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Financing health in high-income countries

The main lesson from the experience of high-income countries with health care financing is a simple one: financing reforms should support the ultimate goal of universal coverage. Most high-income countries started with voluntary health insurance systems, which were then gradually extended to compulsory social insurance for certain groups and finally reached universal coverage, either as nationwide social health insurance schemes or as tax-financed national health services. The risk pooling and prepayment functions are essential. Moreover, the revenue collection mechanisms, whether as general tax revenues or payroll taxes, are secondary to the basic object of providing financial protection through effective risk pooling mechanisms. The experience of high-income countries indicates that private health insurance, medical savings accounts, and other forms of private resource collection are supplementary methods for increasing universal coverage.

Low- and middle-income countries can draw six lessons from the experience of high-income countries:

- *Facilitate steady economic growth.* Most important for speeding up the transition to universal coverage is raising the level of GDP per capita. An increasing GDP per capita enables individuals and employers to make contributions or pay taxes to support the health system. As health preferences change as income rises, boosting demand for benefits, steady economic growth and its multiplier effects are needed to facilitate universal coverage.
- *Initiate pilot projects for voluntary health insurance.* The development of financing schemes seems to roughly follow a standardized path, beginning with voluntary health insurance, often in the form of community-financed schemes. Such pilot projects play a vital role in building public confidence in prepaid schemes. For example, voluntary health insurance clearly helped Germany and Japan develop skills in administering funds and provided skilled staff for the later introduction of compulsory schemes (Bärnighausen and Sauerborn 2002).

- *Foster administrative ability.* Evidence shows that ability to administer complex programs is essential for the survival of health financing schemes. In the Republic of Korea, the availability of well-trained middle-management administrators was instrumental in expanding the social health insurance system (Carrin and James 2004).
- *Ensure political commitment to expand population coverage.* Voluntary health insurance was usually followed by the introduction of compulsory social health insurance for certain groups. The experience of Germany and Japan shows that economic prosperity is not a precondition for this essential step, as both countries were still “poor” when compulsory social health insurance was introduced. The further development of financing schemes toward full coverage, however, does require economic development. It is striking that—after the introduction of social health insurance—most of the studied countries gradually integrated more and more groups, extending coverage from the employees of larger companies to those of medium-size and small companies as economic prosperity increased and the middle class started to grow (OECD 2003). The gradual expansion of coverage was essential in training administrators and staff. Whereas a formal sector—an achievement of economic growth—is relevant for the systematic expansion of social health insurance, a clear political commitment to expand population coverage is crucial, as Germany demonstrated.
- *Combine expansion of population coverage with risk pooling.* As coverage is expanded, reliance on small, fragmented risk pools (such as community schemes in each village) will be insufficient. Such small insurers are at high risk of insolvency, because their income and expenditures are unstable. Furthermore, the insured in those small pools are at high risk of paying inequitable premiums, because their health risks are unevenly distributed. These problems can be countered by increasing the size of each insurer (to more than a few thousand), by introducing reinsurance, and ultimately by introducing a more encompassing risk pooling mechanism, optimally including the total population. Such mechanisms can be initially relatively simple and administratively easy to handle.
- *Ensure evaluation of products and services at each stage.* No matter how small the initial budget for health care, it should include a system to evaluate the effects of the products and services financed. Only technologies that have proved their effectiveness under the circumstances of the particular countries should be included in the benefit package.

Main reform trends in high-income countries

This chapter defines high-income countries as having a per capita gross domestic product (GDP) of more than \$16,000 in purchasing power parities. That encompasses all established market economies within the Organisation

for Economic Co-operation and Development (OECD), except for Mexico, Turkey, and the countries of Central and Eastern Europe, and including Singapore. These 25 countries include 18 within Europe (the EU-15 countries plus Iceland, Norway, and Switzerland), 2 in North America (Canada and the United States), and 5 in East Asia and the Pacific (Australia, Japan, the Republic of Korea, New Zealand, and Singapore). Countries are divided into three groups on the basis of their main mechanism of health care financing (table 9.1). Where appropriate, the degree of private financing as a percentage of total health expenditure is also used for groupings.

Since the late 1970s, much political and scientific attention in high-income countries has focused on the “financial” aspects of their health care systems. This attention has been driven by concern for containing costs and, to a lesser degree, increasing efficiency. At the same time, health care systems were substantially—albeit often publicly less visibly—reformed in pursuit of nonfinancial objectives, such as greater coverage and comprehensiveness, to increase access and equity.

Most notably, Australia (in 1975), Portugal (1978), Ireland (1980), Greece (1984), Spain (late 1980s), and Korea (1989) introduced mandatory universal

TABLE 9.1 High-income country groups by health financing mechanism, 2002

Mainly tax-financed systems	Systems financed mainly through social security contributions	Mixed, mainly private financing
High public share (more than 70 percent)		
Denmark	Belgium	
Finland	France	
Iceland	Germany	
Ireland	Japan	
Italy	Luxembourg	
New Zealand	Netherlands	
Norway		
Spain		
Sweden		
United Kingdom		
Relatively high private share (more than 30 percent)		
Australia	Austria	Greece
Canada	Korea, Rep. of ^a	Singapore
Portugal	Switzerland	United States
13 countries	9 countries	3 countries

a. Strictly speaking, private expenditure constitutes a majority of the total, but due to the dominance of the social security mechanisms in its whole health care system, Korea has been grouped here.

coverage. Belgium (1998) and France (2000) followed by extending their social health insurance systems to parts of the population that were still uninsured because of the prevailing principle of present or past professional status as the basis for sickness fund enrollment.

The most important expansions of coverage occurred in long-term care, as in Austria (1993), Germany (1996), Luxembourg (1998), and Japan (2000). Developments differed for dental care and pharmaceuticals; some countries restricted coverage in these areas, whereas others included them.

The organization of pooling and purchasing arrangements has seen changes in many high-income countries. Pooling has generally—at least in social health insurance countries—become more centralized, while purchasing—at least in most tax-financed systems—has generally become more decentralized. Social health insurance systems pursued this road to achieve more equity among their often small and fragmented sickness funds, often further burdened by very differing risk structures. In some countries, such centralization was combined with both more state intervention (into the pooling mechanism and the allocation formula) and free choice among sickness funds for those insured. In tax-financed countries, decentralization of the purchasing function is thought to increase accountability to the public, as well as the efficiency of care provision (and, in some countries, choice of provider). Whether this decentralization of purchasing—and concurrently provision of services—will be followed by similar trends on the collection and pooling side is subject to debate—most notably in Italy.

