system, there are ways to reduce the difficulties. The primary care physician can act as a "gatekeeper" and deny access to the specialist. But if physicians stand to lose nothing by referring, then too many referrals may undo their gatekeeper function. If this function is too rigidly enforced, patients may not gain access to the specialist's care when they really need it. And if access is granted strictly on the basis of the egalitarian principles of medical need, then the affluent will most likely turn to the black market.

Japan has had a *laissez-faire* policy to this problem, but several forces have been at work to restrain direct access to tertiary care. The large number of clinics gives them greater geographical accessibility and they are less crowded, with more convenient consulting hours. Also, clinic physicians have a financial incentive not to refer patients. They are paid on a fee-for-service basis and once a referral is made, the patient is seldom referred back. In

addition, there are the familiar arguments for continuity of care and the total approach, both more likely to be realized in a clinic rather than a hospital setting. However, these restraining forces are gradually being eroded by the growing demand for quality, which consumers increasingly feel to be available only in the public and teaching hospitals. To counter this trend, the Ministry of Health and Welfare is trying to introduce a bigger co-payment for those coming to teaching hospitals without a referral. This has been vigorously opposed by the teaching hospitals. To argue their position, they can point out the need for the various levels of care for teaching purposes—in Japan, every medical school must have its own attached teaching hospital. A larger co-payment that effectively reduces the number of patients will lead to a revenue loss, both directly and because the fee system pays more for outpatient care. Physicians in the leading hospitals would stand to lose personally because, in contrast to the local hospitals, they receive large money gifts from patients in a kind of black market for quality care.

Such accessibility and quality issues must always be considered in designing the health care system of a developing country. Unrestrained pursuit of quality care by the individual causes a collective loss in attaining it, so access to high-technology medicine should be limited. To compensate for this limitation, the health care system should efficiently differentiate between providers, while an appropriate referral system links them. The government should educate the public about the need to limit access, while reassuring people that an appropriate referral will be made if the need arises. The government must also decide whether to allow specialists to charge extra for their services to those who do not come through the regular referral channels. This would overtly admit that those with money can bypass the system. But not to do so would create a black market in which objective evaluation of the quality of care would become next to impossible.

### *Difficulty of Introducing Change*

Health care systems are very difficult to change. Since the economic incentives under which the systems operate have been shaped by the country's sociohistorical conditions, each system has its own intrinsic rationale. Each and every aspect of the system will be regarded as sacred by the interested parties, which can use emotionally loaded expressions such as "the value of human life," "equality," and "freedom" to further their interests. In these circumstances, society's value system will have to be changed before a health care system can be altered to any extent. Even if values do change, institutional inertia may prevent people from adapting to the new requirements. This is why the very reason for the success of Japan's health care system—which has attained exceptionally good health indices, quantitative expansion at reasonable cost, and equality—may turn into liabilities when the primary objectives become the care of the elderly and the pursuit of higher quality.

If physicians are to change their values, the medical schools where those values are instilled need to be reformed. Indeed, the Ministry of Health and Welfare's 1987 Interim Report has recommended such reforms as one of four major priorities. But Japan's teaching hospitals are safeguarded not only by clinical freedom but also by academic freedom. There are also special ties, including the doctor-patient relationship, between the senior faculty and the governing elite. Developing countries appear to face a similar situation, in that their policymakers must face the added burden of trying to keep pace with the most recent advances in medical technology in an economy that is still being developed. It is precisely because of these adverse conditions that a firm, proactive policy, preferably of bipartisan support, is needed in health care with every effort made to elicit public support.

## Notes

1. On November 29, 1990, US\$1 was worth ¥130.

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# 4

## *Issues in Health Care Delivery: The Case of Korea*

*Bong-min Yang*

In the mid-1970s the Republic of Korea introduced a compulsory health insurance program designed to improve the equity and efficiency of its health care system. Initially, the program focused on the industrial sector, but then it was gradually expanded to cover government workers and rural and urban self-employed populations. By July 1989, the entire population was covered by national health insurance (NHI).

The introduction of the NHI system has created many changes in the health care sector. Traditionally, health care was financed mainly by user charges, and the government made little effort to intervene in the health care market. The predominantly free-market system of old is now giving way to public intervention. In addition, people are able to consume more medical services and demand higher-quality care, and the needs of the working class and poor population are being better met. Also, new technologies are being imported aggressively and competitively, and the quality of health care is improving.

These changes have not been without their costs. The claims for resources in the health care sector have increased sharply in recent years because of a rapid rise in health care costs. As a result, the health insurance system now appears to be drifting away from the primary objective of social insurance, namely, to attain social equity. The changes and the impact of health insurance in Korea, along with its prospects for the future, are the subject of this chapter. It covers recent trends in health status, the method of NHI financing, the structure and organization of the health care market, the payment system, and the drawbacks of the NHI program.

### **Trends in Health Status**

In the past three decades health status in Korea has improved tremendously. Between 1965 and 1985 alone, the average life expectancy at birth increased from age fifty-five to sixty-five for males and from fifty-eight to seventy-one for females. The crude death rate per 1,000 people fell from 14.0 in 1960 to 6.2 in 1985 (MHSA, various years).<sup>1</sup>

Like many other countries, Korea has experienced a significant change in the pattern of morbidity and mortality in recent times. As is evident from table 4-1, noncommunicable diseases are now the leading cause of death. Furthermore, the proportion of the population that is age sixty-five or older has increased: from 3.5 percent in 1975 to 4.7 percent in 1990. The proportion is expected to reach 6.2 percent by the year 2000 (Economic Planning Board, various years).

The aging and morbidity patterns suggest that the health care costs incurred to prevent, diagnose, and treat illnesses associated with aging and chronic disorders will increase. If it is assumed that all other cost-inducing factors are held constant, resources will come under

**Table 4-1. Change in Rank of Five Leading Causes of Death, 1933–88**

<i>Causes of death</i>	1933	1941	1965	1988
Infectious and parasitic disease	3	4	4	*
Malignant neoplasms			5	2
Disease of the circulatory system	5	*	*	1
Disease of the respiratory system	4	2	1	5
Disease of the digestive system	2	1	2	4
Disease of the nervous system and sensory organs, injury, and poisoning	1	3	3	3

\*Not one of the five leading causes.

Source: Kim (1989), pp. 155–74.

a great deal of pressure from these additional health care needs. How to finance these new requirements has now become an urgent question for Korea's health care system and its economy. The central concern for policymakers is not only the expenditures generated by vulnerable population groups but also the ability of the productive population to support such outlays.

### **Korea's Health Care System**

Over the past century, the health care system of Korea developed along Western lines. A substantial change is now taking place with the introduction of national health insurance. The changes are most evident in the financing of health care, the role of the government, consumer access to health services, the market structure, and health care expenditures. The following description of the system focuses on the kinds of insurance offered, the market structure, and method of payment.

#### *Health Insurance*

The Korean government has mandated that all citizens must be insured for health services. About 90 percent of the population is covered by insurance schemes and the remaining 10 percent (that is, those below the poverty line) by government-initiated public assistance programs. The insured must pay a share of the insurance premium. One group of plans covers the corporate sector and civil servants; in this case, the amount of each employee's premium is a fixed percentage of the nominal wage, which has been set at 3.4 percent for the former and 4.6 percent for the latter. Another group consists of urban and rural regional programs; here, the amount of each household's monthly contribution is determined by the income class it belongs to, as assessed from the family's total assets and wage earnings.

Korea has 313 independent nonprofit corporate and regional insurance societies (also known as sickness funds). Each society has its own administrative structure and is responsible for financing all the recurrent expenses of its members, including benefits. In practice, however, the societies do not have much managerial control, since all of them receive their rules and guidelines from the central authority. Thus there is little room for competition among insurers or for innovative management within each society.

Administrative functions—including claims processing and payment, data collection, and program monitoring—are handled by the Korean Medical Insurance Corporation and the Federation of Korean Medical Insurance Societies, the two conglomerate bodies established to oversee the administration of all insurance societies. Occasionally, they examine the appropriateness of filed claims and if necessary require adjustments to be made on the



basis of a professional committee's review. Since their operations are closely monitored by the Ministry of Health and Social Affairs, they can be considered agencies of the government.

The government determines the extent and the level of benefits. Basically, most outpatient and inpatient services are covered by health insurance. Many less common, high-cost services are excluded. Most of these are new or expensive high-technology procedures such as CAT scanning. Providers charge unregulated market prices for noninsured services, while government-controlled prices are applied for insurance-covered services.

Three types of cost-sharing mechanisms are incorporated into each plan. The first is a deductible, which is applied to each unit of service. For example, patients pay a flat fee of about US\$4 for each visit to a physician. In addition, they pay coinsurance rates of 30 percent for clinic outpatient services, 50 percent for hospital outpatient services, and 55 percent for general hospital outpatient services. The coinsurance rate for inpatient services is 20 percent across all types of providers. The third cost-sharing feature is the benefit limit. The sickness funds pay a maximum of 180 hospital days per year. Special fees are charged for treatments from senior physicians at general hospitals. Since such fees are outside the domain of insurance coverage, patients end up paying a much greater amount than that reported to the insurance societies. Although this is not a cost-sharing device under the insurance scheme, patients could view it as an additional price increase for higher-quality services.

The bulk of health care financing comes from private sources in the form of premiums, coinsurance payments, deductibles, and other kinds of user charges. The effective coinsurance rate, sum of deductibles, and coinsurance payments for outpatient visits are shown in table 4-2. The coinsurance rate is about 62.0 percent for general hospitals, 65.0 percent for other hospitals, and 41.2 percent for clinics. When customary out-of-pocket cash payments as "thank-you" gifts to physicians and nurses are taken into account, the effective rate for inpatient services rendered by many hospitals could well exceed 20 percent. In most cases, patients or their families pay such compensation against their will. These payments occur outside the insurance and tax systems. Effective rates experienced a sudden increase in 1986, when the deductible system was added to the existing coinsurance system. Another rate increase was due at the time of writing because of an expected 10 percent rise in the flat fee for various physician services.

### *Market Structure and Organization*

Korea has a strong profit-oriented private sector, which has been growing rapidly since the increase in per capita income of recent years and the expansion of the health insurance system. In 1975, two years before the health insurance programs were introduced, 34.5 percent of all hospitals were public institutions. By 1987 the share had dropped to 12.6 percent. More than 87 percent are now owned and operated by the private sector (Korean Hospital Association 1988). Table 4-3 shows how total health care resources were distributed in the public and private sectors in 1985.

With the introduction of health insurance, the role of public hospitals has changed. Many such hospitals have lost private and insurance patients to private hospitals and are taking on an increasing number of the beneficiaries of public assistance programs. At the same time, the national hospitals established in the 1950s to treat tuberculosis and mental illness continue to operate in the same manner, since there is still a need to separate services of this kind.

The aggregate supply of hospital beds and physicians and their distribution across regions are shown in table 4-4. Korea has 2.2 hospital beds and 0.5 physicians per 1,000 population. These figures are much lower than in Western nations. Slightly more than 52

**Table 4-2. Effective Coinsurance Rate for Outpatient Services, 1985–87**  
(percent)

<i>Service</i>	<i>1985</i>	<i>1986</i>	<i>1987</i>
General hospital	50	60.1	62.0
Hospital	50	62.1	65.0
Clinic	30	40.3	41.2

*Source:* KMIC (1989a).

percent of all hospital beds and 61 percent of all physicians are located in the four major urban areas, where about 40 percent of the population lives. About 8 percent of physicians are located in rural areas, where 34.6 percent of the population lives.

as in Japan, physicians in Korea can prescribe and dispense drugs. Private physicians and hospital outpatient departments generate much of their revenue by dispensing drugs. Pharmacists can sell any kind of drug to consumers without a doctor's prescription. There are incentives for physicians to prescribe drugs and to generate a greater number of visits. Similar incentives exist for pharmacists. As a result, about 30–35 percent of health care expenditures now go for drug consumption each year (KMIC various years). These figures would be even higher if personal expenditure on over-the-counter drugs and medical sundries dispensed through retail channels were included.

Up until 1988 patients were free to choose physicians and hospitals, and to choose between clinics and hospitals. In July 1989, however, Korea established a referral system requiring people to seek care from clinics first. Now they cannot visit hospitals without a letter of referral from a clinic. This change should lead people to use more clinic services and fewer hospital services.

### *Payment System*

Patients pay a fee for all services at all referral levels. This is the predominant method of paying physicians for clinic services. Hospital physicians are paid a salary, and those at private hospitals are occasionally paid a bonus based on their performance.

**Table 4-3. Private and Public Health Resources, 1985**  
(number)

<i>Service</i>	<i>Privately owned</i>	<i>Public</i>	<i>Total</i>
<i>Health facilities</i>			
Hospitals	444 (89.2)	54 (10.8)	498 (100.0)
Clinics	24,535 (88.6)	3,168 (11.4)	27,703 (100.0)
Pharmacies	16,097 (100.0)	—	16,097 (100.0)
Hospital beds	59,608 (80.2)	14,757 (19.8)	74,365 (100.0)
<i>Health manpower</i>			
General practitioners	7,074 (82.5)	1,505 (17.5)	8,579 (100.0)
Specialists	9,947 (88.4)	1,309 (11.6)	11,256 (100.0)

— Not available.

*Note:* Figures in parentheses are percentages of the total. Clinics include health centers, health subcenters, and primary health care posts.

*Source:* Ministry of Health and Social Affairs, *1987 Yearbook of Health and Social Statistics*; and Special Reports by Korean Medical Association and Korean Hospital Association.

**Table 4-4. Distribution of Health Resources: Hospital Beds and Physicians**

<i>Resource</i>	<i>Seoul (capital city)</i>	<i>Three major cities<sup>a</sup></i>	<i>All other cities</i>	<i>Rural area</i>	<i>Total</i>
Population (thousands)	9,639 (23.8)	6,932 (17.1)	9,872 (24.4)	14,006 (34.6)	40,448 (100.0)
Number of physicians <sup>b</sup>	8,817 (40.8)	4,431 (20.5)	6,681 (30.9)	1,697 (7.8)	21,626 (100.0)
Physicians per 100,000 population	91.47	63.92	67.67	12.12	53.47
Number of hospital beds	27,271 (30.5)	17,026 (19.0)	—	—	89,463 (100.0)
Beds per 100,000 population	282.9	245.6	—	—	221.2

— Not available.

*Note:* Population and physician figures are for 1985; hospital beds for 1988. Figures in parentheses are percentages of the total.

a. The three major cities are Pusan, Taegu, and Incheon.

b. Traditional herb doctors are not included in the physician calculation.

*Source:* KMIC (1988) for hospital beds and population; Insurance Claims File Tape, Korea Medical Insurance Corporation, for active number of physicians.

Providers (hospitals and clinics) are reimbursed for insurance-covered services according to a set of fee schedules. The government plays a role in setting the fee schedules, although the level is negotiated by all parties concerned. The government sets fees on a cost-plus basis at a level that allows most providers to earn a profit. Fee schedules are reviewed annually to consider factors such as changes in the consumer price index, in profit margins of sampled providers, in the wage levels of medical personnel, and in other costs of production.

The fee schedule seems to offer generous rates, although no study has yet been done to assess the adequacy and reasonableness of current fee schedules. A recent study of physician income based on the claims files of private physicians in six districts (one urban and five rural) indicates an average annual revenue of 88.92 million won (equivalent to US\$132,717) per private practicing physician in 1986 (KIPH 1987). When estimated production costs (for example, for rent, employee compensation, supplies, and capital equipment) of 24 million won (US\$35,874) are subtracted, the net income is on average US\$96,843, which is thirteen times the average annual wage of all Koreans: the average household annual income in 1988 was US\$7,720. This difference is in marked contrast to that in the United States, Japan, and the United Kingdom, where the ratio of physician incomes to average employee incomes in 1981 was 5.1, 4.7, and 2.4, respectively.

### Evolution of National Health Insurance

Two interesting aspects of the Korean case are the way in which health insurance evolved and the factors that precipitated the change.

#### *Gradual Expansion of Compulsory Health Insurance*

The first step toward a health insurance system was the Health Insurance Act of December 1963, which was passed at a time when Korea's per capita GNP was still below US\$100. This legislation was primarily aimed at introducing voluntary coverage. Because financial resources were limited, however, participation was low and little was accomplished. At first,

the compulsory social security program for health care applied only to corporations hiring 500 or more workers. In 1983 the corporate health insurance program was extended to firms hiring sixteen or more employees. Since the program required contributions by individuals and employers, it appealed to the health authorities, who were starved of funds and doubted that they would ever obtain revenue from government sources.

A special program for civil servants and private school teachers began in January 1979. In January 1980, this program was extended to families of military personnel and pensioners. Next, Korea introduced an occupational health insurance program in December 1981 to cover groups of self-employed workers within the same occupation, although it operated on a voluntary basis. In January 1988 it initiated a rural regional health insurance program for people in farming and fishing occupations. Finally, a program to cover self-employed and unemployed people in urban areas was established in July 1989 to cover the only remaining group excluded from insurance benefits.

In addition to the health insurance schemes, the government finances two public assistance programs for medical care: medical aid for the destitute and medical assistance for low-income individuals. The first category of beneficiaries consists of individuals who are extremely poor or those living in public facilities, such as the homeless and elderly. The second category includes individuals whose income and assets, along with other eligibility characteristics, fall below a specific nominal standard.

Since national health insurance was introduced, there have been three sudden increases in the number of total beneficiaries: in 1981, when self-employed workers within the same occupation were included; in 1988, when the rural insurance program was introduced; and in 1989, when self-employed and unemployed urban residents gained coverage (see table 4-5). Thus over the past decade and a half, the government has obviously made a concerted effort to improve and promote its health insurance programs.

Under the new system of universal health insurance, attitudes toward health care have changed greatly. Many Koreans now regard health care as one of their fundamental rights. Unlike other goods or services, these services are considered essential to human survival, regardless of wealth or social standing, and therefore everyone in the population is assumed to be entitled to some minimum level of these services.

The new system also subjects providers to many constraints and thus has reduced their autonomy, particularly in the matter of fees. Physician and hospital charges are contingent on the government's fixed-fee schedules, and Ministry of Health approval is now required before hospitals can acquire certain equipment and expand or become established in certain areas.

For the government, the transition implies greater financial and social obligations. Even if the economy were to slow down in the future, it would be difficult for the government to cut health insurance budgets or reduce benefits because people have become accustomed to these benefits and would not accept such reductions. On the contrary, the government is likely to face an even greater burden as certain groups, such as the elderly and handicapped, demand their fair share of the pie.

### *Factors that Led to the Establishment of National Health Insurance*

The Korean government established the national health insurance system over a period of thirteen years and in the process met with little resistance, either politically, economically, or socially. Several factors account for this relatively smooth transition.

First, the fact that the Democratic People's Republic to the north provided health care free of charge for all its citizens, whereas the Republic of Korea did not, became an important

**Table 4-5. Health Care Security Coverage by Type of Program, 1977-89**  
(thousands of persons)

Program	1977	1979	1981	1983	1985	1987	1988	1989
A. Total population	36,437	37,606	38,724	39,951	41,209	42,082	42,593	42,886
B. Total beneficiaries (C + D)	5,298	9,923	15,134	19,298	21,136	25,643	32,588	42,886
B/A	(14.5)	(26.4)	(39.1)	(48.3)	(51.3)	(61.0)	(76.5)	(100.0)
C. Health insurance	3,203	7,789	11,407	15,570	17,878	21,257	28,298	38,640
C/A	(8.8)	(20.7)	(29.5)	(39.0)	(43.4)	(50.6)	(66.4)	(91.0)
D. Public assistance	2,095	2,134	3,727	3,728	3,258	4,368	4,290	4,246
D/A	(5.7)	(5.7)	(9.6)	(9.3)	(7.9)	(10.4)	(10.1)	(9.0)

*Note:* Numbers in parentheses are percentages of total populations. All 1989 statistics are estimated figures. Households that refused to pay premiums were taken into account in the 1989 total beneficiary category.

*Source:* Ministry of Health and Social Affairs, *Yearbook of Health and Social Statistics* for 1977-87; other government sources for 1988-89.

political issue. Korea felt it had to introduce a comparable structure that would guarantee an equitable opportunity of health care use for all its social classes. Competition between the two Koreas contributed significantly to the move that culminated in mandatory health insurance legislation in the mid-1970s.

Second, with the rapid industrialization of the 1960s, people began to recognize that some of the physical hardships they had to endure were not solely their fault. Exercising their voting rights, people in the workplace demanded health insurance schemes that would require employers to contribute to the premiums.

Third, unilateral government policies promoting economic growth during the period 1960-76 created an unequal distribution of wealth among social classes and raised social equity issues. To avoid conflict among the classes, the government introduced the concept of social welfare into its policy agenda. The first outcome of this new policy orientation was the new health insurance program. The government and the leading political party strongly supported the idea in the hope that it could help remedy the inequities, the injustice, and the economic burden that illness imposed in a society undergoing rapid industrialization.

Fourth, the idea that health insurance coverage should be expanded met with public approval and thus quickly became an important political issue. As the gap in health care utilization between the insured and the uninsured widened in the early 1980s, the majority of the uninsured pressed politicians to expand the existing health insurance programs. Politicians responded positively, especially those in the leading Democratic Justice Party.

Fifth, the growing economy made the expansion of health insurance programs feasible. As the GNP and per capital disposable income increased, not only was the government able to finance part of the expenditures of the schemes, but people could afford to pay the premiums and other related expenses. (Under the corporate program, premiums are shared equally between employees and employers, and under the urban and rural program they are shared equally by the government and the insured.) The number of beneficiaries rose noticeably in 1988 and 1989 (see table 4-5) because people were willing to pay the premiums, and the government promised it would be responsible for part of the expenses incurred.

Sixth, as expenditures climbed to cover the increased use of health services and rising medical fees, consumers still preferred to be insured rather than face the risks of being uninsured. In general, the public raised few objections to the proposals for a universal health

care security system, although some questioned whether a tax-financed system or one financed by premiums and user fees was more appropriate. The consensus was that every Korean should have health insurance and that the financial burden of the system should be shared fairly among all levels of society.

The drive toward universal health insurance also had the advantage of being backed by a strong public executive and a "regulation-oriented" intellectual tradition. And since there was no dominant private insurance to block any reform endeavor, the government could easily move forward toward its goal.

All these changes were the product of Korea's development from an agrarian to an industrial society. Consumers approved the idea of universal health insurance; upon recognizing the public mood, politicians pushed forward with it; the growing economy gave it financial support; and the market economy put no significant obstacles in its way. Despite this widespread support, little analytical work was conducted to pave the way for universal health insurance. The government did not have much information on the possible impacts of such insurance, and in setting up its fee schedules it simply borrowed the Japanese setup, with a few slight modifications. Consequently, the appropriateness of the relative value scale continues to be a source of controversy between the government and provider groups.

Evaluations after the fact are now being conducted to provide guidance for possible reforms that may be required to sustain the progress toward social equity and improve the efficiency of resource use in the health care sector. Evaluations are being conducted by research institutions, government agencies, consumer groups, academicians, provider groups, politicians, and others. It has been difficult to reach a consensus on the nature and the extent of these reforms, however, because each of these groups is pursuing its own interests only. The principal problem is that the government, which is the ultimate decisionmaker in health policies, has yet to determine its position on the matter. Yet most Koreans would agree that reform is necessary, owing to a variety of problems.

### Problems with the System

Some of these problems are directly related to the structure of the Korean system itself. Others are the indirect result of the profit-pursuing activities of the health industry, particularly the pharmaceutical companies, for-profit hospitals, and medical supply companies.

#### *Inflation*

Rising health care costs are now viewed as a problem in Korea. The health care system has embarked on an inflationary path by choice, not simply because people are demanding more health care services, but because the system is structured in a way that encourages the degree of service and consumption to expand and that promotes more expensive services. One of the problems is that no clear lines have been drawn between the roles of general hospitals, other hospitals, and local clinics. Thus although most general hospitals are designed to treat complex problems, many deliver primary care services to ambulatory patients through their clinics and emergency rooms, while many general practitioners provide both inpatient and outpatient services and have every incentive to hold the patients as long as possible. As it stands, the system puts less emphasis on cost consciousness and more on waste, and the end result has been a rapid increase in health care expenditures.

Between 1975 and 1985 the health care share of the total economy increased from 2.8 percent to 4.24 percent (table 4-6), with an annual rate of increase of about 28 percent (KMIS 1989).<sup>2</sup> The ratio remained fairly stable from 1975 to 1980, but then increased rapidly in the

**Table 4-6. Total Health Care Expenditures as a Percentage of Gross Domestic Product, 1975–89**

Item	1975	1978	1980	1983	1985	1989
NHE/GDP	2.84	2.88	2.96	3.60	4.24	6.20

Note: The 1989 figure is an estimate based on rough calculation.

Source: Bank of Korea, *Input-Output Tables*, various years.

1980s. The fact that about 80 percent of total beneficiaries came under insurance coverage on or after 1979 might suggest that the rapid increases in the 1980–85 period should be attributed to the expansion of insurance schemes. As table 4-7 illustrates, the nominal increases before 1980 were largely due to the changes in GNP deflators, whereas most of the changes after 1980 were due to real expenditure changes. It has also been estimated that with the increasing and continuous expansion of insurance coverage, the share of national health expenditure in GDP could easily rise even further.

Many factors have contributed to the rapid increase in national health expenditures. A substantial part of the total cost escalation is attributable to the increase in cost per case. The treatment cost per case has gone up 2.8 times for inpatient services and 1.8 times for outpatients services over the past decade, whereas the consumer price index has gone up 60 percent for the same period (KMIC, *Statistical Yearbook*, various years). On the supply side, the cost per case has gone up because physicians tend to promote more return visits per case to compensate for the probable losses in income from controlled fees. On the demand side, patients who pay less with insurance ask for higher-quality and expensive services.

To complicate matters, the population has increased, age distribution has changed, and personal income has gone up. All of these factors have pushed up the demand for health care services. Utilization data show that the number of outpatient cases per capita per year rose from 1.79 in 1980 to 3.27 in 1988, and that the hospital admission rate increased from 0.048 to 0.067 over the same period (see table 4-8). These data suggest that something needs to be done before it is too late.<sup>3</sup>

### *Inequity*

With the advent of national health insurance, more and more resources are being poured into the health sector, which means that the shortage of health personnel and supplies is

**Table 4-7. Decomposition of Health Spending Increases**

(compounded annual growth rate, percent)

Year	Nominal expenditure	GNP deflator	Real expenditure	
			Demography	Utilization/intensity
1975–80	32	24.2	7.8	
			(1.55)	(6.3)
1980–85	25	8.2	16.8	
			(1.36)	(15.4)

Source: Nominal expenditure from KMIC study (1989); GNP deflator and population data from Economic Planning Board, *Statistical Yearbook*, various years.

**Table 4-8. Change in Health Care Utilizations from 1980 to 1988**

Year	Costs per case (thousands of won)		Cases per capita	
	Outpatient service	Inpatient service	Outpatient service	Inpatient service
1980	7.6	137.3	1.785	0.048
1981	8.3	151.5	2.154	0.056
1982	9.7	186.3	2.344	0.061
1983	10.6	222.4	2.647	0.061
1984	11.2	252.0	3.008	0.062
1985	12.0	277.6	3.077	0.063
1986	12.3	293.0	2.939	0.064
1987	12.5	305.4	3.164	0.068
1988	13.7	350.4	3.272	0.067

Source: KMIC (1988).

less of a problem than in the past. Instead, the distribution of resources has become the central concern. On one hand, not enough resources are available in rural areas, but on the other hand, there seems to be an excess supply in urban areas. Even though the number of physicians (in relation to population growth) has steadily increased since 1974, most of the rural areas have not benefited, because physicians who newly enter the market prefer to work in large urban areas. As a result, physicians and health-related facilities are still in short supply in rural areas. The people in remote areas also have to contend with financial problems, as well as poor accessibility to health care services. Today 35 percent of the rural population is being served by only 7.8 percent of physicians.

Another problem is that Korea has high coinsurance rates (table 4-2). Indeed, they are among the highest such rates in the world. Although a high coinsurance rate is useful in helping to reduce moral hazard, it is hardly consistent with the principle of social insurance that Korea has adopted. Instead, the individual is being asked to pay a substantial proportion of the service charges. When the coinsurance rate is applied irrespective of family income, as in the case of Korea, it represents a greater burden to low-income families than to high-income families. The care needed by high-risk, low-income households is blocked because of financial barriers, whereas the high-income groups are seldom affected (see table 4-9).

Yet another equity problem stems from Korea's two-class system of health care: one for the rich and another for the poor. Those who cannot afford noncovered expensive high-tech services, thank-you gifts to physicians and nurses, or special treatment charges have to settle for lower-quality services. As previously noted, patients who want to be treated by a regular staff physician in a hospital have to pay extra for that special treatment. If they cannot afford the additional charges, a less-experienced intern or a resident is automatically assigned to them. The situation is even worse for the beneficiaries of public assistance programs. Their requests for care are often denied or they receive minimal services.

### *Inefficiency in Insurance Administration*

Korea's health care system has run into two main kinds of insurance administration problems. First, each insurance society has its own director and managers, most of whom are government-appointed employees. Despite their position, they do very little management and have little incentive to do a good job. Rather, they consume precious economic resources through high salaries and extensive fringe benefits. Second, the size of the



**Table 4-9. Per Capita Health Service Utilization by Income Classes**  
(year = 1987)

<i>Income class</i>	<i>Cases/insured</i>
1-5	1.63
6-10	1.91
11-15	2.48
16-20	2.97
21-25	3.64
26-30	3.27
31-35	3.08
36-40	2.94
41-45	3.17
< 46	3.77

*Note:* 1-5 = lowest income group; 46 = highest income group.

*Source:* KMIC (1988).

insurance societies creates further inefficiencies. The system is currently structured so that a large number of small insurers each cover only a small fraction of the population (there are about 30,000 to 200,000 people covered in each society). Under such an arrangement, the system can hardly realize economies of scale. A recent cross-sectional econometric study based on data for 1984 and 1986 found that per capita administrative costs would be lowest for a population of about 1.7 million (Yang and Lee 1988). This implies that a dramatic cost saving can be attained through a restructuring of the societies.<sup>4</sup>

Under the circumstances, it is not surprising to find that a considerable fraction of total revenue is devoted to administrative costs.<sup>5</sup> The proportion of administrative costs to total revenue is well in excess of 10 percent on average, and in 1988 went as high as 22 percent in the case of regional health insurance, according to an internal report from the Korean Medical Insurance Corporation (1989b). This suggests a high degree of inefficiency in system operations, especially when compared with the 1.5 percent level in Canada and 2.6 percent level in the United Kingdom (Hatcher and others 1984; Himmelstein and Woolhandler 1986).

### *Inequitable Risk Pooling*

Since there are many small insurance funds, each covering a small fraction of the population and a small geographic area, some serve predominantly healthy populations in wealthy communities, whereas others serve poor communities at high risk. This implies that the results will be inequitable even if risk among beneficiaries was pooled. Therefore the financial burden of insurance payments is likely to fall heavily on poor communities, unless a mechanism for the intersociety transfer of funds is adopted.

### *Resistance to Compulsory Insurance Programs*

Some groups, including the urban poor and farming families, have expressed considerable opposition to the mandatory insurance system. They argue that the scale of contributions is regressive rather than progressive and thus is unfair. Even though the amount of each household's monthly contribution is determined by the income class it belongs to, which is determined from tax records, Korea's tax system has given rise to a large underground economy. Thus it may be difficult for insurance societies to obtain contributions from each

household. Some households also point out that they rarely seek medical services. Even when they decide to do so, appropriate providers are not available. Still others argue that user charges are often too high.

In 1988, 19 percent of rural households and in 1989, 29 percent of households in the urban program refused to pay premiums or to join any health insurance schemes (KMIC 1989a). If such resistance to compulsory insurance persists, the insurance funds could eventually dry up.

The government sets fees on a cost-plus basis at a level that allows most hospitals to earn a profit. In the long run, this arrangement gives providers little incentive to be efficient. Instead, it rewards cost-increasing behaviors. No matter how inefficient providers may be, their survival is in a sense guaranteed by the government-set prices. By investing in new technology and hiring more personnel, hospitals can increase their costs and then be fully rewarded as the government allows another fee increase. In other words, providers have no economic incentive to control costs.

Price control also generates demand among the providers. In order to compensate for possible revenue losses from fee controls, physicians increase the volume of their services. It is unusual nowadays to find general practitioners and specialists in private practice who give patients more than a one-time prescription. Such practices put a heavy burden on patients, not only in terms of money but also of time. This is not to say that physicians or hospitals are the only ones to blame, but they are a part of a system whose incentives are clearly backward.

Significant increases in patient days of hospitalization and in the number of outpatient visits per illness episode have occurred since 1980. In the years between 1980 and 1988, for example, the average period of hospitalization for inpatients rose from 8.59 days to 13.39 days. Over the same period, the average number of physician visits per outpatient almost doubled, from 2.72 visits to 4.93 visits (KMIC 1988). Whether the increases are primarily the physicians' doing or the result of the increased complexity of the illnesses treated is arguable. Still, it is undeniable that physicians have played some role in causing the changes.

### *New Technologies*

The private sector has recently invested in medical facilities and high-tech equipment without much resistance from the government or the public. Many of the new technologies are seldom used but add considerable costs to hospital operations (Korea Development Institute 1989). Newspapers have called such wasteful hospital behavior "high-tech for display, but not for use."

The Ministry of Health and Social Affairs formed a special committee to address inefficiencies such as the duplication of facilities and services and excess capacities in the hospital sector. Hospitals are now required to secure the approval of the committee for major new hospital investments. For example, the construction of new hospitals in urban areas and acquisition of expensive high-tech equipment at all hospitals have come under government regulation.

The committee has been rather ineffective in reducing inefficiencies in the hospital sector, however. The duplication of sophisticated technologies and excess capacities have become even more common in recent years. The extent of the latter problem becomes even clearer when it is compared with the situation in other countries. To mention just a few examples, Korea has thirty-eight hospitals with approved heart transplant facilities, whereas the Canadian government has approved fewer than thirty-two heart transplant centers. Almost all Korean hospitals with more than 200 beds have at least one CAT scanner and there are

twenty-six that can provide extracorporeal shock-wave lithotripsy treatment, whereas only four centers in the whole of Canada offer such treatment.

### *Lack of Policy on Drug Distribution*

In 1988 the government tried to divide the role of drug distribution between pharmacists and physicians by making physicians the prescriber and pharmacists the dispenser. Both parties were afraid of losing revenue, as they believed drug consumption would fall under the new policy, and they flatly turned down the government proposal, leaving the public as the only loser. With the highly aggressive pharmaceutical companies and profit-oriented providers holding political clout, public-oriented drug policies are not likely to develop in Korea, at least in the near future.

### **Concluding Comments**

The Korean health care system is dominated by private providers pursuing both economic profit and professional autonomy. At the same time, the government has installed regulatory mechanisms in order to meet the public's demand for improved health care provision. These government policies, influenced by providers, are often ineffective and usually end up protecting providers at the expense of consumers. For example, when the system was jeopardized by a shortage of insurance funds in 1985, the government, by raising coinsurance rates, urged the public (especially the poor) to use fewer health services. The same situation occurred in 1990, thereby raising effective coinsurance rates further. When the providers' profit margins fell as a result of competitive high-tech purchases among providers, the government allowed another substantial increase in the reimbursement rate, but this only added to the consumers' financial burden.

In sum, the position of the public, especially of the poor population, is not given as much attention as it deserves in the Korean health care system. Thus the system may not be the best one for other countries to emulate. The unusual structure, with social insurance in the form of typical private insurance, would bring about neither equity nor efficiency, and unless the incentives were changed, it would not be too successful.

Korea had an opportunity to build a sound health care system through reform at the time that the national health insurance program was pouring additional resources into it. Now that the program has been fully implemented, it may be difficult to achieve even minor reforms in the system.

Yet unless basic reforms are initiated, resources will continue to be wasted, health care expenditures will continue to rise, insurance coverage will be reduced, and low-income families will have less access to the care they need. These problems will become more widespread and more intolerable in the future. Thus Korea now needs to focus its attention on two critical policy questions: What organizational pattern provides health care providers with the incentive to be cost-effective and to look for ways to deliver better care at less cost? and Which organizational and financing mechanism meets Korea's equity objectives?

Korea's national health insurance funds, which are a by-product of an ideologically and politically motivated social movement over the past decade, have helped reshape the Korean health care system. They could certainly be a giant step toward health for all, but only if they are managed with an eye to the issues outlined above. From the experience of other countries, it appears that some strategies are available to lead the system in the right direction. The question is whether the government and the health sector fully recognize the significance of the current situation and are willing to pursue new strategies. If they are not,

their great accomplishment thus far—Korea's national health insurance societies—will fail to function to the benefit of all.

## Notes

1. The extent to which these health improvements are attributable to health service interventions or to improvements in diet, sanitation, and other aspects of the standard of living has not yet been established.

2. The period 1975–85 is the most recent one for which the Bank of Korea has complete input-output data for all sectors of the economy. This is also the period in which the Korean economy recorded unprecedented high growth rates. The increasing share of health out of GDP therefore indicates how fast the health sector expanded during the period.

3. Anderson (1989) argues that Koreans recognize the need for cost containment and know that a higher percentage of their wages will be deducted unless they control health care utilization. There seems to be little evidence to support his argument, however. Since most health insurance is obtained through the job and half of the premium is paid by employers, savings from lower premiums from reduced utilization would not accrue to individuals directly. Therefore, the incentive for them to be premium conscious is not large. The same can be said of regional health insurance, where half of the premium and part of the administration costs are paid by the government. Whatever the program, the premium in itself is not meaningful when compared with the large amount of user charges. Few Koreans are even fully aware of the cost containment issue. Even those who are tend to ask the government to be responsible for cost increases. Furthermore, there is no sign of voluntary utilization control at any level of society. If there is any, it is due to high coinsurance rates.

4. Whether reshuffling of the insurance societies is politically acceptable is beyond the scope of this discussion. However, the issue has recently been debated in Congress and in academic societies. A government decision on the issue is yet to be made.

5. Anderson (1989) has estimated that insurance societies are able to limit their administrative costs to less than 5 percent of revenues, but this figure seems doubtful, especially when one takes into account the salaries paid to government-appointed administrators and other expenditures.

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# 5

## *The Canadian Health Care System: Where Are We and How Did We Get Here?*

*Robert G. Evans and Maureen M. Law*

Canada's system of universal public insurance for health care is by a considerable margin the nation's most successful and popular public program. Far more than just an administrative mechanism for paying medical bills, it is widely regarded as an important symbol of community, a concrete representation of mutual support and concern. In a nation subject to strong divisive forces rooted in both geography and history, the health insurance system is an important unifying idea as well as an institution. It expresses a fundamental equality of Canadian citizens in the face of disease and death, and a commitment that the rest of the community, through the public system, will help each individual with these problems as far as it can. As David Peterson, the premier of Ontario, pointed out at the opening of the International Conference on Quality Assurance and Effectiveness in Health Care in 1989, "There is no social program that we have that more defines Canadianism or that is more important to the people of our country."

### **Historical Account**

Canada's program has passed through several stages, which can be defined as the early efforts of the 1930s and 1940s, the Saskatchewan program of 1946, the national hospital program of 1945–56, the national hospital program from 1956 on, the Saskatchewan insurance plan of 1961, the financing arrangements of 1977, and the Canada Health Act of 1984.

#### *The Early Efforts (1930s and 1940s)*

A national health insurance program had first been promised by the Liberal Party during the election campaign of 1919. Despite the party's success at the polls in that election, the first serious public discussion of public financing for health care did not really begin on a national level until 1937. In that year the Report of the Rowell-Sirois Commission (Canada 1937), an important Royal Commission that examined all aspects of federal-provincial relations, recommended the development of "state medicine and state hospitalization or health insurance." It declared that such programs should be a provincial responsibility. These recommendations were to have a major impact on the thinking of future federal and provincial governments concerning the possible options for the creation of a "national" health financing program.<sup>1</sup>

Over the next eight years, there were several federal committees, of both politicians and public servants, to discuss the possibilities for public financing of health care. The Beveridge

Report (1942) in the United Kingdom was very influential. These committees wrestled with some difficult questions.

First, since the Canadian constitution assigns health care matters almost exclusively to provincial jurisdiction, how would it be possible to create a program that all provinces would support or could afford? Would it be possible to achieve a constitutional amendment that would permit the federal government to mount the program?

Second, what would such a program cost? Although income tax data were available on physicians' incomes and the Dominion Bureau of Statistics had data on hospital costs, no one knew what would happen to utilization following the introduction of public financing.

Third, how should revenue be collected? The "insurance" approach that was always envisaged would require some kind of poll tax. It was thought that this could be collected through employers, but what about the unemployed and the retired? The cost of having to register everyone and collect premiums was considered too complicated and costly. And who would pay for those who could not pay for themselves?

Fourth, should the program cover only the poor, leaving those who could afford it to cover themselves with voluntary, private insurance?

Fifth, what would be the reaction of the medical profession? The Canadian Medical Association (CMA) had also begun to debate the subject. Its first statement on the subject came in 1939 when it declared that it was not able to speak for its members on this because the members were not sufficiently familiar with such plans to take a position. By 1943, however, they were ready to endorse two resolutions:

1. The CMA approves the adoption of the principle of health insurance.
2. The CMA favours a plan of health insurance which will secure the development and provision of the highest standard of health services, preventive and curative, if such plan be fair both to the insured and to all those rendering the services. (Canadian Medical Association, 1943)

The doctors spoke of a preference for a plan that would have an income ceiling for beneficiaries. They also tended to favor a system of capitation payments for general practitioners and a fee for service for specialists.

Sixth, what would be the reaction of business? A British Columbia proposal for a provincial program had been scuttled at the last minute owing to the opposition of business leaders to a new tax. The insurance industry at that time endorsed the concept, provided that the plan was totally self-financing and that the federal government would pay for those who could not. Farm and labor organizations were strongly supportive.

Seventh, what would be the reaction of the provinces? In 1944 all provinces agreed to the concept of comprehensive public health insurance, but they stressed the need for each province to be free to introduce each benefit as it was able to do so.

Despite these difficult questions, it is striking that the reports of the various government committees and the statements of the diverse interest groups during that period reflected a high level of support for comprehensive programs that would include, indeed would emphasize, preventive measures.

And so it seemed that by 1943 Canada was, after years of discussion, poised to introduce some form of public health insurance. Throughout 1944, however, a series of federal-provincial disputes delayed the calling of the meeting planned to introduce the federal proposals. Thus it was that these proposals became swept into the wide-ranging plans for the postwar reconstruction of Canadian society.

Finally, at the historic federal-provincial meeting in August 1945, the federal government unveiled its proposals. These included the following recommendations:

1. Immediate planning and administration grants were to be provided to assist the provinces in preparing to implement health insurance.
2. Provinces were to administer a universal, comprehensive, compulsory health insurance program that they would implement by progressive stages, according to an agreed-upon timetable.
3. The federal government would make a grant of one-fifth of the estimated cost of the service, plus one-half of the additional actual cost to a maximum of \$12.96 per capita.
4. The federal government would provide additional health grants (to provinces that had implemented the program) for public health purposes.
5. The federal government would provide provinces with hospital construction grants.

Unfortunately, the entire conference collapsed because the participants failed to reach an agreement over the division of resources between the federal and the provincial governments, and the health proposals were left if not dead at least in limbo.

### *The Saskatchewan Hospital Insurance Program (1946)*

Following the collapse of these efforts to establish a national program, the action shifted to the province of Saskatchewan. This was the province hardest hit by the depression. The sparse population, scarce resources, and dependence upon a single crop resulted in the development of cooperative agencies not only for the marketing of the wheat but also for the provision of essential social services. In fact, the cooperative movement flourished in Saskatchewan as in no other Canadian province, and this form of local initiative was to be extremely important in the history of health insurance in Canada.

Saskatchewan had already pioneered the municipal doctor schemes, in which general practitioners were employed, on salary, by rural municipalities. They also had a "union hospital" system which had (by legislation) grouped municipalities into districts for the purpose of building and operating hospitals. Some municipalities had even gone beyond their responsibility for providing care for the indigent to begin collecting local taxes to pay hospital bills for all of their residents.

In 1944, in anticipation of the federal program, the Saskatchewan government passed legislation to create a commission to administer a health insurance program in the province, thus raising public expectations.

When in 1946 the premier announced the government's plan to launch the first comprehensive public hospital insurance program in North America, the province was suffering from severe shortages of health resources, including doctors, nurses, hospital beds, and financial resources. It was feared that these resources would be completely overwhelmed. Nevertheless, the premier, Tommy Douglas, had a strong personal commitment to the enterprise. He was convinced that Saskatchewan would demonstrate the feasibility of public health insurance, thus facilitating the introduction of the national program and the transfer of federal resources to the province. As he said in the Saskatchewan legislature,

I made a pledge with myself long before I ever sat in this House, in the years when I knew something about what it meant to get health services when you didn't have the money to pay for it. I made a pledge with myself that someday if I ever had anything to do with it, people would be able to get health services just as they are able to get education services, as an inalienable right of being a citizen of a Christian country. (*Regina Leader Post*, September 1, 1944)

It appears that there was never any thought of introducing a program that would be less than universal and compulsory.

With respect to the benefits, it was decided, with the same underlying principle, that all essential hospital services should be covered and there should be no limit to the number of benefit days except the criterion of medical necessity. It was assumed that hospitals would continue to charge extra for private and semiprivate ward accommodation, but that it would be necessary to ensure that there were an adequate number of standard rate beds available.

The initial cost estimates were made on the basis of existing hospital data and the estimate of utilization that had been agreed upon at the federal-provincial conference in 1945.

The major factor in the decision about the method of revenue collection was the requirement that had been proposed by the federal government of an "insurance" approach—that is, that a registration fee or premium be paid for each person covered by the plan. The government therefore decided to contribute an amount equal to what it had been contributing to hospitals prior to the program and to collect the rest through premiums.

How to pay the hospitals proved to be the most complex of the problems to be resolved. Certain principles guided the deliberations (Taylor 1978):

1. The hospital services plan would become the chief source of revenue for all hospitals in the province.
2. It would be impossible to permit a hospital to close through the lack of funds.
3. The earning of a large surplus by any hospital would be undesirable.
4. A system of payment should be one that would encourage efficient operation and promote improvement in services. It must not subsidize inefficiency, waste, or extravagance.
5. Additional payments by patients for "extras" should be kept at an absolute minimum.
6. Payment should be for operating costs only. Capital costs were to be borne by the community, with the assistance of provincial construction grants.

It was agreed that the most practical method of payment would be to pay the costs of operation, but initially this was difficult to determine because of the lack of standard accounting procedures, and so initially the hospitals were paid according to a point system in which hospitals were graded on the basis of their size and the services they provided.

Administration was assigned to the Health Services Plan Commission, which was composed of public servants.

**THE RESULTS.** Initially the hospital utilization rate increased even more rapidly than expected and as a result the costs exceeded considerably the initial cost estimates. There were a number of important factors behind this: the shortage of physicians and the difficulties of transportation in the rural areas led to a high rate of hospitalization; the health of the population was relatively poor because of poverty and large families; there were no alternative facilities such as nursing homes.

Nevertheless, the program survived these early difficulties, and within a year or two the plan was working well, and the people of Saskatchewan were convinced that the decision to proceed without the federal government had been a good one.

All of Canada benefited from the Saskatchewan experience. It has been said that "in the educational process through which Canadian governments learned how to administer universal hospital insurance, Saskatchewan paid most of the tuition fees" (Taylor 1978).

### *The Background to the National Hospital Program (1945–56)*

Between 1945 and 1956, the federal government did not renew its health insurance offer to the provinces. Nevertheless, some important developments took place, in addition to the introduction of the Saskatchewan program. British Columbia introduced a similar program



in 1949, but poor design and administration led to some serious early difficulties and contributed to the defeat of the provincial government in 1952. In 1954 the new government terminated the effort to collect premiums through both payroll deductions and individual registration and moved instead to financing from taxation. Alberta introduced a patchwork program in 1950, which required individual municipalities to opt into the plan, and then applied indirect pressure to force them to do so. Newfoundland, which became a province in 1949, brought with it its "cottage hospital system," which provided hospital and physician services to residents who paid an annual premium. The hospitals were provincially owned and the doctors were salaried. The system covered the population outside the urban centers (about half of the total population).

On the negative side, the CMA in 1949 abandoned its earlier support for government health programs in favor of extending voluntary plans to cover all Canadians, with governments paying the premiums for those who could not afford them. During this period there was also a rapid expansion of voluntary insurance enrolment. Undoubtedly the most important development, however, was that Ontario with its great political clout assumed the leadership role in pressuring the federal government to deliver on its earlier promises of a national program.

By 1956 the federal government was under strong pressure to act. First, in 1952 a national sickness survey had demonstrated serious inequities with regard to health status and the financial burdens resulting from illness. These inequities applied both to socioeconomic groups and to geographical areas. Second, there were also serious disparities among provinces, with respect to their ability to provide needed health services. Third, there was growing political pressure from the public and the provinces for a national program.

At the same time, there remained some important constraints, which included financial considerations and possible opposition from the Canadian Medical Association and the Canadian Hospital Association, both of which continued to argue for voluntary, private schemes with government subsidies for the needy. Finally, there remained the complicated constitutional issues.

### *The National Hospital Insurance Program (1956)*

Despite these obstacles, the federal government offered in 1956 to pay one-half the national cost of diagnostic services and inpatient hospital care. Certain conditions were attached: coverage was to be universally available; within an agreed time period diagnostic services were to be covered for outpatients; coinsurance or "deterrent" charges were to be strictly limited; capital costs were not included; mental hospitals and tuberculosis sanatoriums (which were already fully funded by provincial governments) were not included; and the federal contribution would be 25 percent of each province's sharable costs plus 25 percent of the average per capita cost for the whole of Canada (so as to permit poorer provinces to benefit more than the richer provinces).

These provisions were embodied in the federal Hospital Insurance and Diagnostic Services Act, passed in 1957, under which federal payments began to flow to provinces with conforming plans. Ontario, the largest province, launched its plan for hospital insurance in 1959. Although nominally "voluntary," the Ontario plan was sufficiently favorable that within one year it covered 92 percent of the population and within two years 99 percent. In effect, the Ontario approach was quite similar to the Saskatchewan plan, achieving de facto universality without explicit compulsion.

One important difference at the outset was that at the time of its introduction, about two-thirds of Ontario residents had at least some protection against the costs of hospital

care, mainly through the Ontario Blue Cross Hospital Plan, a subsidiary of the Ontario Hospital Association. One provision of the government plan was that it would take over the administrative staff and equipment of that organization, and it spent two years in strengthening that mechanism before launching the public plan. The Ontario Hospital Association agreed to limit its insurance activities to coverage for supplemental benefits such as the extra costs of private and semiprivate accommodation. In order to appease the Ontario Medical Association, the plan did not cover outpatient diagnostic services, nor did it include the innovative home care component that had originally been contemplated.

Because of the accumulated knowledge of the Saskatchewan program and the Blue Cross plan, the original cost estimates were much easier and more accurate. Standardized hospital accounting procedures made the calculation of payments to hospitals much more straightforward than had been the case in Saskatchewan.

**THE RESULTS.** By 1961 all provinces had launched programs. With uniform conditions of residency, the same waiting periods for eligibility of new residents, and uniform benefits, ten provincial programs were melded into the reality of a national program.

To the surprise of many experts, public insurance did not accelerate the growth in hospital use. The rate of hospital inpatient days per capita rose only 13.7 percent between 1956 and 1966, compared with 27.2 percent between 1947 and 1956 (Barer and Evans 1986). Clearly the main increase in utilization had already taken place—probably because of the voluntary plans in the larger provinces.

On the other hand, the decision to introduce hospital care as the first public insured benefit, and the failure to provide support for less expensive alternatives such as nursing homes, home care, or ambulatory services led to the perpetuation and extension of the pattern of inpatient use that had developed with the support of the private plans. By the mid-1960s, there was a growing recognition that a substantial proportion of inpatient use in Canada, as in a number of other countries, was inappropriate and unnecessary. Some services could be provided at less cost and equal or greater benefit in other settings; others, like excessive lengths of stay or inappropriate procedures, were simply unnecessary activity—pure waste. The public plans did not create this problem, but they did for a number of years ignore it.

Program financing, however, quite soon shifted away from the insurance model. By 1973 only two provinces, Alberta and Ontario, continued to require the payment of premiums as a condition for entitlement to hospital benefits.<sup>2</sup> Today, only Alberta still levies premiums for hospital care, and as noted below, federal legislation now clearly provides that coverage must be universal and cannot be conditional upon payment (but see note 3 below). The other provinces finance their programs from general revenues collected through various combinations of income tax and sales tax. In effect, the hospital “insurance” programs in most cases had become hospital “services” programs for residents.

### *The Saskatchewan Medical Care Insurance Plan (1961)*

Once again the action shifted to Saskatchewan. The primary motivation for action was undoubtedly the philosophical commitment of the government, particularly of the premier, to the concept of health services as a fundamental human right. And the introduction of the federal hospital insurance program had produced a financial windfall for Saskatchewan. Furthermore, a local experiment in prepayment for medical care (the Swift Current region medical plan) had demonstrated the feasibility of a universal tax-financed program. In fact,

it had resulted in the highest doctor-to-population ratio in rural Saskatchewan, where there remained severe shortages of physicians.

The major constraint, apart from the perennial problem of limited provincial financial resources, was the opposition of the medical profession, whose members "favoured health insurance but not state medicine" (Taylor 1978). They considered themselves, through their college, the body responsible for medical care in the province. Because of the chronic shortage of doctors and the mobility of physicians, they were in a very strong position politically.

**THE PHYSICIAN-SPONSORED PLANS.** Saskatchewan, like other provinces, had physician-sponsored medical care insurance plans. These plans played an important role in the development of medical care insurance in Canada. They were voluntary, comprehensive plans that were often offered to individuals through their places of employment (with the result that they tended to cover the healthier members of society). Most of the plans were of the "service" rather than the "indemnity" type; that is, the doctor billed the plan directly, not the patient. Payment by the plan according to the fee schedule was generally accepted as payment in full; except in Ontario, physicians rarely billed patients for extra amounts. These plans institutionalized the fee-for-service system as the preferred payment method for the profession.

### *The Saskatchewan Medical Care Insurance Act*

Despite the concerns about the possible reaction of the doctors and the press (which tended to be antigovernment), and uncertainty about public reaction (since about two-thirds of the population had at least some voluntary coverage, Saskatchewan's leaders wondered whether the public would countenance a major confrontation with the medical profession), the premier announced in December 1959 that the government would introduce a provincial medical care insurance plan.

There ensued two years of mainly acrimonious discussion and debate over the proposed legislation, but in late 1961 the legislation was finally passed. Under its provisions, the intent was to pay for services; the administration was to be the responsibility of a commission of six to eight members, at least three of whom were to be physicians; there was to be an advisory council representing professional and other interested organizations; there was to be a medical advisory committee with members approved by the college; the program was to be universal and compulsory; the plan was to be financed by premiums and general revenues; insured services were all services of physicians and surgeons in office, hospital, or home; with some minor exceptions, the plan payments were to be accepted as payment in full; and the patient was guaranteed the freedom of choice of doctor and doctors were given the right to free acceptance or rejection of the patient. Despite its preference for a capitation system of payment for general practitioners, the government, in an attempt to appease the doctors, agreed to a fee-for-service approach.

It is impossible in this brief overview to discuss all of the debate that followed and the numerous proposals and counterproposals that were developed by both sides during the next six months. The outcome was the worst episode in the history of health insurance in Canada. On July 1, 1962, the doctors began a strike that was to last for twenty-three days and that produced bitterness and rifts among the citizens of Saskatchewan that took a decade to heal.

The government had prepared for the possibility of a strike by recruiting sympathetic doctors from outside the province, mainly from Britain, but also from other provinces. The

striking doctors were supported not only by the CMA and much of the provincial press (whose opposition was to the compulsory nature of the program), but also by many citizens, who through fear of losing their doctors or ideological conviction, organized "Keep Our Doctors Committees."<sup>3</sup> These committees almost succeeded in forcing the government to concede defeat. In contrast, much of the national media was favorable to the position of the government.

In the face of this impasse the government invited Lord Taylor, a British doctor who had been involved in the start of the British National Health Service, to come to Saskatchewan. He concluded that the plan was basically a good one but that there had been insufficient early contact with the doctors, whose major concern was that they might become, in effect, public servants. After negotiations that involved not only the provincial government and college representatives, but also representatives of the CMA, Taylor proposed a compromise that was finally accepted by both sides: the prepayment plans would remain in existence. Doctors would have the option to enrol directly with the government plan and be paid by it or to bill a voluntary plan that would in turn bill the government, or to practice entirely outside these plans (in which case their patients would be reimbursed by the government commission if they billed in accordance with the fee schedule or not at all if they did not). Initially, most doctors did bill through the prepayment plans, but over time the tendency was to bill directly to the commission.

**THE RESULTS.** In the immediate aftermath of the strike, there was a significant exodus of doctors from the province, but within two years the physician/population ratio was the highest ever, and physicians' incomes had risen dramatically.

Once again Saskatchewan had demonstrated that a universal program was feasible, albeit difficult to implement.

### *The National Medical Care Insurance Program (1966)*

During the early 1960s another important event in the development of Canadian health insurance took place: the Royal Commission on Health Services was formed, chaired by the Honorable Emmett Hall, Chief Justice of Saskatchewan (Canada 1964). The commission released its report in 1964, recommending that there be a "comprehensive, universal Health Services Program for the Canadian people, based upon freedom of choice, and upon free and self-governing professions; and financed through prepayment arrangements." The report was a landmark document that spelled out in some detail what form the program should take.

Again there were uncertainties about costs, provincial response, opposition by the doctors, and response by the business community. And again political leadership was an important factor. The prime minister, Lester B. Pearson, who had a strong personal commitment to the concept, was determined to have the program in place before Canada's centenary on July 1, 1967. Accordingly, the federal government introduced its program in 1966. The legislation embodied four principles that had been presented by the prime minister to a federal-provincial conference in 1965 (Taylor 1978). The provincial plans must be universal, cover all medically necessary services of physicians, be publicly administered, and provide for portability from one province to another. These "Four Points" evolved into the five basic standards applied today and explored in detail below.

**THE RESULTS.** The legislation was not well received by some of the provinces, notably Ontario and Quebec, both of which objected on the grounds that the conditions (like those

of the hospital insurance program) amounted to a federal intrusion into an area of provincial constitutional jurisdiction. Nevertheless, by 1971 all provinces had joined the program. The transfer of financing from private to public sources necessitated the imposition of new federal and provincial taxes.

An important feature of the system as it developed was that private insurance for publicly insured services was prohibited in most provinces, making the emergence of a private system virtually impossible.

### *The Established Program Financing Arrangements (1977)*

Despite the success and popularity of the hospital and medical care insurance programs, the federal and provincial governments had concerns about the financing arrangements. The federal government was frustrated by its lack of ability to control, or even to accurately predict, its expenditures on the two programs, since federal contributions were responsive to provincial expenditures. Moreover, the expected increases in public expenditures due to the end of uncollectible accounts and some increased utilization, were aggravated by factors that the insurance plans treated as beyond their control, including the steadily rising physician-to-population ratio, expanding technology, and particularly rapid increases in the use of services by elderly people. Administrative costs, however, remained low.

At the same time, the provinces were demanding greater flexibility in the allocation of the federal funds. Discussions began in 1976 between the federal and provincial health departments about the possibility of extending the cost-sharing arrangements to "lower cost alternatives," such as nursing home care and home care.

In the same year negotiations began between federal and provincial finance ministers to develop new financing provisions. Eventually there was agreement on the fundamental change from cost-sharing to block funding, but not on the specific details. Finally in 1977 the federal government forced the provinces to accept the Established Programs Financing Act (EPF), which ended the cost-sharing and provided for the provinces to receive a combination of tax points and cash payments to the provinces. In return the provinces would have the freedom they had been seeking to spend the federal contributions as they wished, provided that the basic conditions of the programs (universality, comprehensiveness, accessibility, portability, public administration) were met. In addition, the provinces were given unconditional per capita grants for "extended health services."

Several provinces improved the availability and accessibility of home care and nursing home services; since the mid-1970s or earlier there has also been a slow decline in inpatient use. But in the subsequent years the federal government has three times moved unilaterally to reduce its obligations under the EPF formula, and in legislation passed in 1990 implicitly established a schedule for phasing out its cash contributions entirely. This will not eliminate the federal contribution, at least in form, since the EPF arrangements of 1977 provided for transfers of both cash and a share of income tax revenues. Only the former is being phased out, but this may well have the effect of removing the federal government's ability to enforce national standards.

### *The Canada Health Act (1984)*

In 1979, the federal minister of health became concerned about several aspects of the functioning of the provincial health insurance programs. She charged that the provinces were "diverting" funds provided for health care by the federal government through cash and income tax shares to nonhealth expenditures.<sup>4</sup> Moreover, she feared that the imposition

of user fees by provinces for hospital services, and extra-billing by physicians (direct charges to patients over and above the negotiated fee schedules) had reached the point where they were interfering in "reasonable access," one of the basic conditions of the federal program.

The federal government commissioned an independent review, again conducted by the Honorable Emmett Hall. This review rejected the claim that the provinces were "diverting" funds from health care but supported the concerns about user fees and extra-billing. The government then introduced new health legislation to cover both hospital and medical care. It provided for financial penalties for provinces that permitted extra-billing or user charges, penalties that led to the effective elimination of both practices. It also consolidated and clarified the conditions of the earlier legislation.

Once again, there was an angry debate involving the provinces and the doctors in opposition to the federal government.<sup>5</sup> But the Canada Health Act was finally passed in 1984, with the unanimous support of the federal Parliament. The extraordinary decision by the opposition Conservative Party to support this legislation was a bitter surprise for both doctors and provincial governments and reflected the opposition's reading of the very powerful popular support for Medicare. After all, the normal duty of Her Majesty's Loyal Opposition is to oppose.

The Ontario and Canadian Medical Associations later launched a legal challenge to the legislation on the grounds that it was an unconstitutional intrusion into provincial jurisdiction but withdrew the action in 1990 without coming to trial.

The implementation of a ban on extra-billing in Ontario led to a doctor's strike (the second in Canada), which lasted for twenty-five days in 1986. The lack of public support for the doctors finally caused them to abandon the strike, which had in any case not been well supported by the doctors themselves.

The major purposes of the Canada Health Act—the elimination of user fees and extra-billing—have thus been achieved, but its more ambitious objective of "protecting, promoting and restoring the physical and mental well-being of Canadians" will require more than the assurance of access to health services without financial barriers, as the continuing disparities in health status among socioeconomic groups illustrate.

### Lessons from the Canadian Historical Experience

*From the point of view of the general population, the Canadian health care funding system has been in existence in essentially its present form for more than twenty years. For many, it has "always been there": a majority of the present population were born within the universal hospital insurance programs. Over this period, the evolution of policy and legislation has had little impact on the individual patient or provider, or at least that they could observe.*

The health care system does receive a great deal of public and political attention; there is always some sort of health "crisis" in the media. But this attention usually focuses on the immediate situation and provides a misleading or erroneous view of the underlying forces at work. Providers of care constantly hammer the theme of "underfunding," meaning little more than that they would like more money, while provincial payers bemoan "cost explosions" and imminent bankruptcy of the system. All of this makes wonderful theater and sells newspapers; it is also ideal for the exciting but meaningless two-minute television clip showing blood, emotion, and complex machinery.

The next section of this chapter provides a somewhat more detailed assessment of the state of health care finance in Canada at the beginning of the 1990s, now a mature, but

evolving system. The discussion focuses on the strengths and weaknesses, threats and promises, relative to the objectives of its architects and those of today. But certain lessons also emerge from the historical record itself, independently of the current state, and it may be worth drawing these out first.

- *Things take a long time.* It was roughly fifty years from the first serious discussions of health insurance at the national level in 1943 until the last province entered Medicare in 1971. The process was very slow and contentious and sometimes seemed to reach a dead stop.
- *The present tends to be much like the past.* What was from one perspective a “radical” shift from private to public funding can also be seen as a natural extension of well-established patterns of reimbursement (the original Blue Cross model of nonprofit, service benefit, comprehensive coverage) to cover the whole population, within the same framework of private fee-for-service medical practice and independent nonprofit hospitals. In contrast to the American experience, the Canadian public funding system has turned out to be highly “conservative” of the system of delivery.
- *If it is not fixed, it stays broken.* When the Canadian provinces established universal hospital insurance, they inherited and extended excessively high rates of inpatient use. Changing the identity of the payer had no effect. Forty years later, while substantial progress has been made, there is still much overuse. The same inertia is observed in medical education. As explained below, Medicare began with a serious overbuilding of medical school capacity, which has yet to be reversed. And of course physicians themselves continue to be reimbursed primarily by fees for service, just as before.
- *Giving people things is easier than taking them away.* This observation applies particularly to *providers* of care, and of education. The right to serve (and be paid for it) seems to be an even more powerful political force than the right to be served. Thus it is much easier to expand a system than to modify and manage it.
- *Thus there is an implementation dilemma.* Getting through the slow and contentious process of acceptance and implementation will be easiest if minimal changes are made to existing arrangements. (“Revolutionary” approaches fail, at least in Canada.) But that strategy then freezes in place all the problems of the existing system.
- *History does not stop.* While to the user the Canadian funding system has been stable, the legislative, administrative, and funding bases have gone through major changes and continue to evolve. And at each stage the system has been attacked by the same economic and professional interests that resisted it from the beginning: physicians, conservative provincial governments, medical insurers, well-off individuals. The same old arguments recur and must be refuted again and again. But since these arguments are rooted in a realistic appreciation of *private* interest, they will never go away.<sup>6</sup>

### Central Features of the Present Situation

The Canadian funding system is, strictly speaking, not a national but a federal-provincial system, run cooperatively by the federal and provincial governments. The federal government has, with limited exceptions, no constitutional authority over matters of health. Thus the public insurance plans are actually operated by each of the provincial governments, which have full administrative and fiscal authority and responsibility. But the federal government makes substantial financial contributions to the provinces in respect of such plans (currently about 40 percent of total costs), on condition that the provincial plans conform to certain broad federally defined standards. It is thus possible to speak of, and

describe, a “Canadian” system, even though each of the ten provincial plans has some distinctive features.

As described above, Prime Minister Lester Pearson in 1965 laid out four general principles that characterized the existing hospital insurance plans and should apply to coverage of physicians’ services as well. These have over time become refined and summarized as the five federal standards to which each provincial plan must conform, in order to qualify for federal contributions.

These standards—universality, comprehensiveness, accessibility, portability, and non-profit administration—each represent a general principle whose intent is clear enough but whose detailed application is open to considerable interpretation. They have been the subject of much discussion and some evolution over time. The Canada Health Act of 1984 has replaced and modified the earlier federal legislation (the Hospital Insurance and Diagnostic Services Act of 1957 and the Medical Care Act of 1966), which originally served as the basis for the federal contributions, and it is the current source for interpretation of these principles. They serve as useful headings under which to describe the present system.

### *Universal Coverage*

Universality was initially defined, when first the hospital and then the medical insurance programs were being phased in province by province, as “almost” all provincial residents (95 percent, rising over time to 99 percent). But it now requires 100 percent coverage of provincial populations. This is of particular importance in the two remaining provinces that still require their residents to pay premiums as part of the public health insurance system.<sup>7</sup>

Each provincial government is legally empowered to raise funds for the program any way it chooses, including through premiums. But the federal standards require that everyone in the province be insured. Thus no one can be denied services, or even charged for them, for failure to pay premiums.<sup>8</sup> (Payment is legally required, and unpaid premiums are subject to collection, but payment is not a condition of coverage.) Hence the “premiums” are simply a form of poll tax, and the national income accountants have always treated them as such.

In the early years, however, there was some concern that very low-risk individuals might still find it worthwhile to carry private insurance and stay out of the public plan. Since this would tend to defeat the purpose of risk-spreading over the whole population, by “cream-ing-off” the good risks, private insurance coverage for services covered under the public plan was not permitted. Private insurance persists for services not included under Medicare—dentistry, prescription drugs out of hospitals, and costs outside Canada above those reimbursable by the public plans—but (except for dentistry) these are relatively small amounts.

Nor is there any “private” system of health care delivery operating side by side with the public plan. All physicians and hospitals, like all patients, work within the public *payment* system, but the *delivery* system is still from most points of view “private.”

In some provinces it is still technically possible for a physician to withdraw from the public plan and to see patients on a purely private basis, with neither being reimbursed by the public plan. A group of physicians could even set up their own, purely private, hospital or diagnostic facility, on whatever economic terms they chose. But their patients would have neither public nor private insurance; such care would thus appeal only to a very select group. Furthermore, the *physicians* in this situation could not simultaneously provide services to patients under the public plan. They must be “all in” or “all out.” Thus private providers would have to be able to make a living *purely* in a private market, rather than playing both sides of the street, as is common in European systems with a private system.



In consequence, no private market has developed, even where it is permissible. This suggests a more general principle, that "private" markets in medicine can persist only where they can be supported directly or indirectly by a public system.

### *Comprehensive Coverage*

Comprehensiveness requires that provincial plans cover "all medically necessary" services. Such services as semiprivate or private hospital accommodation, when not necessitated by the patient's medical condition, or elective cosmetic surgery, are not included under the public plans. Similarly, the services of nonphysicians—optometrists, naturopaths, chiropractors, and other practitioners—are implicitly excluded from the federal definition of "medical necessity," and need not be covered. A province may cover other professional services of whatever type and on whatever terms it chooses; but the federal government imposes no conditions and makes no contribution toward such care.

The increasing interest in the effectiveness, or lack of it, of much contemporary medical care could conceivably infuse more content into the idea of "medical necessity." Many of the services provided by medical practitioners, and associated stays in hospital, appear to be in part or whole unnecessary. Strictly speaking, then, they should not be covered by the public plan. In practice, however, the test of necessity of a service has been (with very limited exceptions) that a properly licensed physician was willing to provide it and a patient to accept it.

The concept of "medical necessity" might receive further consideration in the future, if provincial governments decided simply to "deinsure" services of no demonstrable health benefit. Physicians might still offer such services as carotid endarterectomy or cardiac by-pass grafts for one- or two-vessel disease, but patients would be required to pay the full costs themselves.

At present, however, the trend is rather to try to develop improved regulatory mechanisms to deal with these issues, in cooperation with the leadership of the medical profession, rather than to raise the host of difficult and potentially explosive political and professional issues implicit in such a "market" approach.<sup>9</sup>

Provincial governments have for years established temporary or permanent expert advisory committees, composed of both professionals from the community and bureaucrats, to review new technologies and make recommendations as to which new programs should be started, when, and where. Decisions as to how much capacity to add, become in effect decisions about the content of medical practice, since practice always presses against the limits of capacity. This form of "steering" of medical practice is as old as the public plans and older.<sup>10</sup>

But increasingly such committees are being asked to make explicit recommendations about medical practice itself: guidelines for periodic health examinations, for Caesarian sections, endarterectomy, or cholesterol screening, to take some recent examples. Some provincial professional bodies are beginning to seek an active role in this process, others are hanging back, but it seems almost certain that the development of professional protocols, through some form of government and professional cooperation is going to be an expanding field.

The process is still at too early a stage to have much identifiable hard output. But there may be some emerging success stories. It seems increasingly likely that this consultation process will spare Canadians the gross excesses of cholesterol testing and therapy that are at present a growing threat to the health of the American population. On the other side of the ledger, careful evaluation by such a committee contributed to the rapid spread of effective therapy for hypertension.

What has not yet been addressed is the issue of implementation. What does one do when the protocols are not followed? No one, yet, has grasped this nettle, although there have been a number of suggestions of professional and economic incentives.

### *Reasonable Access on Equal Terms and Conditions*

Accessibility has been a particularly contentious area, encompassing two major disputes between physicians and governments: extra-billing and hospital capacity. Do direct charges to patients impede access to needed care and violate the principle? And do attempts to moderate the expansion of beds and technology constitute a form of "rationing," which effectively does the same, even if care is "free." To date, the short answers given by Canadian opinion and practice to these questions are, "Yes," and "Not necessarily." The former question appears, for the moment, settled, but the latter is wide open and takes up a major share of Canadian political debate.

**EXTRA-BILLING BY PHYSICIANS.** On the first point, practice originally varied from province to province, depending on the political strength of the medical associations at the time the medical insurance plans were introduced.<sup>11</sup> In Quebec, at one end of the spectrum, physicians who billed patients for amounts above the negotiated schedule were not reimbursed at all by the public plan, nor were their patients. At the other, in Alberta, physicians were free to collect their official fees from the public agency and then extra-bill their patients in any amount they wished, which was literally double-billing. Other provinces permitted some form of extra-billing but on more or less restrictive terms.

The Canada Health Act, however, provided that any provincial government that either charged patients for covered services or permitted anyone else to charge for them would lose an amount from its federal grant equal to the estimated total amount of such direct charges. Since that time, all provinces have negotiated or imposed an end to extra-billing and removed any other direct charges for covered services.<sup>12</sup> The act responded to growing concerns and some evidence (hotly disputed by physicians) that extra-billing was beginning to spread and was becoming an increasing impediment to access to care for those in greatest need.

**HOW MUCH ACCESS IS REASONABLE?** The second issue is conceptually more difficult. Canada has historically had a relatively large supply of hospital and other institutional beds, and a correspondingly high rate of use. Nationwide, there are about 6.75 public general hospital beds per thousand population, two-thirds in short-term units and one-third in long-term units or extended care hospitals. Days of care provided are about 2,000 per thousand population, with just over 60 percent in short-term units, a smaller proportion of days because occupancy rates in short-term units average about 80 percent; in long term facilities they are over 95 percent.

Students of health care utilization have generally concluded that the Canadian pattern represents overuse in relation to medical need, and public policy in all provinces has been, on balance, directed toward reducing hospital use.<sup>13</sup> Similarly, the introduction and dispersion of expensive new technical facilities and procedures has been restrained, through the public control of both capital and operating budgets in hospitals, and the negotiation process that determines what shall be included in the fee schedule.

Yet the supply of physicians has increased steadily, and this increase interacts with the rapid extension of technology to create a constant pressure for more and newer "tools of the trade." Physicians' incomes, in a fee-for-service environment, depend on their billing

opportunities, and that in turn, for many specialties, depends on their access to (publicly provided) capital and associated (publicly paid) nurses and technical staff. To this interest is now added a very powerful pressure from nurses and other hospital workers, for whom hospitals represent jobs and opportunities for professional advancement. These groups have become the loudest public voices demanding more beds and larger budgets, and warning the general public of the threats to their health from "cutbacks." One observer has coined the phrase the "job fortress" to describe the Canadian hospital. Canada has in fact the world's highest rate of expenditure per capita, after the United States (figure 5-1), and outlays have been rising more or less in line with national income over the past twenty years (see figures 5-2, 5-3). But this is not enough for the providers of care, who look with envy at the ever-expanding share of income claimed by their counterparts next door in the United States.

It is generally agreed that "access" means not the provision of all services imaginable for everyone, but rather services according to need. The political struggle is then over the processes by which need is to be defined. To the medical profession, need is whatever a physician says it is. If that requires more and more costly services, then so be it. Someone—the government, the patient, the rest of the community—should raise the necessary funds. Governments, on the other hand, are increasingly arguing that the test of necessity is the demonstrable effect of intervention on health outcomes, effectiveness, not merely a physician's opinion, professional or otherwise. Furthermore, they are becoming increasingly aware of the large and growing body of research evidence that indicates that there is often little or no connection between the physician's opinion and the demonstrated effectiveness (or lack of it) of the services provided.

Since this conflict between professional autonomy (and economic self-interest) and payers' concern for value for money (and economic self-interest) is a central issue in virtually every developed country in the world. Thus the application of the principle of access in the Canadian system is likely to remain contentious for a very long time to come.

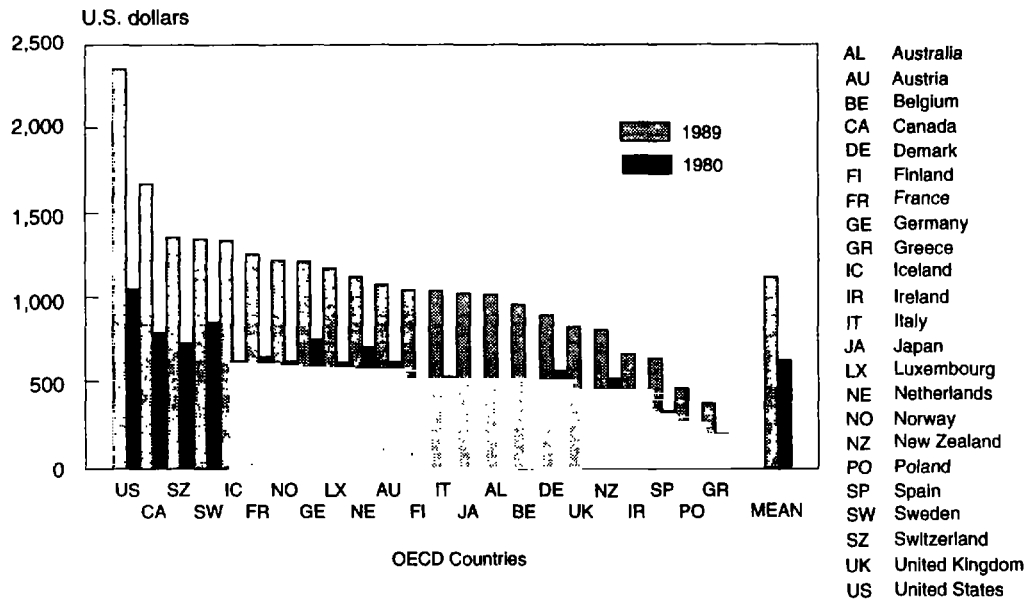
### *Portability of Coverage within Canada*

Portability of benefits is an important principle in terms of its symbolism for national unity, but has not been particularly contentious. It is largely a technical problem. Political issues have arisen only in the one or two cases in which a metropolitan region spans a provincial border, or a significant region of one province receives its tertiary care from a large city in another. If the fee schedules are markedly different, either providers or payers may object to the financial transfers involved.

More potentially troublesome is the issue of payment across the border in the United States. As noted in the discussion of accessibility, provincial governments limit the proliferation of hospital capacity and particularly of expensive diagnostic equipment, by funding them through hospital capital and operating budgets, not through fees per item of service. A hospital that wishes to acquire an MRI machine, for example, or a lithotripter, must not only receive planning approval from its provincial Ministry of Health but it must also convince the ministry to provide the capital funds.<sup>14</sup> Private physicians can in principle purchase and use such equipment, but if there is no corresponding procedural item in the fee schedule, they cannot be reimbursed (by the government or patient) for its use.<sup>15</sup>

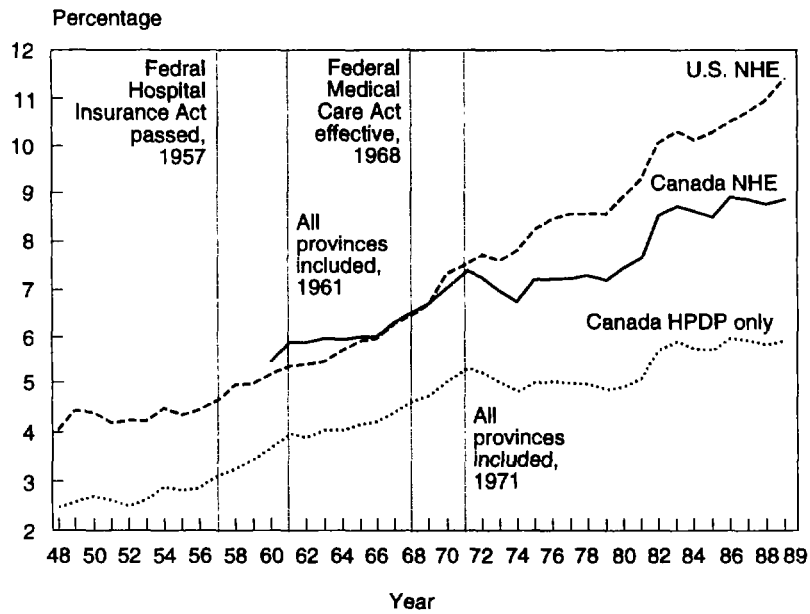
The result is that physicians claim a shortage of major diagnostic equipment, in relation to the much greater capacity and use in the United States. (The price, however, does not fall in the United States.) Whether this represents a shortage in Canada in relation to the needs of the population, or a surplus in the United States, or both, is another matter.

Figure 5-1. Health Care Expenditure per Capita International Comparison, 1980 and 1989



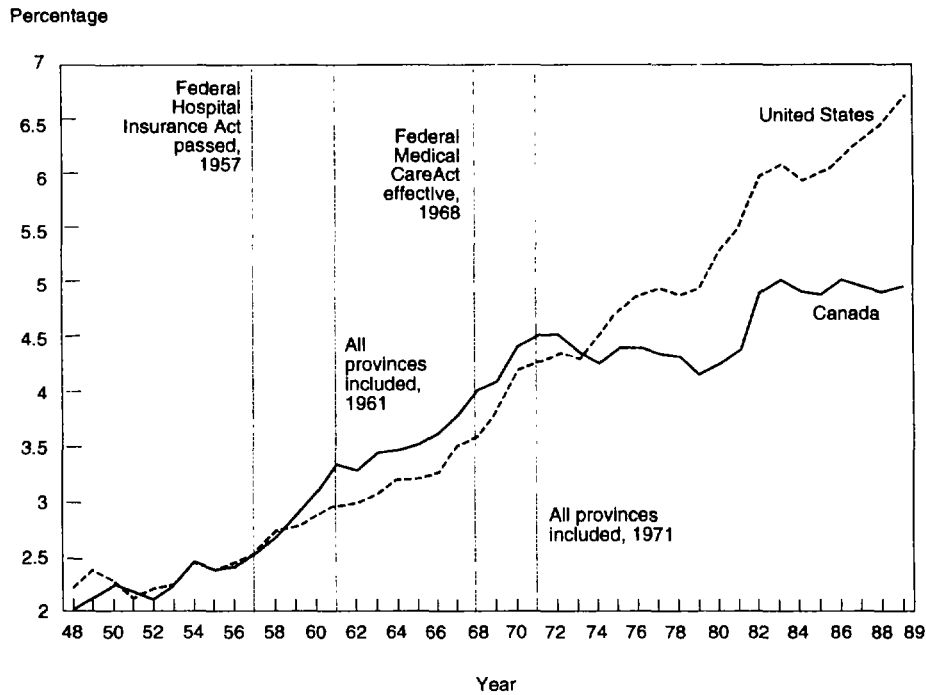
Source: OECD (1990), table 2.9.

Figure 5-2. Total Health Expenditure as a Share of GNP, Canada and the United States, 1948-89



Note: 1987-89 data area preliminary. HPDP = hospitals, physicians, dentists, and prescription drugs. Source: U.S. GAO (1991).

Figure 5-3. Hospital and Physician Expenditure as a Share of GNP, Canada and the United States, 1948–89



Note: 1987–89 data area preliminary.

Source: U.S. GAO (1991).