In addition to spending controls through budgets or caps, cost containment efforts have included increased reliance on out-of-pocket payments by patients at the point of service, albeit not in all countries. Such payments can be regressive and are not considered to be clinically appropriate tools for moderating demand, but they can increase allocative efficiency if carefully designed. For example, a copayment scheme with income limits, recently introduced in Germany, led to significantly less physician contacts without discouraging either low-income groups or persons with bad health. As the importance of copayment mechanisms grows, policy makers are increasingly aware of their problems of regressivity. In the Netherlands, for example, dental care for adults was excluded, then partly reintroduced out of fear of uncovered parts of the population—but then again excluded. In Japan, the last big increase in coinsurance rates from 20 to 30 percent in the employees' health insurance in April 2003 was politically sold as increasing equity, because the national health insurance rate was already at that level. At the same time, policy makers added a clause to the law that cost sharing would never exceed that level.

Coverage decisions and benefit entitlements

Coverage entails the extent of the covered population, the range of covered services, and the extent to which costs of the defined services are covered by prepaid finances rather than cost-sharing requirements. The aspiration of fulfilling these

three dimensions of coverage as completely as possible can be best described by the founding principles of the British National Health Service in 1948: “universal, comprehensive, and free at the point of delivery.”

Who is covered?

Improving access to health care services has been a fundamental objective of health policy making in OECD countries in the past 30 years. With the exception of the United States, all countries reviewed here had achieved universal or nearly universal coverage of their populations in the 1990s (Docteur and Oxley 2003). The criteria for entitlement to coverage differ markedly among social health insurance countries, tax-financed countries, and countries where a large part of health care is financed through private health insurance or medical savings accounts.

Social health insurance system countries. Because historically social health insurance systems are work-related insurance programs, universal coverage was not their original intention. Although coverage has been gradually expanded to non-working parts of the population in all social health insurance countries, universal coverage is a recent phenomenon. Switzerland achieved universal coverage in 1996, Belgium in 1998, and France as late as 2000. A notable exception in Europe was the Netherlands, which introduced its long-term care insurance (AWBZ) on a full-population basis as early as 1968. Even earlier, the Japanese social health insurance system achieved universal coverage with an amendment of the 1938 National Insurance Act in 1961. Since then, membership in one of the 5,124 sickness funds (as of 2002) is compulsory for the entire population.

The government of the Republic of Korea introduced social health insurance in 1976 to relieve the excessive burden of household medical care expenses and to promote the health of its population. Initially, all companies with more than 500 employees were required to offer health insurance to their employees. Over the years, this obligation was gradually extended to companies of ever smaller size, reaching those with only five employees in 1988. At the beginning of the 1980s, insurance coverage was also gradually expanded to government and private school employees and the self-employed, including employees in companies with fewer than five employees. Universal coverage was thus achieved in 1989, when the urban self-employed were incorporated into the scheme (OECD 2003). At the end of the 1990s a convergence process started, leading in 2000 to the formation of the National Health Insurance Corporation which absorbed all 139 employee health insurance societies (OECD 2004a).

Tax-financed system countries. In contrast to most social health insurance countries, where the goal of universal coverage has been stated fairly recently, universal coverage has been a central feature of countries with tax-financed models. In New Zealand the main policy objective to provide “free care for all” dates to 1938. The

United Kingdom followed with the creation of its national health service in 1948. With the establishment of the Medicare Program in 1984, Australia reestablished a mandatory insurance scheme to obtain universal coverage (which had been introduced as Medibank in 1975, but which was then diluted through the subsequent addition of an opt-out option) (Hilles and Healy 2001).

In Northern European and Australasian tax-financed health care systems (such as in the United Kingdom, Australia, New Zealand, and the Scandinavian countries), entitlement to health care services is based on residence, independent of citizenship. The population not covered in these countries is accordingly very small and limited basically to illegal immigrants. Universal coverage is a more recent phenomenon in Southern European tax-financed countries, but by 2002 all countries with a national health service in Southern Europe had also achieved nearly universal coverage.

Italy introduced a national health service with the objective of universal coverage in 1978. Before 1978, 93 percent of the population was covered by public health insurance, although under markedly varying conditions. The 1978 reform changed the principle of health care financing: solidarity within professional categories was discarded in favor of intergenerational solidarity, which backed the introduction of universal, free coverage for all Italian citizens. Non-Italian residents were at first not included under this legislation. Since 1998, however, legal immigrants have had the same rights as Italian citizens. Measures were also taken to provide some care to illegal immigrants, who now have access to a limited range of health care services, in particular to treatment for infectious diseases and health care schemes for babies and pregnant women (Donatini and others 2001).

In Spain, access to health services is through ownership of an individual electronic health card (TSI). Since 2001, the TSI has been available for citizens and foreign residents. There is no difference between Spanish citizens and migrants, even if they are considered "illegal." A new initiative in Catalonia has broadened the group of migrants owning a TSI, irrespective of their legal status, thus enabling them to access the public health networks. By offering information about services included in the TSI and facilitating access, Spain's strategies for reaching marginalized populations will make coverage almost universal (Velasco Garrido and Busse 2005).

In Portugal, in addition to the national health service, which covers 83.5 percent of the population, private insurance schemes cover an additional 10 percent, and mutual funds cover 6.5 percent. Generally, the benefits received under private insurance or mutual fund schemes exceed those provided within the national health service. However, in both subsystems employer and employee contributions are often insufficient to cover the full costs of care, and consequently a significant proportion of costs are shifted onto the national health service. If enrollees in these funds do not declare their membership when receiving treatment within the

national health service, the funds are exempted from responsibility for the full costs of the members' care. The relationship between the national health service and the subsystems was explicitly addressed by legislation in late 1998. Under an "opting-out" scheme, financial responsibility for personal care in the national health service could be transferred to public or private entities through a contribution established in a contract with the Ministry of Health (Bentes and others 2004).

In the U.S. health system, individuals are insured through a variety of schemes: employer-sponsored insurance, individual (nongroup) insurance, Medicare, Medicaid, the State Children's Health Insurance Program, and coverage offered by the military and the Veterans Administration. In 2002 an estimated 43.6 million people, 15.2 percent of the U.S. population, had no health coverage during the entire year (U.S. Census Bureau 2003). Health insurance coverage in the United States is more dynamic than in countries with less fragmented health systems because, for most people, it is closely linked to individual employers who negotiate and take out group insurance plans for their employees. This means that many people are uninsured, at least for part of the year (CBO 2003).

In summary, all high-income countries reviewed have achieved nearly universal coverage independently of the financing mechanism—with the exception of the United States. The difference in the speed of attaining universal coverage is linked to the choice of financing mechanism. In Northern European and Australasian tax-financed systems, universal coverage was a political goal from the start in the 1930s and 1940s, whereas in European social health insurance systems, universal coverage developed gradually over the past 100 years, and even the political discussion about universal coverage in these countries is fairly recent. Southern European tax-financed systems take an intermediate position. They have in common rapid economic growth in the second half of the twentieth century, paralleled by an expansion of tax-financed health coverage or, in Spain, by a shift from a fragmented social health insurance system to a tax-financed system. Likewise, Japan expanded coverage under its social health insurance system during a phase of rapid economic growth in the 1960s. Korea expanded coverage the fastest, increasing coverage from 15 percent to 100 percent within 10 years, again during a period of economic growth. This rapid expansion was facilitated by initially relatively high copayment levels and limited benefits.

The other crucial factor for attaining universal coverage is political will: clear legislation, either at the set-up or gradually to fill in coverage gaps, to achieve universal coverage. Such political will is best exemplified by recent Italian legislation that addresses health care for illegal immigrants. The United States, despite several attempts (most recently during the Clinton administration), has no political consensus to achieve universal coverage—a high-income country with sustained economic growth and no major changes in coverage levels over the past 30 years.

What is covered?

Social health insurance system countries. A central characteristic of social health insurance systems is the definition of the benefits to which the insured are entitled (Gibis, Koch-Wulkan, and Bultman 2004). This characteristic was recently reinforced in 2001 in the Netherlands, when a court ruled that entitlements (in this case, in AWBZ) had to be guaranteed irrespective of their costs. The contents of the benefits basket, as well as the processes applied to define them, range from a list of benefits decreed by law (as in the Netherlands) to negotiations between sickness funds and providers (as in Germany). Among the notable differences in contents are the inclusion of benefits outside acute curative care, especially health promotion measures and long-term care. For example, Germany introduced a separate social care insurance scheme to cover ambulatory long-term care in 1995. This scheme was rapidly expanded to cover institutional care in 1996.

Historically, European social health insurance systems, initially set up to regain and maintain the productivity capacity of diseased workers, focused on insuring curative hospital and ambulatory care (Kupsch and others 2000). To this day, preventive services are offered to a lesser extent by the social health insurance systems, compared with the British or Scandinavian tax-financed systems (McKee, Delnoij, and Brand 2004).

There are at least two ways to enhance the supply of preventive services in social health insurance schemes with multiple sickness funds. First, collective health services could be kept separate from the social health insurance scheme, as in the case of mammography in the Netherlands, where such services parallel the main social health insurance scheme. Second, incentives could be provided for sickness funds to invest in the future of their insured by offering certain prevention programs. Some social health insurance countries regulate preventive services by law. Germany, for example, has chosen to enhance preventive activities by direct regulation in a social health insurance system. Apart from enhancing public supply, increased use of preventive services can be stimulated through financial incentives for individuals. Bonus payments or similar instruments can be offered by sickness funds to increase the use of preventive services (for example, in Germany certain copayments can be lifted if individuals can prove they have made use of preventive services).

In almost all European social health insurance countries, ambulatory health care is provided by physicians operating mainly on a fee-for-service basis (Gibis, Koch-Wulkan, and Bultman 2004). Consequently, benefits catalogues had to be introduced—primarily as fee schedules. However, fee-for-service payments have evolved into quite elaborate remuneration schemes in some countries or have been limited to certain groups of doctors.

Hospital care is usually organized in a decentralized way, and hospitals have a high degree of autonomy. Benefits catalogues for hospital care are rare. Some

social health insurance countries, such as France, Germany, and Switzerland, are implementing diagnosis-related group (DRG) payment systems. These systems could subsequently lead to benefits catalogues that list all approved interventions grouped around diagnoses. The government's role in defining such in-patient benefits catalogues is likely to be greater than its role in ambulatory care (Gibis, Koch-Wulkan, and Bultman 2004).

Coverage of pharmaceuticals differs considerably among the European social health insurance countries. In some countries, such as Germany or Switzerland, licensure by the European Medicines Evaluation Agency or the national equivalent allows reimbursement in the social health insurance system; other countries, such as France and the Netherlands, have established positive lists of covered drugs. This also applies to the amount of coverage. Dental coverage has been reduced or restricted (despite the technical progress in this field) in almost all European social health insurance systems (Kaufhold and Schneider 2000).

Tax-financed system countries. In most European tax-financed systems, benefits catalogues are not explicitly defined. For example, in the United Kingdom, the secretary of state for health is legally required to provide services "to such extent as he considers necessary to meet all reasonable requirements" (1977 Act). The secretary's duty is to arrange for practitioners to provide an acceptable level of service for the resident population. What constitutes an acceptable level of service remains vague, however.

Among Southern European tax-financed countries, Spain introduced the first explicit benefits catalogue in 1995. A list of benefits guaranteed by the public health system was drawn up under a royal decree, which maintained the benefits already available within the system and made those services universal (Rico, Sabes, and Wisbaum 2000). A number of services have been specifically excluded from the benefits catalogue, including psychoanalysis, sex-change surgery, spa treatments, cosmetic surgery, and all but the most basic dental care. In practice, however, the royal decree has never been fully implemented. Following regionalization of the national health service in January 2002, regional variations in covered benefits became more obvious: some regions cover dental care, whereas others have a smaller negative pharmaceutical list (cover drugs more generously).

In contrast to most European systems and the New Zealand tax-financed system, the Australian health system has an explicit benefits catalogue called the Medicare Benefits Schedule, which is constructed using an evidence-based approach. The Medicare Benefits Schedule sets out a schedule fee for medical services for which the commonwealth government will pay medical benefits. Covered items include consultation fees for doctors and specialists, radiology and pathology tests, eye tests by optometrists, and surgical and therapeutic procedures performed by doctors. Medicare does not cover dental treatment, ambulance services, home

nursing, physiotherapy, occupational therapy, speech therapy, chiropractic and podiatry services, treatment by psychologists, visual and hearing aids and prostheses, medical services that are not clinically necessary, and cosmetic surgery (Hilles and Healy 2001).

In the United States, covered benefits vary widely across private health insurance plans—from the most basic to luxury care—depending on the level of premium and the employer. Medicare is the main insurance program for the population above 65 years old (as well as for the disabled and those with end-stage renal disease); it covers approximately 41 million people. The Medicare Coverage Database contains a detailed list of all benefits included on a national and a state-by-state basis. This list is continuously reviewed and amended. For example, the Medicare law (effective since January 1, 2005) expanded coverage to diabetic screening services, and the benefits catalogue had to be amended accordingly (for example, home blood glucose testing had to be added to the catalogue). The most important change in recent years was the inclusion of prescription drugs in the 2003 Medicare Modernization Act, which took effect in January 2006. Reimbursement is through a complex payment structure that covers an initial portion of drug costs, then includes a significant gap in coverage, and later picks up the costs of catastrophic drug coverage at a defined level.