One could imagine, then, an increased flow of patients across the border in response to the increasing gap between Canadian and American patterns of care. This would place provincial governments in the difficult position of either paying for such additional care, and thus losing control of their total outlays, or permitting the development of a de facto private system of care alongside the public, for those who can afford to pay the American price.

In practice, however, this does not seem to be developing as a significant problem, with the exception of one or two border cities, and one or two particularly contentious procedures. The reality of care use is that patients do not in general “demand” particular procedures; they seek the recommendations of their physicians. These latter can, and do, sometimes refer patients to the United States and then energetically publicize the incident as part of a continuing struggle with provincial governments over the availability of health resources. But this sort of political theater does not correspond to any large movement of patients or dollars.<sup>16</sup>

#### *Administration of Coverage by Nonprofit Agencies*

Nonprofit administration, the final principle, has drawn little subsequent commentary in Canada, because in most parts of the country the private health insurance industry was relatively underdeveloped at the time the public plans were introduced. In each of the provinces there were not-for-profit insurers, sponsored originally by the hospital and

physician associations, similar to the Blue Cross plans in the United States. The hospital and medical insurance business of these plans was simply taken over by the public agencies. In some cases the provincial plans continued to work through the previous carriers as intermediaries, but this arrangement was found to be both unnecessarily costly and inefficient and was soon terminated.

The historical and customary support for nonprofit administration was strongly reinforced by the recommendations of the report of the federal Royal Commission on Health Services (Canada 1964), the massive investigation that predated the extension of public coverage from hospital care to physicians' services. Justice Hall observed that the private insurance plans were paying out relatively low proportions of their premiums in benefits.

Studies for the commission indicated that in the early 1960s administrative overhead absorbed about 22 percent of all premiums for private health insurance in Canada. This ratio was, of course, lower for the dominant group plans (20 percent) than for nongroup plans (30 percent). But the plans offered by commercial firms that were just beginning to penetrate the market, providing more limited coverage and selecting the lower risk groups, had overhead rates of 30 percent for their group contracts and a whopping 55 percent on the nongroup (Canada 1964:chap. 18). This appeared not only inefficient, but unjust.

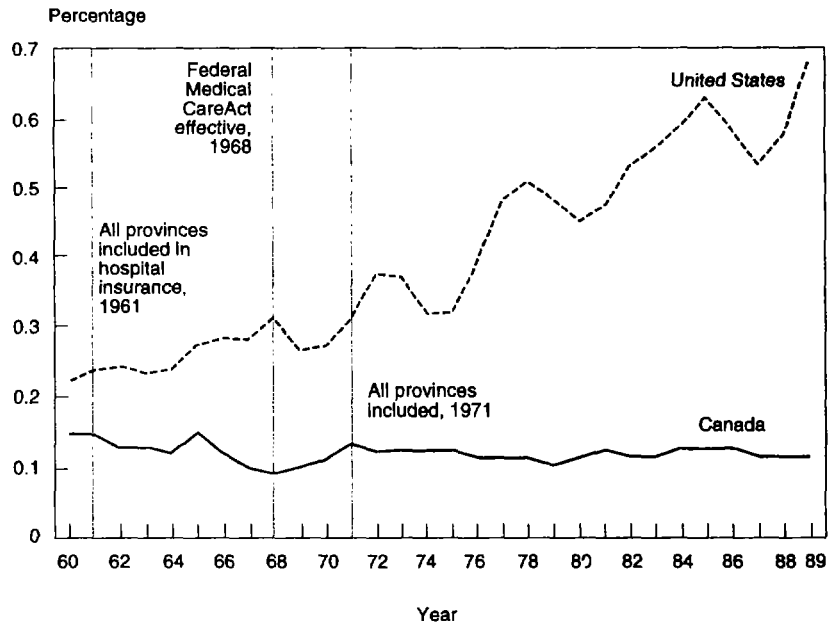
But the *raison d'être* of a private company is to make profits, not to pay claims. A private insurer refers to the ratio of claims to premiums as the "loss ratio," which is to be minimized; profits and other expenses must be found out of the overhead share. To the rest of the community, however, the "loss ratio" is the proportion of total payments to the insurer that actually goes to pay for the desired services, as opposed to being taken up in overhead costs. Thus Justice Hall referred instead to the "retention ratio," that is, the percentage by which the basic cost of medical services must be increased to achieve the advantages of insurance. A "good" plan, from the perspective of both providers and patients, is one that minimizes the retention ratio, the cost of insurance per se; such a plan also maximizes the loss ratio.

The commissioners concluded that private, for-profit insurers operated under incentives that tended to increase this form of overhead cost, adding to the expense of health care without adding to the resources available to provide it. High retention ratios (low loss ratios) were not an aberrant result of inefficiency, or a transient effect of small scale, but a fundamental characteristic of (successful) private insurance. This inherent tendency is strongly reinforced in a competitive environment with multiple insurers, in which the costs of intensive marketing and of increasingly careful risk selection must also be found out of the retention ratio (see also Evans 1983). Regarding the costs of the insurance mechanism as unproductive overhead, they recommended centralized, nonprofit administration in order to minimize them.

This recommendation has turned out to be quite perspicacious. The overhead costs of administering the public system in Canada are difficult to determine with precision but are generally agreed to be in the neighborhood of 5 percent or less of payments to providers. As a proportion of national income, the costs of health care prepayment and administration have remained roughly constant for the past thirty years.

In the United States, by contrast, the costs of the insurance mechanism itself have escalated dramatically (figure 5-4). The American payment process has become increasingly complex, as payers are making increasing efforts to minimize their own outlays by passing the costs on to someone else. Governments have pushed more of the costs onto employers; employers and insurers are trying to push costs back onto patients; the "uncompensated" costs of indigent care that hospitals have traditionally pushed onto private insurers are being pushed back to them; and payers and providers are struggling over the price and use of services in individual cases in a costly, frustrating, and mostly ineffective process. It has

Figure 5-4. National Health Expenditures as a Percentage of GNP, 1960–88



Note: 1987–89 data area preliminary.

Source: U.S. GAO (1991).

become correspondingly more and more expensive just to push around the pieces of paper associated with providing and paying for care, to the considerable profit of lawyers, accountants, consultants, and administrators.

Nor do the administrative costs of insurance and prepayment tell the complete story. The administrative costs borne by hospitals and physicians' offices have gone up rapidly as they attempt to cope with an increasingly complex payment and regulatory environment. Thus a significant proportion of the recorded expenditures for hospital and medical care are in fact costs generated by the payment mechanism, though not included as explicitly reported costs of prepayment and administration. An increasing share of the sums Americans think they are spending on hospital and medical care are going in fact to pay for administrators, accountants, lawyers, public relations specialists, and other persons whose services are not usually considered as contributing to the health of patients. The most recent estimates of the *extra* cost of administering the American system in relation to a Canadian-style approach are between \$90 and \$120 billion per year (Woolhandler and Himmelstein 1991).

These ballooning costs of the insurance process—all those accountants and lawyers—are leading increasing numbers of American *physicians*, as well as payers and patients, to believe that they might be better off under a Canadian system. Health expenditures in the United States keep going up, but providers feel—rightly—that their share is not going up as fast. Yet they are bearing the full brunt of the various measures intended, so far unsuccessfully, to limit cost escalation.

Of course providers have always preferred nonprofit administration. The Blue Cross/Blue Shield plans were originally established by hospitals and medical associations in the United States. What they did *not* want, however, was a *single* nonprofit payer,

negotiating on behalf of the public generally rather than under provider control. And officially, they still do not (Todd 1989). The Canadian form of nonprofit administration comes in combination with “socialized insurance”: sole source payment, by an agency with both incentives and authority to try to keep down the costs of care (provider incomes) as well as the costs of insurance.

But if the alternative, a fragmented payment system, inevitably leads to escalation of total health expenditures and even more rapid escalation of the costs of the insurance mechanism, combined with ever more onerous interference from regulatory agencies and private payers, and a less and less satisfying practice environment, then perhaps the Canadian form of payment might not be so bad. An increasing number of Americans—public bodies, private individuals, and even physicians—are coming to support some form of universal public insurance (Blendon 1989; National Leadership Commission 1989; U.S. GAO 1991). The American Medical Association may still be bitterly opposed to what it continues to describe, incorrectly, as “socialized medicine,” but the American College of Physicians—the second largest organization—now favors public insurance.

On the other hand, some in Canada are beginning to ask whether administrative expenses might not be *too* low; one observer has coined the term “administrative anorexia” to describe the attitude of provincial governments and their agencies toward spending on management. A recent analysis of the Canadian system advances the thesis that, while not underfunded—indeed in total almost certainly overfunded—it is seriously undermanaged (Rachlis and Kushner 1989). Still others refer to it as “overadministered but undermanaged.” The distinction is important.

Traditionally, insurers simply paid whatever bills were generated by the health care system (or refused to pay them, leaving the “insured” individual with the liability). Physicians and other professionals determined the care that was needed by “their” patients and either provided it or directed others to do so. Administrators ensured that the necessary facilities, equipment, and personnel were available to carry out the directions of the professionals. But they did not “manage” in the sense of deciding what care should be provided, or how, or how its effects should be evaluated; these were professional questions. Administrators were senior support staff; they did not define or direct the fundamental tasks of the organization. The payers simply wrote checks as requested and raised their premiums as necessary.

Management, by contrast, involves deciding what care should be provided, under what circumstances, by reference to its expected or observed effects. It also involves determining how the organization will carry out its tasks, what is the most efficient mix of personnel, equipment, and facilities. Who shall do what, and with which, and to whom? These decisions are jealously guarded by professionals, as central to their autonomy. But they are often made by default, with no accountability to anyone else, and the evidence is that they are not made very well. A great deal of ineffective or otherwise inappropriate care is provided and produced in unnecessarily costly ways, which adds up to bad management.

These are the same issues that underlie the debates over accessibility: Which services are worth paying for, for whom, and what information and processes of analysis are needed in order to decide?

It must be emphasized, however, that these are quite different from the problems facing a private insurer, and which generate a significant part of the overhead costs of private, for-profit insurance. The private insurer is forced by the laws of the competitive marketplace to devote a great deal of effort to determining who *not* to insure: the worst risks. The private insurance market does not, cannot, cover those in most need of care.<sup>17</sup>



Since the universal public system responds to an explicit society-wide political choice that everyone is to be covered, this problem of identifying individual risk status disappears, and along with it the whole complex apparatus of rate-making and policy design. The private marketplace generates a multiplicity of different types of coverage—far beyond the capacity of most purchasers to comprehend—in order to minimize the extent to which those in low-risk categories pay to support those at high risk. But the public insurance system expresses the community's decision to do precisely that, to use the resources of the healthy and wealthy to support the poor and ill. So the principal services of the traditional private insurance sector are, literally, worthless, because their "product" is not what the community wishes to buy.

In its place, however, is the problem of determining the needs and priorities of those to be cared for and the effectiveness of the services offered. Provincial governments are clearly responsible for purchasing care on behalf of their populations. Achieving "value for money" in this process may well require a buildup of managerial capacity and the creation of new administrative structures, within the overall framework of nonprofit administration.

### Managing the System and Coping with Change

There are several paradoxical features of the Canadian experience, not least of which is the nature of the political controversy that seems always to surround it. On the one hand, as emphasized above, there is absolutely no doubt about the strength of the public commitment—by ordinary citizens, politicians, and even most providers—to the fundamental principles of the system. There is no support for, and indeed there would be overwhelming opposition to, any overt attempt to abandon or extensively revise those principles.

On the other hand, the functioning of the health care system is constantly in the forefront of public debate, and its management is by far the most demanding responsibility, not just in dollars but in terms of political and technical skills, carried by each of the provincial governments. Ministers of health and premiers of provinces are held accountable in the provincial legislatures and in the press for individual problems and misadventures that occur in the operation of the health care system.

The management of the health care system in Canada has thus become politicized to an extreme degree. And although the results of such political management are generally agreed to be relatively satisfactory, it does carry with it certain characteristic limitations. At the same time, it is not clear that any of the other industrialized democracies, even the United States, is so very different from Canada in this respect. All such countries, except the United States, have collective systems for financing all or most of their hospital and medical care and thus must deal politically both with decisions as to who shall be permitted to perform and be paid for services, what sorts of services, and for whom, and with the determination of the relative incomes of those persons who provide health care services.

Even in the United States, the critical decisions are political; the market is much more prominent in rhetoric than in reality. The principal difference is that in the United States the key political decisions tend to be more decentralized and hidden, whereas in Canada they are centralized and played out in the full glare of the media (Evans and others 1989). European systems tend to be more similar to the Canadian, in that the political decisions tend to be centralized, but they appear to be less open to the public than in Canada.

At present, the health care policy agenda in Canada is being driven by a set of interlocked problems, none of which are particularly new or peculiar to Canada. On some, there is evidence of progress, on others it is evident that present problems are the result of past policy

failures, which, if left uncorrected, will generate continuing difficulties in the future. (But at least the present generation's grandchildren will not be bored.)

### *Controlling the Escalation of Health Care Expenditures*

The first problem area, cost control, is faced by every society in the industrialized world, with the possible exception—so far—of Japan. It may be that if the modernization and growth of a country's general economy can continue to outstrip that of its health care system, it need not be overly concerned with health care cost control. This has not, however, been the situation in North America or Western Europe, where all countries have had to wrestle, over the past decade or more, with the problem of moderating the growth of health spending in order to protect resources for other social and private priorities. And any country modernizing its health care system would do well to consider carefully how it will deal with the inherent tendency of such systems to unlimited expansion in the absence of strongly enforced external constraint (Evans 1990, 1991).

Within the past five to ten years, however, all such societies except the United States appear to have found some response, if not necessarily a permanent solution, to this problem (Schieber and Poullier 1991). Several countries have actually reduced their shares of national income spent on health care, in some cases quite significantly.<sup>18</sup> In each of these countries the process of control has been accompanied by considerable difficulties and political conflict, and it is always possible that the health care system will succeed in breaking out of the controls that each society has placed on it, but for the moment a degree of stability prevails.

The processes by which the provincial governments in Canada have imposed these controls, over a period of nearly twenty years with the exception of the "recession breakout" of 1982, are three in number.

First, as noted above, the nature of the Canadian payment system permits it to function economically in terms of administrative costs, and these have not been rising over time. Ironically, it appears that the American attempt to create more "competition" in health care has added significantly to these unproductive expenditures.

Second, the fee schedules negotiated between the medical associations and governments in each province have escalated at a slower rate than fees in the uncontrolled American environment. At the same time, the elimination of extra-billing has prevented physicians from exploiting this alternative form of fee inflation. Over time, fees in Canada have risen at a rate more or less in line with general price inflation; when physicians can set their own fees freely, fees rise substantially faster.

In response, physicians in Canada do appear to have increased their volumes of billings per physician somewhat faster than in the United States, but they have not been able to offset fully the slower increase in fees (Barer, Evans, and Labelle 1988). An important contributor to the control process appears to be the fact that fee schedules limit the reimbursement of diagnostic services outside hospitals—most physicians cannot simply set up their own laboratories, for example—and also prevent implicit "fee splitting" between laboratories and referring physicians (Reinhardt 1987).

These controls over the tendency of physicians to engage in "procedural multiplication" and "strategic billing," particularly when fee inflation is contained, are by no means complete, and any particular form of control tends to erode over time. Canadian provincial governments are increasingly exploring ways of imposing more explicit "caps" on total outlays for physicians' services. Two provinces—Quebec and British Columbia—have already done so, and it is likely that more will follow (Lomas and others 1989).

Such caps can take a variety of forms. The simplest, direct pro-rating, establishes a fixed total of funds to be paid to physicians in a given time period. This is then compared with the total dollar value of billings or reimbursement claims submitted by physicians for services provided during that period, and the ratio between money allocated and total claims submitted is multiplied by the value of each physician's claims to determine how much he or she will actually be paid. The payments will be greater or less than the amounts submitted, depending on whether the total of claims is less or greater than the amount budgeted. A version of this process has been used for a number of years by the German sickness funds; and cost escalation in Germany has been less rapid, over the past decade, than in most other OECD countries.

Pro-rating has certain technical problems, which are not too difficult, but global pro-rating also has some serious incentive problems, insofar as it tends to penalize more conservative and cautious physicians who fail to exploit the system to the utmost. A more elaborate and sophisticated system with separate but linked regional and specialty caps has been developed that has positive incentives for regional allocation of services, for conservative use of referrals, and for collective decisionmaking by physicians over the appropriateness of care (Evans 1988b), but this has yet to be tried in practice.

The caps imposed in the Canadian provinces involve setting upper limits for the increase in use in each time period, at the time of the negotiation of the fee schedule. If actual use of services—amounts billed at the new fees—increases more rapidly than the target rate, the excess is deducted from payments in the next period (Barer and others 1988; Lomas and others 1989). But the caps have not always been completely "hard," because the agreements often provide for only part of any excess above targets to be paid back by physicians, and because the payback process becomes entangled in the negotiations for the next fee agreement, rather than being automatic.

But the control of costs is also directly linked to manpower policy, because the volume of physicians' services billed rises more or less in proportion to the increasing numbers of fee-for-service physicians. As noted below, manpower policy has worked in opposition to cost control, by supporting a growth in physician supply well in excess of the rate of the growth of the population. This places continuing upward pressure on costs; but it has been extraordinarily difficult to mobilize political support for reducing the number of training places.

Another important part of the control of health care costs has been the system of global budgeting for hospitals, which enables this component of the health budget to be subjected to absolute "cash limits." The result has been a steady decline in acute care utilization, which nevertheless remains high in relation to that in the United States, and a much less rapid proliferation of new and expensive high-technology interventions. Canadian provinces do acquire the most recent technology, but such equipment tends to be confined to the teaching hospital centers and does not proliferate throughout the regional hospital system or into free-standing facilities. Thus the availability per capita of such equipment tends to be lower than in countries such as the United States, Germany, or Japan, and this helps to moderate the escalation of costs.

### *Health Care Use by the Elderly*

The aging of the population is perhaps the most frequently cited source of serious problems, now and particularly in the future, for the Canadian and most other health care systems. Yet it is the area in which the rhetoric is in fact most misleading. The usual argument is that on average elderly people require more, and more costly, health care services than do

younger people. At the same time, it is notorious that the proportion of elderly, and particularly very elderly, people in the population is growing, as birth rates have fallen and life expectancies have risen. Both these observations are true. But the common conclusion, that the costs of caring for the elderly will therefore necessarily exceed the willingness or ability of industrialized economies to pay for them, does not follow. It is particularly misleading, indeed flatly false, to claim that such demographic trends are the source of the cost pressures being felt in health care today.

A good deal of research has been done on the changing patterns of care of elderly people in Canada, and it is all consistent. The aging of the Canadian population, and in all likelihood of all other populations in the industrialized world, is an important phenomenon over a time span of decades. But its effects on health care use are slow. In Canada, the aging of the population would add about 1 percent per capita per year to health costs *if* the utilization patterns at each age remained unchanged and only the population age structure changed (Woods, Gordon 1984). Over thirty, or fifty, years, this is a substantial impact. But 1 percent per capita per year is well within the normal, or at least historical, economic growth rates of industrialized economies, and could easily be accommodated with a constant share of such growth being devoted to health care.

But the age-specific use rates are not remaining constant (Barer and others 1987). Hospital inpatient days per capita, for example, are increasing for elderly people while dropping rapidly for the rest of the population (Evans and others 1989). Average physician billings per person are rising for the whole population, but much faster among the elderly than among the rest (Barer and others 1989). Inhospital procedures are likewise rising fastest in this age group. And these changes in relative use rates by the elderly and nonelderly populations are observed *after* adjustment for the changing age mix within each group; they are not an artifact of the increasing average age of the elderly themselves.

Thus elderly people *are* accounting for an increasing share of health care effort and resources. But their growing numbers—and average ages—make a relatively small contribution to this increase. The much more important factor is that, over time, ever more is being done for, or to, each elderly person. They are being subjected to many more, and more intensive, interventions. And the effectiveness of these interventions is often unproven, particularly for the older age groups that are less often enrolled in clinical trials.

Thus the “aging of the population,” which claims priority of place in so many discussions of health policy, is largely a false issue. The *real* question is what benefits are being derived from the services that are being applied in increasing numbers to the care of the elderly. That leads to the questions of technology, of effectiveness and appropriateness of care, and indirectly to issues of manpower or personnel. The demographic transition, at least as it applies to the past decade and the next, is in fact a smokescreen that obscures more fundamental questions of the basis on which utilization decisions are made, and the costs and benefits of the results.

### *Absorbing New Technologies: When, Where, and for Whom?*

Coping with the extension of technology is simply part of this more general set of issues. Technology per se is neither good nor bad; new knowledge and capabilities *in principle* merely expand society’s range of choices. The rhetoric surrounding technology often suggests that people are somehow compelled to apply whatever is discovered, at whatever expense. But the technology does *not* define its own range of application. Many, though not all, new technologies have the capability to *reduce* significantly the costs or other burdens associated with particular health problems, if conservatively applied and limited to areas

of demonstrated effectiveness. The real problem of a tradeoff between technological "advance" and cost control arises when new and expensive techniques (or for that matter old and not so expensive techniques) are employed and paid for in circumstances in which there is no evidence that they will do any good.

Thus the problem posed by new technology is primarily evaluative and organizational, rather than economic. First, can providers and patients determine whether the technique does more harm than good, and for which patients? This requires careful analysis of the biological effect of the associated interventions, but also requires developing techniques for eliciting the preferences and values of potential patients. Whether an intervention does more harm than good depends on both: what is right for one may be inappropriate for another. (But no one needs interventions that do not work.) And second, once such information is available—"technological assessment" in a broad sense—how can society ensure that utilization decisions by providers and patients actually reflect this information?

A number of students of the benefits and costs of new technology have concluded that there is ample capacity in the health care systems of industrialized societies to support all the new technology that one might want, if one could get rid of the minimally effective, useless, and harmful interventions now being provided and paid for. The problem is to find an organizational framework and decision processes that will lead to this result.

Coming back to the Canadian experience with cost control, it has been noted that the intensity of servicing, or the inflation-adjusted expenditure per person, has risen relatively slowly in Canadian hospitals. The control of hospital costs through global budgets has been associated with a slower rate of increase in the number of procedures performed, or their expense, than in the United States. Technology has proliferated more slowly in Canada.

This raises the question of the appropriateness and effectiveness of the care being provided. Are Canadians being denied potentially effective treatments that would increase the length or improve the quality of their lives? Or are they being protected against the overenthusiastic application of interventions that would be useless at best, quite possibly harmful, and certainly expensive? One can find advocates of both points of view.

What can reasonably be said is that the control of global budgets rests on the assumptions (a) that physicians and hospital administrators, when they do not have enough resources to do all that they would like to do, for whatever reason, react by eliminating the least useful or most harmful services first, and (b) although they will always claim the contrary, they really do have enough resources to do all that is worth doing, and probably more besides, and (c) if (b) should cease to be true, other sources of information will bring this fact into the open, so that budgets can be adjusted as needed.

On the other hand, it must be admitted that detailed information on the effects both of the care that is being provided in Canadian hospitals and of the care that is *not* being provided is remarkably scarce (as it is in most other countries) and it might be wise to study this area much more closely, which is the same point that emerges when one looks closely at the changing patterns of care of the elderly. But the growing evidence of substantial inappropriate, and actually harmful, use of "high-technology" procedures in the more richly endowed United States emphasizes that the relative limitation placed on the diffusion of technology by the Canadian funding system may very well be a benefit of that system, although critics present it as a negative feature.

### *Health Care Personnel: Capacity and Need*

Health care policy in Canada has been least successful in the formulation and execution of manpower policy. It is widely, though not universally, believed that Canada has a surplus

of physicians and a shortage of nurses; the difficulties in both areas are traceable to the inability to respond to obvious and well-documented facts.

There are at present about 60,000 physicians in Canada, roughly one for every 450 people. The ratio of physicians per capita has doubled in the past thirty years, and is currently increasing about 2 percent per year. This expansion places continuing upward pressure on expenditures for physicians' services. Independent private practitioners reimbursed by fees for their services always appear to be able to identify enough unmet needs, such that total billings (adjusted for inflation) have risen at or somewhat above the rate of increase in physician supply. There is no evidence, in the aggregate data, of a saturation point beyond which additional physicians result in falling average workloads and incomes.<sup>19</sup>

But the increase in physician numbers also places pressure on the available hospital bed space and associated facilities that physicians use in their practice, and without which their billing opportunities are much reduced (Barer, Gafni, and Lomas 1989). As the "physicians-per-bed" ratio rises, each physician perceives a more severe shortage of capacity, available to him or her, even though the capacity per person cared for remains high.

The problem here is that bad forecasts have made bad policy. No one planned this massive expansion; it was an accident resulting from a forecasting error followed by a stubborn refusal to change course. Population forecasts made in the early 1960s were the basis for a large increase in medical school capacity over the next decade. But those forecasts were made just before the historic collapse of the birth rate. By the early 1970s it was obvious that Canada's medical school capacity was far beyond the needs of a low-fertility society. But there were too many powerful interests at stake to permit a reduction. Instead, medical school representatives clouded the political landscape with a variety of false claims (documented and demolished in Lomas, Barer, and Stoddart 1985). By 1991, the actual Canadian population was nearly *ten million* people lower than the forecast level for which its current training capacity was built.

The status quo thus has no logic or legitimacy in its origins, but it is entrenched.<sup>20</sup> Some reductions in training places are now occurring, but slowly and painfully. Universities in Canada are directed by independent boards of governors, and while they derive most of their funding from government, it does not come primarily from ministries of health. Medical schools must be bribed or browbeaten into reducing their training places, probably with guarantees that their budgets will not be cut, and perhaps with increased research funding. But this requires interministerial cooperation.

The benefits of reduction, in terms of costs saved by payers, accrue over years or decades, and may accrue in another jurisdiction, since physicians can move freely from province to province. But the political costs are immediate, because the general population, encouraged by the representatives of medical schools, do not support reductions. They just do not want to pay for the increased numbers of doctors.

Provincial governments are, however, exploring policies to try to protect themselves from the fiscal consequences of past increases, and this is drawing their attention to the root of the problem (Barer 1988). Attempts to place global caps on payments to physicians imply that they now have an increasing stake in helping to control the increase. Moreover, ministries of health have much more influence over specialty training programs because these *are* directly funded through teaching hospital budgets. By reducing funding for residency positions, and perhaps training nurses or other personnel to provide the support services for which fee-for-service practitioners now rely on residents, one could both hold down the rate of specialization and also close off a "back-door" route by which immigrant physicians still enter Canada in significant numbers.

Interprovincial committees of health ministers and their senior staff have for some years been working to find cooperative ways of addressing the problem, and in the summer of 1991 they received a major commissioned report (Barer and Stoddart 1991) addressing all aspects of the physician manpower issue. Something may yet happen.

Nursing presents the opposite picture, with widespread claims of growing shortages. But in fact, shortages and surpluses alternate from year to year, or even month to month, depending upon the provincial government electoral and budget cycle. When funds for hospitals are plentiful, there is usually a "shortage" of nurses to meet the new positions created. When fiscal times are tougher, the unfilled positions disappear. The supply response is less flexible than hospital budgets.

When nurses and their representatives refer to "shortages," however, they mean not that positions are unfilled, but rather that hospital budgets should be increased to hire more nurses. The "shortage" is relative to the level of servicing that nurses believe they should be paid to provide, not the actual demand by employers.

Over the longer run, however, there are larger forces at work. The collapse of births in the mid-1960s has led to a sharp reduction, in the late 1980s, in the age groups from which nursing has traditionally recruited. And alternative career opportunities for females have greatly increased. In total, nursing personnel have barely kept up with population growth, while the aging of the population is having much more impact on the need for institutional care than for physicians' services.

This problem is exacerbated by the persistence of traditional forms of organization in hospitals, where nurses employed by the hospital care for patients who "belong" to the physicians who admit them. This leads to inefficient use of both hospitals and nurses; hospital use rates in Canada are much higher than necessary. It also limits career opportunities and professional development in nursing, thereby contributing to growing labor unrest.

In the long run, it seems inevitable that Canada will have fewer, more highly trained and paid nurses, and that fewer people will be in hospital. But how does it get from here to there? At present, the professional objectives and educational philosophies of nursing leadership seem directly at odds with the needs of the health care system.

The lack of cooperation between the educational and health care systems—located in different ministries and institutions with different cultures, objectives, and philosophies—has led to serious inconsistencies in health personnel policy. And faulty personnel policies can foreclose the possibilities for improved management of health care delivery, sometimes for decades.

### *How to Decide What to Do*

It seems that the apparently separate problems identified above—population aging, the extension of technology, personnel—actually reduce to special cases of a more general issue: What sorts of health care services does society wish to have produced, and for whom?<sup>21</sup> These questions, as noted, ultimately turn on a combination of technical and value information: "What will particular services actually *do*, in the way of good or harm?" and "What do patients and payers want?"

To date, the Canadian health care system has addressed these questions only indirectly. "All medically necessary" services are free, implying that effectiveness, somehow defined, is the overriding criterion. But this has been determined implicitly as whatever a physician is willing to offer and a patient to accept. What Canada has discovered, as has every other

country in the industrialized world, is, first, that the indirect definition of "need" is infinitely expandable within the relevant range, particularly for elderly people; second, that

overall utilization rises with the availability of facilities and personnel and tends always to press against any resource constraints; but, third, that the resulting aggregate levels and patterns of utilization are highly variable and bear no identifiable relation to any external definition of the "needs" of the population served.

The Canadian response has been to try to impose capacity constraints on the availability of facilities, sources of payment, and (much less successfully) personnel. The assumption, as noted above, is that when subjected to these constraints, the providers of health care will themselves choose to provide the services that respond to the greatest needs. Thus the payers for services can avoid the difficult and politically dangerous task of establishing explicit priorities and protocols; and the fiercely defended autonomy of the physician need not be challenged.

This approach is slowly changing, however, in the face of accumulating evidence that patterns of care use in Canada bear no more systematic relation to indicators of need than they do in any other jurisdiction, and more important, under the increasing pressure for more resources from the providers of health care themselves, which is a consequence of the increase in physician supply and the extension of technology. Now that providers are beginning to challenge the relatively arbitrary limitations on facilities and resources more intensely, provincial governments are becoming increasingly interested in the extensive research evidence of ineffective and inefficient care delivery as a basis for counterattack.

This last point is most important. The research evidence of inefficiency and ineffectiveness of care provision, measured in relation to the scientific basis for judging what interventions work and how they might be carried out, has been available for many years, though it is certainly growing in scale and sophistication. But for most of the history of the Canadian programs, at least, and apparently in Europe as well, the cruder forms of cost restraint that raised no awkward questions about why physicians and others do what they do represented the politically most comfortable compromise.

That compromise appears finally to be breaking down, and governments in a number of countries, acting as regulators and payers on behalf of their citizens, are beginning to address explicitly the question of "how medicine should be practiced." As noted above, in Canada this process is occurring through expert committees appointed by governments and professional bodies to wrestle with priority setting and protocol definition, within the limits of globally fixed budgets. This is a major step forward from the historic policy of implicit constraint through deliberate limits on the availability of facilities, but it is too soon to tell how successful such processes will be, and particularly whether they will be able to sustain the inevitable political counterattack. But at least the questions are being raised at a much higher political level than ever before.<sup>22</sup>

### *From Sickness Care to Health: Some Missing Links*

Under the Canada Health Act of 1984, the objective of Canadian health care policy is "to protect, promote, and restore the physical and mental well-being of residents of Canada, and to facilitate reasonable access to health services without financial or other barriers," and the act refers to "outstanding progress" through the system of insured health services. But it also declares that further improvements will depend on a combination of improved individual lifestyles and "collective action against the social, environmental, and occupational causes of disease." These themes reiterate ideas expressed in a document issued in



1974 by the federal minister of national health and welfare, Marc Lalonde, *A New Perspective on the Health of Canadians*.

Equalizing access to health care, or at least removing the financial barriers—and significantly increasing the overall quantity of resources available—has not equalized access to, or at least the experience of, health, across the population. There remain significant inequalities in life expectancy and health status across different socioeconomic groups. Furthermore, there are obvious sources of mortality and morbidity that are simply beyond the reach of health care services as conventionally defined. A *public health policy*, as distinct from a *health care policy*, would have to go much deeper into the determinants of health and illness, and consider, and carry out, a much wider range of interventions than simply the expansion (or contraction) of particular health care services.

This is clearly recognized within the federal Department of National Health and Welfare; the Ottawa Charter of 1986 was a strong affirmation of support for the World Health Organization *Health for All* initiative. Most provincial Ministries of Health have a similar understanding, although they are so heavily involved in the day-to-day and year-to-year operations of the health care system that they do not always have the luxury of pursuing the broader issues. In general, however, these broader issues of inequalities in and determinants of health have been honored with much rhetoric—and a nontrivial amount of careful thought—but very little financial support.

The problem is simply that the relentless pressure for expansion from the health care system, independently of any contribution it may or may not be demonstrated to make to the health of the population, absorbs the lion's share of both current resources and any additional amount that may become available. Thus cost containment in health care becomes a precondition for any new initiative in other areas of health. By a cruel irony, an overextended health care system may become a threat to health.

Nevertheless, despite its relatively limited constitutional role, the federal government is clearly pressing ahead with its concerns for the promotion of health, whether in or particularly outside the health care system. In particular, it has launched a number of surveys to accumulate a much wider body of data on the health status of the Canadian population; until recently a great deal was known about utilization and the costs of care but very little about health. Provincial governments' concerns for improved efficiency and effectiveness, though driven primarily by cost concerns, also lead quite naturally into questions about the relative effectiveness of health care as against other public interventions in pursuing the central objective: the health of Canadians.

## Conclusions

In summary, the Canadian approach to health care funding has succeeded in equalizing access to health care services, though less so to health. This appears to be a common finding in the industrialized countries, reflecting the fact that population health is not determined simply by the availability or use of health care. The health status of the Canadian population, insofar as that is known (which is not very far) compares well on the usual indicators of life expectancy and infant mortality with the rest of the industrialized world and continues to improve.

The public insurance system has not only improved access to health care, it has also played an important role in "nation-building" and community solidarity, as it emphasizes a fundamental equality among citizens. Greater wealth or position buy many things, but they do not buy more or better health care; in that all Canadians are equal. Moreover the economic

burden of this system is shared, through the general tax system, according to the ability to pay of citizens. Since there are no direct payments, people who must bear the burden of illness and injury do not have to carry an additional economic burden as well. No one in Canada fears economic ruin from the cost of health care, and no one depends on "charity," whether public or private. The financing problems, and associated negotiations, are completely removed from the shoulders of individual citizens.

Going beyond ensuring access and improving the lives of individual citizens, the Canadian system has also managed to contain the costs of health care for an extended period of time. This is a crucial test of the sustainability of a funding system; disequilibrium requires change. Furthermore it has done so in a way that has reconciled the interests of citizens as payers, and citizens as patients, and is consequently overwhelmingly popular politically. It is less popular with physicians, at least officially, though strongly supported by hospitals and other health occupations.<sup>23</sup>

The political price of cost containment, however, is rising. The severe recession at the beginning of the 1980s was associated with a sharp increase in the share of national income going to health care, because income fell and health spending did not. Stability has been reestablished, but in the new low-growth environment this requires even tighter controls. A stable share of a constant total income is much less acceptable to providers, and the pressure for more is becoming increasingly acute.

But on balance, after more than twenty years of experience, it appears that even most physicians working in the Canadian system prefer it to the known alternatives; they would just like more money (and more hospital facilities and more equipment, and the right to extra-bill patients, and . . .). Similarly, nurses and other hospital workers strongly support the existing system but believe that its funding should be greatly increased. Taxpayers are less enthusiastic. (Patients generally believe whatever they are told by providers.)

On the basis of this experience, which is not so different from that of a number of European countries, we conclude unequivocally that centralized, public funding systems "work," although they will require an increasing degree of explicit collective intervention in the determination of the content of medical practice. Whether this will be "public" or "private," or more realistically what the balance should be between the two, depends upon whether the medical profession can bring itself to develop *and enforce* scientifically based standards upon its members, or whether the public sector will have to take on this role by default.

On the other hand, we conclude equally unequivocally from the comparative United States experience that private, or "pluralistic" funding systems do not "work"; they produce neither effective health care, nor equity, nor public satisfaction and cannot meet even the most fundamental test of stable and sustainable cost. One cannot rule out the possibility that some pluralistic system might be developed in the future that would be capable of harnessing competitive forces to improve health care system performance. But at present most such systems exist only in the imaginations of those with an overriding ideological commitment to the private marketplace; they cannot be shown to have been seriously tried, much less to have succeeded, in the real world.

There are, of course, examples of thoughtful and carefully worked out competitive proposals that take into account the sources of failure in ordinary conceptions of "market" systems and attempt to develop realistic ways of dealing with them (for example, Enthoven and Kronick 1988). These may be attractive where the status quo is considered intolerable, but such admittedly imperfect but battle-tested systems as the Canadian are ruled out on ideological grounds. But even these are untried alternatives; moreover, the feasibility of their full implementation in a highly adversarial environment is very far from clear.

Where the Canadian system has most clearly fallen short is its inability to develop a coherent and consistent personnel policy, and this is an expensive failing. Nor has it yet made much progress in the promotion of efficiency and effectiveness. The United States appears to be far out in front of the rest of the world on these issues (yet unable to draw the benefit from its superior knowledge and technique). Rachlis and Kushner's (1989) assertion that the system is undermanaged is undoubtedly correct, so that waiting lines exist and patients sometimes suffer, not because of a scarcity of overall resources, but because those available are misused. This is in part the price of professional autonomy.

Along with most of the rest of the world, Canadians do not yet know nearly enough about the determinants of health, and why some people are healthy and others not. But they recognize the problem, and they are working on it.

## Notes

1. The commission rejected, however, the notion of large conditional federal grants directed to areas of provincial jurisdiction. Yet these conditional grants—50 percent cost sharing by the federal government—were to be an essential component of both the hospital and the medical care insurance programs. In 1977 the federal contribution ceased to be based on program costs, but it remains conditional on the conformity of the provincial plans to national standards.

2. British Columbia abandoned hospital premiums in 1954 but continues to levy premiums for medical care. As of the end of 1991, a shift from premiums to some other form of tax is under active discussion.

3. There was also considerable support for the doctors from south of the border. "The American Medical Association was at this time hysterically opposed to Medicare; and it endeavoured, not without some success, to communicate its hysteria to the doctors and the public in Saskatchewan" (Taylor 1978). A successful public program in Canada might spread. The United States did launch its Medicare and Medicaid programs in 1965; and thirty years later, American interest in the Canadian system has again become intense.

4. The provinces would of course have been entirely within their rights to do so. The change from cost sharing to block grants, forced by the federal government in 1977, placed no restrictions on how the provinces used their funds. They thus interpreted the federal claim as an attempt to embarrass them politically.

5. Taylor (1978) quotes a former federal minister of health, Judy LaMarsh, at the time of the debates over the federal Medical Care Act in 1966: "The opponents of medicare . . . came out from their lairs again: the medical profession, the provinces, the medical care insurers, all of them." The same interests objected to the Canada Health Act in 1984.

6. Private insurers have larger and more profitable markets in a private system, physicians make more money, and wealthy individuals can buy preferred access when there are user charges.

7. "Premiums" have a rather peculiar history in the Canadian system. It was obvious to the designers of the public insurance system that universality was essential for a number of very good reasons, and they have of course turned out to be right. But this seemed to imply a compulsory system. The general population was in favor of universality—multiclass medicine and dumping the poor have never had much support in Canada—but were very ambivalent about compulsion and on balance seemed to be opposed to it. Physicians were, of course, ambivalent about universality and bitterly opposed to compulsion.

The compromise was a premium-based system in which provinces were committed to achieving "almost" universality by a combination of regulation and tax incentives. Premiums were uniform, not risk-related; all employers over a certain size were required to enroll their workers; competitive private coverage was not permitted; and the premiums were set well below actual cost, with the difference made up from general revenue. In this way, de facto universality was reached without formal compulsion.

It was apparent almost immediately that premiums in a universal system were simply a regressive poll tax, costly to collect, covering only a small proportion of health costs, and moreover with certain

technical disadvantages for provincial income tax collections. Thus by the early 1970s most provinces had scrapped them, and relied wholly on other tax revenues.

Three provinces with relatively right-wing governments retained premiums, however, and tinkered with them to make them less regressive by providing premium subsidies to lower-income families. But they were never able to present any plausible reason for retaining this relatively expensive way of collecting taxes. The real reason may be ideological symbolism: some of their members and supporters were never reconciled to a truly "public" system, but could not say so openly. A change of government, from Conservative to Liberal, led to the abandonment of premiums in Ontario in 1990, and British Columbia is quite likely to do so within the next year or two, which would leave Alberta in isolation.

8. The federal law on this point is clear, but provincial practice is not. Most residents of the two provinces still levying premiums are unaware that they cannot legally become "uninsured"; and physicians are not reimbursed for services provided to those whose premiums are not paid up. Thus the premium system *has* become to some degree a barrier to access for certain groups in the population, despite the explicit requirements of the federal statute.

9. Certain services have always been excluded from the definition of "medical necessity," elective cosmetic surgery for example, or health examinations for administrative reasons. Annual health exams are also known to be of no medical benefit and are excluded from coverage for the general population; certain types of immunizations are also covered only for high-risk groups. But when both patient and provider have an economic incentive, it is not very difficult to find some other reimbursable classification for such a service, an ordinary office visit, for example. Exclusion of inappropriate services would require one to delve much more deeply into the patient's condition and second-guess the physician's decisions in individual cases, in a way that has rarely been done in Canada.