Summary. Most tax-financed health systems do not have a defined benefits catalogue, whereas most social health insurance systems, which have fee-for-service payment mechanisms to remunerate providers, do. Lack of defined benefits leads to implicit addition of new services or technologies to the national health service benefits catalogue during the commissioning process, which can vary among geographic areas. The result can be what is called “postcode prescribing” in the United Kingdom. Such prescribing is considered to be inequitable. Most social health insurance systems need an explicit mechanism to include new technologies or to exclude those thought to be ineffective or inefficient from the explicit benefits catalogue. Inclusion and exclusion decisions are often difficult to make because good evidence is sparse and often costly to develop. Moreover, such decisions are subject to the threat of lawsuits by industry. Thus, many countries have set up capacity-building programs, such as the United Kingdom’s national health service research and development evidence-base research program, and new agencies for health technology assessment to guide decision makers (Velasco Garrido and Busse 2005).

Paying for health services

All countries under review require some form of cost sharing from individuals. However, the amount of out-of-pocket payments for health services in high-income countries varies widely. In Europe, cost sharing has not followed a consistent trend from 1980 to 2001 (table 9.2). While in many countries cost sharing has increased during this period, it has decreased in others, such as in Ireland and the

TABLE 9.2 Share of out-of-pocket and voluntary health insurance payments in total health expenditures in 12 European countries, 1980–2001

Country and type of payments	1980 (% of total health expenditures)	1999–2001 (% of total health expenditures)	Percentage point change, 1980–2001
Austria			
Out of pocket	—	28.0	—
Voluntary health insurance	—	2.0	—
Belgium			
Out of pocket	—	19.0	—
Voluntary health insurance	—	—	—
Denmark			
Out of pocket	11.4	16.4	+5.0
Voluntary health insurance	0.8	1.6	+0.8
Finland			
Out of pocket	17.8	20.2	+2.4
Voluntary health insurance	0.8	2.0	+1.2
France			
Out of pocket	—	10.6	—
Voluntary health insurance	—	12.7	—
Germany			
Out of pocket	8.1	11.0	+2.9
Voluntary health insurance	7.4	7.7	+0.3
Greece			
Out of pocket	—	41.4 ^a	—
Voluntary health insurance	—	3.2	—
Ireland			
Out of pocket	14.3	9.1	–5.2
Voluntary health insurance	3.5	6.4	+2.9
Italy			
Out of pocket	—	22.0	—
Voluntary health insurance	—	0.9	—
Netherlands			
Out of pocket	7.0	6.3	–0.7
Voluntary health insurance	24.0	14.0	–10.0
Spain			
Out of pocket	21.3	22.0	+0.7
Voluntary health insurance	2.9	6.0	+3.1
Sweden			
Out of pocket	—	16.0	—
Voluntary health insurance	—	—	—

Source: Adapted from Thomson, Mossialos, and Jemai 2003 on the basis of national statistics.

— is not available.

a. Including an estimated 16 percent in informal payments.

Netherlands. Outside of Europe, New Zealand saw a steep rise in out-of-pocket payments between 1980 and 1999, from 10 to 16 percent of total health expenditure, corresponding to a 6.2 percent yearly increase in real terms (French, Old, and Healy 2001).

All high-income countries reviewed here levy some form of user charges and have significant out-of-pocket payments. With the exception of Austria, Greece, and the United States, however, out-of-pocket payments represent less than 22 percent of total health expenditure and often less than 10 percent. There is no clear trend in tax-financed or social health insurance systems toward increases or decreases in cost sharing, and a great variety of cost sharing and protection mechanisms are employed. Decisions on the extent and type of cost-sharing mechanism seem more often guided by political opportunism than by rational arguments regarding technical efficiency (Thomson, Mossialos, and Jemai 2003; Gericke, Wismar, and Busse 2004).

Collection of funds

The total amount of resources collected is usually not available in international databases. Health expenditure is most often used instead, although the amount of resources collected is in many cases higher. National health service countries are often claimed to be more successful in cost containment and therefore are thought to collect fewer resources, but Greece, Iceland, Norway, and Portugal are among the countries with the highest increase in health expenditure as a percentage of GDP. High economic growth rates contributed to low or even decreasing shares of health expenditure as a percentage of GDP in the Republic of Korea, Singapore, and Ireland. Norway and the United States, with similar high economic growth rates, have experienced large increases. Thus, health expenditure and the amount of resources collected in each country obviously depend on the individual preferences of each country.

Sources of financing

High-income countries rely mainly on individuals, firms, and corporate entities as sources of health care financing and to a very small extent on nongovernmental organizations or charities. It is generally difficult to determine the exact amount firms or corporate entities contribute to health financing, especially regarding tax payments for general revenue. However, in countries that finance their health expenditure mainly by social health insurance, the ratio of contributions of employers to those of employees provides some information on the employers' contribution as a source of financing. There is a slight trend in certain social health insurance countries toward shifting a portion from the employers' contribution to the employees' contribution, as in Germany and the Netherlands. However, a systematic change in the financing ratio could not be identified across countries over the past 30 years.

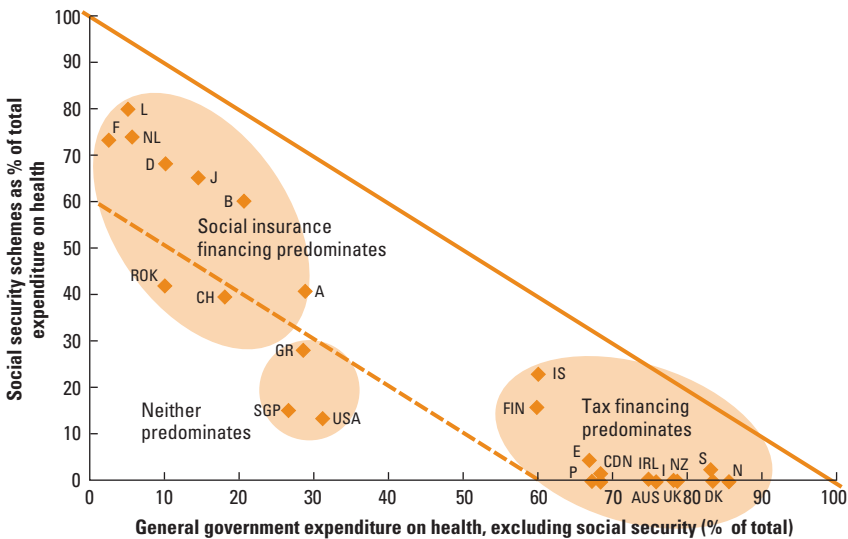
Financing mechanisms

Apart from the United States, all of the countries examined derive the main part of their health care resources either through social security contributions (or similarly termed social health insurance arrangements) or through direct and indirect tax payments in national health services. Currently 9 of the 25 countries studied finance their health care system mainly by social health insurance contributions, while 13 countries use mainly tax payments (figure 9.1). Singapore¹ and the United States fit neither of these classifications, since they finance more than half of their health expenditure through other mechanisms, such as voluntary insurance premiums and out-of-pocket payments. Nor does Greece, where private expenditure finances slightly less than 50 percent of the total, and neither of the two main public financing mechanisms dominates.²

The relative importance of the various financing mechanisms has changed somewhat in most countries since 1975. However, in only 9 of 23 countries (data were not available for Belgium and Greece) did the relative importance of one of the two main public financing mechanisms change by more than 5 percentage points.