One might limit the reimbursement of physicians or hospitals when there is evidence of marked deviation, *on average*, from external standards. Provincial patterns of practice among review committees already do this, in a small way, and the move to funding hospitals on the basis of the populations they serve would carry implicit penalties for overservicing. But the public identification of a doctor's decision as wrong, to the patient, among others, is political dynamite.

10. The constraints on capacity imposed by the provincial governments are twofold. They supply (or do not) both the capital funding for new equipment, and the operating funds for hospitals to use it. Contrary to the common allegations in the American press, these constraints do not lead to a failure to keep up with leading-edge technology, but they do limit its proliferation. The new and expensive equipment or program will be established in one or two sites, usually at a large health sciences center, and access will be limited to those most likely to benefit.

Some physicians, and patients, who would like the new service, will not get it. There are not CAT scanners on every street corner or in mobile vans set up at shopping centers. But one hears a great deal from those who are denied access, whether or not the service would have been appropriate for their condition. One does not hear from the Americans who were provided with useless or harmful services; they do not know who they are. Again, the fundamental question is not "Who has most?" but "What care is appropriate?" That question is not emphasized, however, either by those who sell machines or by those who are paid to use them.

11. Physicians have consistently sought the right to extra-bill above the fee schedule and to impose other forms of direct charges on patients. Their objective is explicitly to *increase* the cost of a system that they claim to be underfunded. Yet simple-minded economic models assume that such charges will reduce overall rates of utilization and costs, and lower the incomes of the physicians who advocate them. Both physicians and neoclassical economists are very wrong in their understanding of the determinants of health care use.

The comparison between the United States and Canada is suggestive, since the former has the highest charges to patients, in the OECD world at least, and the latter among the lowest. Yet it is in the United States that costs are "exploding."

12. There is a significant exception to this penalty. Patients in long-term care are provided with room and board, which they would otherwise be paying for out of pocket. (Patients in acute care do not usually give up their residences.) Since almost all such patients are elderly, and on some form of public pension, the allowable charges are set at a level to recoup most of the public pension, leaving a basic "comfort allowance." The charges bear no relation to the actual cost of providing care, which is met from public budgets.

"Prices" in this case are used as income distribution mechanisms, not as ways of influencing use. Their focus is equity, not efficiency in the economist's sense.

13. Certainly the Canadian rates greatly exceed the corresponding American averages, which are themselves well above the experience of populations served by American health maintenance organizations. Yet Canadian physicians continue to claim that they need more beds, and occupancy rates are near the limits of de facto capacity. There are similar concerns about overuse of hospital beds in a number of European countries, and similar efforts to reduce capacity.

14. In some cases, hospitals have been successful in convincing private donors to provide funds or equipment, but then the hospital must find resources for increased operating costs within its global budget. Ministries usually resist providing increased operating resources for an unapproved capital expansion.

15. This is slightly too simple. Procedural fees for diagnostic services are usually divided into a professional and a technical component. An appropriately qualified physician can claim the professional fee for interpreting the diagnostic results, whether the equipment is owned by a hospital, a private facility, or his or her own practice. But if there is not also a technical fee component in the negotiated schedule, to pay for the equipment, technicians, and reagents, then in effect the equipment is not reimbursable outside the hospital. In addition, even when private facilities can be reimbursed for diagnostic services, there will be some form of additional licensure or other restrictions limiting those entitled to bill.

16. Such theater can, however, have powerful political consequences. Life and death events are emotionally gripping and can have significant effects on the allocation of health care resources among particular programs.

17. Unless they happen to be quite well off, which in general they will not be, because illness is correlated with poverty, not wealth. The tens of millions of Americans who are uninsured, or have grossly inadequate coverage, are not an unfortunate aberration or oversight, but rather a natural and inevitable outcome of the operation of competitive forces in a private insurance market. This point has been made clearly by Fein (1986), who illustrates it through the history of private health insurance in the United States.

18. Figure 5-1 above shows Canada's relative ranking in per capita cost at the beginning and end of the 1980s: it is far below the United States but above all other OECD countries. Certain countries—Germany, Sweden, the Netherlands—have moved down in relative position, an indication of lower-than-average cost escalation. But as figures 5-2 and 5-3 show, the American "cost explosion" has largely been contained in Canada. These data have been disputed by, among others, the Health Insurance Association of America, which is quite understandably concerned that the Canadian approach might be adopted in the United States. But the difference is real: see Barer, Welch, and Antioch (1991), and Evans, Barer, and Hertzman (1989).

19. One might think that this was peculiar to a fully insured environment, but in fact the same pattern is observed even in the United States, where a large proportion of physicians' services are paid for out of pocket by patients.

20. No one in his or her right mind has ever suggested that there is an obligation on the public to train as a physician anyone who might wish to become one, and qualify for entry. The basic idea that a public educational and payment system should recruit, train, and reimburse the numbers of personnel required to meet the needs of the population is virtually unquestioned, in principle. In practice, however, the needs have been redefined by professionals to justify a level of capacity that arose by accident.

21. The struggle over how much producers should earn—*income shares*—is largely though not entirely a separate question, though providers try hard to confuse the two. It is commonly claimed that higher (lower) fees and wages will lead to better (worse) quality of care for patients, though the mechanisms are not always clear.

22. In Canada, it is taken for granted that these questions will be addressed through some negotiation between governments, representing the general public as payers and patients, and the providers of care, also representing the public as patients and themselves as earners. New institutions may be developed to ensure a more effective representation of both patients and the general public, but there is little interest in private markets as ways of improving efficiency and effectiveness. The U.S. experience is too close and too vivid.

23. It is probable that the inherent conflict of economic and professional interest—both income and autonomy—is so sharply drawn that no system of funding that meets the concerns of the rest of the community will ever be wholly acceptable to physicians, and conversely. Certainly the Canadian system was established over their opposition. A search for a national system acceptable to all parties would probably be a nonsense exercise, a proposal to do nothing.

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# 6

## *The Health System of the United States: Lessons for Other Countries*

*Uwe E. Reinhardt*

Although American policy analysts frequently speak of a national health policy, there does not exist in the United States a health policy of the breadth and coherence characteristic of national health policies in other countries. The United States does not have, for instance, a national policy outlining the health services to which every American child should be entitled as a right or, for that matter, to which every American should be entitled. Since the days of the Founding Fathers, the definition of these entitlements has been viewed as a state and local prerogative. Other nations typically consider the articulation of such entitlements at the national level fundamental to their sense of nationhood. A Canadian or German, for example, would not accept the proposition that children in different parts of the same nation ought to have different entitlements to health care.

### **The Locus of Responsibility for American Health Policy**

In keeping with American traditions, the responsibility for formulating and administering the policies that govern health care in the United States is shared between the federal and state and local governments. To the foreign observer, this practice can be bewildering, as it sometimes is even to Americans themselves. The complexity of this allocation task can be vividly illustrated by considering the political locus of fiscal responsibility for the treatment of a particular diseased organ of a particular American individual. To ascertain that locus, one must go through the following decision tree:

If the individual with the diseased organ is sixty-five years or older, the responsibility lies with the federal government for at least part of the expenses, as the patient will then be covered by the federal Medicare program for the aged (with few exceptions).

If the individual is younger than sixty-five years, but the diseased organ is a kidney, then its treatment is also a federal fiscal responsibility, because since 1973 kidney disease has been covered by Medicare for individuals of all ages.

If the individual is younger than sixty-five years and the organ is not a kidney, treatment may be the state's fiscal responsibility if the person is poor enough to qualify for a particular state's Medicaid program (a threshold that varies substantially across the United States).

If the treatment of the organ is not the responsibility of the state, it may be the fiscal responsibility of a county, failing which, the responsibility lies with the individual him- or herself. If the organ belongs to an uninsured child and the child's parents are either poor or indifferent to its plight, treatment will sometimes be regarded as nobody's responsibility.

In short, as the name quite aptly implies, the “United States” is less a cohesive *nation* than a somewhat loose federation of fairly sovereign states that extend over a vast geographic expanse and embrace a variety of cultures lacking a shared social ethos. The northeastern states, for example, have generally shown a far greater willingness to subject their health sectors to systematic planning and price regulation than have the more entrepreneurial states in the southern and western regions. Thus it is always risky to generalize broadly about American customs and institutions because glaring exceptions can always be found. At most, one can speak of central tendencies, and all subsequent comments in this chapter should be so understood.

### The Population Served by the American Health System

In 1989 the population of the United States was about 248.2 million with a median age of about thirty-two years. During the 1970s and 1980s, that population grew at an average annual compound rate of about 1 percent. By the standards of the newly industrialized economies (NIEs)—where typically far fewer than 10 percent of the population are aged sixty-five—the American population appears relatively old. By European standards, however, it is a relatively young population. In 1990 those aged sixty-five or older accounted for close to 15.5 percent of the population in Germany, 15.1 percent in the United Kingdom, 13.8 percent in France and in Italy, but only 12.6 percent in the United States.

In 1987 the United States had about 91 million “households.” Of these, 65 million were classified as “families” of two or more related individuals living together; the remainder were households of single individuals. Of the 65 million families, about half did not have any children and only 2.8 percent had four children or more. The average size of the American family is thus rather small: in 1987 it was 3.19 persons.

In America’s multiethnic and multiracial society, ethnicity and race have become important variables in the formulation and tracking of social policy. Race and ethnicity are correlated with income. In relation to “white” households, “Hispanic” households had a substantially lower median income, and “black” households had an even lower median income.<sup>1</sup> These income differentials translate into differences in lifestyle, living environment, health insurance status, access to health care, and, jointly via all of these factors, into differential health status. In 1987, for example, the average life expectancy at birth for white males was 72.1 years, but only 69.7 years for black males. For white and black females, the corresponding figures were 78.8 and 73.8, respectively (U.S. Bureau of the Census 1989: table 106, p. 7).

On average, health status for white American infants is superior to that of nonwhite Americans. Even for white Americans, however, the United States reports a higher infant mortality rate than is being reported by many other nations (table 6-1).

It is, of course, risky to introduce health status indicators of this sort into cross-national comparisons of health systems because these statistics are driven by a host of economic, environmental, and behavioral factors. In 1987, for example, the homicide rate among white males in the United States was 8.6 per 100,000. The comparable figure for black males was 55.0 per 100,000 (U.S. Bureau of the Census 1989: table 123, p. 83). Similarly, in 1986, the percentage of births to teenage mothers was 22.8 among black mothers, 16.5 among Hispanic mothers, and only 10.6 among white mothers. Remarkably, it was as low as 1.1 percent among mothers of Chinese origin and 3.0 percent among mothers of Japanese origin (U.S. Bureau of the Census, 1989: table 89, p. 64). These behavioral or circumstantial differences are not easily eliminated with a medical model of intervention. Therefore the health status indicators they beget cannot be attributed to the functioning of the health system per se.

Table 6-1. Health Status Indicators for American Infants, 1986

Indicator	White	Nonwhite		Total
		Black	Total	
<i>Births (thousands)</i>				
All women	2,970	621	786	3,756
Younger than 19	315	142	157	472
Younger than 15	4	6	6	10
<i>Teen births (%)</i>				
Younger than 19	10.6	22.8	19.9	12.6
Younger than 15	0.1	0.9	0.8	0.3
<i>Low-birthweight births (%)</i>				
All women	5.6	12.5	11.2	6.8
Younger than 19	7.7	13.3	12.7	9.4
<i>Percentage of all low birthweight births</i>				
Younger than 19	14.4	24.1	22.6	17.3
<i>Prenatal care (%)</i>				
First trimester				
All women	79.2	61.6	63.7	75.9
Younger than 19	55.9	46.8	47.1	53.0
Third trimester or not at all				
All women	5.0	10.6	9.9	6.0
Younger than 19	11.6	15.0	15.0	12.7
Adequate care				
All women	72.6	50.6	51.8	68.4
Inadequate care				
All women	6.3	15.3	14.7	8.0
<i>Infant mortality (deaths per 1,000 live births)</i>				
Total	8.9	18.0	15.7	10.4
Neonatal	5.8	11.7	10.1	6.7
Postneonatal	3.1	6.3	5.6	3.6

Source: Hughes and others (1989), table 1.1, p. 4.

It is fair to propose, however, that in view of the large and growing "underclass" in the United States, the nation's health system faces challenges not faced in like measure by other nations in the Organisation for Economic Co-operation and Development.<sup>2</sup> Indeed, in this respect the United States probably resembles more some of the NIEs, whose local analogs of the American underclass are also still quite sizable. As will be seen later in this discussion, it is fair also to assert that the American health system has so far failed to rise to that challenge as well as would easily be technically feasible and economically affordable. That failure is one of the system's sorrier shortcomings.

### The American Health Care Delivery System

According to the *Statistical Abstract of the United States (1987)*, the number of persons employed in the health occupations in 1985 numbered 5.7 million. That statistic represents only persons *directly* involved in patient care. It does not include the millions of employees

and entrepreneurs who *indirectly* support these health workers. If “providers” or “health workers” are defined as all persons who directly or indirectly derive the bulk of their income—in the form of wages, salaries, fees, or profits—from the process of health care, the total number of health workers in the United States probably exceeds 10 million. The majority of these health workers are employees of health care facilities, insurance companies, manufacturers of health products, or an ever-growing number of consulting firms that help Americans on all sides of the health care market think their way through the often bewildering maze their system represents. Fewer than 1 million American health workers are self-employed professional entrepreneurs. Among them (in 1986) are about 520,000 physicians (2.2 per 1,000 population), 140,000 dentists (0.6 per 1,000 population), and 170,000 pharmacists (0.7 per 1,000 population). Nurses constitute one of the larger professional groups employed by others, approximately 1.5 million (6.6 per 1,000 population in 1986).

Most of these health workers, whether self-employed or employed by others, are represented in the political arena by regional and national associations of health care professionals (such as the American Medical Association, or the American Nursing Association) or by associations of health care facilities (such as the American Hospital Association). The principal objective of most of these associations is to enhance their members’ economic status, although that is rarely the ostensible goal inscribed in their charter.

By the power accorded these organized interest groups under the American system of governance, by the force of the financial strength they build from their members’ dues, and by the sway that campaign contributions from interest groups tend to hold over the minds and souls of American legislators, these associations have always been the prime shapers of American health policy. Not surprisingly, that policy has served the economic interests of providers as much, if not more, than the medical needs of the population served by the system.<sup>3</sup>

For example, the loosely federated, nationwide network of private not-for-profit Blue Cross health insurance plans was created not by the government to ensure the financial security of patients, but by America’s hospitals to provide for themselves a stable source of financing. Another of their objectives was to deter the government from introducing its own national health insurance scheme, which might confront hospitals with more effective bargaining power on the payer’s side.

Indeed, it is precisely because government-financed and operated health insurance tends to concentrate *monopsonistic* (single-buyer) market power on the demand side of the health care market that both the nation’s medical associations and its hospital associations have always tenaciously—and, so far, successfully—fought the introduction of government-run universal health insurance. Instead, these provider associations have favored the highly fragmented, pluralistic mix of private, for-profit, and not-for-profit health insurance system that is currently composed of more than 1,000 independent carriers. Each insurance carrier within that system lacks sufficient market power to bargain effectively with providers over prices and other terms of compensation. From a provider’s standpoint, that allocation of market power is, of course, always the preferred approach.

Physicians are at the apex of the U.S. health care system. Of the 519,000 professionally active physicians in 1986, close to 89 percent were engaged primarily in the delivery of patient care—about 63 percent in office-based practice and the remainder in hospital-based practice. Only about 9 percent of professionally active physicians were full-time staff members of a hospital. The remainder of the hospital-based physicians were residents or fellows in training (see table 6-2).

Contrary to widely held impressions, the traditional solo practitioner is far from a dying breed in the United States. Although their number has decreased over time, in 1988 an

Table 6-2. Trends in the Active U.S. Physician Population, Selected Years, 1970–86

Category	1970	1980	1985	1986	Percentage change	
					1970–86	1980–86
Total active physician population <sup>a</sup>	312,040	435,545	511,090	519,411	66.5	19.3
Active physicians per 1,000 civilian population	1.53	1.93	2.15	2.16	41.1	11.9
Postresidency patient care physicians <sup>b</sup>	231,121	328,715	383,296	391,300	69.3	19.1
Postresidency patient care physicians per 1,000 civilian population	1.13	1.39	1.57	1.59	40.5	14.9
<i>Major professional activity<sup>c</sup></i>						
Patient care	279,766	376,512	448,820	462,126	65.2	22.7
Residents	49,353	62,042	75,411	80,476	63.1	29.7
Fellows <sup>d</sup>	n.a.	n.a.	n.a.	8,264	—	—
Office-based	195,395	272,000	330,197	326,978	67.3	20.2
Hospital staff	35,018	42,470	43,212	46,408	32.5	9.3
Nonpatient care	30,852	38,404	48,320	43,624	41.4	13.6
Medical teaching	5,738	7,942	7,832	7,721	34.6	-2.8
Administration	11,874	12,209	13,810	14,399	21.3	17.9
Research	10,670	15,377	23,268	17,847	67.3	16.1
Other	2,570	2,876	3,410	3,657	42.3	27.2
Not classified	n.a.	20,629	13,950	13,661	n.a.	-33.8

n.a. not applicable.

— not available.

a. Excludes inactive and temporary foreign physicians, as well as those with uncertain addresses.

b. The population of postresidency patient care physicians includes office-based physicians, hospital staff, fellows, and part of the nonclassified category, which we estimate to be in patient care.

c. Complete data for “not classified” category were not available until 1972. Total for 1970 includes 358 “not classified” physicians.

d. Fellows were counted as a separate category in the 1986 master file. For our purposes, fellows are included in the postresidency physician population rather than the resident population. The significant drop in research physicians in 1986 may be a consequence of taking research fellows out of the research category.

Source: Marder, Kletke, and others (1988), table 2.1, p. 8.

estimated 35.6 percent of self-employed American physicians still were private, office-based solo practitioners. The remainder were in group practices of various sizes, about three-quarters of them in group practices with eight or fewer physician members (Gonzales, Simmons, and Slora 1988: table 52, p. 85).<sup>4</sup> The number of female physicians in the United States is growing rapidly, and it will continue to do so in the future. In academic year 1986–87, 35 percent of all first-year medical students were female. The corresponding number was only 9.2 percent in 1969–70 (Marder and others 1988: table 2.11, p. 28).

On average, Americans see a physician between 5 and 6 times a year. In 1986 the average number was 4.5 for males of all ages and races and 6.2 for females. White Americans had an average annual visit rate of 5.5, compared with an average of 4.6 for black Americans. Americans saw a dentist about twice in 1986. The rate was 1.9 for males, 2.2 for females, 2.1 for white Americans, and 1.4 for black Americans (U.S. Bureau of the Census 1989: table 153, p. 99).

**Table 6-3. Selected Characteristics of the American Hospital Sector, 1986**

<i>Characteristic</i>	<i>Number</i>
Total number of hospitals, all types	6,841
Average number of beds per hospital	188
Beds by type of hospital and ownership (thousands)	1,283 (100.0)
Federal hospitals	111 (8.7)
<i>Nonfederal hospitals</i>	
Short-term only	
Private, not-for-profit	686 (53.0)
Private, for-profit	106 (8.2)
State and local government	184 (14.3)
Long-term facilities	30 (2.3)
Psychiatric hospitals	165 (12.9)
<i>Number of beds per 1,000 population</i>	
All hospitals	5.4
Short-term hospitals	4.1
<i>Personnel per 100 patients</i>	
All hospitals	413
Short-term hospitals	481
<i>Admissions in nonfederal, short-term hospitals</i>	
Admissions per 1,000 population	136
Days of patient care per 1,000 population	913
Admissions per bed	33
Average length of stay (days)	7.1
Outpatient visits per admission	7.2
Outpatient visits per 1,000 population	983
Surgical operations per admission	0.6

*Note:* Figures in parentheses are percentages.

*Source:* U.S. Bureau of the Census (1989), tables 158, 160, and 161.

The American hospital sector is a mixture of publicly and privately owned facilities. Private, investor-owned, for-profit hospitals own only about 10 percent of all short-term and psychiatric hospitals. The great majority of American hospitals are either government owned or privately owned not-for-profit entities (table 6-3).

The United States has fewer beds per capita than do the other nations in the OECD, which have 8–12 beds per 1,000 population. The average length of stay in short-term acute-care hospitals in the United States is 7.1 days (it is 9 days for all types of hospitals), which is the lowest such stay in the OECD countries. For most other nations, the average is between 12 and 24 (Schneider and others 1989: 61–65). On the other hand, American beds are more heavily staffed than beds elsewhere, partly because the typical patient stay in the United States is shorter and thus the typical American patient day is more resource-intensive.

One of the many reasons that the average length of stay per case in American hospitals is so low is that there are many nursing homes and related facilities for the aged. In 1986 these facilities numbered 25,646, with a complement of slightly more than 1.7 million beds. In addition, there were 7,262 skilled nursing facilities with about 600,000 beds. Close to 80 percent of these nursing homes and skilled nursing facilities are privately owned, for-profit entities. Another 18 percent are private, not-for-profit entities, and the remainder are publicly owned.

If self-employed physicians, dentists, pharmacists, and other private purveyors of health services and products are classified as private, profit-seeking entrepreneurs, then it is reasonable to assert that about two-thirds of all outlays on health services and supplies in the United States go to for-profit entities.<sup>5</sup> The remainder is paid to so-called not-for-profit entities, chiefly not-for-profit nursing homes and hospitals, including government hospitals.

The term "not-for-profit" is quite misleading in this context, however. As Rosemary Stevens has convincingly argued (1989), the typical American not-for-profit hospital has traditionally been operated along business lines and normally books sizable profit margins. The term "not-for-profit" merely means that the hospital does not distribute the profits it books to outside owners but instead recycles them into the hospital's operations. It does not mean that the hospital's management lacks motivation to ensure positive operating surpluses from managing the hospital's clinical and economic affairs.

Many not-for-profit hospitals in the United States are currently eliminating "product lines" (health services) that do not appear profitable (such as obstetric units or neonatal care departments that act as conduits for uninsured and poor patients) and are replacing these with more profitable services (such as sports medicine or health clubs). Furthermore, many of these hospitals have begun to divert uninsured patients away from their doors toward government-owned hospitals. They can do this simply by telling ambulance drivers to go to public hospitals or, more delicately, by letting it be known that the hospital has closed its emergency department. The latter practice is spreading in the city of Los Angeles and in parts of the South. In the jargon of hospital administrators, the motto of some hospitals is "No margin, no mission." As always in the United States, one must not generalize recklessly on this point. The behavior of its not-for-profit hospitals spans the entire spectrum from extraordinary charity to unbridled commercialism. In the end, one must concede that even a saint, faced with a huge payroll, fixed interest payments, and a market-constrained revenue budget, must at some point say no to uninsured patients. In some states, there exist hospital-financed revenue pools from which the individual hospital is compensated for care rendered free of charge to indigents. The state of New Jersey has such a system in place, as do many other states, particularly in the Northeast.

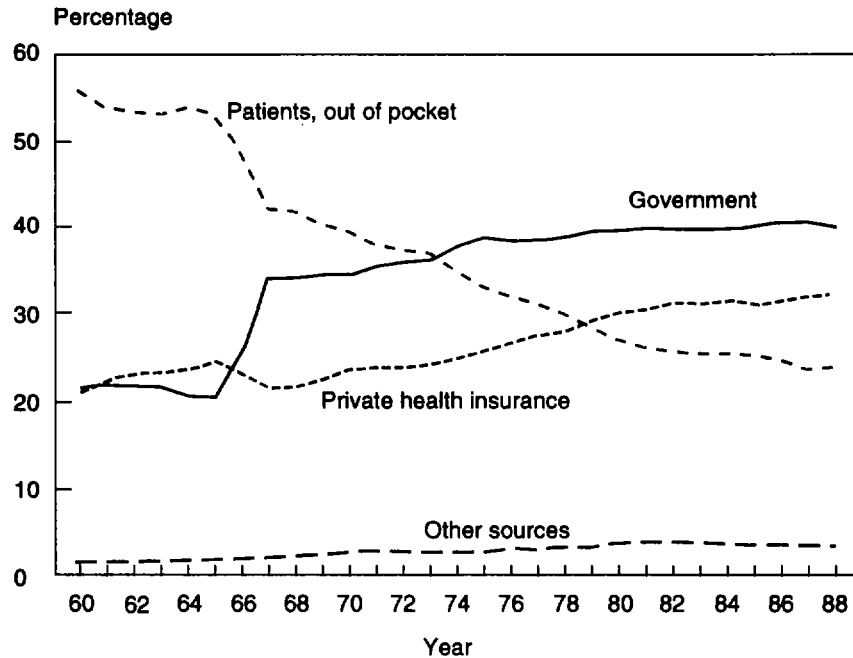
### **The American Health Insurance System**

In 1988 Americans collectively transferred \$540 billion (11.1 percent of the GNP, or \$2,124 per capita) to the direct and indirect providers of health care. Of this total, some \$20 billion was allocated to research and construction, and another \$26 billion to public program administration and the net administrative costs of private health insurance. A total of \$478 billion was spent directly on personal health care. Of this last amount, the hospital sector received about 44 percent, physicians about 22 percent (in the form of gross practice billings), dentists about 6 percent, drugs 9 percent, nursing homes 9 percent, other independent health professionals about 5 percent, and other services 5 percent.

Roughly 24 percent of total national outlays for personal health care flowed directly from patients to the providers of that care. That degree of cost sharing by patients at the point of service is quite high within the industrialized world. Third parties accounted for about three-quarters of total spending on personal health care in 1988. Among the third-party payers, federal, state, and local governments accounted for about 41 percent of total spending. Private health insurance carriers covered close to 33 percent, and other sources (chiefly philanthropy) the remaining 26 percent.

Figure 6-1 shows how these shares have changed since 1960. The share paid by patients directly at the point of service has gradually declined over time, whereas the shares of both

**Figure 6-1. Sources of Funds for Personal Health Care as a Percentage of Total Spending, 1960–88**



Source: U.S. DHHS (1990).

government and private health insurance have increased. The most dramatic shift occurred in 1965–67, after the introduction of both the federal Medicare program for persons aged sixty-five and older and the federal-state Medicaid program for poor families. These programs obviously relieved large numbers of Americans of financial responsibility for much of their health care. It also made some inroads into the economic turf of private health insurers, which explains why that industry has always staunchly opposed broadly based health insurance programs of this sort.

### *Private Health Insurance*

Americans have historically viewed private health insurance as the proper financial cornerstone of their health system. That cornerstone appears to have become increasingly brittle in recent years. As a result, the population at large has become worried and disillusioned.

More than 1,200 private, for-profit or not-for-profit, health insurance companies currently write individual and group health insurance policies to about 100 million Americans. The national Blue Cross and Blue Shield Association embraces a loose national network of some seventy-eight regional, not-for-profit Blue Cross and Blue Shield plans, which together cover about 70 million. Other plans cover close to 50 million individuals. Among these are insurance programs administered by business firms themselves or by outside administrators and health maintenance organizations (HMOs), which obligate themselves to deliver to the insured a comprehensive package of specified health services against prepayment of



an annual capitation. There are close to 700 HMOs in the United States, with a total enrollment of about 30 million individuals (Health Insurance Association of America 1988: table 1.2; U.S. Bureau of the Census 1989: table 148, p. 97; see also DiCarlo and Gabel 1988).

As a general rule, the insurance policies sold by private health insurers are priced on strict actuarial principles. For group insurance sold to an employer, the premium is *experience-rated* over the firm's employees, which means that it will reflect the health status and health expenditures of that firm's employees. For very large firms, that approach can border on *community-rating*, under which premiums in a given geographic area (a "community") reflect the average actuarial experience of persons living in the region. For very small business firms, *experience-rated* health insurance premiums can be highly sensitive to the health status of one or two employees. Thus, it is not uncommon for small firms to pay a multiple of what large firms pay, with premiums currently averaging about \$3,000 per employee.

The premiums paid by small business firms are driven up further by the administrative costs of selling insurance to small groups or individuals. For firms with fewer than twenty employees, for example, only about 70 percent of premiums are actually paid out to the providers of health care; the remainder is absorbed by administrative costs and profits. For policies sold to individuals, an even smaller proportion of premiums actually goes to pay for health benefits. Indeed, the administrative costs of such individual policies tend to be so high that some commercial insurance carriers do not even sell such policies anymore.

Private payers—patients or their private insurance carriers—typically pay physicians, hospitals, and other providers of health care fees charges that are set by the individual provider, subject to whatever limits the market may place on the provider's discretion. Roughly 60 percent of all health expenditures flow to providers through this so-called free market, free in the sense that it is not directly regulated by the government. For repeatedly purchased, routine well-patient care—for example, annual checkups or well-baby care—these prices are likely to approximate those of a monopolistically competitive market (see McCarthy 1985). For crisis interventions, such as the removal of a brain tumor or trauma care, the limits on prices set by physicians, hospitals, and other health care providers are less well understood.

It is possible in the United States that a physician will treat patients under several dozen distinct private insurance contracts and literally receive dozens of different fees for the identical service. Similarly, the actual payment the typical American hospital receives for the same service can vary enormously, depending on the insurance carrier paying the charge. In some respects, the pricing of health care services has come to resemble the price discriminatory schemes used by the airlines.

### *The Medicare Program*

Medicare is a federal program for the 30 million Americans over the age sixty-five and certain categories of disabled. It covers physician services, hospital care, and a limited number of days in skilled nursing facilities. Until now, it has not covered prescription drugs, dental care, and a variety of other services, and it has always required cost sharing through deductibles, coinsurance, and extra billings by physicians above the fees allowed by Medicare. Eligibility for the program is strictly age related; it is not based on income.

Congress introduced the Medicare program (along with the Medicaid program for the poor) in 1965, after a decade of heated national debate and over the strong objections of American physicians and the health insurance industry. They would have preferred a much more modest government program aimed solely at low-income families. At the time, the

proponents of a complete, universal, national health insurance (NHI) program viewed Medicare and Medicaid as mere stepping stones toward their ultimate objective. The opponents of NHI eventually acquiesced to these more limited programs only after viewing it as a device to take the wind out of the sails of those pushing for full-fledged NHI. In fact, the two programs appear to have served precisely that purpose: attempts to revive the debate over NHI during the 1970s faltered on the argument that private health insurance, along with Medicare and Medicaid, already did adequately protect the bulk of America's population against the financial cost of illness and that the remaining pockets of the uninsured could easily be taken care of through incremental stop-gap measures, such as charity care or a gradual expansion of Medicaid.

Between 1966 and 1988, total spending on Medicare rose from \$1.7 billion to \$89 billion. The program now represents close to 19 percent of total national spending on personal health care, and it is one of the most rapidly rising components of the federal budget. Even so, Medicare still covers less than half of the total health care expenditures incurred by the aged. Another 13 percent is paid by Medicaid, mainly on nursing home care for the very old and pauperized Medicare beneficiaries. Moreover, the aged themselves still cover an average of close to one-third of their own health care expenditures with their own resources, either through private Medigap insurance or out of pocket at the time of service.

Because the out-of-pocket expenditures borne by the aged are not income-related, their incidence is highly regressive. They constitute a serious burden on the already meager budgets of the low-income elderly, as is apparent from table 6-4. Unfortunately, many elderly Americans are so frightened by the high cost of illness and so confused by the plethora of insurance products offered in the Medigap market that many of them have purchased duplicate policies whose benefits they may never receive. Many of these policies operate at high loss ratios (defined as the proportion of the premium returned to the insured in the form of covered health benefits). In 1987, for example, the average loss ratio for commercial Medigap policies was 74 percent, although that ratio was lifted considerably by the 83 percent ratio reported by one company, Prudential Insurance. For the remaining commercial carriers, the loss ratio averaged only 59 percent; in other words, more than 40 percent of the premiums paid by the aged for such policies went to cover administrative costs and the carriers' profits. For the Blue Cross and Blue Shield plans, the loss ratio was between 93 and 96 percent (Congressional Research Service 1989: 11).

The high loss ratios among most of the private commercial insurers speak volumes about the often alleged superior economic efficiency so often claimed by such carriers for their product in comparison with publicly provided insurance (which has a loss ratio in the 90 percent range). The persistence of these high loss ratios also speaks volumes about the social ethic that permits the aged to be financially exploited in this way. It should be noted, however, that the ratios had improved from even sorrier levels as a result of legislation passed in 1980 to curb abuses in the marketing of health insurance to the elderly.

In 1988 Congress passed the Medicare Catastrophic Coverage Act in an effort to limit the maximum out-of-pocket payments that Medicare enrollees face annually for covered services. It subsequently added partial coverage of prescription drugs in excess of an annual deductible of \$500. The maximum risk exposure, however, was not income related, and it did not apply for needed health services and appliances not covered by Medicare. Because the costs of the new benefits were apportioned solely to the aged in higher income groups through income-related premiums, many among the well-to-do aged were fiercely opposed to the new law. Apparently they were not inclined to finance any redistribution of economic privilege within their own age cohorts and would have preferred to see the added benefits

**Table 6-4. Average Individual Liability for Medical Care for the Noninstitutionalized Elderly, 1984**

<i>Per capita income in 1984</i>	<i>Percentage of Medicare enrollees</i>	<i>Average out-of-pocket expense (U.S. dollars)</i>	<i>Liability as a percentage of per capita income</i>
Less than \$5,000	25.6	758	21.5
\$5,001 – \$10,000	39.6	901	12.7
\$10,001 – \$15,000	15.8	1,053	8.6
\$15,001 – \$20,000	11.2	1,194	3.1
More than \$20,001	7.8	1,009	5.9
All noninstitutionalized elderly Medicare enrollees	100.0	930	8.2

Source: Holahan and Palmer (1987), table 6.

financed with a further intergenerational transfer from the young as a group to the aged as a group.

This political opposition led Congress to repeal the act in late November 1989, leaving the low-income aged more exposed to out-of-pocket health expenditures than since 1965, when the Medicare program was established. Sooner or later the Congress will have to address afresh the plight of the many elderly Americans who remain exposed to the risk of financial ruin through illness.

Until 1983, Medicare reimbursed hospitals retrospectively for all costs demonstrably incurred in treating Medicare patients. That reimbursement covered all fixed operating costs, including depreciation and the cost of financing fixed assets. For investor-owned, for-profit hospitals, the reimbursement also included a guaranteed rate of return to the shareholders' equity.

The retrospective, full-cost reimbursement of hospitals was widely believed to encourage waste, especially in the form of resource-intensive treatments and excessive lengths of stay. To provide hospitals with incentives to minimize the cost of treatments, the Medicare program in 1983 switched to a system of prospectively set fees per case, with distinct fees for some 500 diagnosis-related groups (DRGs) of medical cases. Because the DRG fees are based on the estimated full cost of the services going into a DRG unit, they represent in effect a resource-based relative value scale.<sup>6</sup> As such, they could have been used by the Medicare program as the basis for competitive bids by hospitals for the Medicare "business." Rival hospitals would have submitted their bids simply by specifying a monetary conversion factor for a base unit of the DRG. Remarkably, even the market-oriented Reagan administration did not have the temerity to undertake such a bold and divisive move. Instead, the government chose a highly regulatory approach by which the monetary conversion factor has been unilaterally set annually by the administration together with the Congress. This DRG update factor is subject to bargaining only indirectly, through behind-the-scenes lobbying by the national hospital associations.

The DRG-based method of compensating hospitals appears to have helped constrain Medicare expenditures for hospitals, in part by reducing the average length of stay and the use of ancillary services per stay (Altman and Rodwin 1988). It is estimated that Congress has kept the monetary conversion factor of the DRG schedule so tightly controlled that virtually all positive average profit margins have been squeezed from the treatment of Medicare patients.

Since the inception of Medicare, the program has paid physicians on the basis of “customary, prevailing, and reasonable” (CPR) fees. That is, physicians are paid the lower of their customary charge (defined as the median of that physician’s fees for the procedure in question during the previous year) or the prevailing fee in the physicians’ market area (defined as the fee at the 75th percentile of the fees charged by physicians in their market area for that procedure in 1975, adjusted for the growth in a medical practice-cost index since 1975). This method is a cumbersome attempt to adapt Medicare’s fees to the market. For many procedures mainly received by the aged—for example, cataract surgery, hip replacements, coronary bypasses—Medicare effectively represents almost all of that market. An attempt to adapt to it through the CPR method actually is a logical contradiction. Not surprisingly, under this system fees vary rather capriciously across regions and among similar providers within regions in ways that cannot reasonably be justified with appeal to either the relative costs or the relative quality of services. The physician reimbursement system is therefore no longer viewed as equitable or economically defensible.

One reform recently passed into legislation has replaced the CPR system by a relative-value scale (RVS) that is based on carefully estimated relative resource costs of performing a set of well-defined procedures in a nationwide, standard fee schedule. Initial estimates of the relative resource costs, particularly the input of the physician’s time and effort, have been developed through the cooperative research of William Hsiao and his colleagues at Harvard University’s School of Public Health and the American Medical Association (see Hsiao, Braun, Becker, and others 1988). These estimates have since been refined (particularly with respect to the input of nonphysician resources in the production of physician services) by the Physician Payment Review Commission, a panel of experts established by Congress in 1986 to advise it on policies for paying physicians under the Medicare program. In its annual report to Congress dated April 1989, the commission recommended that a resource-based relative-value scale be adopted, along with a variety of other physician-payment reforms. Most of these recommendations were included in legislation passed in November 1989 (see Physician Payment Review Commission 1989).

Strictly speaking, the resource-based relative-value scale is not a *value* scale at all. Like the DRG schedule for hospitals, it is merely a relative *cost* scale. Nothing in these relative-cost schedules implies that a service that is twice as costly to produce than another is actually worth twice as much in terms of the benefits it yields either to the patient or to society as a whole. The relative-resource-cost schedules become bona fide relative-value schedules only when Congress makes the purely political decision to base the actual payment of physicians on relative resource costs. Then, these actual payments do serve as signals to providers on the basis of the relative value Congress explicitly attaches to the performance of the various procedures listed in the scale.

Absent is a superior algorithm: one that is both intellectually more appealing *and* practical.<sup>7</sup> Basing a political valuation on relative resource costs strikes one as an eminently sensible approach (see Reinhardt 1975: esp. 162–69). Its analog is widely practiced elsewhere in the United States under public utility regulation, and most other nations that pay physicians on a fee-for-service basis have used such an approach for many years, either explicitly or implicitly.

From the American perspective, the main alternative to compensating physicians on a fee-for-service basis (using resource-based relative-value scales) would be prepaid capitation for comprehensive services on the model now offered by the health maintenance organization. Prepaid capitation represents a compromise between the powerful incentive inherent in fee-for-service to treat patients excessively and the incentive under salaried

practices to cut corners. That arrangement has been used in the United States for almost half a century now, although rather sparingly.

Both the Reagan administration and the American business community have long viewed prepaid capitation as the ideal method of compensating physicians. Some prominent health policy analysts—Alain Enthoven among them—also envisage prepaid capitation as the most sensible of all alternative compensation bases.<sup>8</sup> Although enrollment in HMOs grew rapidly during the 1980s and may well do so in the 1990s, only about 30 million Americans currently receive comprehensive health care under this arrangement, for reasons that are easy to understand. An HMO is, after all, just a private sector miniversion of the British National Health Service. Each HMO seeks to ration health care through a combination of limited physical capacity and fixed, predetermined budgets. The typical American patient and the providers of health care have yet to come to terms with that form of implicit rationing. They have preferred the open-ended system that both the government and the business community has been willing to finance so far.

### *The Medicaid Program*

Medicaid is a federal-state program that currently covers some 24 million low-income Americans of all ages, among them 3.5 million poor elderly persons and 3.4 million blind and disabled persons. The federal government pays for 56 percent of total program costs and the state government the remainder. Under the federal law, the states participating in the Medicaid program are expected to provide first-dollar coverage for hospital and physician services and care in skilled nursing facilities. Many states offer additional benefits, including prescription drugs.

The Medicaid program is generous in the range of benefits it covers, although it is much less so in its standards for eligibility and in the level of compensation it pays the providers of health care to Medicaid patients. Many providers are therefore reluctant to accept Medicaid patients for treatment, especially if there is an ample supply of better-paying patients. Since its inception in 1966, the program has been means-tested. Eligibility has been closely linked to the criteria for eligibility for the states' welfare programs. Because the latter vary greatly from state to state, there are vast disparities in the level of income at which entitlement to Medicaid coverage sets in. Only about 15 percent of persons below the federal poverty level are covered by Medicaid in Alabama. In Michigan and Massachusetts, the ratio is about 70 percent. Overall, only 41 percent of Americans with incomes below the federal poverty threshold actually were covered by Medicaid in 1986, while 24 percent of those with coverage had family incomes above the poverty level (Congressional Research Service 1988b: 269).

Although the federal government pays for more than half of the Medicaid program, it leaves the states great leeway in establishing the methods by which providers are compensated. Most states now pay hospitals and nursing homes under the Medicaid program a set amount per day or per case, although in some states the program has simply joined an all-payer system under which every private or public payer has agreed to a single method of payment and a single charge or fee schedule. For physicians and other self-employed health professionals, the state Medicaid programs pay either on an established fee schedule, or the lesser of the provider's actual charge, or a maximum allowable charge established by the state. For prescription drugs, the states typically pay the pharmacist's cost plus a fixed fee, where the allowable cost is meant to be the least-cost drug in groups of equivalent drugs. This practice clearly biases the system toward the use of generics.

The compensation of providers is somewhat simpler under Medicaid than under Medicare. In most states, however, the rates paid by Medicaid are unilaterally set by the state government and far below the rates paid by Medicare, which, in turn, tend to pay less than do the private insurance carriers. This cleavage between Medicaid and other payers has led many providers, particularly physicians, to shun Medicaid patients altogether. The precise magnitude of the refusal rate is not known, but the available evidence suggests that the problems is significant and pervasive (Congressional Research Service 1988b: 444–46).