Compulsory social health insurance contributions. Eight of the nine countries that predominantly rely on compulsory social insurance contributions can look back on years of experience with social health insurance. Korea represents a special

FIGURE 9.1 Share of tax and social health insurance revenues in total health expenditures in high-income countries, 2002



Source: OECD 2004a or national data.

Note: A = Austria; AUS = Australia; B = Belgium; CDN = Canada; CH = Switzerland; D = Germany; DK = Denmark; E = Spain; F = France; FIN = Finland; GR = Greece; I = Italy; IRL = Ireland; IS = Iceland; J = Japan; L = Luxemburg; N = Norway; NL = Netherlands; NZ = New Zealand; P = Portugal; ROK = Republic of Korea; S = Sweden; SGP = Singapore; UK = United Kingdom; USA = United States of America.

case, since it moved from a predominantly privately financed system with taxes as the second most important financing mechanism in the 1970s to a system based to a considerable degree on compulsory social health insurance contributions. As in many other countries, such as Germany, social health insurance in Korea started with a small scheme for industrial workers in 1977 and was gradually extended to other population groups. In 2002, 42.2 percent of total health expenditure was financed by compulsory insurance contributions.

The main part of the collected health care resources in countries with social health insurance is raised through wage-related contributions, which are shared between employers and employees. Nonetheless, arrangements differ among countries, and changes have taken place over the past three decades.

All insured, regardless of their sickness fund and membership status, contribute at a uniform rate in Belgium, France, Korea, Luxembourg, and the Netherlands. In Austria, as of 2003, rates varied between 6.9 percent and 9.1 percent, according to employment status but not between funds. In 2004, a reform equalized contribution rates among different employment groups. In Japan, rates differ according to employment status, and in the municipal health insurance scheme rates also differ among sickness funds of each municipality. In Germany, the contribution rates differ among funds but not by employment status. Germany is also the only country (since 1996) that uses the variability of contribution rates among sickness funds as a parameter for competition among funds. However, in Switzerland differing per capita premiums are used in a similar way.³

In Belgium and the Netherlands, a nonincome-related per capita premium on top of the contributions was introduced in the 1990s. Premiums differ among sickness funds in the Netherlands, but have remained mostly uniform in Belgium. Like the contribution rate in Germany, this mechanism allows varying contributions among sickness funds to be used as a parameter for competition among them. In contrast, in France and Korea, nonwage-related components were introduced to enlarge the financial base for sickness funds and thus increase overall revenue. In addition, contributions became less vulnerable to wage and employment fluctuations (Sandier and others 2004). Since 1998, France has replaced the solely wage-related contributions of employees with a general social contribution of 5.25 percent that, apart from wages, also includes such nonwage-related income as capital gains and interest; 3.25 percent is charged on benefits and allowances.

Direct and indirect taxes. Spain and Iceland have moved away from social health insurance and managed the transition to tax payments as the main financing mechanism (box 9.1). In both countries this change was motivated by the perception that the tax payment mechanism was less regressive, although social health insurance contributions, if designed appropriately, might have achieved a level of progressivity similar to that achieved in Spain, which transformed its system from a regressive one in 1980 to a neutral one in 1990.

BOX 9.1 *The transition from social health insurance to tax financing in Iceland and Spain*

In Iceland, more than 60 percent of health expenditures were financed by flat-rate insurance contributions to sickness funds until 1972. Because these contributions were perceived to be too regressive and because health expenditures were rapidly rising, it was decided to shift to tax payments. In the transition period from 1972 to 1989, sickness funds were retained but received their funding completely from tax payments, 80 percent from the state and 20 percent from local governments (Halldorsson and Bankauskaite 2003).

Spain also relied mainly on social health insurance contributions. In the mid-1970s, the

social health insurance contributions made up about two-thirds of total health care expenditures, and tax payments covered the rest. In 1986 the introduction of a national health service initiated a major shift toward tax funding. By 1989 the previous pattern was reversed for the first time; tax payments constituted 70 percent and social health insurance contributions dropped to about 30 percent of the total. Throughout the 1990s, the role of social health insurance contributions has been steadily decreasing (Rico, Sabes, and Wisbaum 2000).

In contrast to Spain and Iceland, Finland decreased the level of tax financing, which led to a relative (albeit minor) increase in the percentage of social security contributions. The share of tax payments decreased from 66.1 percent of total health expenditure in 1975 to 59.7 percent in 2002, while social security contributions increased from 12.6 percent in 1975 to 15.9 percent in 2002 (Järvelin, Rico, and Cetani 2002). Canada and Norway experienced even more dramatic slashes in the share of taxes in health expenditures in favor of more private financing mechanisms. However, this development did not reflect a decrease in available taxes (as in Finland), but rather a massive cut in health spending from general revenue, revealing the vulnerability of tax payments to changes in political priorities.

Instead of getting resources for health from general revenue, some suggest earmarking taxes for health expenditure, a move not even undertaken in countries whose health expenditures are mainly tax financed (though in the case of Sweden it could be argued that provincial taxes are de facto earmarked as the vast majority are used for health care). Instead, earmarked taxes have been introduced as a source of complementary financing in countries with mainly social security financing: in France, 3.3 percent of the total health revenue is raised as earmarked taxes on car usage, tobacco, and alcohol consumption. In addition, the pharmaceutical industry is required to pay an earmarked tax on advertising, accounting for 0.8 percent of total health revenue (Sandier and others 2004).

Voluntary insurance premiums. Voluntary health insurance can be classified into various forms that, depending on the definition, partly overlap: *substitute health insurance* as an alternative to statutory schemes; *supplementary health insurance* to cover services not included in the benefits basket of statutory schemes and to

provide superior amenities; *duplicate health insurance*, which provides people already covered by a given public health system with private alternative coverage for the same sets of services, often furnished by different providers; and *complementary health insurance* covering copayments or deductibles applicable to public health systems (OECD 2004b).

Small markets for supplementary health insurance occur in all included countries, but Canada represents a special case because 65 percent of its population is covered by this kind of voluntary health insurance. Voluntary health insurance is allowed to cover only services not covered under the public system. Such additional benefits include mainly drugs and certain dental services, long-term care, rehabilitative care, and home care. Switzerland is by far the largest market for supplementary voluntary health insurance (OECD 2004b).

Duplicate voluntary health insurance is typically available in countries with tax-financed national health services, where amounts or quality of publicly provided health services are perceived to be insufficient or inappropriate. The main drivers are the length of waiting lists and the desire to choose providers. Large parts of the population are covered by duplicate voluntary health insurance in Australia (more than 40 percent), Ireland (also more than 40 percent), and New Zealand (35 percent) (OECD 2004b). While the share of voluntary health insurance increased in New Zealand over the last decade, it decreased in Australia, perhaps because of improved public services, among other factors. However, the Australian government has repeatedly tried to reverse this decline in voluntary plans (box 9.2).

Many high-income countries have markets for complementary voluntary health insurance; France and the United States (Medicare only) are the most relevant cases. In France, voluntary health insurance is purchased to cover coinsurance rates ranging from 20 percent for in-patient treatment and 30 percent for

BOX 9.2 *Tax subsidization of duplicate private health insurance in Australia*

Since 1997 in Australia, individuals receive a tax-subsidized rebate of 30 percent on health insurance premiums, and out-of-pocket payments have been increased for persons using medical services in private hospitals. In 2000, lifetime coverage was introduced, and private health insurers are allowed to vary premiums for persons older than 30, according to age at entry, to provide financial incentives for joining a voluntary health insurance plan before the age of 30. These measures aim mainly at bringing more people into private health

insurance to relieve the pressures on the public system (Busse and Schlette 2003; Colombo and Tapay 2003). Although population coverage in voluntary health insurance increased from 31 percent in 1996 to 45.3 percent in 2001 after those measures were introduced, it is questionable whether the whole strategy has been very successful. Health expenditure rose even faster in the second half of the 1990s than it had before (from 8.5 percent to 9.0 percent of GDP between 1995 and 2000).

physician fees to 65 percent for certain drugs (OECD 2004b). The main motivation is therefore to limit the financial risk posed by high utilization of services. This kind of insurance, which increased over the last decade, accounts for most of the large per capita spending on private health insurance.

Medical savings accounts. The medical savings account, first developed in Singapore in the 1980s (box 9.3), has also been adopted in the United States. Unlike in Singapore, the objectives in the United States are cost containment and expansion of insurance coverage to include the uninsured (15 percent of the population). Medical savings accounts serve primarily to finance a high deductible in order to reduce premium payments. Medical savings accounts were tested during the 1996–2003 period in a pilot project for a limited sample of insured persons (750,000 accounts) in the private health insurance market. Depending on the insurance contract, either the employer or the employee was allowed to make tax-exempt payments into medical savings accounts within a given year. The payment of interest on capital stocks accumulated in accounts was a matter for the individual insurance companies to decide (Public Law 104-191, August 21, 1996). Although 4 of 10 participants had not previously been insured (U.S. GAO 1998), total

BOX 9.3 *Health financing with medical savings accounts in Singapore*

In 1984 Singapore introduced a system of medical savings accounts, called Medisave. Every employed citizen is obliged to pay a 6–8 percent share of income—according to age—into an individual account managed by the state. Funds in the accounts are invested in the capital market by the government, and interest is paid at the current market rate (Asher 2002). Savings in the individual medical savings account can be used to pay for hospital costs and certain selected out-patient costs approved by the state in a catalogue of services. This system was supplemented by a high-risk health insurance scheme (called Medishield), which is paid from contributions depending on age and which can be financed from individual medical savings accounts. Medishield is intended to finance both expensive hospital treatments and out-patient treatments for chronic diseases. In addition, a fund (called Medifund) is used to

support low-income individuals who do not have a medical savings account or who are unable to set aside sufficient savings. Medifund is financed by the state from general taxes.

Implementation of the system of medical savings accounts is not yet complete, because the generation entering into retirement before 1984 was not able to accumulate capital stocks and is therefore financed by family members or by state assistance. For this reason, full implementation will not be achieved until 2030. Apart from medical savings accounts, the low share of health expenditure (3.7 percent of GDP in 2002) may also be attributable to the young population and an incentive scheme of hospital classes. However, several studies indicate that the medical savings accounts have at least made a considerable contribution to this low share (Prescott and Nichols 1998; Schreyögg and Lim 2004).

participation was low: the number of accounts was estimated at 150,000, perhaps because of restrictive legal conditions (Bunce 2001). There is still not enough empirical research for rigorous evaluation of the experimental period.

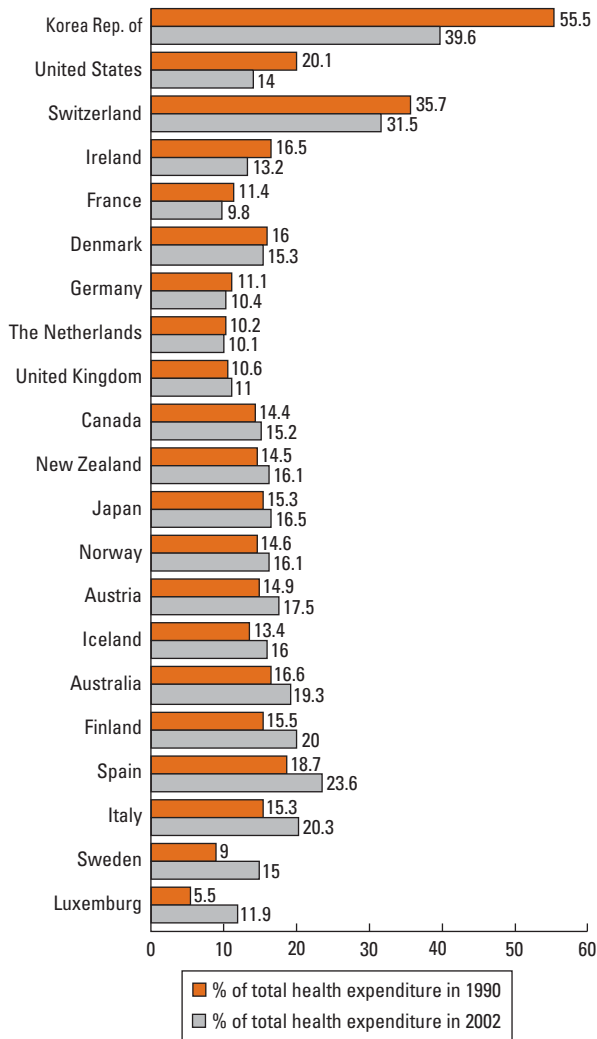
Although the pilot project was not extended after it ended in 2003, the Bush Administration introduced a new scheme of medical savings accounts, effective on January 1, 2004, for Medicare beneficiaries. According to this scheme an unlimited number of people who are eligible for Medicare are allowed to choose a policy with a minimum deductible of \$1,000 for singles and \$2,000 for families in combination with medical savings accounts. Employers of all sizes can offer these programs to their employees, but they must be approved by the Medicare program. They are funded by pretax payroll contributions or employer contributions. The idea behind it is that Medicare beneficiaries are able to pay for their “qualified expenses” (such as prescription drugs and doctors’ fees), which are not covered or not sufficiently covered by Medicare (Schreyögg 2004).