### *Americans without Health Insurance*

In 1987 close to 85 percent of Americans had some form of private or public health insurance coverage for at least some set of health services, most of them through group health policies provided by a family member's place of employment (table 6-5). This coverage was not always comprehensive, however. Deductibles, coinsurance, and gaps in the range of services covered still required high annual out-of-pocket expenditures, even for families with health insurance. That same year, an estimated 15.3 percent of all families with health insurance spent more than 5 percent of their family income on health services, in addition to their outlays on health insurance premiums; and 2.7 percent of insured families spent more than 25 percent of their family income on health services (Congressional Research Service 1988a: 4).

According to the 1987 National Medical Expenditure Survey, an estimated 37 million, or 15.5 percent of the population under age sixty-five, had no health insurance coverage at all that year (see table 6-5). In 1979 the number was 14.6 percent. This enormous gap in coverage is unique in the industrialized world. It is one of the major stains on the American health system. Close to half of the uninsured are working adults, about 18 percent are nonworking adults, and about one-third are children under the age of eighteen (Chollet 1988: 11). Roughly one-third of the uninsured live in families with incomes below the official federal poverty line (currently about \$11,700 for a family of four) and another third live in households within 100–200 percent of the poverty line (Chollet 1988:12). For such a family, if it were not plagued by preexisting illness or chronic disease, a standard health insurance policy requiring a deductible of \$250 per family member and coinsurance of 20 percent up to a maximum exposure of about \$3,000 per family would cost between \$2,000 and \$3,500 a year, depending on the insurance carrier and the family's location. Should one or more members of such a family be chronically ill, the policy would be commensurately more expensive, it were available at all. In short, the purchase of a private health insurance policy would be a truly staggering financial burden for many currently uninsured low-income families.

The phenomenon of the uninsured is not a novel experience in the United States. Because both private and public health insurance coverage has grown only gradually, there have always been millions of uninsured Americans. Their plight forms an integral part of American literature. Even during the 1970s, the heyday of America's Great Society period, some 25 million Americans remained totally without health insurance coverage.

The American health system has traditionally dealt with the uninsured as follows. For uninsured individuals with mild to semiserious medical conditions, the system effectively rations health care by price and the household's ability to pay. For truly critical medical conditions, the uninsured usually have been able to receive charity care at nearby hospitals, which then pass on the cost of that care to insured patients through hidden cross-subsidies. In other words, for truly critical illnesses the hospital sector functions, as best it can, as health insurer of the last resort, collecting the requisite premiums from whatever paying patient

Table 6-5. Health Insurance Coverage of the Civilian Noninstitutionalized Population of the United States, 1987

Population characteristic	Total population (thousands)	Percentage with private coverage			Percentage uninsured
		All	Employment related <sup>a</sup>	Percentage with public coverage only	
Total <sup>b</sup>	237,890	74.5	64.3	10.0	15.5
<i>Age in years</i>					
< 6	21,631	67.5	62.5	15.8	16.7
6-18	45,475	71.8	67.8	11.3	16.9
19-24	22,675	63.3	55.2	6.5	30.2
25-54	98,155	78.8	73.2	5.5	15.7
55-64	22,046	79.0	65.2	7.6	13.4
> 65	27,909	74.7	35.4	24.4	0.9
<i>Sex</i>					
Male	115,148	75.1	65.9	8.3	16.6
Female	122,743	74.0	62.8	11.7	14.3
<i>Marital status</i>					
Married	105,024	83.5	72.5	5.5	11.0
Single/never married	40,532	66.1	57.0	8.5	25.4
Widowed	13,551	66.9	30.9	26.6	6.6
Divorced	14,465	65.0	55.5	13.9	21.1
Separated	4,091	49.6	43.7	25.0	25.4
<i>Ethnic/racial background</i>					
White	182,794	80.8	69.1	6.8	12.4
Black	28,356	52.9	48.5	25.1	22.0
Hispanic	18,752	50.1	45.9	18.3	31.5
<i>Veteran status</i>					
Veteran	30,812	79.7	69.0	7.7	12.5
All other	139,260	75.4	62.5	9.3	15.4
<i>Places of residence</i>					
20 largest SMSAs	67,616	74.7	65.0	10.2	15.1
Other SMSAs	112,998	76.3	67.4	9.0	14.7
Other	57,276	70.8	57.4	11.8	17.4
<i>U.S. Census region</i>					
Northeast	49,902	78.5	68.9	10.3	11.3
Midwest	59,442	79.7	68.1	9.2	11.2
South	80,709	69.7	59.4	11.4	18.9
West	47,837	72.2	63.0	8.5	19.3

a. From current or prior employment of self or other family member.

b. Includes persons in other ethnic/racial groups not shown and persons of unknown ethnic/racial background, marital status, or veteran status, as well as persons under age 17 for marital status and under age 19 for veteran status.

Source: U.S. DHHS (1989), table 1, p. 6.

was unable to resist these charges. It is therefore wrong to assert that uninsured low-income Americans do not have *any* access to needed health care. As a rule of thumb, they now receive 50-60 percent of the care received by equivalent insured Americans. It is accurate to say, however, that millions of uninsured low-income Americans receive critically needed

health care only in the undignified status of health care beggars, on quite uncertain terms, and that they are rationed out of the system for many less critical but important health services, including preventive care.

### Cost Control in American Health Care

Since the 1970s, the annual compound growth in total national health expenditures has outpaced the annual growth of nonhealth GNP by about three percentage points (Fuchs 1990a: 535; see also Berk, Monheit, and Hagan 1988). In 1990, total annual health expenditures were expected to reach about \$660 billion, or 11.5 percent of the GNP. The projected number for the year 2000 is \$1.5 trillion, or 15 percent of the GNP.

Physicians and other providers of health care often wonder why the percentage of the GNP going to health care attracts so much attention among policymakers when no one seems to care what percentage of the GNP is spent on other goods and services in the economy. The answer to that question is straightforward. For ordinary consumer goods, every single expenditure for such ordinary commodities is subjected to an automatic benefit-cost assessment by those who *both* receive the commodities *and* pay for them at the point of receipt. To the extent that both parties to such transactions trade in freely competitive markets and are well-informed, rational persons, one can assume that their benefit-cost calculus is rational as well. Unfortunately, that calculus cannot be presumed for the bulk of the transactions that determine health expenditures, first, because patients typically do not have the technical know-how to assess the relative medical merits of alternative treatments or their costs, and, second, because health expenditures are concentrated heavily among a few, very sick patients who might not be able to act rationally on full information even if they could otherwise understand it.

Yet some limit must be placed on the size of the slice that the providers of health services are permitted to extract for themselves from the proverbial national pie, the GNP. Table 6-6 sets forth a variety of alternative cost-containment strategies that have been tried in the United States and elsewhere. That table makes a distinction between the *macromanagement* and the *micromanagement* of the health system.

Broadly speaking, under macromanagement public authorities place limits on the physical capacity of the overall health system and on the money budgets flowing into it, but they otherwise leave both patients and providers alone to optimize their treatment choices within these constraints. Under micromanagement, one does not set physical and fiscal constraints on the health system as a whole, but instead seeks to control costs by influencing the individual medical treatment. The principal instruments of that approach are payment mechanisms that encourage providers to minimize the use of real resources in the treatment of medical conditions (for example, DRGs or prepaid capitation); the conversion of "patients" into "consumers" through high deductibles and coinsurance; and, for good measure, the direct interference of third-party payers into the ongoing treatment of individual patients through a process known in the United States as "managed care."

### *Regulation versus the Market*

The preferred approach to the task of cost containment in health care hinges, once again, on one's perception of the commodity "health care." If one thinks of health care as a *private consumption good* whose financing is the individual's responsibility, then the task of cost containment properly falls to individual patients or private groupings of patients. If, however, one thinks of health care as essentially a *social good* that should be available to all



Table 6-6. Alternative Cost Containment Strategies in Health Care

Target	Micromanagement	Macromanagement
Supply-side strategies	<ul style="list-style-type: none"> <li>• Encouragement of efficiency in the production of medical treatments through economic incentives (e.g. DRGs, capitation)</li> <li>• Legal constraints on the ownership of health care facilities</li> </ul>	<ul style="list-style-type: none"> <li>• Regional planning designed to limit the physical capacity of the health system and to ensure its desired distribution among regions and social classes</li> </ul>
Demand-side strategies	<ul style="list-style-type: none"> <li>• Conversion of "patients" to "consumers" through cost sharing</li> <li>• Hands-on supervision of decisions of doctors and their patients ("managed care")</li> </ul>	<ul style="list-style-type: none"> <li>• Predetermined global budgets for hospitals and expenditure caps for physicians</li> </ul>
Strategies aimed at the market as a whole		<ul style="list-style-type: none"> <li>• Price controls</li> </ul>

Source: Compiled by the author.

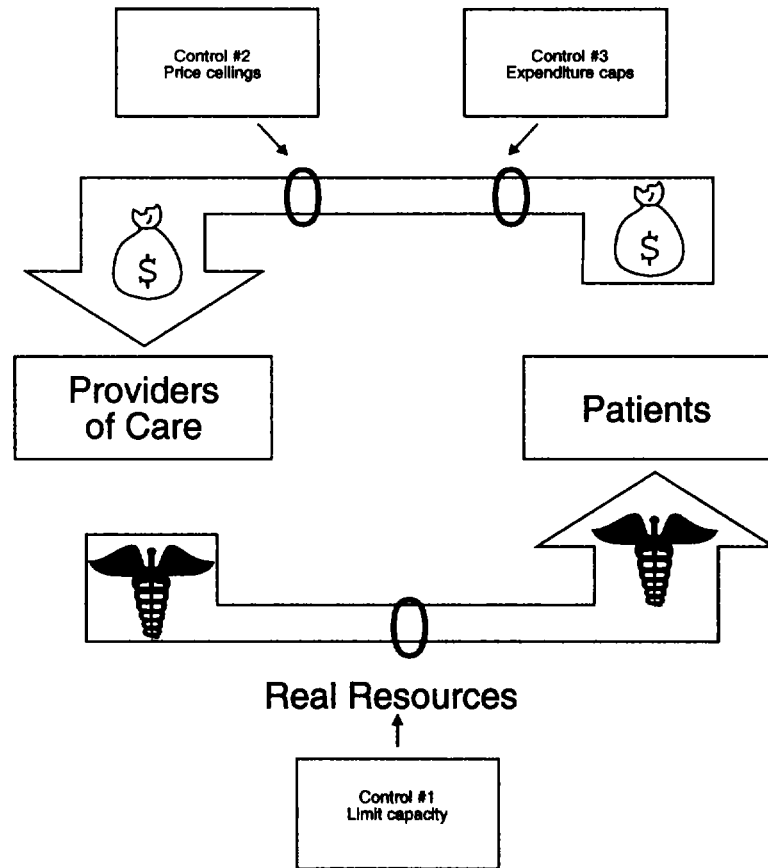
citizens on equal terms, regardless of their ability to pay, then the task of cost containment is ultimately the responsibility of the authority that effects the implied redistribution of health care resources. This may be the government (as is the case in Canada) or private entities endowed with some governmental powers (as is the case in many West European countries).

Nations that treat health care as a social good and therefore operate some form of national health insurance plan typically lean on macromanagement to control their health expenditures. As part of that process, they limit the physical capacity of the health system through planning and concentrate the flow of money from third-party payers to providers into one or at most a few large money-pipes, whose valves are controlled through formal, bilateral negotiations between associations of third-party payers and the corresponding associations of health care providers (for example, physician associations). This approach permits these nations to impose price ceilings on health care and, if the volume of services expands too rapidly at fixed prices, to subject the money flow to providers to global budgeting. Figure 6-2 illustrates this approach.

Just how effective this massing of market power on the demand side can be may be inferred from the comparison of Canadian and American physician fees shown in table 6-7. It is possible that the data are slightly distorted by subtle differences in coding the procedures listed there: for example, by the inclusion or exclusion of pre- and postoperative services. Even after such adjustments, however, the central point to be made with the table would remain: rightly or wrongly, and for better or for worse, in comparison with the United States, Canadians procure medical care from their physicians at a lower transfer of money per unit of real resource (see table 6-7). As Victor Fuchs (1990b: 884) has concluded from a comparative study of Canadian and American health care:

In 1985, per capita expenditure [on physician services] was \$347 in the United States and only \$202 (in U.S. Dollars) in Canada, a ratio of 1.72. . . . We found that the higher expenditures per capita in the United States are explained entirely by higher fees; the

Figure 6-2. The Canadian/European Approach



Source: Compiled by the author.

quantity of physician services per capita is actually lower in the United States than in Canada.

Fuchs further observes that although American fees are more than twice as high as comparable Canadian fees, the average net income from the practices of American physicians is only about 30 percent higher than that of Canadian physicians, primarily because American physicians are beset by much higher practice costs under their nation's complex system of financing health care. Another significant factor is the much higher medical malpractice premiums that American physicians pay.

Neither the American providers of health care nor, apparently, the American public have ever been willing to countenance the regulatory interventions routinely used elsewhere in the industrialized world to achieve an equitable distribution of health care. Unwilling to accept either the regulation implied by perfect egalitarianism in health care or the inequities implied by rationing health care through price and the individual's ability to pay, Americans have, since World War II, pursued a health policy that is perfectly well described as a

Table 6-7. Comparison of Medical Fees, United States and Canada, 1984

Procedure	United States (U.S. Dollar)		Ontario, Canada	
	Prevailing fees under Medicare	Median fees	Canadian dollars	U.S. equivalent <sup>a</sup>
Electrocardiogram <sup>b</sup>	40	35	7	6
Insertion of pacemaker	1,815	1,200	334	296
Appendectomy	734	600	259	229
Extraction of lens	1,314	—	368	326
Hysterectomy	1,393	901	503	445
Coronary artery bypass	5,200	—	1,300	1,150

— Not available.

a. Purchasing power parity, Cdn \$1.13 per US \$1.

b. Professional component only.

Source: Reinhardt (1985c), table 2, p. 372; and OECD (1986), p. 117.

“political stalemate between halfway competitive markets and ineffective regulation” (Altman and Rodwin 1988: 323).

### Half-Hearted Regulation

The late 1960s and the entire 1970s can be described as the phase of half-hearted regulation. As health care expenditures began their inexorable rise during that period, and as the public sector’s share in these expenditures steadily grew, timid attempts were made to pursue some of the regulatory supply-side strategies adopted elsewhere in the industrialized world.

During the Nixon administration’s Economic Stabilization Program in 1971–74, prices in the health care sector were frozen along with prices elsewhere in the economy (see *Health Message from the President* 1971). Although that strategy was aimed solely at prices, leaving utilization uncontrolled, the program did succeed in limiting health spending temporarily. Spending resumed its rapid growth, however, as soon as the price controls were lifted in 1974.

On the theory that in health care the available capacity will somehow always find a way to be profitably employed, Congress next sought to limit the acquisition of expensive capital equipment and structures by the hospital sector. To that end, a federal law in 1974 established the regional Health Systems Agencies (HSAs) from which hospitals had to secure certificates of need for capital expenditures costing in excess of \$150,000. Unfortunately, that law had two undesirable consequences. First, the HSAs were completely divorced from accountability over financing their decisions. When in doubt, they tended to err on the side of expansion, for theirs was not the task of funding the operating cost of the new capacity. Second, when an HSA did refuse to permit the acquisition of expensive equipment by a hospital, the physicians affiliated with the hospital were offered the profitable opportunity to provide that equipment with their own funds. In one of the many ironies that attend government regulation, the government’s half-hearted foray into health sector planning during the 1970s encouraged the growth of venture capitalism among American physicians.

Legislative attempts in the 1970s simply to cap hospital revenues were easily defeated by the hospital sector’s promises to practice “voluntary restraint.” When, predictably, the promise was kept in the breach during the late 1970s and early 1980s, there emerged a brief but fiercely fought national debate on the relative merits of “competition versus regulation.”

That debate was won by the proponents of the so-called pro-competitive market strategy, an approach that had gained respectability in the literature of mainstream neoclassical economics and that was music to the ears of the incoming Reagan administration.

### *The Pro-competitive Strategy*

The pro-competitive strategy rested on the intuitively appealing premise that third-party payment is the chief cost driver in modern health care. By itself, however, the large postwar decline in direct payments by patients, from an average of 66 percent in 1950 to 28 percent in 1984, can account for only a small portion of the postwar increase in real health care expenditures (Newhouse, Anderson, and Roos 1988). In place of the supply-side regulation practiced in other countries, the pro-competitive strategy called for the further *deregulation* of the supply side by granting American health care professionals even greater clinical and economic freedom than they had hitherto enjoyed to manage health care as they saw fit, and likewise to price their services. Furthermore, the strategy openly welcomed into the health sector the genius and energy of profit-seeking American entrepreneurship, including the latent energy of the financial markets, which soon discovered in health care a new and richly endowed economic frontier. Figure 6-3 illustrates that approach to resource allocation.

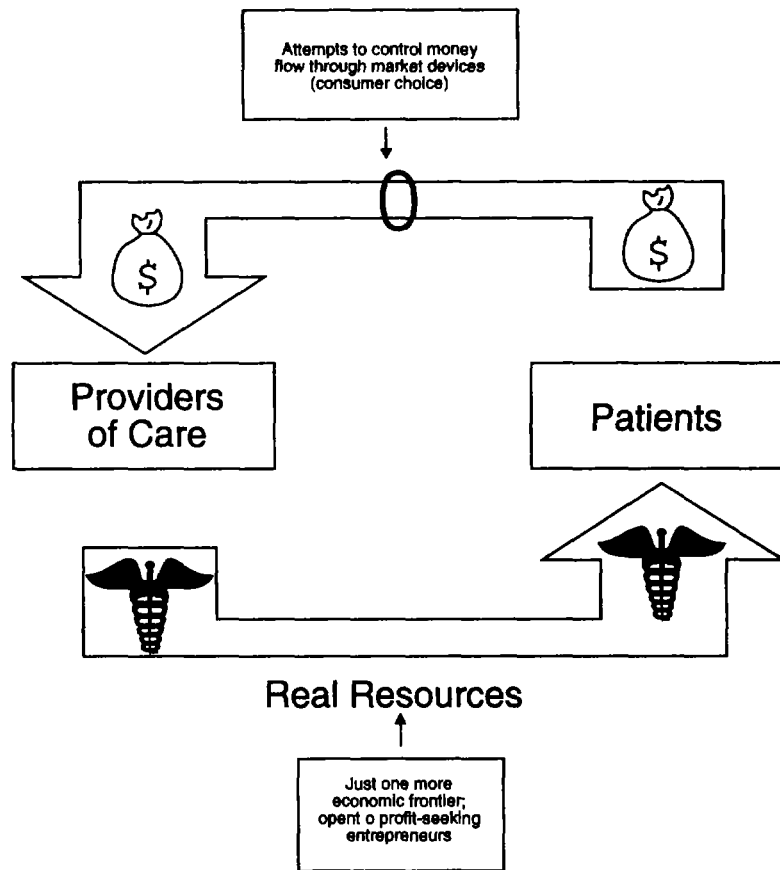
Today, the booths of venture capitalists are standard fixtures at conventions of hospitals and physicians, persuading both to join profitable joint ventures in imaging, laboratory testing, and one-day surgery. Joint ventures allow the physician to sell the cash flows likely to be triggered by sick Americans. Although overt kickbacks for referrals of patients are illegal under the Medicare and Medicaid programs, and for all patients in some states, that stricture is easily circumvented by offering physicians who can supply such referrals—and only such physicians—direct investment opportunities in such facilities, at enticing annual rates of return (Bogdanovich and Waldholz 1989).

To constrain the push for added revenues (health care expenditures) likely to be unleashed by this entrepreneurial energy, the pro-competitive strategy called for the conversion of patients into more cost-conscious consumers of health care through greater cost sharing at the point of service, a policy that some economists (for example, Baumol 1988) would extend even to the frail elderly. Next, the pro-competitive strategy envisaged the amassing of greater market power by private payers (self-insured business firms and insurance carriers) through selective contracting with a limited number of providers that promised to grant price discounts in return for having patients steered their way. Patients could be steered by third-party payers to these preferred providers by, say, paying 100 percent of the cost of care rendered by preferred providers but a much smaller percentage if patients sought care from providers outside the preferred provider organization (PPO).

On its face, this strategy may appear fundamentally “fair” and economically sound; but it has two major limitations. First, its implementation presupposes the availability of reliable indices for “quality” and “costliness,” because third-party payers setting up such networks must be able to at least appear to have chosen that network on the basis of the providers’ cost and quality. Alas, these cost and quality indices were not available in the early 1980s, and they are not available now, at least not at the stage of development that permits their widespread use by patients and third-party payers.

In principle, such measurements ought to be no more complex than, say, the intelligence quotients the United States has shown no hesitancy to assign to its children. In the context of health care, however, where the flow of millions of revenue dollars may hinge on such numbers, the measurements would first have to withstand the rigors of litigation by

Figure 6-3. The American Health Care Sector



Source: Compiled by the author.

providers who might be assigned low quality ratings. These ratings would next have to gain the trust of employees whose choice of provider would be limited by such indices.

The latter consideration points to the second difficulty associated with the pro-competitive strategy, namely, its tacit assumption that employed Americans will easily countenance a tiering of health care by income class. To be sure, an employer steering insured employees toward a PPO could rightly argue that every employee, from the chief executive on down, is being offered the same health insurance package and that employees are free to triage themselves into either the PPO or other providers. If the quality of care rendered inside and outside the PPO were perceived to be significantly different, however, and the triage of employees perceptibly reflected their income class, the firm's management might find it difficult to sell the scheme to its employees. In this connection, it must be recalled that Americans continue to profess the notion that every citizen, regardless of ability to pay, should have access to the same quality of care (see "HMQ Survey" 1986).

*Economic Footprints of the Pro-competitive Strategy*

The theoretical groundwork for the pro-competitive strategy was laid during the 1970s, largely in the writings of academic economists.<sup>10</sup> It was promoted in the political arena by the associations of health care providers who saw in it an effective shield against the more than half-hearted regulation they perceived on the horizon. Their hope, one suspects, was that competition in health care would always take a form other than outright price competition.

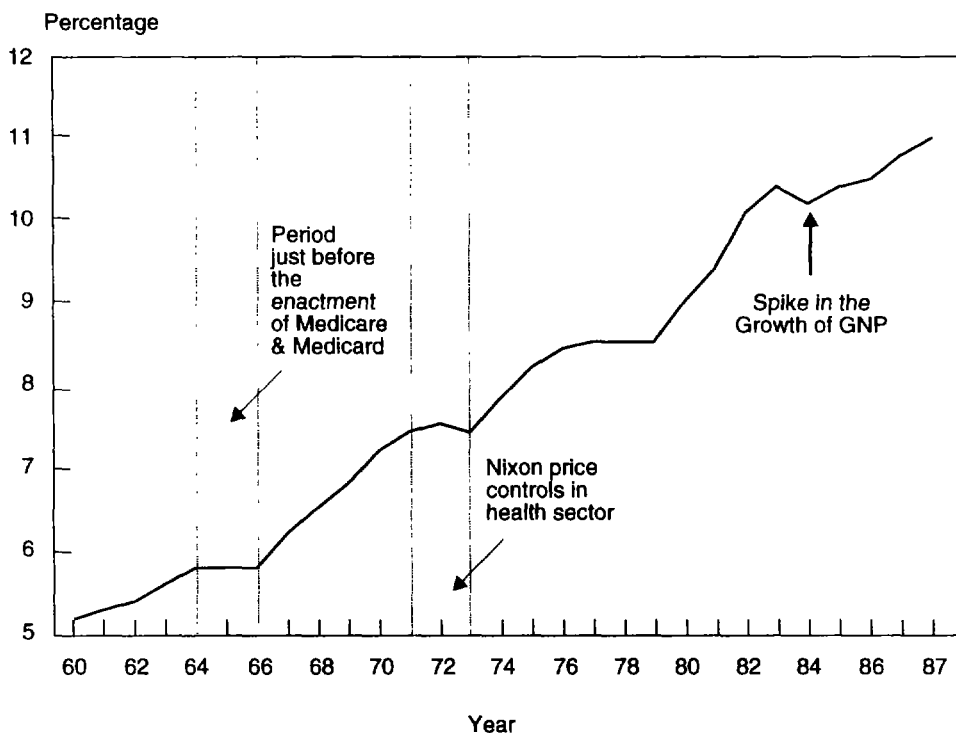
As it turns out, there actually is little evidence that the health sector in recent years has been driven pervasively by more price competition, presumably the objective of the pro-competitive cost-containment strategy. As noted, the government, which now pays for about 42 percent of national health expenditures, early on abandoned any hope of implementing a price-competitive strategy for its programs. Far from relying on competitively bid or even negotiated prices, it has generally imposed prices unilaterally, subject only to behind-the-scenes negotiation in the political arena. One would certainly not call this price competition as envisaged in the pro-competitive strategy.

Although American business firms have tried to make their employees shoulder more of the cost of their care at the point of service and some of them have experimented with PPOs and greater reliance on HMOs, the available evidence indicates that, at least so far, such efforts have been rather modest and have actually been more than offset by a broadening of covered benefits (Health Insurance Association of America 1988; Jensen, Morissey, and Marcus 1987; see also Marquis 1984).

Nor has the growth of health care expenditures abated during the deregulatory phase of the 1980s. On the contrary, that growth has turned out to be more rapid than it had been during the quasi-regulatory period of the 1970s (see figure 6-4). Between 1980 and 1986, real national health expenditures as a whole grew at an effective annual rate of 4.4 percent; between 1970 and 1980 they had grown at the rate of only 3.8 percent (Fuchs 1988). Ironically, only the strict price controls imposed by Medicare on hospital compensation appear to have had the intended effect. Between 1976 and 1982, real inpatient revenues of hospitals grew at an effective annual rate of 9.5 percent; between 1982 and 1987, they grew at only 3.3 percent per year (Altman and Rodwin 1988: table 1, p. 332). But the triumph over cost growth in the Medicare program is hardly a vindication of market forces. It is a triumph of regulation.

One of the fastest-rising components of national health expenditures has not been outlays on patient care per se, but program administration and the net cost of private health insurance (see table 6-8). For the most part, this item represents the loss ratio of private health insurance. That figure, however, does not include the time patients spend in choosing among different health insurance products and in claiming reimbursement. Nor does it cover the providers' cost of staffing the insurance claim functions in their facilities. Furthermore, the figure does not include the growing armada of health care consultants, marketers, accountants, and financiers required by a dynamic, market-driven health care system (see, for example, Himmelstein and Woolhandler 1986). Whatever the virtues of such a system may be, it is by necessity a paper-happy system with a high ratio of strictly paper-moving health workers to the total number of health workers in the system. If one measures the "bureaucracy" of an activity not by the number of civil servants engaged in it but by the number of paper-pushing persons it involves, sitting in some bureau, then the American health care system probably ranks as one of the most bureaucratic systems in the world. One physician has described this paper war as a deliberate attempt to "ration health care through inconvenience" (Grumet 1989: 611).

Figure 6-4. National Health Expenditures as a Percentage of GNP, 1960–88



Source: U.S. DHHS (1990).

### *Prospects of the Pro-Competitive Strategy*

In assessing the potential of the so-called market strategy to constrain health care costs, the first step should be to define precisely what is meant by "market." In the classical conception of the market, individual consumers transact with individual suppliers. Given the peculiar nature of health care—particularly its high concentration among a few very sick individuals at any point in time—one may doubt that individual patients, retrofitted through cost sharing into consumers, will ever be able to offer the providers of health care adequate countervailing market power. Eventually, even Americans will learn that this strategy has its early limits as a tool of cost containment.

A market strategy based on more vigorous price competition *might* help constrain private sector outlays on health care, however, if American business firms were prepared to limit their employees' freedom of choice among providers more strictly than has hitherto been the case, and if the government were willing to subject the aged and the poor to similar constraints. This is the basic strategy proposed by Alain Enthoven (1988). Under that approach, the government or a business firm would act as a "sponsor" who would offer the individuals in their charge a menu of competing private sector regulators (HMOs or other managed-care plans). Consumers could choose among the regulators when they are healthy, but the regulators would manage the health care to be received by the insured when they are sick. In other words, the private regulator, and not the patient, would bargain with individual doctors and hospitals over prices and also supervise the patients' method of

**Table 6-8. Growth in Selected Health Expenditures, United States, 1980–87**  
(billions of U.S. dollars)

<i>Category of expenditure</i>	<i>Total expenditures</i>		<i>Percentage change, 1980–87</i>
	<i>1980</i>	<i>1987</i>	
National health expenditures	248.1	500.1	+101.5
Health services and supplies	236.2	483.2	+104.5
Hospital care	101.6	194.7	+91.6
Physician services	46.8	102.7	+119.4
Program administration and the net cost of private health insurance	9.2	25.9	+181.5

*Source:* Letsch, Levit, and Waldo (1988), table 2, p. 113.

treatment. The ideal concept of such a private regulator, according to Enthoven, would be the classical staff or group model HMO, which, as noted earlier, is but a private sector American version of the British National Health Service.

A limitation of patients' freedom of choice would enable the private regulator to extract price discounts and more conservative prescription of services from physicians, and, in the process, to wring out of the system the excess capacity it now carries on its books and in its prices. Such a strategy would have to overcome three large obstacles, however. First American patients would have to abandon their hitherto cherished belief that only they and their own doctor are the proper authorities to determine the course of their medical treatment. Second, a truly price-competitive health care market of this sort would resemble in crucial respects the airline market in the United States. In such a market, the recovery of overhead and profit that providers package in to their prices vary inversely with the payer's ability to resist high prices. Inevitably, such an approach should shift more costs from large regulators (HMOs) to smaller ones. It is not clear that such a system would be accepted as fair. Third, the strategy would have to develop a set of tight regulations prohibiting the competing regulators from seeking to profit by selecting only favorable risks into their fold, which is a time-honored method among American health insurers.

The strategy also presupposes the explicit budgeting of public funds for those individuals not now covered by employer-paid health insurance or a government program. Vigorous pursuit of this competitive strategy would eliminate still further the hidden cross-subsidies through which the United States has hitherto financed critically needed health care for the nation's millions of uninsured, low-income citizens, thereby retaining its membership in the club of civilized nations. More of these hidden cross-subsidies were squeezed out of the health system during the 1980s, partly in response to the price controls imposed by the Medicare and Medicaid programs, but also, one suspects, as the result of a subtle change in the ethical norms that began to drive the American health care system. Before any thought can be given to a more serious application of price competition in health care, the traditional system of hidden taxation must be replaced by a workable alternative. Any such alternative will, of course, involve taxation, pure and simple.

The prospects for the requisite tax increases and regulations appear rather dim at this time as the U.S. government finds itself lacking the funds to implement what the voters claim they seek. Until the nation can unshackle itself from its self-imposed budgetary constraints, it is likely to muddle through as usual, spending more on health care than any other nation and yet denying some of its less fortunate sick access to health care resources, of which the nation demonstrably has too many.



## Lessons for Other Countries

To the rest of the world, The American health system must appear to be a living paradox. On the one hand, the system remains at the forefront not only of clinical research and innovation, but also of organizational innovation. At its best, the system can rightly boast of being a magnet for students of health care from all over the world, and for patients as well. On the other hand, the American people now seem disillusioned with a system they had always assumed to be the very best in the world. In several recent surveys, the American system has scored at or near the bottom in terms of consumer satisfaction, although no other country spends as lavishly on health care as the United States does (table 6-9).

To better understand this paradox, one must distinguish between shortcomings perceived by the experts and those perceived by the population at large. Experts in health policy point to the pervasive excess capacity engendered by the nation's laissez-faire entrepreneurial approach to health care and to the frequency with which that excess capacity appears to lead to the application of medically unnecessary procedures to patients. The experts also decry the resulting high cost of American health care, which has served to price low-income families out of the mainstream health care market. The experts also worry about the ever-growing share of GNP that is absorbed by health spending, an inroad that is thought to displace other important social investments in education, research, and other parts of the nation's industrial infrastructure.

These concerns are real, and they are warranted. There is no evidence, however, that these facets of the health care delivery system are responsible for the general public's discontent. By and large, the American people seem satisfied with the quality of the care they receive at their doctor's office or from their hospitals, and they seem to show no concern over the percentage of GNP that is allocated to health care. Rather, the misgivings appear to center on the bewildering and haphazard manner in which health care is *financed*.

There are misgivings about the fact that the bulk of private health insurance in the United States is tied to a particular job and is lost with that job: a particularly cruel blow at that time of trial. There are misgivings about the fact that the private health insurance system frequently exacts considerably higher premiums from chronically sick individuals than it does from healthy persons, and that it often refuses to cover chronically ill people at any price. And there are misgivings about the complexity of the many health insurance options that now confront the American consumer, and even more so about the unseemly paper war that accompanies claims for reimbursement from insurers. This complexity, it is felt, provides insurers with an opportunity to exploit the uninitiated, and it wastes time all around.

In short, it is unlikely that the American public will ever be satisfied with its health system until that system manages to provide them with policies that are *portable* between jobs, that are *administratively simple*, and that divorce the premium exacted from the insured from that person's health status. The fundamental reform called for in the survey reported in table 6-9 is a major reform of the nation's brittle health insurance system.

What lessons does the American experience hold for the rest of the world, particularly for the newly industrialized economies that still have a wide range of options in configuring their health systems? To answer that question, it may be useful to distinguish between lessons on broad strategy and those pertaining to narrower tactics.

### *Lessons for Strategic Planning*

Table 6-10 presents a schematic image that may help clarify alternative approaches to national health policy. It is based on the assumption that the three principal goals today's

**Table 6-9. The Public's View of Their Health Care System**  
(percent)

<i>View point</i>	<i>Canada</i>	<i>Netherlands</i>	<i>Germany</i>	<i>France</i>	<i>Australia</i>	<i>Sweden</i>	<i>Japan</i>	<i>United Kingdom</i>	<i>Italy</i>	<i>United States</i>
On the whole, the health care system works pretty well and only minor changes are necessary to make it work better.	56	47	41	41	34	32	29	27	12	10
There are some good things in our health care system, but fundamental changes are needed to make it work better.	38	46	35	42	43	58	47	52	46	60
Our health care system has so much wrong with it that we need to completely rebuild it.	5	5	13	10	17	6	6	17	40	29
Per capita health expenditure (U.S. dollars).	\$1,483	\$1,041	\$1,093	\$1,105	\$939	\$1,233	\$915	\$758	\$841	\$2,051

*Source:* Blendon and others (1990), 185-92.

Table 6-10. Competing Objectives in Health Care

Egalitarian distribution	Freedom from government interference in pricing and in the practice of medicine	Budgetary and cost control	Prototypical system
Yes	Yes	No	The health care provider's dream world
Yes	No	Yes	A national health insurance system with fee schedules and other utilization review budgetary controls (e.g., Canada, Germany)
No	Yes	Yes	A price-competitive market system

Source: Reinhardt (1985a), table 10.

civilized and democratic societies are likely to seek from their health care system are (1) an equitable distribution of health care, which means that the medical treatment of patients would be independent of their socioeconomic status; (2) clinical freedom of providers to organize the production of health care as they see fit, and economic freedom to charge whatever prices they deem appropriate; and (3) economic and budgetary control, which means that the benefits of health care at the margin should always be able to justify its cost and that households, insurance companies, and governments can know in advance how much to budget for health care in a coming year.

It appears that a health system can simultaneously attain only two of these goals in their purity. Practically, there always has to be some compromise among the three goals, because one of them always conflicts with the other two. Canada and the European nations, for example, have always emphasized equity in the design of their health system, but they have also sought vigorously to control the percentage of their GNP transferred to the providers of health care. They have pursued their two primary goals mainly by constraining the economic freedom of providers to act as profit-seeking entrepreneurs (see the middle row of table 6-10). By contrast, the United States has never reached a consensus on the relative priorities of the three goals. Instead, it has vainly sought to extract an egalitarian distribution of health care from a highly entrepreneurial supply side, only to discover that the providers' economic freedom comes at a stiff price to those who pay for health care, and also to those who are rationed out of the system for budgetary reasons.

In terms of table 6-10, Americans have always rejected the middle row as "socialized medicine." At the level of principle, they have rejected the bottom row as well, because it is not egalitarian and thus un-American. Thus, unable to set priorities, Americans flirted during the 1970s with moving to the top row of the table—to the providers' unconstrained paradise—only to tumble down toward the bottom row when health care costs were thought to be out of control. And somewhere in that bottom row the system now lingers, much to everyone's distress.

Although some economists still seek to persuade policymakers that an unregulated entrepreneurial supply side in health care could be controlled through the demand side, if only the payers tried hard enough, that faith was shaken badly during the 1980s. The wisdom of pursuing an unbridled market strategy is being questioned among a wide spectrum of Americans, as even otherwise conservative business executives have begun to call for a system on the Canadian model.

This experience suggests that before newly industrialized economies can hope to develop a well-functioning national health system, they must reach a consensus on the social role health care is to play in the nation. Specifically, their political leaders should lead a national dialogue centered on the question, Is health care to be viewed primarily as a private consumption good whose financing is to be the responsibility of the individual in society, or is it to be viewed as a social good to be distributed to all, on equal terms, without regard to ability to pay, in which case it is to be collectively financed?

Before asking policy analysts to design the numerous tactical maneuvers required for health care reform, political leaders must give their policy planners clearly articulated guidelines on the relative priorities to be attached to the three goals in table 6-10 and to others lurking behind these three overarching goals. In the absence of such guidelines, the work of even the best-intentioned and most competent policy analysts will be largely wasted and highly frustrating for all concerned.

Countries will have to decide, on one hand, whether they want their health system to be like that of the United States, in its technical sophistication, organizational dynamism, and entrepreneurial spirit. If so, the government could confine itself simply to implementing some form of universal health insurance coverage without worrying too much about the configuration of the supply side. Of course, the nation's leaders should then also be prepared for the likely outcomes: a rather expensive health system that will quickly claim increasing proportions of the GNP; a system so advanced that it may become a magnet for ailing elites, but also a system tiered by income class in terms of the ambience and technical quality of care it offers patients, and thus a system that may be a source of social unrest at home.

On the other hand, if cost control and equity in the distribution of health care are to be considered the more important policy imperatives, then the nation will have to give serious thought not only to covering all citizens with health insurance, but also to controlling the supply side of this complicated market. In that case, the introduction of national health insurance should be coupled explicitly with broader policies on health sector planning. This prescription does not imply that the supply side of the health sector must be publicly owned, nor does it rule out the existence of for-profit providers competing side by side with not-for-profit providers. It merely implies that private entities on the supply side must conform in their behavior to an overall health plan and that they must also adapt to whatever binding price agreements are negotiated between payers and providers. Time is of the essence in this matter, as it is difficult and possibly politically infeasible to rein in a fully developed, unregulated, entrepreneurial supply side in health care.

A political decision to give equity and cost control primacy would not necessarily require a single insurance carrier—for example, a single, government-run insurance program on the Canadian Model. As the German model suggests, one can achieve most of the advantages of a single, government-run scheme also with a tightly regulated private system that forces private insurers to pursue preferred social strategies.

A health system with multiple, competing insurance carriers would become unwieldy if each insurance carrier was left free to define benefit packages as it chose, to compete for enrollees on the basis of favorable risk selection, and to negotiate prices independently with providers, as in the United States. Under such a system, large carriers can extract substantial price discounts from doctors and hospitals, possibly so large that the negotiated prices no longer cover fully allocated costs, including overhead. The end result will be that providers will sift the recovery of overhead (and the extraction of profit) to those payers who lack the market power to resist higher prices, which may not at all conform to social objectives.

An effect of this sort is clearly evident in the United States now, where recovery of overhead costs and profits are being shifted by providers away from large payers and

Figure 6-5. Illustration of Cost-Shifting in American Hospitals

**Playing the Cost-Shifting Game**

Selected cases showing how Stanford Medical Center compensates for losses on the poor and elderly by raising rates for others.

Patient	Cost of Operation	Paid by Insurance	Gain or Loss to Hospital
<b>CORONARY BYPASS OPERATIONS</b>			
61-year-old female from Fremont, Calif.	\$34,433	Medicaid paid \$10,710	Loss of \$23,723
77-year-old male from Santa Cruz, Calif	\$39,082	Medicare paid \$27,160	Loss of \$11,922
58-year-old male from Soquel, Calif.	\$41,738	Private insurance paid \$80,763	Gain of \$39,025
<b>CAESARIAN SECTION OPERATIONS</b>			
32-year-old female from Chicago	\$3,741	Patient not covered by any insurance	Loss of \$3,741
28-year-old female from Sunnyvale, Calif.	\$3,842	Medicaid paid \$2,295	Loss of \$1,547
35-year-old female from Redwood City, Calif.	\$7,119	Employer negotiated a discount and paid \$6,543	Loss of \$576
32-year-old female from San Jose, Calif	\$6,680	Private insurance paid \$12,926	Gain of \$6,426

Source: Stanford Medical Center

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toward smaller insurance carriers, to small business firms, and to paying patients. It is generally agreed that the Medicaid program for the poor now pays the typical hospital more than the true incremental cost of a patient day, but less than fully allocated costs. The Medicare program for the aged also now tends to pay the typical hospital less than fully allocated average costs, although generally more than Medicaid. The uninsured who do receive care from hospitals on a charity basis usually pay nothing or less even than incremental costs. That shortfall is then made up by the hospital in the form of commensurately higher charges to the private sector. Large insurance carriers, health maintenance organizations, or business firms that self-insure may be able to fight this so-called cost shift by bargaining for some price discounts; but they typically must pay charges much above full costs. Small payers, on the other hand, bear the full brunt of the cost shift. The example in figure 6-5 from Stanford University Medical Center illustrates this shift.

A recent survey conducted by the National Association of Manufacturers (1989: 32) found that outlays for health insurance among small employers during 1987-88 rose by more than 30 percent, whereas those of large firms rose by "only" 20 percent or so. The inequitable

economics of the hot (health care cost) “potato” will eventually (say, in the mid-1990s) drive small business in the United States to join the clamor for a broader national approach to health insurance. Other nations could avoid some costly and inequitable detours by moving toward an all-payer system from the start, once again, if equity and cost control are to be the major policy goals. Under an all-payer system, every payer will pay a given provider the same price for the same service.

The preceding considerations also bear upon a touchy but strategically important decision that needs to be made concerning the social and economic role to be accorded the medical profession in a national health system. American physicians have traditionally viewed themselves as private, professional entrepreneurs. From that perspective, American medicine has viewed the growing role of government in the financing of health care as a serious deviation from the ideal, and it has been fighting the trend in a rancorous ongoing battle that has created tension not only between the profession and the rest of society but also within the profession itself. In contrast, physicians in Canada and Europe—while they jealously guard their professional freedom as clinicians—usually recognize that health care is essentially a social good and thus are far more ready to accord government a legitimate role in defining the economic terms on which health care is financed and delivered (see Government of Canada 1983).

If a nation elects to elevate equity and cost control to the main goals of its health policy, then the United States contains few lessons on the health sector planning implicit in that decision, other than the insight gained from the American experience that half-hearted, haphazard regulation coupled with half-hearted haphazard competition and an overall lack of clarity on social ethics tends to beget the worst of both worlds. More positive lessons on the social control of the supply side in health care, however, can be learned from other nations in the more affluent industrialized world.

### *Tactical Lessons*

Although one could surely not give the United States high marks for setting national priorities in health care and then acting on them, its health system does present to the world a giant laboratory supporting a myriad of experiments in clinical practice and organizational design. That laboratory holds many lessons for the rest of the world. Probably the most important tactical decision to be made under any new health system will have to do with the payment of the providers of health care. The American system is, as usual, spread over a broad range of options.

**COMPENSATING PROVIDERS.** The American health system can claim credit for innovations in the payment of hospitals, particularly the DRG system of payment by case. The United States now has almost a decade’s worth of experience with that form of reimbursement. Although a system of prospective global budgeting or prospectively set per diems could be made to work just as well in procuring hospital services and their costs, it is apparent that the American DRG system will be here to stay for the duration. Information on its modus operandi and on its strength and shortcomings is available in abundance, and free.

No originality can be claimed by Americans for the idea of compensating physicians on the basis of fully articulated relative-value scales that apply to all physicians within broad geographic confines, preferably the nation as a whole. Most other nations in the industrialized world have long used such schedules in their health systems. The innovative feature of the American approach has been its formalism, particularly the formal statistical research

on which the schedule is to be constructed (Hsiao and others 1988). Most other nations develop their relative-value scales through negotiations, first, among physicians themselves and, next, with third-party payers (ultimately, the government). Presumably, such negotiations are guided by casual to semiformal empirical research on relative costs. Those nations that would like to base these decisions on more penetrating analyses can now look to the United States for one possible methodology.

One tactical decision to be resolved early is the question of whether individual providers may bill individual patients charges in excess of the officially designated tariff. That question emerges from whatever view is taken regarding the proper social role of the medical profession, as mentioned earlier. If this issue is neglected, the system may eventually make a mockery of universal health insurance coverage. In the United States, the issue touches on the rawest ideological nerves, certainly among physicians, but also among hospital leaders in some parts of the country. In the end, the issue is closely related to the question of what level of compensation is appropriate for providers. As the Medicaid program in the United States clearly demonstrates, attempts to set that level artificially low usually trigger rationing, by way of denying access.

Prepaid capitation to HMOs is not an American invention—they existed in Europe before World War II—but no other nation has developed as long and as broad an experience with this integrated insurance-and-delivery system as has the United States. As is so often the case in the United States, some of its HMOs are distinguished by their clinical and organizational excellence, while others are horror cases. Because prepaid capitation, the basis of HMOs, is a sensible compromise between fee-for-service medicine and salaried practice, other nations might wish to study carefully how HMOs could be usefully employed within a national health insurance system.

**QUALITY ASSURANCE.** A large and growing body of careful research (for a review, see Brook and Vaiana 1989) has convinced Americans that many of the health services they receive and pay for are medically unnecessary.<sup>11</sup> Spurred on by these studies, and by the ever-mounting national health bill, both the government and the business sector have in recent times embraced the idea of a wholesale research assault on this issue. It is envisaged that ultimately there will be a giant national data base that will make it possible to link a patient's sociodemographic background and medical treatments to his or her lifestyle one or several years subsequent to the medical intervention. Congress has recently appropriated \$50 million for this type of research, an appropriation expected to grow to \$150 million per year or so during the 1990s. The objective of this so-called outcomes initiative is to settle more rigorously than is customary today among physicians just what does and what does not work in modern medicine. There is every reason to believe that, on the strength of this research initiative, the United States health system will be leading at the turn of the century in the definition, measurement, and assurance of quality in health care. The rest of the world can sit back to await the fruits of that initiative. Better still, it can join the endeavor.

## Notes

1. "Hispanic" Americans include persons of Mexican, Puerto Rican, Cuban origin, and persons with origins in other Spanish-speaking Central and South American countries. A Hispanic person may be of any race. Hispanic Americans are often segregated in social statistics, because their average income tends to be below that of white Americans and they are often recent immigrants.

2. One may broadly define members of the "underclass" as individuals not integrated into the regular social and economic fabric of the nation.

3. As will be shown later in the chapter, millions of Americans are not served adequately at all by the system, although the United States spends more per capita, or as a percentage of GNP, on health care than does any other nation (see, for example, Levit and Freeman 1988; Schieber and Poullier 1988).

4. Oddly, in the table that appears in Gonzalez and others (1988), the number of solo practitioners among the respondents to the American Medical Association's periodic survey is given as 55.1 percent.

5. The term "entrepreneur" may not describe accurately each and every such health care provider, but it surely does portray accurately central tendencies in the health sector. American physicians, for example, have always considered themselves quintessential representatives of the American free-enterprise spirit. (On competition among physicians, see Sloan and Feldman 1978.)

6. The relative values are based on reported average accounting costs for some base year. The cost basis of the scales is updated from time to time.

7. Many economists beholden to strict neoclassical doctrine, for example, argue that the correct relative-value scale for any particular region in the United States is that set of fees that procures just the right degree of access to particular health services one wishes to secure for the aged in that region. It is an intellectually appealing notion, but one facing almost insurmountable hurdles in the implementation.

8. Enthoven was thinking of this compensation method in his proposal for a universal health insurance system based on what he calls "regulated competition" among alternative delivery systems compensated by prepaid capitation (see Enthoven 1988).

9. Most states in the Northeast will apply the certificate-of-need laws. In contrast, most states in the Midwest, West, and South have abolished them in recent years.

10. See, for example, Greenberg (1978) and the collection of essays in a special issue of the *Journal of Health Politics, Policy and Law* (13[1988]), which offers a ten-year retrospective of the market strategy.

11. Of course, a service that may be deemed medically unnecessary by an American physician may still be judged legally necessary by him or her in a malpractice suit.

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# 7

## *Assessing the Experience of Health Financing in the United Kingdom*

*Brian Abel-Smith*

The purpose of this chapter is threefold: to describe the framework of health insurance in United Kingdom and the manner in which the system evolved, to consider the obstacles that had to be overcome in implementing it and in securing the necessary resources, and to assess the positive and negative features of the policies adopted and of the current reform efforts. Some lessons are also drawn from this experience for developing countries.

### **Historical Development**

Compulsory health insurance was introduced in the United Kingdom in 1911. It was built on a widely developed system of voluntary health insurance that had been founded two centuries earlier by groups of skilled workers in different areas and was steadily expanded in the following years. Sick clubs or friendly societies (there were a variety of names) were nonprofit insurers, controlled by a committee elected from members, which set out to pay cash for a limited period to a worker who was sick. In time local doctors were contracted and, in some cases, employed to certify the sick and provide treatment in the hope that this would reduce the period of sickness. The doctor was given a share of the premium for each worker covered whether the member needed to use his services or not. This is the origin of capitation payment. It had the advantages of simple administration and predictable costs for an organization staffed originally by volunteers without any special qualifications for insurance work. The doctor was expected to provide the drugs out of his capitation payment.

These insurers catered to those who could not afford to pay a private doctor at the time of sickness. The only general health services available for the poor were those provided by the state for indigent persons. And becoming indigent was deliberately made a humiliating experience that respectable working people wanted at all costs to avoid.

This system of insurance developed without any involvement of employers, which is a critical difference from such continental countries such as Germany and Austria. Another point to note is that the insurance did not normally provide for hospital care. This was partly because hospitals played a relatively small role in health care at the time and partly because substantial free care existed, either in the low-standard hospitals operated by local authorities for the poor under the poor law or in charity hospitals where doctors worked without payment. From 1891 everyone had the right to free care in state hospitals for major infectious diseases.

In time, some of these friendly societies expanded into national organizations or chains run by paid staff. There were a few in remoter areas that became what would be called in the United States “staff model HMOs”; in other words, they recruited doctors, whom they paid a salary, and built a small hospital because local personnel and facilities were inadequate. But the usual system of provision was by contract with a local doctor who also had a private practice among those better off.

Medical organizations and doctors were often at odds over four issues (Abel-Smith 1988). First, doctors regularly complained that the level of capitation payment was too low. Many societies would ask local doctors for tenders quoting the price at which they would take the contract, though the lowest price quoted was not necessarily accepted. The local doctor felt it necessary to quote a favorable price to keep a potential competitor from coming into his patch, who might hope to use the low but reliable friendly society income as a base from which to build up a rival private practice. Second, they disagreed over the admission to membership of people who could afford to be private patients or the retention of members who had become affluent during their membership. They objected to people belonging who could afford to be private patients. A third concern was security of tenure: in most cases, the society could cancel the contract at any time. The fourth had to do with clinical freedom. Lay committees were the ones who judged whether a doctor was giving a good service, for example, whether he was giving inferior drugs or failing to make house calls on request, as expected under his contract.

Over the years doctors tried four strategies to make the societies conform to what they thought appropriate. All were unsuccessful (Abel-Smith 1988). First, attempts were made to boycott societies that paid low rates of capitation. But underemployment in the medical profession, the desire of doctors to keep out local competition, and the lack of any effective sanction in the hands of the professional organizations made this tactic fail. Second, doctors tried to negotiate a rule specifying a maximum income for membership. The societies saw no reason to impose such a rule. Third, they tried to persuade the licensing body to rule that it would be “infamous conduct” for a doctor to work for one of these agencies and that such action merited removal from the medical register. But all the registering authority would do was to express its strong disapproval of agencies that systematically canvassed and advertised to get members. Fourth, the doctors themselves started clubs that they controlled and that operated according to the principles they had laid down. But they succeeded in capturing only a small share of the insurance market.

### *The Start of National Health Insurance*

By 1910, the year before the law introducing compulsory insurance was passed, registered societies had about 7 million members and unregistered ones about 3 million (Green 1985:93–96). By this time the sanitary reform movement, started in 1842 by a wide-ranging commission of inquiry, had borne fruit. Virtually all towns had safe piped water and water-borne sewage disposal systems. From 1875 every town had by law a medical officer of health to oversee the health of the community. There was no shortage of doctors. There were at least 20,000 general practitioners (Honigsbaum 1979:10) and they were well distributed in the country. National income per capita had increased to £44 in 1910 (about US\$2,250 in 1990 prices and rates of exchange), having doubled in real terms over the previous fifty years (Mitchell 1962:367–8). But the period 1900–10 was one of recession and heavy unemployment as a result of international competition, particularly from Germany. This was one of the factors behind the decade of pioneering social legislation that followed (1902–12).

### *The Motivation*

The Minister of Finance who initiated compulsory health insurance in 1906 was Lloyd George. He had studied the German scheme and set about adapting it to British circumstances. Coming from the mining area of Wales, he had a deep concern about health problems, particularly tuberculosis. The ruling classes, too, had expressed some concern about the health status of the working class, after about a third of the volunteers to fight in the Boer War (1899–1902) had been found medically unfit. How could an unfit nation defend the vast world empire it had accumulated over the past century or face Germany, which was known to be arming rapidly? Many also deplored the poverty in Britain and the fact that a section of the population could not afford to join a friendly society out of their low wages. It was believed that health insurance could be made affordable for the low earner if both the employer and the state shared the cost with the employee. Perhaps what motivated Lloyd George even more was the fact that the 1906 election had for the first time given the Labour Party considerable representation in Parliament. By dealing with the legitimate grievances of workers, he hoped to persuade them to vote for his party, the Liberals, rather than for the growing Labour Party.

### *The Bargaining*

The announcement that there would be a health insurance scheme in 1910 galvanized the British Medical Association into action. It put forth six demands: the capitation payment should be adequate; the majority of doctors in each area should choose the method of payment; there should be an income limit for membership; every doctor should have the right to take insured patients, and each insured person should have free choice of doctor; doctors were to have security of tenure and matters of discipline were to be decided by local medical committees; and the local control of health insurance should be placed in the hands of special local insurance committees in which they had strong representation (Vaughan 1959:202). Lloyd George agreed to all these demands in whole or in part. The income limit was set so as to exclude about 10 percent of those in employment with the highest incomes. Although doctors were not satisfied with the small representation they were given on the new local insurance committees, they felt they had achieved a great deal in that the government had rescued general practitioners from the hated friendly societies, especially from competing insurers or HMOs searching for the best buy in an open market.

The scheme that was introduced included not only the general practitioner and the drugs he prescribed but flat-rate cash benefits for a limited period of sickness. The whole scheme was financed by weekly contributions: 4 pence paid by the insured person, 3 pence by the employer, and 2 pence paid from taxation. The capitation system of paying doctors helped to keep costs within the contribution income. A small experiment was made in two areas with fee-for-service payment, but after a few years it was abandoned at the request of the doctors concerned. The participating doctors continued to earn the bulk of their income from private practice. But the system of capitation payment drew a still firmer line between the general practitioner who worked outside the hospital and the specialist who had his base in the hospital. The insured patient would be sent to the hospital as a referral. The general practitioner was not expected to follow his patient into the hospital.

The precedent of what had spontaneously developed was allowed to determine the outcome, modified only to meet the doctors' demands. The scope of compulsory insurance—general practitioners' services and drugs—remained unchanged. There were no charges at the time of use. The cash sickness benefit program was expected simply to regulate the friendly societies and require insured persons to choose a society that was

approved. It was not used for the health care benefit as the doctors would probably have tried to boycott the scheme if this option had been selected. The alternative favored by some left-wing thinkers and public health doctors—which was to develop a salaried service in state-owned dispensaries or clinics—was hardly considered. This would have taken time and would have been unpopular with the doctors. Some, however, would like to have seen a more preventive orientation to the services provided.

### *The Thin Edge of the Wedge*

This move brought compulsory insurance to some 15 million employed persons, but not to their wives and children. About 15,000 general practitioners out of more than 20,000 participated in the scheme, giving an average of 1,000 patients per doctor. But the doctors found themselves in an embarrassing position. Should they treat the wives and children of their patients even when it was unlikely that their private bills would ever be paid, or should they refuse treatment unless cash was offered at the time treatment was requested? Many did the former. Thus it was not surprising to find in time the British Medical Association pressing for compulsory health insurance to be extended to cover the wives and children of the insured under the same scheme. This was considered unrealistic at the time, however, because of the cost. By 1930 the profession was asking in addition that benefits be extended to cover maternity care, specialist consultations, dentistry, and spectacles (BMA 1929). But it was decided that the income limit for membership of compulsory health insurance should be preserved to keep out the 10 percent of higher earners who “ought” to be private patients.

By this time the local authorities had taken over the poor-law hospitals and were able to upgrade them and run them as a service for all users—not just for the poor—charging those who could afford to pay. Then in 1939 the British Medical Association proposed that the local authorities should combine to provide hospitals on a regional basis (BMA 1938:44). Unlike the community hospitals in the United States, which were originally charitable, those in Britain continued to provide free care to people who could not afford to pay and attempted to extract some voluntary donations from those who could give it. Their specialists remained unpaid, earning their living from private practice, which was enhanced by the prestige of having being selected to do honorary work in a charitable hospital. Although the British Medical Association argued that doctors in charitable hospitals should be paid for their work, this suggestion was ignored. Some beds were gradually set aside for those who could pay the full cost in these hospitals, but only on a small scale. Also, there were still only a handful of small private for-profit hospitals that were equipped to treat those who were acutely sick. The main development in the private sector was the institutions for convalescence and for the chronic sick.

### *The Influence of the World War II (1939–45)*

Soon after the outbreak of World War II, attention turned to organizing hospitals for the vast number of air raid casualties expected. Bombs dropped in city centers were likely to overload the city hospitals, and arrangements had to be made for the rapid movement of patients out of the city to hospitals in the country to make room for the next batch of air raid casualties. The Ministry of Health divided the country into hospital regions, and contracted with both voluntary and charitable hospitals for the care of air raid casualties. It was decided at this time that salaries should be introduced for doctors working in charitable hospitals. An assurance was given that the central government would not interfere with the administration of the hospitals and this was honored. Doctors were recruited into the Emergency Medical Service (EMS) and given salaries and military ranks without any rights to private

practice and had to be prepared to serve wherever they were posted (Abel-Smith 1960:425). During the first four years of the war, free care under the EMS was extended to a wide range of people, from air raid casualties and servicemen to munitions workers, certain chronically sick patients, and eventually to all manual workers in the industries of wartime Britain and others waiting for hospital care. It proved impossible to draw a line between those who were and those who were not contributing to the war effort.

The Emergency Medical Service had considerable influence on medical opinion. Many doctors from the leading hospitals found themselves working in grossly inadequate and poorly equipped hospitals built many years earlier to house the sick poor. For the first time they learned what a low standard of care was provided by some local authorities. And in a rush of patriotism at the outbreak of war, they had surrendered their most precious asset, the goodwill of their private practices. They found themselves with less of a vested interest in the medical needs of the wealthy and a new familiarity with the unmet needs of the poor. Within months the leading medical journals were crowded with letters about the need to reform Britain's health services. Within less than a year the British Medical Association set up a medical planning commission with seventy-three members to consider the future of the country's medical services. Local branches of the association held meetings to discuss not whether there should be some type of national health service after the war but how it should be organized. In October 1941 the Churchill government announced that after the war there would be "a comprehensive hospital service" for all who needed it (U.K. *Hansard* 1941:374:1116).

### *The Doctors' Plan*

In mid-1942 the Medical Planning Commission published a report favoring the organization of health services by the central rather than local government, but with considerable delegation and strong representation of the medical profession at every level. There were to be regions covering a population of at least half a million. General practitioners were to be paid partly by salary and partly by a capitation rate per patient registered. Specialists were to have three types of contract: whole-time salaries with no private practice, whole-time salaries with private practice at the hospital, and part-time salaries with rights to private practice also outside the hospital. At the association's annual meeting, it was resolved that Britain would have a health service that would "render to every individual all necessary medical services both general and specialist and both domiciliary and institutional" (*British Medical Journal* 1942:31). The details of organization were not discussed at the meeting, however. Instead the debate focused on whether the service should cover 90 percent or 100 percent of the population with lower incomes. By a small majority the meeting favored 100 percent coverage.

### *Public Opinion*

The war brought an unprecedented mixing of social classes in Britain: in air raid shelters, in hospitals not chosen by the patient, and in war work both voluntary and paid. At the outbreak of war, one and a half million mothers and children were evacuated out of the cities and billeted with both rich and poor families in small towns and villages (Titmuss 1950:137). A great social leveling had begun, with high taxes suddenly imposed on high incomes and everyone forced to queue for rations of food. Domestic servants were quickly becoming a thing of the past. Never before had the comfortable classes become so directly aware of the problems of the sick and the poor. It was in this atmosphere that support for postwar social reform was born.

This support was manifested by the enthusiastic reception given to the report by Sir William Beveridge published in late 1942. His task had been to review the system of cash benefits. But he stretched his terms of reference and produced a blue print for what became known as the "welfare state." One of his assumptions was that there would be a comprehensive national health service, thus going somewhat further than the government's statement a year earlier about the right of everyone to hospital care.

Beveridge's main scheme was for the rationalization and extension of cash benefits for sickness, injury, unemployment, widowhood, and old age. The contributions of employees and employers were to be increased to pay for it. He assumed that the existing insurance contribution for health care benefits would be retained but that the substantial extra cost of the service would be found from taxes. This system of financing was eventually introduced and has been retained in large part up to the present.

The Beveridge Report received vast and on the whole favorable press coverage. It was discussed at meetings throughout the country. Beveridge himself was in great demand as a speaker. In addition, the bulky report sold over 100,000 copies, which was quite unprecedented. (Harris 1977:420).

### *The Government Becomes Committed*

Meanwhile, the government was considering what to say about the report. Churchill thought that the whole question should be left until after the war and public support tested in a general election. But he and other doubters in the cabinet were persuaded to take a positive line when they saw the enthusiastic public reception and the strong support the report was receiving from the two other political parties that formed his coalition government. Thus the government welcomed the idea of a comprehensive health service covering the people as a whole and agreed that the service should be entrusted to local government (U.K. *Hansard* 1943:386:1659–64).

### *The Negotiations*

In private discussion with the doctors, the Minister of Health raised the possibility of a salaried general practitioner service, but it abandoned the idea in the face of their strong opposition (see Honigsbaum 1989; Abel-Smith 1960: 458–60). The government published a plan for the service in 1944 (Ministry of Health 1944). The existing system of insurance committees was to be retained but given wider functions. General practitioners were to continue to be paid on a capitation basis. Smaller local authorities were to combine and establish joint committees to run the hospitals in their area. These committees were also to make grants to the local charitable hospitals.

The British Medical Association, however, was vehemently opposed to hospital doctors being employed by local authorities. Also enraged were the representatives of the charitable hospitals. They did not wish to see themselves placed in a position of "complete subservience" to the local authorities (Abel-Smith 1960:467). They preferred to continue receiving grants from the central government as they had throughout the war, without any interference in their internal administration.

### *Resolving the Dispute*

It fell to the new Labour government, elected at the end of the war, to resolve this acrimonious dispute. The solution finally chosen followed the guidelines offered by the doctors' own Medical Planning Commission. The committees that had long administered



national health insurance were retained and renamed, given much stronger professional representation, and the expanded responsibility of administering the main dental and ophthalmic benefits. General practitioners continued to be paid on a capitation basis modified by incentives to work together in groups. For nearly all patients access to a specialist or a hospital was to be by referral, except in an accident or emergency. In addition, a balanced distribution of general practitioners was sought throughout the country.

Two suggestions were put forward to deal with the controversial question of control of the hospitals (see Pater 1981:178). One was to let it rest with the local authorities and weather the storm of opposition from the doctors and the charitable hospitals. What the prestigious charitable hospitals feared most was that they would be marginalized by the local authorities, who in time might build their own hospitals. Furthermore, local authorities that were too small to build up a comprehensive hospital service would have to run joint services with neighboring authorities, and such liaisons were not likely to work smoothly. The second option was to place all the hospitals, both those under local authority and the charitable institutions, under the ownership of the central government and establish regional bodies to plan them and local bodies to run them in groups. The second option was chosen. A third possible option would have been to leave the hospitals in their present ownership and establish regional bodies to contract services from them and use government funds to rationalize their buildings, but apparently this idea was not put forth.

Thus regional authorities were established to plan hospitals and distribute budgets to hospital groups: at first, teaching hospitals were allowed to receive their budgets directly from the central government. The main change was to bring nearly all the nonprofit hospitals, both local and charitable, into the ownership of the central government. The specialists were paid in much the way that the Medical Planning Commission had envisaged. But they were expected to give more time to their hospital work. As for the charitable hospitals, they saw that they had no alternative but to hand over their assets. They could not return to the situation that had prevailed before the war. They would have had to start the whole system of fund-raising again but could not be sure that people would give money when the state was providing hospital care through local hospitals. There would clearly have been too few people able and willing to pay the full cost of care if they had tried to cater only to the higher-income groups.

The local authorities lost their hospitals but they were left with a number of health services: ambulances, home nurses, public health nurses, domiciliary midwives, maternal and child health, school health, and the after-care of mental patients. In the case of the hospital service, the ministry controlled the number of specialist posts which could be advertised and filled, thus establishing an important means of ensuring that specialists in short supply were evenly spread throughout the country. The hospitals were given budgets and were run by collaboration between a lay administrator, the elected chairmen of the medical staff, and the senior nurse. This was the tradition of the voluntary hospitals. It was, however, difficult for a lay administrator or elected chairman of the medical staff to question a specialist about his use of resources: this would have been seen as an encroachment on "clinical freedom." The posts of medical superintendent that had existed in local authority hospitals and had been responsible for supervising the work of all the doctors in the hospital were allowed to lapse.

### *Why Was It possible?*

Why were the British able to provide a free and comprehensive health service to the entire population in 1948 when this would have been considered an impossible burden on the tax system in the 1920s or 1930s? For one thing, as mentioned earlier, medical and public opinion

had changed as a result of the war. In addition, there was no shortage of general practitioners, and even the problem of finding specialists was eased by refugees who had escaped to Britain from Hitler's empire. Perhaps a greater concern was the shortage of nurses, which the Ministry attempted to resolve through a major recruitment campaign. But how was this change financially possible? The country was not much richer: national income per capita had increased by only about 20 percent in real terms. The fact that there was full employment, however, relieved the government of having to provide financial support to an army of unemployed, which had risen to between one and three million between the world wars. Most important, taxes had been greatly increased to pay for the war, and it was clearly possible that they could be lowered considerably and still pay for the postwar "welfare state."

### *The Alternatives*

The principle of national health service was accepted by all the political parties. The Labour Party had long favored a salaried medical service in which doctors would not have had the right to practice privately. The medical profession feared that was the government's ultimate intention and was highly suspicious of the government as the plans for the new service were brought to fruition. If local-authority control had been instituted, the medical profession, backed by charitable hospitals, would probably have boycotted such a move. In any case, many of the local authorities were too small to produce a comprehensive service. Another possibility would have been for the central government to contract with the main hospitals rather than take them over, as happened in Ireland. But this would have made hospital planning difficult and would have forced the Ministry of Health to become involved in resolving a host of local disputes from the center. The result might have been greater efficiency. Contracts were in some cases made with the few private hospitals equipped to do surgery. Once the national service started, they were often made with private hospitals for the care of the chronically sick and psychiatric cases.

### *The First Reforms*

When the service was introduced, it cost much more than had been estimated. Within two years, flat-rate charges were introduced for prescriptions. A year later charges were introduced for dentures and spectacles, and charges for dentistry have increased over time. A large number of categories of services are exempted from these charges, however. Charges have never risen more than about 3 percent of the cost of the service but they did restrain demand. There was little change in the public-private mix of the financing of health care after the service began (see table 7-1).

In the course of time a number of changes were made in the way general practitioners were paid: their rents were reimbursed, they were given subsidies to encourage them to employ staff, and more preventive services were separately paid for. Allowances replaced part of the capitation payments to give incentives in a number of directions. Recently, bonuses were introduced for achieving target rates of immunization among children and for screening for cervical cancer, and payments were introduced for defined health checkups.

One persistent worry was the lack of coordination between hospital care and care in the home. Thus in 1974 the responsibility for home care health services was transferred from local governments to the health authorities. The organization was streamlined by enlarging the local groups of hospitals and putting them under the control of District Health Authorities, of which there are now 192 in England. These District Health Authorities are respon-

**Table 7-1. The Public/Private Mix of Finance for Health Care**  
(percent)

<i>Year</i>	<i>Public</i>	<i>Private</i>
1938	47.1 <sup>a</sup>	52.9
1949/50	87.3	12.7
1987	86.6	13.4

a. 33.2 percent local authority, 10.8 percent national health insurance, and 3.1 percent central government expenditure.

*Source:* Compiled by the author.

sible to fourteen Regional Health Authorities, whose main function is to plan the region's services. Priorities were established by the secretary of state at the center, and the distribution of financial resources between regions was made more equitable under a formula known as RAWP. Lay general managers were appointed as the executive head of each district and region and charged to make efficiency savings but were not given any effective authority over the doctors who determined the use of the bulk of the resources. The scope of the National Health Service (NHS) remained unchanged until 1985, when spectacles were no longer provided for adults, with some exceptions.

### Strengths and Weaknesses

The strengths and weaknesses of the U.K. system can be judged by its universality, degree of consumer choice, accessibility, efficiency of resource use, and potential for technological change.

#### *Universality*

The whole population is entitled to use the service. There are, moreover, no bureaucratic obstacles to this use. The United Kingdom has no separate insurance funds associated with employment status that could create problems for the unemployed and those changing jobs. All the patient has to do is register with a general practitioner relatively near his or her home or, failing that, can turn up at one of the 2,800 National Health Service hospitals. Persons thought to be foreigners will be asked for their passports or evidence of British nationality. This is a relatively recent development. Previously foreigners were treated on the same basis as British citizens unless they had come to Britain to obtain health care.

#### *Degree of Consumer Choice*

Each citizen is free to choose a National Health Service general practitioner and can attend the Accident and Emergency room at any NHS hospital. But a patient can only be registered with one general practitioner at a time. This restriction was imposed to encourage continuity of care as the general practitioner keeps a record of all visits as well as of the services patients have received from hospitals. There are no bureaucratic obstacles to changing one's general practitioner. To see a specialist, the patient has to be referred by his or her general practitioner. The choice of specialist and hospital is normally discussed with the patient. There is nothing to stop a general practitioner from referring a patient to any hospital in the United Kingdom, and many patients are in practice sent to highly specialized London

hospitals from all over the country. The patient can have the prescription written by an NHS doctor dispensed at any private pharmacy: the pharmacist claims the cost from the NHS and collects the standard charge for such patients as are not exempt. The patient can go to any dentist who has a contract with the NHS: the latter is paid on a fee-for-service basis.

### *Equal Access*

As explained above, there are no barriers to using the NHS. Perhaps the greatest achievement of the health service has been its equity. The financial resources of the service are allocated between regions on a population-based formula that takes into account the age and sex structure of the population of each region and gives extra to regions with worse mortality rates as a proxy for morbidity. In Britain, as elsewhere, the lower social classes have worse health and are in greater need of health care. A recent study has shown a marked pro-poor distribution of resources (O'Donnell and Propper 1989). This is also reflected in self-reported morbidity and therefore may be consistent with allocation according to need.

General practitioners are paid a higher capitation rate for persons over the age of sixty-five and a still higher rate for persons aged seventy-five or older. Thus general practitioners are as willing to take an aged person on their list of patients as a younger person. There is in addition a private sector parallel to the NHS. This sector has about 200 private hospitals containing more than 10,000 beds; NHS hospitals have some 290,000 beds and also offer some private beds.

Nearly 10 percent of the population has private insurance that pays mainly for private specialist visits and the cost of care in a private hospital or in a private wing at an NHS hospital. Most NHS specialists also care for private patients. One of the advantages of private care is that one does not have to wait as long to see a specialist for a nonurgent condition and admission to hospital can be arranged at a time convenient to the patient: thus the waiting lists for nonurgent surgery in the NHS are avoided. Many claim that this amounts to a two-tier service: those who are willing and able to pay or have private insurance can "jump the queue." On the other hand, nearly all the conditions for which patients have to wait for treatment are not life-threatening and do not interfere with the quality of life. The exceptions are hernias and hip replacements. But the waiting time for hospital (surgical) service is the main drawback of the NHS and is one of the public's complaints.

The NHS is financed mainly by general taxation, which is mildly progressive in the United Kingdom. Thus the NHS represents a redistribution of resources from the richer to poorer segments of the population, as is highlighted by the fact that those who use the private sector are disproportionately the higher-income groups.

### *Efficiency of Resource Use*

The NHS has very low transaction costs. The money used to pay for it is collected by taxes and social insurance mechanisms that already exist, and the marginal cost of collecting the extra money for the NHS is negligible. The patient is only billed for the standard charges. Pharmacists and dentists send their bills to central NHS agencies each month for checking and paying. There is no billing in the hospitals except for private patients.

NHS expenditures are under the direct control of the government, which makes a limited cash allocation for the service each year. The health service appears to be cheap when compared with that in other countries. Health expenditure as a proportion of gross domestic product has risen from 3.9 percent in 1960 to 6.1 percent in 1987. Although in the first year this was just about the average for OECD countries for which information is available, by 1987 the United Kingdom was 1.2 percent of GDP below the average (Schieber and Poullier

1989:169–77). In comparison with other developed countries, the United Kingdom spends less per head than one would expect from the cross-sectional relationship that seems to exist between gross domestic product per capita and health expenditure per capita. As explained later, those in the Service believe it is underfinanced.

Limited budgets mean priorities in the purchase of new equipment have to be carefully assessed in each district. The policy is to concentrate expensive equipment at specialized units with the best skills to use them. As a result, there is much less underutilized equipment in the NHS than in a system of hospitals that are in a competitive relationship. The policy has also been to concentrate acute hospital care in large district hospitals and close small hospitals so that skills are concentrated and economies of scale are achieved.

One possible explanation of why the NHS is cheap is that doctors are not paid on a fee-for-service basis, except in a few cases. Therefore they have no financial incentives to induce demand. Moreover, because the risks of negligence are low, doctors do not need to practice defensive medicine. There would appear to be an incentive for general practitioners to refer patients to specialists unnecessarily to reduce their own work load. But such evidence as there is suggests that there is a much lower use of specialist visits in the United Kingdom than in other comparable countries. Fee-for-service payment for doctors is used almost exclusively to promote preventive activity such as immunization, cervical screening, health checks, health-promoting clinics, and family planning, which might otherwise be neglected.

The Department of Health has introduced “performance indicators” to judge the processing activities of each district and region. The lower levels of the service are required to identify “efficiency savings” each year and report them to the center. There is also a powerful National Audit Department that monitors efficiency at the local level and undertakes studies on particular subjects on which it is thought savings might be made. Until recently, however, the authorities have been reluctant to interfere in matters of clinical decisionmaking so there are wide variations in Britain as elsewhere in referral rates to specialists, prescribing rates, and lengths of stay in the hospital. This area of decisionmaking was the main object of the Thatcher reforms, described below.

### *Potential for Technological Change*

Each year the Department of Health lays down priorities for the development of the service, and regions and district are judged by how fast they have been able to move toward these priorities. One such target has been to move forward with community care of the mentally ill and mentally handicapped, which would involve closing large hospitals for this type of patient.

With advanced equipment not as available as in the United States and research receiving less funding, it might seem that technological change is not within the United Kingdom’s grasp. However important innovations have emerged from the NHS, such as the CAT scanner and hemodialysis. Britain also has a good record in pharmaceutical innovation, to which NHS clinicians have contributed. As mentioned earlier, until recently politicians have been reluctant to interfere in any way with the way medicine is practiced. Moreover, innovating clinicians are much less likely to be sued for clinical negligence.

### **The Thatcher Reforms**

Over the years, 85–90 percent of NHS activities have been funded from general taxation. Lacking an independent source of finance, the service has had to compete with all the other conflicting claims for centrally controlled tax funds, and successive governments have failed

to give the service all the money it demanded. In the first fourteen years, the main economy was made in capital expenditure. Although many of the hospitals were in old buildings, hardly any new hospitals were built. Substantial building did take place between 1962 and 1976, however, by which time one-third of the general hospitals had been rebuilt. In 1976 capital expenditure was again substantially reduced. By the time the Thatcher government came into office in 1979, cash-limited budgets were being applied to public expenditure.

Previously, budget estimates were supplemented by additional appropriations to cover actual price increases. Thereafter, health services were given a cash limit based on expected inflation. If inflation was greater than expected, no additional appropriation was made to make up for the difference. Year after year, health services failed to grow as planned because price increases absorbed the cash available for growth in services.

Even though some argued that according international comparisons the health service was too cheap, it did not receive much more money. Some financial relief came in the form of expanded user charges, which were increased up to the extent regarded as politically tolerable. But still the service called for more money, reminding the government that 2 percent growth a year was needed in real terms to provide for the aging population, introduce new technology, and achieve some of the objectives that the government had set for the service. Over the past decade or more, successive governments have been unwilling to increase funding, especially in the face of having to support millions of unemployed and hoping that by reducing public expenditure they could stimulate economic growth and control inflation. Between 1982 and 1989 the hospital and community services were only allowed about 3 percent real growth. The consequences were politically embarrassing: hospital wards closed through the lack of funds while the number of patients recorded as waiting for hospital admission steadily increased; the total now approaches a million persons. Experience suggested that this problem could not be solved simply by throwing money at it—at least in the quantities that the government was willing to contemplate.

The U.K. experience has made clear the fundamental difficulty with financing hospitals out of budgets. There is little incentive to reduce the length of stay. In a hospital system where nonurgent cases are waiting for admission (as has been the situation throughout the history of the service), reducing the length of stay leads to more admissions. Since the early days of care are the expensive days of care, more admissions would require a larger budget.

Meanwhile the delays in obtaining care in the NHS hospitals and their perceived inadequacies have led to the considerable growth of well-equipped private hospitals financed mainly by private health insurance, which now covers about 10 percent of the population. The government encouraged health authorities to contract with these hospitals in the hope of reducing waiting lists.

The government focused its attention on the apparent inefficiencies in a service where the doctor responsible could determine what resources were used on each patient. As pointed out in a paper setting out Margaret Thatcher's proposed reform,

In 1986–7, the average cost of treating acute hospital in-patients varied by as much as 50 per cent between different health authorities, even allowing for the complexity and mix of cases treated. Similarly, a patient who waits several years for an operation in one place may get the same operation within a few weeks in another. There are wide variations in the drug prescribing habits of general practitioners, and in some places drug costs are nearly twice per head of population as in others. And, at the extremes, there is a twenty-fold variation in the rate at which general practitioners refer patients to hospital. The government wants to raise the performance of all hospitals and general practitioner practices to that of the best. (HMSO 1989:3)

Performance was to be improved in three main ways. First, district health authorities were to contract for services after seeking bids from both public and private hospitals and taking

into account both price and quality. It was accepted, however, that some "core" hospital services, such as accident and emergency departments and provisions for the chronic sick, would be paid for by a block grant.

Second, larger general practitioner groups having at least 9,000 patients each were to be offered budgets out of which they would have to pay for all the services needed by their patients, including specialist consultations and "noncore" inpatient care. These budgets were to be based on the size and characteristics of the patients for whom they are responsible. In other words, they would resemble an extended capitation system. Other general practitioners were to be given indicative budgets for their prescribing. Financial penalties would be imposed on general practitioners "who persistently refuse to curb excessive prescribing."

Third, larger hospitals were to be given a degree of independence so they could adjust the remuneration of staff rather than have to obey nationally negotiated salary scales. Presumably they would be able to reward specialists who use resources economically and contract new specialists on a basis other than salary.

The reforms will be difficult to implement in several respects. The necessary information base is not in place for hospitals to cost their services in detail. The attempt to assess and protect quality may prove difficult in a country with no experience with accreditation. Moreover, the government seems unwilling to make the financial resources available to build a truly effective system. It was extremely difficult to find a formula for distributing money to the large practices that opt to receive inclusive budgets that fully reflect the characteristics of their patients. Since general practitioners can pick and choose their patients, there are bound to be attempts to "cream off" low health risk patients and "counsel out" high users of services, as is the case in HMOs in the United States. Some have argued that budget-holding general practitioners will be tempted to do procedures themselves rather than pay for them to be done elsewhere, and that some might exceed their competence. Others feel the doctor-patient relationship will be fundamentally altered in a budget-holding practice in that the patient might come to believe that he or she is being done a favor if sent outside the practice for care. U.S. experience, many have argued, also shows that a group of general practitioners serving 9,000 patients is far too small to spread risks.

In general the government is rushing into this experiment on a national basis without any local trials and is taking considerable risks. It will only take a few glaring instances of budget-holding practices denying necessary care (as happened with some HMOs in the United States) or of hospitals discharging patients early with inadequate follow-up leading to avoidable death for the whole system to become discredited and possibly withdrawn.

### **Lessons for Developing Countries**

The lessons of the British experience can be summarized as follows. A health service financed to the extent of 85–90 percent from national taxation is at risk of becoming underfinanced. Canada seems not to have faced this problem, at least to the same extent, but it is financed through the provinces. Where local taxes play a substantial part, as in the Scandinavian countries, there also appears to be less of a problem. Health services seem to fare better in this respect where they are almost entirely financed from earmarked contributions from employers and employees.

The system of restricting access to a specialist or hospital, except in an emergency, to cases referred by a general practitioner has proved to be economical. One of the roles of the general practitioner is to sort out those patients who need further investigation by pathology or X ray. General practitioners typically have limited facilities for doing tests in their offices.

Capitation payment of the general practitioner has proved to be an economical compromise between salaried payment, which removes the incentive for the doctor to go out of his

or her way to be responsive to the patient, and fee-for-service payment, which makes the doctor responsive to the patient but at the same time gives the doctor a financial incentive to stimulate unnecessary services. Under both, capitation payment and fee-for-service payment, doctors are in competition for selection by patients, but under the former, the patient can only have one general practitioner at any time. Thus the patient can originally consult only one doctor on his or her illness. This leads to continuity of care outside hospital. Capitation payment can be extended to cover the drugs prescribed by the doctor, as in the original system used by friendly societies, or to nearly all health care, as under the Thatcher reforms for large general practices. Supplementing capitation payment by additional fees and bonuses paid for preventive work ensures that such services are given considerable priority.

The NHS has developed three important mechanisms for securing geographical equity in the distribution of health resources: it has limited the entry of further general practitioners to overdoctored areas; it has controlled the number of specialist posts that can be advertised and filled; and it has distributed the funds for the hospital and community services by a population-based formula (RAWP), which also takes into account health need, using age and sex standardized mortality rates as a proxy for morbidity.