Various forms of out-of-pocket payments. The introduction of out-of-pocket payments can have merely a financial effect, shifting costs to relieve public financing schemes from cost containment pressure, or they can have an additional behavioral effect, preventing moral hazard (using unnecessary services because they are free or heavily subsidized). For high-income countries, there is evidence from a number of studies in the United States and Europe that out-of-pocket payments, especially copayments, coinsurance, and deductibles, can have the desired effects—if carefully designed (Zweifel and Manning 2001) and if the majority of the population does not have voluntary health insurance to cover these costs. Crucial points for the success of those instruments are the amounts raised and the equity of financing. However, apart from out-of-pocket payments, there are also other ways to direct health resources into the most effective utilization.

Between 1990 and 2002, the five countries with the highest increase in the share of out-of-pocket payments are all European countries (figure 9.2). With the exception of Luxembourg (which had very low out-of-pocket spending in 1990), these countries have predominantly tax-financed health systems. Three of them (Finland, Italy, and Spain) are now among the top five (behind Korea and Switzerland) in out-of-pocket payments as a percentage of total health expenditure. In contrast, countries with a relatively low share of public expenditure (Korea, Switzerland, and the United States) largely reduced their share of out-of-pocket payments. This might be interpreted as a trend toward convergence of countries with high and low shares of out-of-pocket payments as a percentage of total health expenditure.

Organizations collecting resources

Among the social health insurance countries, there is great variety in the types of organizations collecting resources for health care. Sickness funds collect resources

FIGURE 9.2 Changing share of out-of-pocket payments in total health expenditures in high-income countries, 1992 and 2002

Source: OECD 2004a.

directly in Austria, Germany, Japan, Korea, and Switzerland, for example. Other types include associations of funds (Luxembourg), special agencies under government control (Belgium), and the tax authorities directly (the Netherlands) (Busse, Saltman, and Dubois 2004).

There have been changes in collecting organizations in tax-financed systems in the past few years. In Italy and Spain, regional or local governments have received

more autonomy for resource collection (though not as much as in Sweden). In many national health service systems, national or regional governments collect resources. For example, Spain and Italy now allow regional governments to collect resources, in addition to the resources they receive from national resource collection on their own. In Italy, 6 of 21 regions added funds from their own taxes to make up for (parts of) the deficit in 2002 (Jommi and Fattore 2003).

Pooling of funds

In most high-income countries, collecting and pooling take place at the central level. In tax-financed systems, two bodies are generally at work: the ministry of finance or the treasury as collecting organization and the ministry of health as the pooling organization (England, Ireland, Italy, and New Zealand). The allocation of responsibility between these two bodies is in most cases more a matter of political agenda setting than of objectively defined allocation. New Zealand is an exception, as it has defined objective allocation criteria. Earmarked taxes, combined with an independent organization responsible for pooling and collecting resources, are another possible approach to overcome the vulnerability of the health system to political priority setting.

Allocating resources from collecting to pooling organizations

Although in tax-financed systems collecting and pooling are mainly centralized, there is a trend toward decentralization of both functions. Regional governments in Italy, Spain, and Sweden have received more autonomy in both collecting and pooling. In Sweden, collection and pooling responsibilities have been strongly decentralized since the 1970s. County councils rely mainly on income taxes, which they collect themselves. In addition, counties receive subsidies from the central government on the basis of an allocation formula (Hjortsberg and others 2001).

In contrast to tax-financed systems, social health insurance systems are increasingly moving away from decentralized pooling organizations. Many countries, such as Belgium, Germany, the Netherlands, and Switzerland, have centralized their pooling organizations in independent organizations at the federal level, such as the Federal Insurance Authority in Germany or the Health Care Insurance Board in the Netherlands. Switzerland is a special case; it pools resources only in each “*premia region*” (usually on the subcanton level), so that, for example, the high per capita expenditure in Geneva is not shared with the inhabitants of Appenzell, where per capita expenditure is low. Such centralization came in response to the fragmentation and small size of decentralized pools. Small pools (sickness funds) were exposed to high financial risks because of their inability to share risk among a large population, and thus they needed reinsurance or tax subsidies. Now centralized, sickness funds are responsible for only a fraction of health expenditure. They act as purchasing organizations (and in a few countries as collectors). The number of sickness funds has decreased sharply in Belgium, Germany,

Korea, the Netherlands, and Switzerland, in part because of the introduction of competition among funds in their function as purchasing organizations, but also because of the problems and higher administrative costs associated with small pool sizes (Korea is the exception).

The transfer between collecting and pooling organizations is only difficult in social health insurance countries where sickness funds can collect different levels of contributions (Germany and Switzerland). In those countries, pooled resources have to be separated from resources that stay with the sickness fund (for example, for services not taken into account in the pooling or from contribution rates higher than assumed in the pooling calculations).

In addition to transfers from contribution-collection organizations, in some social health insurance countries, pooling organizations receive financial resources from tax authorities. Tax subsidies to the pooling organizations are substantial in Belgium, Luxembourg, and the Netherlands, whereas they are small but rising in Germany. The high Belgian tax component is the result of a policy change in 1981, when social security contributions were lowered by 6.17 percentage points and the value-added tax was increased in an attempt to become internationally more competitive (Busse, Saltman, and Dubois 2004).

Allocating resources from pooling to purchasing organizations

In most countries, the pooling function is centralized, and purchasing bodies usually act at the regional or local level. Common purchasing bodies are regional and local governments, as well as sickness funds.

The allocation of financial resources from pooling to purchasing organizations can either be prospective or retrospective. Under retrospective allocation, pooling organizations allocate according to actual expenditures incurred by purchasing organizations, whereas under prospective allocation a budget is determined for future health expenditure. In Belgium, Luxembourg, and the Netherlands, retrospective allocation according to actual expenditure was the customary approach before reforms in the mid-1990s. Apart from Luxemburg, where this approach is still used for services requiring patient reimbursement, such as physicians' services, these countries have switched to prospective allocation mechanisms. In Korea resources are allocated retrospectively on the basis of a fixed schedule of fees paid to providers, which is negotiated each year (OECD 2003).

In recent decades most countries have moved toward the application of independent criteria of health care needs, frequently referred to as capitation, as the dominant method of allocation. Capitation can be defined as a kind of price paid by the pooling organizations for each individual covered by purchasing organizations with the necessary health services. As individuals' health expenditures vary considerably, depending on personal characteristics such as age, sex, and morbidity, increasing effort is being dedicated to risk adjustment, which seeks an unbiased estimate of the expected expenditure of each individual with certain personal

characteristics. Capitation generally increases the degree of equity between different regions of a country, and the pooling responsibility of each region decreases as the predictive value of the applied capitation rises (Rice and Smith 2002).