There is no ideal way of paying hospitals. Budget finance can force hospitals to be economical in purchasing but it fails to give sufficient incentives to reduce length of stay. It remains to be seen what will emerge from the district and large practice experiments with different types of contract mechanisms.

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# 8

## *Germany's Health Care and Health Insurance System*

*Uwe E. Reinhardt*

Germany's health system represents an attempt to achieve horizontal equity in the distribution of health care and fairly good control over total health care expenditures without a complete takeover of the health insurance system by the government. The chief policy instruments used to that end are (a) tight, statutory regulation of a network of self-governing, self-financing sickness funds that observe substantially identical methods and schedules for compensating the providers of health care; and (b) the use of health insurance premiums, rather than taxes and transfers, to redistribute income from relatively healthy or high-income groups to relatively sick or low-income groups.

Table 8-1 illustrates the position of Germany's health system in the spectrum from purely governmental to purely private health care. It shows the German system as being largely a private one operating within clear government regulations. It indicates clear distinctions often overlooked by observers who tend to lump together all foreign health care systems under the derogatory label "socialized medicine," between largely government-operated and private systems.

Strictly speaking, the term "socialized medicine" should be reserved for health systems in which the government operates the production of health care and provides its financing (that is, systems in Cell A of the table). Great Britain and most of the Nordic countries of Europe fit that label.<sup>1</sup> By contrast, one would not call Canada's health system "socialized medicine" on that definition, because it combines socialized (government) financing of health care with a pluralistic, partly private and partly public delivery system that extends over all three rows in table 8-1.

Nor does the German health system fit the label. Germany's health system is concentrated in rows D, E, and F of table 8-1. It is even further removed from bona fide socialized medicine than is Canada's health system, because both the production and the financing of health care in that country are pluralistic (although both facets are rather tightly constrained by federal statutes). At this time, for example, only about 12 percent of total direct health care

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*Editor's Note:* This chapter was written in large part before the full incorporation of the former German Democratic Republic into a unified Germany in 1989. Thus the chapter refers primarily to the situation in the former Federal Republic before unification. The health insurance system in Germany was founded more than fifty years before the breakup of Germany after World War II, and its present format continues to have the same features that prevailed in the former Federal Republic. For a recent assessment of the German health care and financing system, see US GAO (1993). Among others, this chapter uses some material in Reinhardt (1990).

Table 8-1. Alternative Mixes of Health Insurance and Health Care Delivery

Production and delivery	Collective (socialized) financing			Direct financing Out of pocket by patients at point of service <sup>d</sup>
	Government- financed insurance <sup>b</sup>	Private health insurance <sup>a</sup>		
			Within a statutory framework <sup>c</sup>	Within an unregulated market <sup>d</sup>
Purely government owned	A	D	G	J
Private not-for-profit entities	B	E	H	K
Private for-profit entities	C	F	I	L

a. Technically, whenever the receipt of health care is paid for by a third party rather than by the recipient at point of service, it is financed out of a collective pool and is thus "socialized" financing. In this sense, private health insurance is just as much "collectivist" or "socialized" as is government-provided health insurance. Both forms of financing destroy the normal working of a market, because both eliminate the individual benefit-cost calculus that is the sine qua non of a proper market.

b. Canadian health system.

c. German health system.

d. Private portion of the American system.

Source: Compiled by the author.

expenditures in Germany is paid for directly out of public budgets. The comparable American number is 42 percent.

### The German Health Care Delivery System

In 1985 Germany had a population of 61 million. Only 15 percent of the population was younger than fifteen years. At the same time, close to 15 percent of the German population in that year was older than sixty-five (table 8-2). Total direct spending on health services and supplies amounted to less than 8 percent during 1986 (figure 8-1) (Schneider and others 1987).

The German health care delivery system represents a pluralistic mix of private medical practices and both private and publicly owned inpatient facilities among which patients typically may choose freely.

Of Germany's roughly 150,000 active physicians (about 2.5 physicians per 1,000 population), about 67,000, or 45 percent, work in private, office-based ambulatory practice. Patients are free to choose from among them. These physicians are compensated for their services on a fee-for-service basis, according to a predetermined and binding fee schedule negotiated between regional associations of physicians and health-insurers.

Under the strict statutory dividing line between ambulatory and inpatient care imposed by German law, physicians in ambulatory practice do not follow their patients into the hospital after they have referred a patient there. Instead, all inpatient physician services are rendered by the 80,000 or so hospital-based physicians who are salaried employees of their hospital. Among these hospital-based physicians, only the chiefs have the privilege of seeing private patients on both an ambulatory and an inpatient basis.

Germany has about 11 hospital beds per 1,000 population. Close to half of all German hospital beds are in publicly owned facilities, mainly municipal hospitals. Another 35

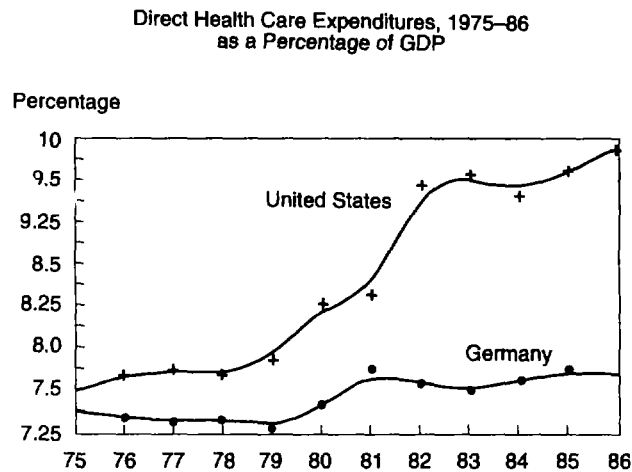
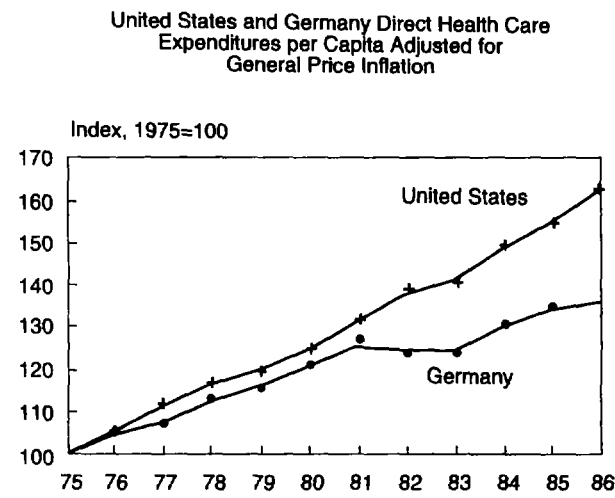
Table 8-2. Selected Demographic Data, 1985

Statistic	Datum
Total population	61 million
15 years of age	15%
> 65 years of age	15%
<i>Life expectancy</i>	
Male	71.2 years
Female	77.8 years
Infant mortality rate <sup>a</sup>	9.6/1,000

a. Deaths of children one year or younger: per 1,000 live births, 1984.

Source: Schneider, Sommer, and Keleci (1987), tables F.2.2.1 and F.8.2.1.

Figure 8-1. Direct Health Care Expenditures, 1975-86



Note: Excludes administrative costs, research, and construction.

Source: Schneider, Sommer, and Keleci (1987).

percent of beds are in private, not-for-profit community hospitals, and close to 13 percent are in privately owned, for-profit facilities.

As a rule, the capital budget of German hospitals—even of privately owned, for-profit hospitals—are furnished by the state governments, subject to a regional plan. The operating funds of hospitals, on the other hand, come from the nation's health insurance system in the form of predetermined per diems that are negotiated by each hospital separately with regional associations of health insurers, under an all-payer system.

In 1990, the average cost per inpatient day in Germany was about DM 300 (US\$180), with some variation about this average, depending on the type and location of the hospital. About 15 percent of the total per diem cost represented the salary of hospital-based physicians. An inclusive per diem cost of US\$180 or so may seem extremely low and reflects the widespread use of German hospital beds for long-term care rather than acute.

Figure 8-2 presents compact data on the sources and uses of direct health care expenditures in Germany. The statutory health insurance system accounts for about 70 percent of these outlays and private health insurance only about 7.4 percent. In contrast to the United States, where more than 40 percent of direct health expenditures now flow through government budgets, only about 12 percent of German health expenditures come directly from government budgets.

As can be seen in figure 8-2, the hospital sector absorbs only about 36 percent of total direct expenditures, and that figure includes the salaries of the country's more than 80,000 hospital-based physicians. Health expenditures by other government departments generally do not exist because ambulatory care is by statute the domain of the country's private medical practitioners.

Private households in Germany pay directly out of pocket for only about 7 percent of total direct health care expenditures, mainly for over-the-counter drugs and appliances (for example, eye glasses) of a higher quality than that fully covered by health insurance in general. Germans bear few if any out-of-pocket expenses for health care at the time such care is received (Schneider and others 1987).

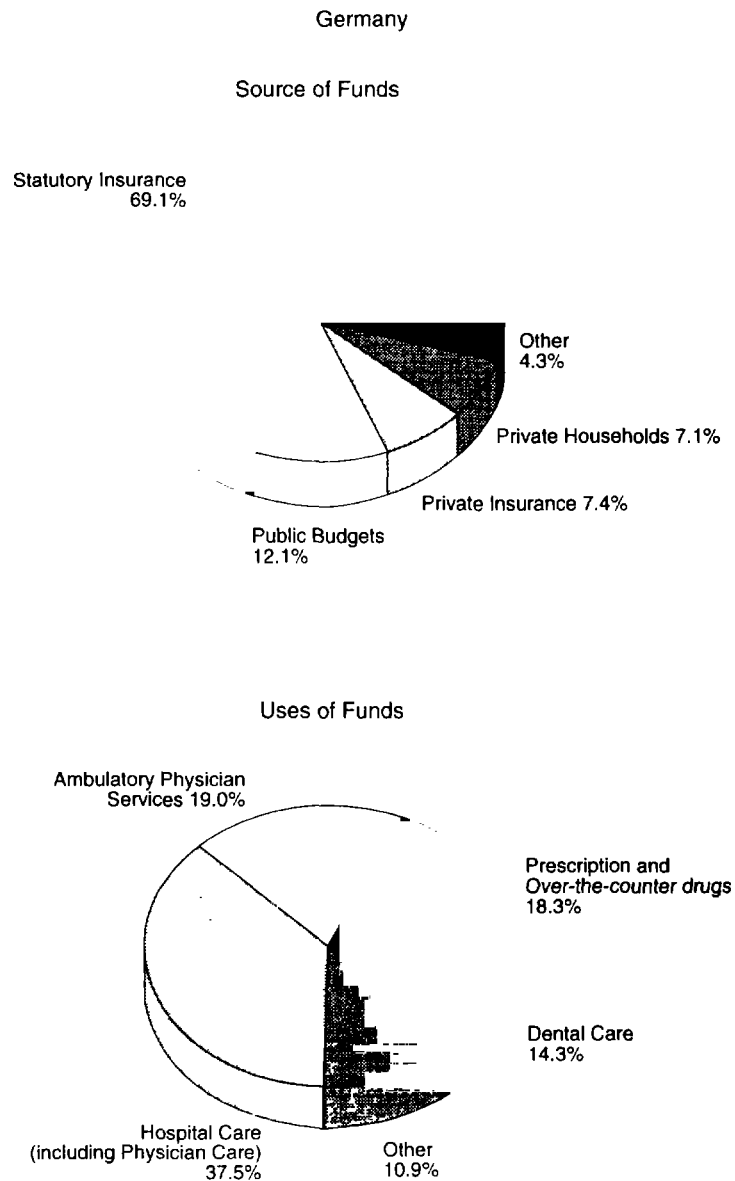
A unique feature of the German health system is the Concerted Action (*Konziertierte Aktion*), an annual assembly of all of the stakeholders in the country's health care system. This annual assembly was mandated by federal law in 1977. It includes representatives of the associations of all of the providers (including pharmacists), the statutory and private health insurance carriers, the pharmaceutical industry, the major unions and associations of employers, and representatives of the state and local governments. It is the task of this assembly to establish annually broad, national guidelines for the economic development of the health care system, including those for the overall growth in expenditures in relation to the expected growth of the gross national product (GNP).

The assembly was intended to serve as a consensus-building device. It does not have governmental powers. For example, the guidelines it establishes are not legally binding on any of the parties; they merely serve as benchmarks for negotiations over fees, prices, and per diems of health services that take place annually at the state level between associations of insurers and of providers. So far, the assembly has carried forward its work with varying degrees of success but is generally credited with having had some constraining effect on negotiations at the lower level. Furthermore, its work is widely covered in the media.

### Historical Development

Most characteristic of the German system is the statutory sickness fund (*Gesetzliche Krankenkassen*), whose genesis was an address by Emperor Wilhelm I to the Reichstag in

Figure 8-2. Sources and Uses of Direct Health Care Expenditures, 1985



*Note:* Excludes administrative costs, research, and construction.

*Source:* Schneider, Sommer, and Kecici (1987), pp. 278–97.

1881. When the Health Insurance Act came into effect in 1883, blue-collar employees—and later other members of the population—had to be insured by one of the numerous sickness funds. Accordingly, the statutory health care scheme became the oldest part of the social security system, followed by the acts concerning accident insurance (1884), retirement funds (1889), public assistance (1924), and unemployment insurance (1927). Contributions, benefits, and other components of the statutory sickness funds are regulated in detail by the second code of the Social Insurance Act, the first draft of which dates from 1911.

After World War II, the German legislature enacted numerous statutes concerning public health care, the most important of which resulted in the founding of the Federal Department of Health and Human Services in 1961. The government established statutory fee schedules for physician services and dentist services in 1965, revised in 1982; specified employer's liability for continued payment of wages in case of illness; and created the Medical Profession Education Law in 1970. Also important were the 1972 law concerning the financing of hospitals and the disputed Health Insurance Cost Containment Law of 1977, which was followed by the Second and Third Health Insurance Cost Containment Law of 1982 and the Health Insurance Structural Reform of 1989. With these regulations the German health care system became the most regulated sector in the entire economy (Schulenburg 1989).

### Universal Coverage and Consumer Choice

Virtually the entire German population has comprehensive health insurance coverage for a broad range of benefits that include ambulatory physician care, all inpatient care, prescription drugs, dental care, medical supplies and appliances, and even recreational stays (the *Kuren*) in health spas following major bouts of illness or merely a state of exhaustion. With minor exceptions, the covered services are made available to patients free of coinsurance and deductibles at the point of service.<sup>2</sup> Until the Health Care Reform Act of 1988, the sickness funds even paid for taxis the elderly might take to see the doctor.

As a general rule, all Germans have free choice of doctor, hospital, pharmacist, and other providers of health care. The comprehensive insurance coverage enjoyed by Germans is provided by a highly structured and highly regulated insurance system that cannot be easily labeled as either private or public. About 90 percent of the population is covered by the so-called statutory health insurance system (the *Gesetzliche Krankenversicherung* or GKV) that has, for more than one hundred years, constituted the backbone of the country's health insurance system. Close to 9 percent of the population is covered by private, commercial insurance carriers. The remainder is covered by various governmental programs, notably those for the police and the military. The number of uninsured individuals at any point in time is below 0.3 percent.

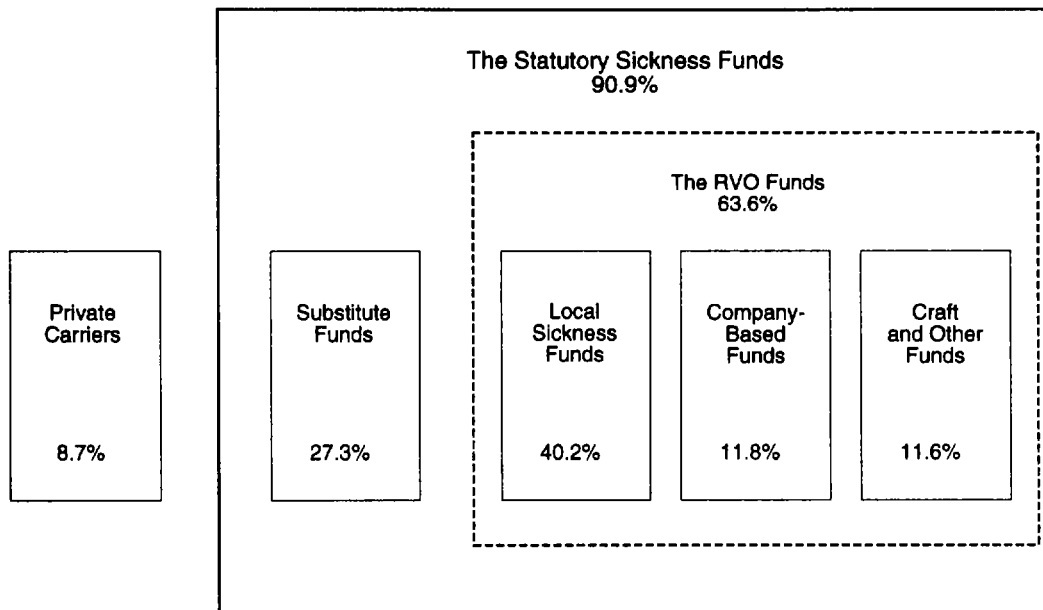
Figure 8-3 provides a road-map of this structured health insurance system. The percentages shown represent the fraction of the German population belonging to each type of insurance carrier (Verband der Privaten Krankenversicherungen e.V. 1987/88).

### *The Statutory Health Insurance System (GKV)*

The statutory health insurance system is composed of some 1,200 fiscally independent, self-governing, not-for-profit sickness funds, each of which serves either a specific area, typically a geographic one (the local sickness funds or *Allgemeine Ortskrankenkassen*), or the workers of a particular firm (the *Betriebkrankenkassen*), or members of a particular trade or craft (the *Innungskrankenkassen*). Together, these funds are commonly referred to as the *Reichsversicherungsordnung* or RVO funds. They have been the cornerstone of the country's social security system, which dates its origin to the late 1800s, and were originally intended to cover only blue-collar workers.

The operation of the RVO funds (including benefit packages as well as underwriting and reimbursement practices) have been tightly regulated by a federal insurance statute, the RVO, which has been amended repeatedly to adapt the statute to changing demographic and economic conditions.<sup>3</sup>

Figure 8-3. Structure of the German Health Insurance System



Note: Numbers are percentages of the population in each type of fund, 1986.

Source: Verband der Privaten Krankenversicherungen e.V. (1987/88), p. 13.

Subsequently, there were added to the RVO funds the substitute funds (*Ersatzkassen*) for white-collar workers. There are now fifteen such funds, each of them operating nationwide. The substitute funds, too, are subject to the federal insurance statute and form an integral part of the statutory health insurance system (the GKV). Until very recently, blue-collar workers in the statutory system did not have access to the substitute funds, which were reserved strictly for white-collar workers. The latter, on the other hand, could elect membership in either a substitute fund or the RVO fund relevant to their locality or company. Since the Health Reform Act (*Gesundheitsreformgesetz* or GRG) of 1989, blue-collar workers exceeding a certain income limit may elect membership in either their appropriate RVO fund or a substitute fund or private health insurance. It can be expected that, before long, the archaic distinction between blue- and white-collar workers will disappear altogether from the statutory system.

Every individual is entitled to join the statutory health insurance system. An individual's "membership" in a statutory sickness fund automatically covers all of the member's dependent family members. Membership in the statutory system is *compulsory* for employees with a specified income limit (currently about DM 55,000, or US\$30,000, per year) and for retired persons who had belonged to the system during their work life. At this time, roughly three-quarters of the 90 percent of the population insured under the statutory system are compulsory members. The remainder have joined the system voluntarily.

Once an individual joins a particular sickness fund within the statutory system, he or she typically remains with that fund for life, unless his or her income rises above the threshold below which statutory insurance is compulsory and the individual exercises the option either to join a substitute fund or to choose private health insurance.

Employed members of sickness funds pay for their own and their families' insurance coverage with a contribution that is strictly a percentage of the total compensation (roughly, salary and fringe benefits before taxes) and not at all related to either the size of the family or its health status.<sup>4</sup> The premiums of retired persons are paid by the retirees' pensions funds in the form of a flat percentage of the retiree's pension (now a national average of 12.9 percent). That percentage is equal to the average payroll contribution rate (the *Beitragssatz*) working members make to the fund.

Obviously, the premiums paid by the elderly are much below the true actuarial cost of caring for them. In 1989, for example, the premiums paid by this group covered only about 40 percent of the outlays they received from sickness funds (in 1977 that percentage had still been as high as 65 percent). The difference is made up by cross-subsidies paid by working members of the funds, a transfer that is becoming a source of contention among the generations. Funds with a particularly heavy load of retired members receive compensating contributions from a national reserve fund (the *Krankenversicherung der Rentner*). The objective of that system is to equalize across the various sickness funds the financial burden imposed by the aged on working members.

Because premiums in the statutory system are based on ability to pay and also cover the insured member's dependent family members (while commercial carriers charge premiums based on actuarial cost), most individuals who have the option to seek private coverage nevertheless prefer coverage under the statutory system (although there has been somewhat more rapid migration to the private system in recent years). Furthermore, under the recently passed Health Insurance Reform Act of 1989 (the *Gesundheitsreformgesetz* or GRG), persons who opt out of the statutory system in favor of private health insurance lose the right ever to return to the statutory system (as they hitherto could). Younger single persons who may now find it financially advantageous to exit the statutory system may later come to regret that step when they start a family. Thus they will think twice before opting out of the system.

### *Administration of the Statutory System*

The statutory sickness funds are managed within the private sector, under the stewardship of boards of trustees, half of whose seats are filled from the ranks of unions and half from the ranks of employers. The chairmanship rotates between these two groups.

In principle, each of these funds is to be fully financed by its members, who are either workers or retired persons. Since passage of the Health Care Reform Act in 1988, however, in some states sickness funds in particular fiscal distress do receive cross-subsidies from financially better-off funds.

Although the statutory sickness funds tend to consider themselves part of Germany's private sector, they are at best a distant cousin of what Americans would consider the "private sector." The statutory funds operate within very tight federal statutes that, as noted, dictate not only the catalog of benefits these funds must offer their members, but also their governance, as well as their fiscal and regulatory relationships with the providers of health care. One may therefore think of the statutory system also as a private sector extension of the government's will. They are private, self-financing, and self-governing entities charged with certain governmental duties and therefore are endowed with certain governmental



powers, among them the power to levy payroll taxes on employed persons and their employers and to redistribute economic privilege among their members.

### Controlling Health Expenditure

Within a region (usually a state or a substate region), the statutory sickness funds join together in associations to negotiate with counterpart associations of physicians the schedules of fees that must be accepted by individual physicians as payment in full. The *regional* negotiations are based on a national relative-value scale (the *Einheitlicher Bewertungsmaßstab*, or EBM) that is negotiated for the entire statutory health insurance system between *national* associations of all sickness funds and the corresponding national associations of sickness fund physicians.

Although, as members of the statutory health insurance system, the substitute funds (*Ersatzkassen*) share with the RVO funds the common, *national* relative-value scale for physician services, they negotiate the monetary value per relative-value point separately with the corresponding *regional* physician associations and have traditionally paid slightly more than the RVO funds. In 1988, for example, they paid physicians DM 0.0935 per point, versus an average of about DM 0.0915 per point paid by the RVO funds. The RVO funds in a region all pay the same fees to physicians (Reinhardt 1985).

In 1985, the sickness fund physician associations agreed to accept an overall expenditure cap for their services. Although it had been hoped by the associations that this cap would eventually be lifted, the cap is still in place and is apt to remain so for the foreseeable future. Because all statutory sickness funds work with the same relative-value scale, it is easy to implement the cap under that system: if the utilization of services threatens to put total expenditures over the cap, the monetary value per relative-value point is automatically reduced.

The expenditure cap is negotiated annually as so many deutsche marks per insured, after adjustments for age and sex. Once that amount has been set, the total budget is turned over by the sickness funds to their counterpart physician associations, which then disburse the fund to their members on a fee-for-service basis. In a nutshell, then, the system subjects all physicians to a zero-sum game jealously watched by the physician associations themselves. It is they who police their own members.

The introduction of the expenditure cap for physicians has not led to the rationing of health care. On the contrary, the steady decline of the monetary value per relative-value point in Germany suggests that the number of services delivered to patients has increased substantially as a result of the cap.

The statutory sickness funds negotiate jointly with *each* hospital a predetermined, binding per diem based on approved, projected line-item operating budgets (Reinhardt 1984). As already noted, these per diems now average about US\$180. There has been some experimentation with reimbursement by diagnosis-related groups (DRGs) on the American model, or with a system that combines a basic per diem with a fee-for-service catalog for ancillary services.

German insurance policies also typically provide fairly complete coverage for dental care (including dentures) and for all prescription drugs. Dentists are paid negotiated, predetermined fees for their services. These fees have been so high in recent years that German dentists enjoy a higher income than do German physicians in private, ambulatory practice (who earn a pretax net practice income of about US\$90,000). In order to curb the disproportionate growth in their outlays for dental care, which appears to be driven by outlays for dentures, recent legislation has mandated substantial cost sharing by patients for dentures.

Until January of 1989, both the private insurance carriers and the statutory sickness funds paid pharmacies the full retail price of whatever medications physicians had prescribed. Patients did not share in the cost of prescriptions drugs, but merely paid a modest fee (DM 3) per prescription. The price the insurance carrier was forced to pay the pharmacists was the sum of (a) the manufacturer's price, *which the manufacturer was free to set*, plus (b) a regulated, fixed, wholesale markup, plus (c) a regulated, fixed retail markup. The private carriers and the sickness funds all pay the same retail price.

This open-ended pricing policy left the demand side of the market effectively without countervailing power. Combined with the effect of full insurance coverage, it led to a relatively large allocation of German health care expenditures on prescription drugs. As was shown in figure 8-2, close to 17 percent of total direct health care expenditures in Germany go for the payment of pharmaceuticals.

To control the large outlays for prescription drugs in the system, the conservative Kohl government drastically altered the payment for insured prescription drugs as part of its Health Care Reform Act passed in November of 1988. For Germany's pharmaceutical industry, this act has been nothing short of revolutionary. It is bound to shrink the size of that industry in the years ahead.

Henceforth, prescription drugs are to be assembled into groups of "equivalent" drugs, where the definition of "equivalency" is to be broadened gradually over time eventually to include groupings of totally different chemical substances deemed to be "therapeutically equivalent" (Phase III in the evolving definition of "equivalency"). Under the new pricing policy established by the act, the insurance carrier covers fully only the price of a selected low-cost drug in the equivalence group—typically a generic. If patients or their physicians insist on a higher-priced brand-name drug, the patient must pay the price differential out of pocket.

So far, the publication of the first equivalence groupings and the least cost for each has completely shocked the pharmaceutical manufacturers and has led brand-name producers to slash their prices by up to 40–50 percent for competing drugs within the announced groupings. They have done so because they fear that Germany's spoiled patients will never consent to paying sizable sums out of pocket for brand-name drugs in the equivalence groups.

### *Commercial Insurance Carriers*

The roughly 5.5 million individuals (close to 9 percent of the population) covered by the forty-two private, commercial (for-profit) insurance carriers in 1986 include civil servants, self-employed individuals, retirees who were covered by private insurance during their work years, and white-collar workers with an income above about DM 55,000 or \$30,000 per year (in 1989/90) who have chosen to opt out of the statutory system.

As already noted, the premiums charged by the private carriers reflect the actuarial risk of five-year cohorts. Unlike the statutory system, which employs coinsurance only sparingly, privately insured patients may choose among alternative plans, with varying degrees of cost sharing and commensurately varying premiums.

An insured who enters an insurance contract with a private carrier pays the premium appropriate for his or her five-year cohort *at that time*. Thereafter, the premium is not raised further as a function of the insured's age. It can be increased only to reflect general increases in health care costs that affect all age groups. In effect, then, this premium structure resembles the level premiums that American life insurance companies levy for their whole

life insurance policies. And like these policies, a private German health insurance policy overcharges young people in relation to their own actuarial, short-term risk and forces them to build up an old-age health insurance reserve, the *Altersruecklage*.

By law, Germans who decide to leave their private insurance carrier for another private carrier forfeit their accumulated old-age health insurance reserve. Furthermore, upon joining the other carrier, such persons must then pay the premiums appropriate for their age cohort *at the time of the switch*. This policy is intended to force privately insured persons into life-cycle planning as well, for it contains the powerful financial inducement to stay with one carrier for life.

About 4.6 million people covered by the statutory system purchase supplementary insurance coverage from the private carriers. These supplementary policies typically cover semiprivate accommodations in hospitals and cash allowances per hospital day or day of illness.

The private insurance carriers compensate physicians on the basis of a statutory fee schedule (the *Gebuehrenordnung fuer Aerzte* or GOA) set by the federal government (after consultation with experts and the medical profession) and applicable only to the private insurance sector. Although in principle the relative-value scale underlying this fees schedule is not the same as that underlying the fee schedule used by the statutory health insurance system (the EBM schedule described earlier), the two relative-value scales have come ever closer together over time, as the government leaned on the statutory RVS in establishing the RVS for the private health insurance system.

As a rule, physicians treating privately insured patients may bill the insurer up to 2.3 times the official fee schedule, as most of them now do. Physicians may exceed even this maximum multiple, but only after justifying such extra billing in advance and in writing. Some physicians do so, notably the chiefs of staff in hospitals who, as a rule, may treat patients on a private basis very much like their American colleagues who have hospital privileges.

For hospital care, the private insurance carriers pay predetermined per diems. These lie somewhat below the per diems paid by the statutory system, because hospital-based physicians who treat patients in the hospital (typically only the chiefs of services) bill their patients directly for inpatient physician services, while the per diems paid hospitals by the statutory sickness funds cover all inpatient physician services rendered by the hospital's staff of employed physicians.

In addition to this (somewhat lower) basic per diem, however, the private carrier must pay sizable surcharges for the semiprivate rooms (typically double-occupancy rooms) occupied by their insured. In 1988, for example, the average basic per diem rate for private insurers was DM 251 (US\$128) and the surcharge for a private room was DM 116 (US\$60).

The private carriers and the statutory sickness funds pay the same prices for prescription drugs.

### *Administrative Cost*

The administrative cost of German health insurance is relatively low. For the statutory sickness funds, these costs amount to about 4 to 5 percent of total premium income. Although the sickness fund associations that actually pay the individual physicians have additional administrative costs, the overall administrative costs of the system, including the billing costs borne by individual physicians and hospitals, probably lie substantially below the average registered by the complex American system.

The private insurance carriers distinguish between purely administrative costs—about 4.4 percent of premium income in 1987 and probably comparable to the number reported

by the statutory sickness funds—and the “closing costs” (*Abschlusskosten*), which represent the marketing and administrative costs of establishing new insurance policies. In 1987, these closing costs amounted to about 11.6 percent of total premium income.<sup>5</sup> It appears, then, that the total loss ratio (payments to providers/premium income) in private health insurance exceeds that under the statutory system by a considerable margin.

### Lessons from the German Experience

Health care systems that rely on a great number of independent third-party payers for financing face problems not encountered by systems in which the flow of funds to providers is concentrated in the hands of one single third party, usually the government.

First, in a multicarrier system providers may find it easy to divide payers and thus rule them. Second, if consumers are given free choice among competing insurance carriers, a multicarrier system can be plagued by judicious adverse-risk selection and the exclusion of high-risk, low-income families from insurance coverage altogether.

Both sets of problems have been addressed through statutory constraints in the German health system, although not with complete success. Indeed, there are now sufficient stresses in the system to have triggered widespread calls for a fundamental reform of Germany's health insurance system.

### Amassing Market Power on the Demand Side

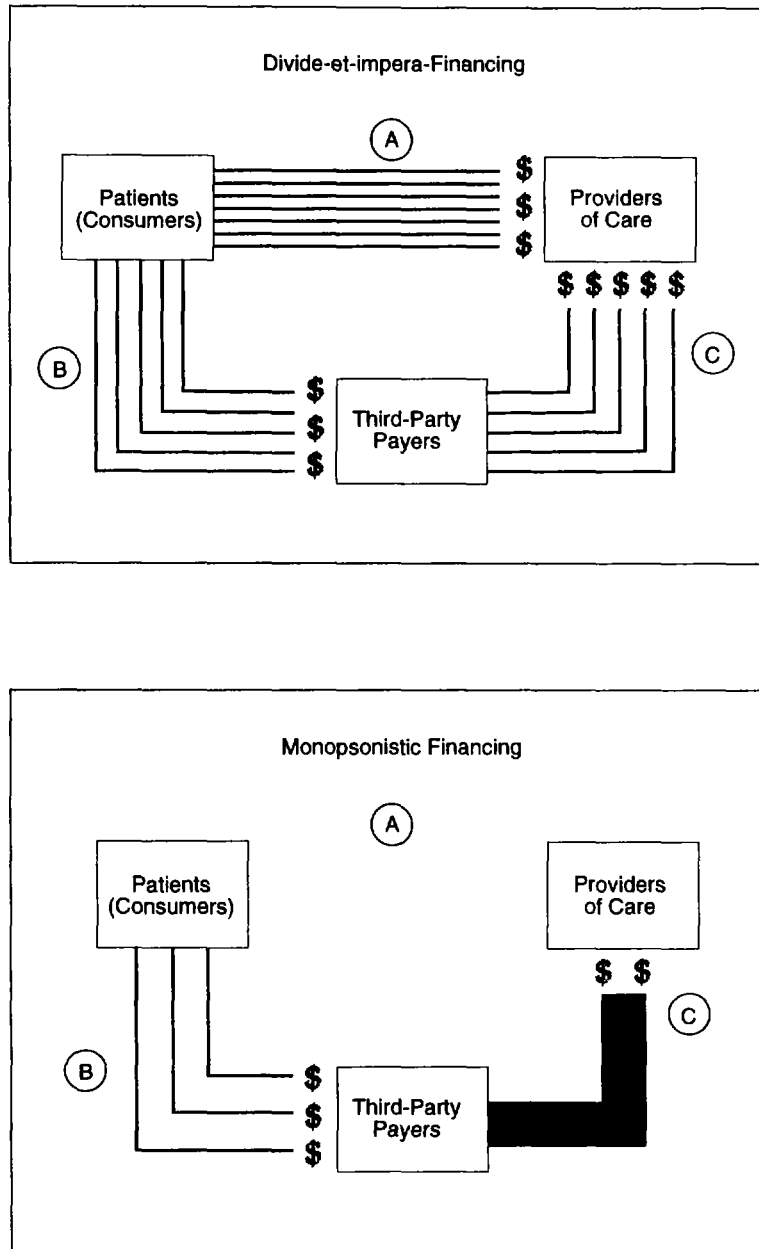
Figure 8-4 depicts two distinct sets of relationships among the three major actors in health care: patients, providers, and third-party payers. The top panel illustrates the manner in which money flows from society to the providers of health care. That flow now goes through a myriad of independent and uncoordinated pipes of varying size. Most of these pipes are so small, in relation to the overall money flow, that persons controlling their valves cannot exert much influence over the market for health care. Should they seek to constrain prices, they can easily be threatened by providers with the loss of access to health for the insured covered by that money pipe. It is a system designed to maximize the transfer of gross national product from the rest of society to the providers of care.

Indeed, it is a system so constructed that it effectively shields most households from knowing, at any time of the year, precisely how much their families spend on health care. The money flow from households to pay for uninsured services, coinsurance for partially covered services, and contributions to insurance coverage is so complex that it takes a special effort to tabulate the flow for one year.

It can be argued that this is precisely as it should be, that most other markets in the economy also are characterized by a myriad of money pipes to the suppliers. The counter-argument that has prevailed in most modern societies—certainly in Germany—is that the ethical dimensions of health care and the fact that the bulk of health expenditures are accounted for by very sick, aching, and frightened individuals make analogies with regular markets moot for health care.

Most countries have therefore all but relieved the individual patients from the role of a cost-controlling consumer. Instead of conceiving of the health care market as a set of economic transactions between individual patients and providers, they have transferred the economic facet of these transactions to a middle plan where prices are negotiated between associations of third-party payers and associations of physicians. In other words, they have concentrated the money flow to providers into one large pipe (or at most a few) whose valves are operated through negotiations, as is illustrated in the bottom panel of figure 8-4.

Figure 8-4. Alternative Financial Arrangements between Patients, Providers, and Third-Party Payers



Source: Compiled by the author.

In the Canadian health system, for example, there really is but one money pipe to providers per province. That pipe originates in the provincial government, which administers health insurance in that country. In Germany, there are more than a thousand pipes going from the sickness funds or private insurance carriers to the providers. The money flow through these pipes, however, is coordinated at the level of the state (*Land*) into

all-payer systems that offer the payer a degree of market power similar to that enjoyed by truly single-source payers. For that reason, it is not inappropriate to think of Germany's health system as effectively a single-pipe system as well.

Every German household knows what it spends per year for comprehensive health service, because that spending can be read off a simple barometer: the percentage of gross compensation paid to the sickness fund, or the insurance premium paid to a private carrier. This simple index is carefully read by the citizenry, by employers, and by the government (AOK Bundersverband 1989). The previously cited Health Care Reform Act of 1988 was the government's reaction to the sharp increase in the contribution rate after 1984. The chief objective of that act has been to stabilize that contribution rate.

The single-pipe or quasi-single-pipe health insurance system prevalent throughout Europe and in Canada have certain advantages and drawbacks that require further comment. First, the systems enable those who directly and ultimately pay for health care to procure health services at lower monetary transfers to provider per unit of real health service than is paid under the looser American system. Second, these systems enable those who control the valve of the single pipe literally to determine that physical capacity of the health system. They can make favorable turns of the valve contingent upon regional health planning, as is the case in all of these nations.

In short, the single-pipe approach probably more so than any other factor enables these countries to allocate to health care a much smaller slice of the gross national product.

But these single-pipe systems also have drawbacks that should be acknowledged. Clearly, a single-pipe system is vulnerable to possible mistakes made by the few who wrangle at the single valve. Such a system may allocate less to health care than the citizenry actually would like to see allocated, if it had its choice, and it may also provide less variety in health care than the citizenry might want. Furthermore, such a system makes it far more risky for entrepreneurs to venture their funds in search of new medical technology, because those at the valve may capriciously refuse to pay for that technology.

From the viewpoint of providers, single-pipe systems are clearly undesirable. They manifestly tend to reduce the providers' income. There is no reason why normal, income-seeking providers of health care should favor a system that serves to shrink their income.

## Equity in Financing

There are two principal issues to consider under the heading of equity in financing: how to avoid adverse-risk selection and how to contend with the threats to the principle of solidarity.

### *Avoiding Adverse-Risk Selection*

The term "adverse-risk selection" has varied meanings in discussions on health policy, and it is often misused. For the purposes of this discussion, it refers to situations in which the distribution of actuarial risks among different insurance pools is not perfectly matched by the distribution of premium income needed to cover those risks.

Suppose that the likelihood of particular levels of health expenditure for an individual could be accurately ascertained by both the individual and the insurer issuing an individual health insurance policy. Next, suppose it was possible to group people into distinct cohorts so all people within a cohort are exactly alike in their likelihood of incurring particular levels of health expenditures. This would yield cohorts of relatively healthy people and cohorts of relatively sickly people. For a large enough cohort, one could quite accurately predict the total health expenditure that would be incurred by that cohort for a given future period. On

dividing that total by the number of persons in the cohort, one would obtain an average predicted per capita expenditure level. In the jargon of insurance actuaries and of economists, an insurance premium set equal to this average predicted level would be an "actuarially fair" premium.<sup>6</sup> The premium would be considered fair in the sense that it would not force cohorts of relatively healthy persons to subsidize with their insurance premiums cohorts of relatively sickly persons, a cross-subsidy actuaries define as "unfair."<sup>7</sup>

An insurance industry that always charged perfectly actuarially fair premiums could be said to be free of adverse-risk selection, because a particular insurance pool's premium income would always fully reflect and cover its own mix of risk.

Two factors of the real world intrude upon the actuary's idyllic world.

First, the individual's likelihood of future health expenditures usually cannot be ascertained with such accuracy. Even if the individual could ascertain it, he or she would surely not reveal it to a prospective insurance carrier if that revelation would drive up the actuarially fair premium. From the insured's perspective, the selective withholding of facts has always been considered fair game in this context. In the asymmetry of information—the fact that the buyer of insurance knows so much more about his or her health status than the prospective insurer ever will know—lies a major source of adverse-risk selection.

Adverse-risk selection, of course, can originate also on the insurers' side when they have some discretion in composing the risk-mix of their members in response to externally determined insurance premiums. It might occur, for example, when a government announced that it will pay a voucher of \$X year per member in some cohort and insurance carriers then seek to enroll at that predetermined premium only individuals whose actuarially fair premium is below \$X. From the insurer's perspective, such judicious risk picking is probably considered fair game as well.

Quite aside from the problem of adverse-risk selection, however, most of the world considers the actuary's conception of fairness ethically repugnant. This is the second intrusion of the real world on the actuary's idyllic model.

The dominant notion throughout Europe and in Canada is that health insurance should not only help smooth the individual's own outlays for health care over time, but that it should also force chronically healthy people to bear part of the health care costs incurred by the chronically sick, and that the insurance mechanism is the ideal vehicle to effect this redistribution. This notion is fundamental to these countries' idea of community and nationhood.<sup>8</sup> They call it the principle of social solidarity.

Germany's statutory health insurance system is a perfect expression of that principle. The system openly uses health insurance premiums to redistribute income from healthy and high-income households to low-income households and to the sick. To cope with the adverse-risk selection that such a premium structure might otherwise engender, the system has traditionally limited the choice individuals and their families have among different sickness funds.

Traditionally, the sickness fund for compulsorily insured Germans has been dictated by location or employment. Blue-collar workers typically have had a choice, if any, among only one or a few RVO funds, although white-collar workers had a wider choice among RVO funds and substitute funds. Even the 25 percent or so of the population who are not compulsory members of the statutory system, but may join that system voluntarily, have much less *effective* freedom of choice than is typically available in the United States. All statutory health insurance funds, for example, must offer the same catalog of prescribed benefits, and they cannot tailor their premiums to the individual's actuarial risk.

Although private insurers have greater freedom in this respect, their policies also are much more uniform in basic parameters and much more restrictive than is typical in the free-wheeling U.S. health insurance market. And, as already noted, their premium structure

**Table 8-3. Variance in the Payroll Tax Rate across German Sickness Funds, 1988**  
(percent)

Type of fund	Payroll tax rates <sup>a</sup>	
	Range	Average
Local sickness funds	10.8–16.0	13.5
Company-based funds	7.5–15.0	11.5
Craft-based funds	9.8–15.6	12.8
Substitute funds		
Blue collar	10.2–14.6	11.9
White collar	8.8–12.9	12.7
All statutory funds	7.5–16.0	12.9

a. Employers and employees's contribution to sickness fund, as a percentage of gross compensation (including fringes).

Source: Bauer and Schoenhafen (1988), table 1, p. 650.

prescribed by statute builds in a nontransferable old-age reserve that effectively locks an insured into a particular private carrier for life.

### *Threats to the Principle of Solidarity*

Not surprisingly, this approach to eliminate adverse-risk selection and, at the same time, to effect a redistribution of income through the statutory system's premium structure, has led to considerable strain within the system. Because the individual sickness fund is empowered to levy whatever payroll tax is necessary to cover the risk-mix of its own members, these taxes vary widely among the funds. Table 8-3 illustrates this phenomenon with the most recent data. It is impossible to defend these highly different payroll tax rates with any appeal to social equity, and one must wonder why these differentials have not led to a more open revolt among the insured and their employers alike. But that revolt is starting.

Round one in that revolt is the increasing tendency among large business firms to take their employees out of high-premium sickness funds and to fold them instead into newly established company-based sickness funds (*Betriebskrankenkassen*) whose actuarial health care costs may be lower. As table 8-3 shows, such a switch might yield these companies substantial savings, at least in the short run, while their fund members are still young. Naturally, this move is vigorously opposed by the other funds in the system, particularly by the local sickness funds that cover a demonstrably higher average morbidity (Bauer and Schoenhafen 1988).

The local sickness funds have entered the fray from another corner. They would like to see legislation mandating interfund financial transfers to compensate for differences in the risk borne by individual funds. Such transfers are already being made in some states within particular types of sickness funds (for example within the company-based funds), but not yet across types of funds.

Although the local sickness funds have a legitimate point, their plea is opposed by other funds in the system on the ground that, pushed to its logical conclusion, the policy would convert the statutory Health Insurance system into once single national fund, a *Universalkasse* with one level of payroll tax and one benefit package for all members. Such a result, although perfectly equitable on its face, would make the statutory system resemble more and more a fully government-financed system, such as Canada's.



Yet another attack on the present system comes from Germany's neoclassical economists who, like their colleagues on this side of the Atlantic, regard as the only fair and efficient health insurance system one priced strictly on actuarial principles and one offering every citizen the widest conceivable choice among competing funds. Neoclassical economists believe that governmental paternalism should not override individual myopia and that the individual should be made to suffer the consequences of his or her myopia. Neoclassical economists also believe that health insurance premiums are not a proper vehicle for the redistribution of income—that if society wishes to assist poor and sickly citizens, it should do so with taxes and cash transfers (or, at most, vouchers).

At the time of writing, the German government was planning to arbitrate the emerging fight over Germany's health insurance system with legislation. If the philosophy of the local sickness funds prevails, the German health insurance system may move substantially toward a government-financed system on the Canadian model. But if the neoclassical school of thought prevails, the system may abandon the principle of solidarity altogether and become more like the American health system. The status quo is unlikely to be tenable over the long run.

Germans would be unlikely to move toward the American health insurance model, however, which is decried throughout Europe as not only wasteful but also grossly inequitable. A move toward the Canadian model probably would be more palatable to Germans unless, as seems more likely, the system can evolve toward a more workable middle ground. One such compromise might be a model akin to the highly regulated pluralism advocated by Enthoven and Kronick (1989: 94–101).

An alternative compromise might be to mandate upon the system more extensive inter-fund redistributions of premium income and to encourage more extensive emigration from the statutory system toward the private health insurance sector. That approach would preserve the structured health insurance system (*die gegliederte Krankenversicherung*) that, according to most Germans, has served the country well for over a century.

### General Lessons Learned

A basic lesson to be drawn from the German health experience is that it is possible to provide universal access to health insurance—and to needed health care—without having the financing for such a system flow through the public budget.

At the same time, the German experience illustrates that it is extremely difficult, and probably impossible, to maintain an *unregulated*, pluralistic, *competitive* health insurance system that avoids adverse-risk selection and, at the same time, maintains horizontal equity in the financing and distribution of health care.

Finally, the more freedom of choice that is granted to those who purchase health insurance from a multitude of competing insurance carriers, the more opportunities there are for both the insured and the carriers to sort people into distinct risk classes, and the more inequitable will be the distribution of health care and its financing, unless society is willing to subsidize the health insurance premiums of high-risk, low-income persons with tax-financed subsidies.

### Notes

1. Even in the case of Great Britain, primary medical care is provided by private general practitioners. Private contractors are paid by the government on a per capita basis for the services they render to enrolled individual consumers.

2. There are some co-payments for certain dental procedures and for some higher-priced brand-name drugs for which lower-priced substitutes are available.
3. Incidentally, the RVO statute has served as a model also for the Dutch and Belgium health insurance systems.
4. The system maintains the fiction that half of this contribution is paid by the employer and half by the employee. In fact, of course, the total contribution can be thought of as being paid out of the worker's gross wages.
5. See Verband der Privaten Krankenversicherungen e.V., *Die Private Krankenversicherung: Zahlenbericht 1987/1988*, September (1988), 54. According to that annual report, the pure administrative costs in 1987 were DM 602 million, said to be 4.33 percent of total premium income. The total closing costs for that year were reported as DM 1.6 billion, which must therefore have represented 11.6 percent of total premium income.
6. Of course, to this "actuarially fair" premium there would be added an allowance for administrative costs.
7. In fact, only last year the American Council of Life Insurers declared such a cross-subsidy as unfair in a nationwide advertising campaign.
8. Economists and actuaries typically counter that notion with the argument that the proper redistribution is not from the healthy to the sick, but from the wealthy (healthy or sick) to the poor sick. Such distributions, they argue, should be effected through taxes and transfers, and not through prices (insurance premiums) in the marketplace.

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# Part III

## Lessons of Experience



# 9

## *Lessons Learned*

*Jo. M. Martins and David W. Dunlop*

The primary concern of this chapter is to draw together the lessons learned from the preceding case studies and to advocate greater use of existing data so as to provide a better empirical basis for policy development in health care financing. It also identifies some issues that are central to development and implementation of health financing policy, including one incorporating health insurance.

### **Case Studies**

Three general features of the countries studied are particularly noteworthy: their different starting points, their lack of motivation to formulate a health financing policy, and the path and tradeoffs they chose in pursuit of their social goals.

#### *Different Starting Points*

Countries come to assess their present health financing realities from many different starting points based on past decisions. Some countries have had a long legacy of publicly owned and financed health services. Others have had a tradition of individuals' payments to individual providers. In many there is a mix of private and public financing and ownership of service delivery, with quasi-private and public institutions involved as well. In addition, the explicit or implied social contract between the government and governed regarding health care varies: from a constitutionally mandated arrangement to one that has no legal basis but is grounded in social or culturally acceptable norms.

#### *Motivation to Formulate a Health Financing Policy*

Few if any countries have explicitly addressed the health financing predicament until faced with the prospect of establishing some form of universal "health insurance" or comprehensive financial coverage of the population as an alternative to existing forms of health financing. Strategic planning in developing countries, which has been undertaken in many other sectors of the economy—using the process established to generate a national development plan—has not been used for the health sector, by either ministries of planning, finance, or health. None have attempted to define a set of steps required to move from an existing health financing situation to a new one. It is only when some of the implications of a national health financing policy surface, in the process of working through the details of nationally defined "insurance" schemes, that a de facto strategic planning process begins to emerge.

### *Evolution in the Achievement of Social Goals and Tradeoffs*

The empirical evidence from the set of more affluent nation case studies suggests that most countries have periodically revisited decisions taken previously. This process aims to address, and hopefully mitigate, the effects of some prior decisions through a set of tradeoff criteria defined in chapter 2: equity in terms of coverage, access, and financing; as well as affordability, efficiency in resource use, and consumer choice. The evidence from each country suggests there is constant tension between these various social goals. As time passes, after a policy change has been made to pursue any of the above criteria, countervailing forces come into play seeking further adjustments.

In the context of the health sector and the role of health insurance, much of the debate revolves around whether certain services should be funded by either health insurance premiums or direct public financing using general tax revenues: namely, individually consumed preventive health care services that might benefit other individuals (immunization for communicable diseases or screening for HIV) and services that affect the community as a whole, such as mass media health education or biomedical research. The thorny issue of financing basic health care for those physically or mentally disabled or without the financial means to pay for health insurance premiums, either through employment taxes or direct premium payments, also continues to spark debate, especially when economic expansion is not robust and greater attention is being paid to minimizing the cost of health care.

### **Learning from Empirical Analysis**

Country-specific historical analyses of health financing and the evolving rate of health insurance in each case provide rich empirical information on a number of tradeoffs and technical-design issues involved in defining and implementing health-financing schemes. Unfortunately, the number of empirical studies is limited and the diversity of efforts undertaken globally to finance health care is only now becoming known. A more systematic review of these countries experiences is warranted. The potential tradeoffs between alternative policy choices can be clarified and options for minimizing adverse policy outcomes can be improved. As an example of the type of empirical analysis possible, information is presented below assessing the relationships between the availability of health insurance, GDP growth, and health expenditures.

Data from the OECD countries suggest that where health insurance expenditure flows to providers are regulated by the government, the share of GDP spent on health care is less than in those countries where such regulations are not in effect.<sup>1</sup> This is largely due to the basic characteristics of insurance: moral hazard and adverse selection tend to be associated with additional demand for service by those covered by insurance. To mitigate against these behavioral tendencies, governments typically establish regulations regarding benefit plan coverage (in terms of services included, and the use of coinsurance and deductible arrangements), prices for provider reimbursement, and other rules that define the benefits for the insured. In the case of Korea, which has recently expanded insurance coverage to the entire population without fully developing the above-mentioned regulatory mechanisms, health expenditure inflation has been significant (see chapter 4).

Since health insurance in its various forms is only now beginning to be more widely implemented in less affluent nations, it has not been as pervasively assessed for its impact on aggregate health expenditures and their rate of increase, coverage of the population and equity of existing coverages, access in terms of utilization of health care services, efficiency

of resource use, impact on technological innovation, and choice of health care provider. A more comprehensive analysis is required to fully assess these issues. Even a cursory comparison of comparable information on health insurance coverage and spending across a broad spectrum of countries is revealing. Information from the 100 countries in table 9-1 shows:

- Perhaps as much as 40 percent of the world's population is included in one or more health insurance schemes.
- The principal type of scheme is a social security type of health insurance (SSHI) scheme where health care coverage is included along with pensions, disability, unemployment insurance, and other employment-related fringe benefits (about 80 percent of the countries included have such programs).<sup>2</sup>
- About 30 percent of the countries have one or more private health insurance schemes available for their consideration, with the largest share being in the Asian region.
- Virtually all country schemes include in their benefit packages inpatient and outpatient care (some with co-payments and deductibles included), and many also have maternity benefits, and some provide drug coverage as well, especially when a person is hospitalized or is using one or more drugs to manage a chronic health problem.<sup>3</sup>
- The share of total health financing coming from insurance programs is relatively low (typically less than 10 percent in countries of Asia and Africa) but is higher in other regions where incomes and per capita health expenditures are higher and social security-type programs have been in place for a longer period.<sup>4</sup>
- For most regions of the world, the share of GDP spent on health care increased during the 1980s.<sup>5</sup>

Table 9-2<sup>6</sup> provides an additional indication of the determinants affecting the growth in health expenditures from all sources: population growth; price increases of health sector inputs such as wages and fees of providers, pharmaceutical prices, and other capital items, from laboratory and surgical equipment to building costs; and utilization increases.<sup>7</sup> The relationship between health spending growth and these three principal factors basically is as follows:

The annual rate of increase in total health spending is equal to the sum of:

- a. the annual rate of population growth;
- b. the annual rate health sector prices; and
- c. the annual rate of utilization increases.

Given assumptions about health sector price increases, it was possible to define estimates of the change in aggregate utilization from information about total health spending and population growth. Table 9-2 summarizes these findings on a regional basis. It shows that over the periods of the 1980s for which data were available in most regions, the combination of population growth and price increases overwhelmed total health sector spending such that utilization (or intensity of service use) tended to decline. This has generally been manifested by drops in occupancy rates (especially in small rural hospitals) and average lengths of stay in hospitals, rather than in declines in ambulatory care use or in preventive service coverage, such as immunizations. In Fiji, for example, the average length of stay in hospitals dropped from about ten days in 1971 to seven days in 1989, and occupancy rates fell from about 80 percent to 65 percent (annual reports of the Fiji Ministry of Health).

Table 9-3 presents the results of a cross-sectional statistical analysis of the relationship between health sector spending and health insurance. Two data sets were utilized: 43

**Table 9-1. Characteristics of Health Insurance in World Bank Member Countries, 1980–92**  
(in countries with some type of health insurance)

Region	Type of health insurance			Population enrolled (thousands)	Services covered					Tot. cap. recurrent health exp. \$US	Share of total health insurance (%)	Share of GDP spent on health insurance (%)	Share of GDP spent on health (%)	Average annual percentage increase in share per year (1 = 1990)
	SSH	Other public	Private		Share of total pop. (%)	IP care	OP care	Preventive services	Drugs					
Africa														
Total = 17	7	6	7	4,297.2	1.5	10	8	7	7	11.64	6.8	2.64	3.28	9.4
Asia and South Pacific (1986)														
Total = 15	9	9	12	745,495.8	32.6	15	14	8	12	15.62	7.3	4.33	4.10	(4.7)
Eastern Europe and CIS														
Total = 7	7	7	0	296,503.0	100.0	7	7	7	7	228.90	75.9 <sup>a</sup>			4.1
Middle East and North Africa (1985)														
Total = 10	7	4	0	41,854.1	15.9	8	8	6	7	584.22	62.3 <sup>a</sup>	—	3.3	—
Latin America and Caribbean (1978)														
Total = 24	23	0	5	243,834.1	61.1	21	19	20	19	50.17	31.6	3.84	3.99	0.3
OECD Countries (1980)														
Total = 24	24	24	6	786,129.0	98.6	24	24	23	24	1,439.0	74.5 <sup>a</sup>	7.0	7.6	0.8
Grand total	77	50	30	2,118,113.2	—	85	80	71	76	—	—	—	—	—

— Not available.

a. Percentage of public expenditure.

Source: Compiled by the authors.



Table 9-2. Estimated Change in Health Spending, Prices, Use, and Population Growth in the 1980s in Selected World Bank Member Countries (percent)

Region	Period (Years)	Increase in population 1980-90	Estimated increase health prices 1980-90 (%)		Estimated increase in use		Est. increase in total health spending period 198X-90
			Assumption A	Assumption B	Assumption A	Assumption B	
Africa							
Total = 14	85-90	3.2	15.8	19.0	(16.5)	(19.7)	2.5
Asia and Pacific							
Total = 15	85-90	1.7	6.5	7.8	5.4	4.0	13.6
Eastern Europe and CIS							
Total = 0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Middle East and North Africa							
Total = 2	86-90	3.1	18.2	21.9	(5.6)	(9.3)	15.7
Latin America and Caribbean							
Total = 12	77-90	2.1	192.5	231.5	(154.5)	(193.6)	40.1
OECD Countries							
Total = 24	80-90	0.7	4.6	5.6	(0.8)	(1.8)	4.5

n.a. Not applicable.

Note: Assumption B is that inflation in health prices is 20.3% higher than in assumption A, which is derived from information regarding the population increase, use charges, and total health spending.

Source: Compiled by the authors.

Table 9-3. Health Sector Spending Increases Related to Health Insurance in a Set of Poor and More Affluent Countries, 1980–89

Independent variables	Assumed relation- ship	Equation 1: poor countries only				Equation 2: all countries, incl. OECD			
		Coefficient	Std. error of coef.	t stat.	Stat. signif.	Coefficient	Std. error of coef.	t stat.	Stat. signif.
Constant	n.a.	17.76	16.92	1.050	NS	17.79	13.48	1.320	0.1
Region (Africa Numeraire)									
A. Asia	n.a.	1.24	8.30	0.149	NS	2.11	6.38	0.331	NS
B. Middle East and North Africa	n.a.	5.11	14.94	0.342	NS	2.40	11.41	0.211	NS
C. Latin America	n.a.	(0.32)	8.91	(0.036)	NS	(2.61)	6.50	(0.401)	NS
D. OECD	n.a.	n.a.	n.a.	n.a.	n.a.	(3.27)	10.19	(0.321)	NS
Services Covered (Dichotomous)									
A. Inpatient services	+	(10.62)	(22.08)	(0.481)	NS	(13.46)	17.39	(0.774)	NS
B. Outpatient services	+	9.32	13.44	0.693	NS	9.68	10.55	0.917	NS
C. Maternity/preventive services	+	3.85	8.31	0.464	NS	4.97	6.02	0.826	NS
D. Drugs	+	(1.93)	9.35	(0.206)	NS	(3.72)	7.22	(0.515)	NS
Private health insurance exists (Dichotomous)	+	(7.92)	6.84	(1.157)	0.16	(4.78)	4.48	1.068	0.2
Growth rate of GDP/capita	+	(0.80)	1.35	(0.594)	NS	(0.76)	1.02	(0.742)	NS
Percentage of population covered by health insurance	+	0.44	0.13	3.335	0.001	0.35	0.10	3.722	0.001
Percentage of health sector financing from insurance	-	(0.81)	0.27	(3.024)	0.0025	(0.57)	0.17	(3.351)	0.001
R <sup>2</sup>		0.361				0.350			
Number of observations		43				67			
Degree of freedom		31				54			

n.a. Not applicable.

NS Not significant.

Note: Dependent variable: the annual rate of increase (decrease) in the health sector GDP share.

Source: Compiled by the authors.

developing countries for which all information was available about health insurance and health sector growth in spending, and 67 countries, including 24 from the OECD countries along with the 43 in the first group. The primary purpose of this analysis was to ascertain whether there were any statistically significant relationships between the rate of increase in the share of GDP spent on health and attributes of health insurance in the countries for which full information was available. It was hypothesized that health sector spending increases as measured by the annual percentage increase in the share of GDP spent on health might increase

- as the percentage of the population covered by health insurance rose (a moral hazard phenomenon as well as a reduction in the price of a normal goods-service);
- when the benefit package, as measured by the four services included in table 9-1 is more comprehensive in terms of covered services;
- when private health insurance exists in a country, as private coverage tends to provide more “luxury benefit packages” to the more affluent in the countries where it occurs; and
- when the share of total health financing coming from health insurance programs is lower.

This later assumed relationship was based on the notion that as a larger share of total health spending is controlled by insurance mechanisms, more regulations and controls would be placed on the sector to reduce the tendency of moral hazard and other factors to increase spending. In addition to these insurance factors, the analysis included two control variables: one for possible regional differences in health sector spending patterns, and a second to control for differences in the rate of increase in income, since the income elasticities of demand for health care (see table 1-2) suggest that increased health sector spending would be related to even higher rates of increase in per capita income.

Table 9-3 presents both the assumed relationships between the dependent and independent variables presented above and the empirical findings of this statistical test where a simple linear regression model was utilized. The findings statistically support the idea that as health insurance coverage rises, health sector spending increases its share of GDP. Further, they suggest that as the share of total spending in the sector is financed via health insurance programs, health sector spending reduces its share of GDP, most likely because of increased regulation imposed on the sector. Most other variables were measured so crudely that no other variables were statistically significant. Given the cross-sectional nature of the estimated relationship, the resulting  $R^2$  of about 0.36 was relatively high. Further, the results appeared to be stable between the two samples (for all countries,  $n = 67$ ; for only the relatively poor countries,  $n = 43$ ). The two control variables—region and income increases—did not appear to be statistically significant in this specific empirical test.

These preliminary relationships are presented not to support any particular research agenda, but rather to suggest the importance of conducting empirical research on the collective experience provided by the many countries in the world in which health insurance has been implemented as a means of financing health care. The findings presented above suggest that more detailed investigations are warranted on this and related topics.

### Central Issues

The fundamental questions policymakers have to face in matters related to health care financing pertain to society’s views about social welfare, financing schemes that involve public and private arrangements, and efficiency in the allocation of resources.

*Perceptions and Social Values*

PRIVATE AND PUBLIC WANTS. Perhaps the most basic question policymakers must consider is whether health services financing is a private matter or a social issue.<sup>8</sup> If health services were produced only for the satisfaction of private wants, and if other conditions prevailed for attaining market efficiency in consumption and production, they should be produced and marketed like any other. The role of government in their production and funding would be minimal, since the price mechanism would secure the optimal allocation of resources and distribution of services.

If an efficient market is to maximize consumer welfare, the following conditions must prevail: each economic unit, consumer or supplier, is sufficiently small or exists in such large numbers that they exert an insignificant influence on the price of goods and services; no obstacles are imposed on the free movement of resources into a productive area; no discrimination is made in the price paid or received by consumers and suppliers; there is a standardization of quality, localization of transactions, and full knowledge both on the part of the consumer and supplier; quantities produced are infinitely divisible and economic relationships continuously variable; and there are no "externalities" (Stigler 1959). In addition, it must be assumed that the distribution of income is socially acceptable.

The efficiency of the market in performing its social function of maximizing welfare can be hampered by technological or institutional factors that prevent free entry into the market and lumpiness of factors of production, which may lead to monopolistic practices. These will preclude the supplier from behaving in a socially optimizing fashion since minimizing costs could lead to a supplier loss. There might also be differences between public and private risks, and public and private time preferences might also differ.

When any of these impediments are present, the price mechanism cannot ensure a socially efficient allocation of resources and efficient production. Economic theory shows how monopolistic practices make markets inefficient in their maximization of social welfare but does not say how to make monopolies or oligopolies (few producers) efficient, as long as they remain so. Efforts by governments to encourage efficiency by the regulation of natural monopolies (for example, utilities) have achieved disquieting results, especially over time.

In addition, there are some wants—such as national defense, public information, environmental protection, and the results of biomedical research—that are consumed in equal amounts by members of the community. People who do not pay cannot be excluded from the benefits that result from expenditures made regarding these items. Accordingly, the level of consumption of social wants cannot be efficiently determined by the price mechanism.<sup>9</sup> Consumers have an interest in not revealing their true preferences about prices. Even if true preferences were known, a difficulty arises because there is no single most efficient solution when services are consumed in equal amounts by all.

Another category of public-provided services are those that individuals can consume in unequal amounts but that society, through the political system, finds to have social merit and determines what their provision to all members of society should be independently of preferences manifested in the market through the price mechanism. These items are referred to as "merit wants." Typical merit wants have often been basic education, health care, and postal and communication services. For these items, the achievement of social welfare is maximized only through the exercise of budgetary interventions, independently or in conjunction with market mechanisms. Although the satisfaction of both social and merit wants (public goods) must be ensured by government financial support, the services produced to satisfy consumers' need not be produced by the public sector (Musgrave 1959). The efficiency of production is an empirical question and the answer may be different for different services and even from one country to another.

ARE HEALTH SERVICES LIKE OTHER SERVICES? Although there is a degree of consensus that health care services delivered to communities as a whole are different and that “externalities” apply to some preventive services, the controversy concerning services consumed by individuals continues. Accordingly, it is helpful to examine whether health care services are like other services. If preventive services provided in the absence of illness are excluded, most health services are sought to minimize pain or diminish disability and the risk of death. This is different from most market situations. Thus the demand for health services arises at times when individuals and their families are under stress and facing a different set of motivations than when they buy and consume most other goods and services. The “consumer” changes into a “patient,” and the relationship between the “consumer-patient” and the “supplier-practitioner” is one in which the patient relies on trust and the knowledge of the service provider to relieve pain and shorten disease or prevent death. This trust is based on social conventions and culture and is often reflected in legal conventions, including legislation. Accordingly, the patient is unlikely to behave like a consumer in securing everyday goods and services. Further, in order to make personally appropriate choices, the consumer would need to have knowledge about the services required and the adequate level of quality: for instance, what type of medicine, what quantity, and whether it should be taken orally or intramuscularly or intravenously. The answer to each question implies a price to be paid. Often there might be alternatives with different prices that will have a similar satisfactory outcome for the patient-consumer, but with a different income implication for the provider. Most people do not have this knowledge. This knowledge “asymmetry” between the consumer and provider of health care is yet another characteristic of health services. It might be possible to improve individuals’ knowledge of health care to a degree, but it is unlikely that it will be possible to achieve full or even “adequate” symmetry between consumers and providers so as to assume that informed consumer’s choice is operational in the health care market. Thus, providers are entrusted with the choice of inputs of care required to meet the consumer’s perceived needs. Further, through their political systems societies have also developed attitudes toward health care, which turned it into a “merit” good that determines its availability to individuals in society regardless of their ability to pay. This is the case in the United Kingdom and Canada for the entire population, and even partly so in the United States, where medical care for the aged (Medicare) is an entitlement.

To protect individuals from unqualified providers, most societies have relied on the licensing of medical practitioners and other health professionals to ensure minimum standards at entry. The same applies to some selected health facilities such as hospitals. This practice is a barrier to entry to the market and prevents perfect competition. The scale of operation in hospital and even ambulatory services ensures that there are only a few producers of services in any given locality, especially in rural and small urban centers, but this also applies to services requiring large investments and a large service area, such as many diagnostic and surgical services. The result is a single (monopoly) or few (oligopoly) producers of services with the power to influence prices and the quantity of services produced. For some infrequently consumed services, however, a single or small number of providers might be the only efficient solution to ensure a large and continuous practice for the maintenance of skills that can make the difference between life and death to the consumer.

The market is also characterized by discontinuities and indivisibility of services. It is not effective, and is harmful, to consume half a course of antibiotics. It is useless to have half and almost impossible to have two or more appendectomies. In other cases, there are complementary services that must be consumed for the treatment to be effective. It has also been indicated that some health services have “externalities” in that they benefit others besides the individuals who might purchase the service, as in the case of immunization or

hospital treatment of individuals to cure communicable diseases and stop the spread of disease to others. Thus, in addition to individual and public perceptions of the different nature of health care services, the set of characteristics of their consumption and production make them different from other goods and services traded in the market. These differences are important in the design and implementation of health financing schemes.

**INSURANCE AND TAXATION.** The basis for insurance is to protect individuals from the financial consequences of events with a low probability of happening but with the potential to cause a substantial loss. Insurance usually involves a contract that includes the payment of a premium to an insuring entity by individuals, which will secure the individual or someone nominated against a specified loss arising from an event, such as damage to property or death or disablement. The insurer pools the different risks presented by different individuals and calculates premiums based on the assessed risk presented by the individuals seeking insurance, the likelihood of the event taking place, and the likely value of compensation for the pooled risks. If the event is certain to occur, it is obvious that the premium will need to be equal to the loss insured against plus a margin for the insurer. Thus insuring against events carries no advantage for individuals unless there is a degree of uncertainty. Further, there is little advantage in insuring against relatively small and regular losses, as the administrative expenses and the premium might be larger than the actual loss likely to be incurred, as may be the case for over-the-counter medications. Accordingly, insurance tends to be for events with a relatively low probability of happening over a fixed period of time, and for losses that are large in nature. Otherwise, self-insurance is likely to be cheaper.

In the United States a variety of health insurance schemes have evolved, which range from those funded from payroll and other taxation, such as Medicare and Medicaid, to private health insurance based on risk assessment for groups of employees. In such schemes premiums are based on the principle of "community rating," which means the premium is the same for all members of the group regardless of the individual risk presented. Other "health insurance" schemes, such as those of Canada and the United Kingdom, do not involve premiums, and the financing is not based on individual risk, since they are financed from taxation, with those likely to use services most being taxed less, as a result of progressive taxation based on the ability to pay rather than health risk. Accordingly, universal health insurance schemes financed from general or even payroll taxation are hardly "insurance." They are schemes for public funding of the provision of subsidized or free health services, which may be provided by public or private providers, or a mixture of both, as in the case of Canada and the United Kingdom.

**CONSUMER CHOICE.** Consumer choice or sovereignty as the guiding criteria for the allocation of resources and distribution of services has the benefit of maximizing welfare when certain conditions are met. This requires consumer knowledge of the alternatives, the ability to exercise choices according to personal taste, and an interest in revealing these preferences through the price mechanism. The nature of health services tends to work against these conditions. In the case of public goods, the consumer has an interest in not revealing true preferences through the price mechanism, and a lack of knowledge or time preferences may also hinder the exercise of beneficial choices.

In spite of difficulties related to knowledge and low incomes, most studies of health care demand conducted throughout the world over the past ten to fifteen years have revealed that consumers are quite interested in having provider options. A number of such studies have revealed that most consumers have more than one option open to them, and not all pick the cheapest in terms of money-price. Thus the design of any insurance scheme must

allow for the possibility of some consumer choice. There are some tradeoffs that must be assessed between cost and choice, on one hand, and quality and choice, on the other. For instance, some health care activities require a minimum scale of operation, and when this scale is relatively large the availability of alternatives to allow choice will often have an effect on the costs of service production. In other cases, it is important that health care providers have a minimum caseload to ensure skillful practice. Once again, where either population densities are low or the caseload required is large, choice might be obtained at the cost of efficiency or quality.

**EQUITY.** Two types of equity issues arise when the government is involved in the financing of health services through health insurance or some other method of funding, as in the direct provision of services. They have to do with the method of raising funds and the beneficiaries of government subsidies. Some methods of raising government revenue may have a different impact on various socioeconomic groups in society. Of particular concern is the protection of the poor, especially those under the subsistence level. The imposition of a fee or tax for health care services on the poor will have a major impact either on their use of health care or their ability to consume basic necessities such as food and shelter. Studies have shown that not only does the demand for health services vary according to income per capita of different countries but also that the price of health services is a barrier of access to care by the poor. Therefore the use of health insurance to finance health services requiring the payment of premiums by the poor might have a deleterious effect on their welfare. The same applies to the imposition of co-payments, deductibles, or user fees that do not make provision for poor people.

Government subsidies for services that are not accessible to poor people or to people in some geographical areas also raise equity questions, especially in developing countries where the supply of basic services is not universally available. Government subsidies provided for medical care through "health insurance" schemes that cover only people employed in the formal sector and that are unavailable to the poor are a prime example. The same applies to government subsidies for medical services through "universal" health insurance, when large differences in the ratio of medical practitioners to population make geographical access to a doctor physically impossible for a significant proportion of the population.

### Public and Private Mixtures

**METHODS OF FUNDING.** The question of a single payer or a multitude of payers is important to consider because it has a bearing on the relative power of the parties involved when contracts are negotiated in a mixed system of public and private funding and delivery of health care services. It has been widely documented that oligopolistic situations, such as those prevailing in health services, may not lead to socially efficient production and equitable distribution in accordance with consumer choice. A single payer can be placed in a monopsonistic position to countervail the oligopolistic power of the producers. The monopsonistic position of the single payer may not, however, ensure an acceptable return to the supplier. To fulfill a socially acceptable role, the monopsonist must have social acceptance and legitimacy in acting in the public interest.

In countries where the government directly (for example, Canada and United Kingdom) or indirectly (for example, Japan and Germany) has used monopsonistic power, the single established payer has been able to keep overall costs of the system more in control than has been the case in the United States, where the share of GNP going to health services is nearly

twice as high as in these other cases. This tendency is reconfirmed by the findings in table 9-3. At the same time, the results of recent surveys on the extent to which people in a number of countries are satisfied with their health care services, the United States ranked well below other countries paying less for their health care (Blendon and others 1990). This finding suggests that the government's use of monopsonistic power to achieve certain cost containment objectives may not always be in conflict with other health sector objectives.

**OWNERSHIP AND CONTROL OF SUPPLY.** The discussion of public-private health financing has been often made more confusing by the lack of differentiation between the nature of the sources of funds for health services and the public or private ownership of the facilities that deliver services. The proportion of public and private funds used in the financing of health services varies considerably in the country case studies (table 9-4). Korea and the United States had the highest proportion of private sources, while the United Kingdom and Canada showed the highest proportion of public funds used.

Public funding can take the form of direct provision of services free of charge or subsidized services supplied either by public or private providers. There are often both public and private sources of service delivery. In the United Kingdom, for instance, free services are provided by public hospitals and private general medical practitioners on contract with the government, whereas in the United States there is a mix of both public (state, county, and veterans' hospitals) and private hospitals, as well as medical services provided by public clinics and private medical practitioners. Seldom is service provision either totally public or private. This usually follows historical developments and adaptation in an evolutionary process.

**CONTRACTS.** The mixture of public and private delivery of subsidized services implies the need for contractual arrangements between those providing the funds and those delivering services. The ability to negotiate and administrate contracts and mechanisms to resolve conflicting interests is an important feature of effective health financing schemes. This applies both to public and private sectors when the source of funds is different from the ownership of the means of service delivery. In addition and where relevant, the negotiation of fee-reimbursement methods, within the context of a socially defined budget constraint, and, assuming reimbursement occurs in a timely manner, implies the establishment of a relatively efficient and unbiased information system to process the millions of consumer-provider encounters throughout the country.

### *Allocation of Resources and Efficient Production and Distribution*

**MARKET MECHANISMS.** The appeal of perfect competition is that the invisible hand of the market resolves the basic questions for the economist that are also of importance from a social point of view. First, it enhances efficiency in the allocation of resources to meet different consumer wants. Second, goods and services are distributed in accordance with personal preferences. Third, it minimizes the cost of production by forcing suppliers to produce at the lowest cost to remain competitive in the market. However, perfect competition requires that a number of basic premises hold. If these are not met, then the market may not fulfill socially desirable functions. The oligopolistic nature of most health services is not supportive of the necessary premises, and therefore it cannot be assumed that the price mechanism or the invisible hand will ensure efficiency in the allocation of resources or the production of most health care services. Consequently, the question of efficiency becomes an empirical issue that should be the object of more intensive analysis and review. The



**Table 9-4. Shares of Public and Private Financing of Health (percent)**

<i>Country</i>	<i>Public</i>	<i>Private</i>	<i>Other</i>
Canada	76	27	n.a.
Germany	85	15	n.a.
Japan	60	27	13
Korea	33	67	n.a.
United Kingdom	85	15	n.a.
United States	42	58	n.a.

n.a. Not applicable.

Source: *World Development Report, 1993*.

relative efficiency of public and private facilities in the delivery of services is dependent not only on the nature of the health market but also on economic and management practices that vary from country to country. For instance, the organization of the public hospital system in Canada is substantially different from that in the United Kingdom and the United States, just as the organization of private sector medical services in Germany is considerably different from that in Canada.

It has been argued that private ownership of the means of delivering services allows for a greater degree of diversity and flexibility depending on scale and mode of operation. This can be a source of innovation and experimentation in the introduction of new technologies and management approaches. It also provides for greater diversity and choice in arrangements between providers and consumers. In addition, private ownership can also allow versatility in employment conditions and cope more easily with changes in affordability and the use of alternative quantities and type of health workers and complementary inputs. As can be observed from the U.S. case study, the predominance of the private sector did not ensure lower overall costs than in countries such as the United Kingdom and Canada, which have used a greater proportion of publicly owned facilities. Therefore, ownership of services delivery is only one of the factors in determining overall efficiency in resource allocation and production of services.

**ADMINISTRATIVE COSTS.** One of the determinants of efficiency is the cost of operating the financing scheme itself. In the case studies, countries costs vary from close to 5 percent to 15–20 percent. Therefore systems that do not require or can minimize collection costs have an advantage. This is the case in Canada and the United Kingdom, which use existing taxation mechanisms for the collection of revenues. The absence of specially established funds requiring separate administration or investment-making capacity also reduce costs in administration. They have the added benefit of avoiding the perils of differences between the time of collection of revenues and entitlement (as is the case in many social security-based schemes). The method of payment to suppliers of services also has a great impact on the costs of administration. Budgetary and capitation methods of payment are less costly to administer than fee-for-service and reimbursement schemes.

**RATIONING.** The allocation of resources for the production of health services and the rationing of the limited services produced takes place in all financing mechanisms studied. At issue here is the method used to ration. In most of the case studies presented, the rationing is done through the allocation of resources available on the supply side of public provision. In Canada, the location of hospital facilities and personnel is under the jurisdiction of the provincial governments. Sometimes the rationing is obtained by also imposing penalties for

inappropriate use via differential user charges. The private-provided systems tend to be rationed through the disposable income of different individuals and the oligopolistic practices of the suppliers. The two situations tend not to provide an optimum quantity of services in a market-defined way, and some potential consumers are left out. In both cases, the exclusions are a public policy issue.

## Conclusions

Many lessons can be drawn from existing experience in health financing. First, health financing policy is evolutionary in nature. The present tends to reflect the accumulation of past policy decisions, or even an absence of purposeful policy development, to meet often conflicting means and ends. Proposed changes need to take into consideration the constraints imposed by current practices and resources available.

Second, market mechanisms will not ensure either equity or economic efficiency, because of the characteristics of the health care market on both the supply and demand side, which suggest the presence of market failure conditions.

Third, health financing policy usually has three ultimate concerns: (a) equity and efficiency, (b) free price setting and consumer choice, and (c) budgetary constraints. Empirically, two of these can be achieved but success in all three has been elusive. Usually the pursuit of (b) conflicts with (a) and (c).

Fourth, health financing can be done through a variety of mechanisms, as illustrated by the diverse experiences of many countries: the instruments range from tax financing and health insurance premiums to user fees using dedicated institutions or existing ones adapted for the purpose. The private-public mix of ownership of the delivery system also varies. These arrangements represent choices and tradeoffs, but they usually have an impact on overall costs, consumer choice, income of providers, and access by the poor and the less well-off with chronic illnesses. They can also have an effect on innovation and the introduction and diffusion of new technology.

Fifth, the establishment of mechanisms and facilities to gather relevant information, contract, and manage a large number of transactions between providers and those financing such arrangements in an efficient manner are necessary in the implementation of health financing policy.

Sixth, in the absence of unlimited resources or a government or household budget constraint, it is inevitable that "rationing" of health services will take place. The question is whether the rationing process will be through market-determined prices that will give preference to people with larger incomes and neglect services that have public goods characteristics, or whether rationing will place more emphasis on the supply side by regulating the availability of services by budgetary means, through direct provision by the public sector or by subsidies and contractual arrangements with services provided either by public or private entities.

Finally, more work can and should be done to enrich the empirical bases available to policymakers. In view of the theoretical underpinnings and the actual nature of the health market, the data available from experiences in countries with a variety of health financing schemes should be analyzed to test hypotheses, assess consistency in the findings, and identify the characteristics of variables that have affected differences in the outcomes of various approaches. An example has been presented in this chapter. This type of research should provide an improved empirical basis to assist decisionmakers in the formulation of health financing policy. It would also greatly contribute to the public discussion of health financing, which is of increasing concern to the public.

## Notes

1. For analyses of OECD health expenditure information, see the 1989 and 1992 issues of *Health Care Financing Review*.
2. This number does not include all of the countries that have social security programs. In the most recent global survey of social security programs, more than 140 countries responded to the survey with information regarding their programs. See U.S. Department of Health and Human Services (1992).
3. Maternity coverage represents the dominant form of preventive benefit explicitly included in country specific benefit packages. Most do not indicate whether they also include immunizations, or other types of individually consumed preventive health services like physical exams.
4. In Eastern Europe, countries of the former Soviet Union, the Middle East, North Africa, and OECD, it is difficult to define precisely the extent of health insurance financing since the data are typically defined in terms of public and private spending rather than on an insurance program basis.
5. The only region in which an increase in the share was not recorded is Asia. There the rate of economic growth tended to be greater than the increased spending on health care. These regional shares are weighted by the size of the economies included in the tables so that the Asian figure is dominated by China and India, where GDP growth over the 1980s was high in relation to other countries and regions.
6. The regional information presented in table 9-2 is based on country-specific estimates. Regional population growth is based on a weighted average of the population growth in the countries included in each regional sample for which all data were available and weighted according to the 1990 population of each country. Assumed health sector price and health spending changes are weighted according to the size of GDP. Two alternative assumptions are made regarding health sector price changes. The first is that factor prices have been rising at the same rate as general inflation in each country. The alternative rate of price increase is assumed to be equal to the average rate of increase in health prices recorded in OECD countries relative to inflation as a whole. During the 1980s in OECD countries, health sector prices rose at 20.3 percent more rapidly per year than for all prices in the economy.
7. This type of analysis has been undertaken on a country-specific basis in the United States and other OECD countries for a number of years. For a more detailed specification of the methodology, see U.S. Office of Cost Estimates (1990). Utilization in table 9-2 is considered more as "intensity" of service use in the study referred to above and in other affluent country studies.
8. This discussion is based on the theoretical public finance discussions of Musgrave (1959) and Arrow (1963). This theoretical discussion has been cast in health terms by Blumstein and Zubkoff (1973).
9. There has been some theoretical work on the development of a particular type of demand revealing tax which could yield a market equivalent solution for the quantities of public goods of pervasive in the health field. However, there are many problems with implementing such a tax. See Edward Clark's article in Mushkin and Dunlop (1979).

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