However, the predictive value of risk adjusters for setting capitations varies widely among the countries reviewed here (tables 9.3 and 9.4). Capitations range from less sophisticated schemes, such as Switzerland's use of only age and sex as risk adjusters, to the very complex, but highly predictive capitations in the Netherlands and Sweden. Sweden, for instance, applies a very advanced matrix approach, using age, sex, marital status, employment status, occupation, and housing tenure, as well as previous high utilization as risk adjusters on an individual level. The Netherlands might be even one step farther ahead since 2002, when it introduced a capitation with age, sex, social security and employment status, region of residence, and even diagnostic and pharmaceutical cost groups as risk adjusters.

Germany shows the typical evolution of capitations. From 1989 to 1995, Germany had a mixed system of pooling expenditure for pensioners while for all other

TABLE 9.3 Risk adjusters in the capitation formulas for resource allocation in countries with social health insurance systems

Country	Year of implementation	Risk adjusters
Austria	None	
Belgium	1995	• Age, sex, social insurance status, employment status, mortality, urbanization, income
	2006	• Age, sex, social insurance status, employment status, mortality, urbanization, income, diagnostic and pharmaceutical cost groups
France	None	
Germany	1994/1995	• Age, sex, disability pension status
	2002	• Age, sex, disability pension status, participation in disease management program
Japan	None	
Korea, Rep. of	None	
Luxembourg	None	
Netherlands	1993	• Age, sex
	1996	• Age, sex, region, disability status
	1999	• Age, sex, social security/employment status, region of residence
	2002	• Age, sex, social security/employment status, region of residence, diagnostic and pharmaceutical cost groups
Switzerland (within canton)	1994	• Age, sex

Source: Adapted from Busse, Saltman, and Dubois 2004 and updated with data from Risk Adjustment Network (RAN).

TABLE 9.4 Risk adjusters in capitation formulas for resource allocation in countries with tax-financed systems

Country	Risk adjusters
Australia	Age, sex, ethnic group, homelessness, mortality, education level, rurality
Canada	Age, sex, socioeconomic status, ethnicity, remoteness
Denmark	Age, number of children in single-parent families, number of rented flats, unemployment, education, immigrants, social status, single elderly people
England	Age, mortality, morbidity, unemployment, elderly people living alone, ethnic origin, socioeconomic status
Finland	Age, disability, morbidity, archipelago, remoteness
Iceland	None
Ireland	Not applicable
Italy	Age, sex, mortality, morbidity, utilization
New Zealand	Age, sex, welfare status, ethnicity, rurality
Norway	Age, sex, mortality, elderly living alone, marital status
Portugal	Based mainly on historical precedent; age, relative burden of illness (diabetes, hypertension, tuberculosis, AIDS)
Spain	Percent of population older than 65, "insularity" (region = islands)
Sweden	Age, sex, marital status, employment status, occupation, housing tenure, high utilizer

Source: Rice and Smith 2002; Mapelli 1999; Järvelin, Rico, and Cetani 2002; Vallgarda, Krasnik, and Vrangbaek 2001.

insured each sickness fund pooled its own resources. The introduction of competition among funds in 1996 was preceded by the introduction of a risk-adjustment mechanism considering age, sex, and disability (Busse 2001). Since then, sickness funds have had to cover all expenditures with the resources allocated from the central pool or else have had to increase their contribution rate. Thus sickness funds have been reduced to their purchasing function, although they still carry a certain financial risk. That risk was further reduced by the extension of the capitation to participation in disease management programs. Other countries, such as the Netherlands and Switzerland, have followed similar approaches.

In summary, nearly every high-income country applies some kind of capitation approach to allocate resources from pooling to purchasing organizations. Even systems such as Korea's, with only one central sickness fund that acts as both the pooling and purchasing organization, needs some mechanism to allocate resources among the regions. Whatever health financing arrangement is chosen, a capitation approach is necessary to redistribute pooled resources equitably. If a system intends to establish competition among sickness funds, capitation also has the regulatory function of equalizing the chances of success for each fund. The higher the predictive value of the capitation, the fairer is the competition and the more equitable is the allocation.

Purchasing and remuneration of providers

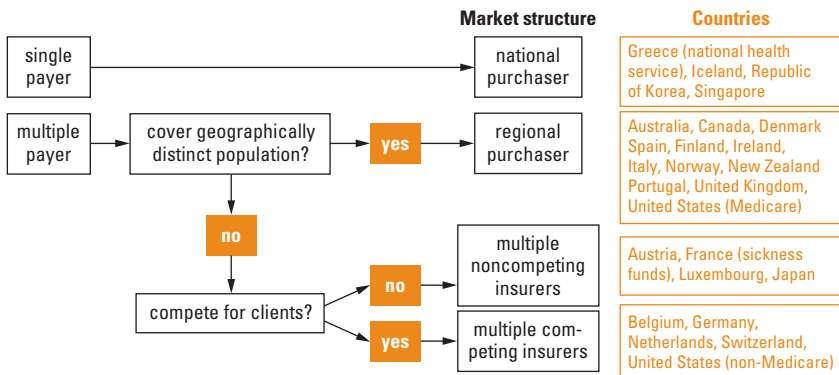
Purchasing refers to the transfer of pooled resources to service providers, and *remuneration* refers to the mechanism used to allocate the resources. Purchasing organizations must have the same funds as, but are not necessarily identical to, pooling organizations. Each method for remunerating providers creates different behavioral incentives for service providers. Two main objectives have to be clarified before designing payment systems. First, the market structure has to be taken into account as a framework for activities of purchasing organizations. A single purchaser can cover a whole nation or multiple purchasers can be assigned to fixed areas or compete with each other in the same areas. Second, it is important to be clear about the role assigned to the purchasers: a passive role as a financial intermediary or an active role with full financial power to achieve a defined level of quality and efficiency.

Market structure of purchasing organizations

The number of purchasing organizations, their size, and their market structure vary widely across the countries reviewed here (figure 9.3). Nonetheless, the decentralization wave has reached almost every country over the last three decades, pushing purchasing decisions down from central to regional or local authorities. Only a few countries still retain centralized single-purchaser systems.

During the 1990s, Germany and the Netherlands, which previously had noncompeting multiple-purchaser systems, introduced choice among sickness funds—in this respect joining Belgium and Switzerland. Before the introduction of competition, the members of each sickness fund were defined mainly on the basis of occupation or geographic area. The motivation was not so much a reduction of administrative costs, as is often assumed, but rather an increase of allocative efficiency, a decrease of

FIGURE 9.3 Market structures for purchasing organizations in high-income countries



Source: Adapted from Kutzin 2001.

expenditure per insured or an increase in quality of the purchased services. Competition has been accompanied by a large reduction in the number of sickness funds, ranging from cuts of 21 percent in Belgium to 70.6 percent in Germany between 1990 and 2002.

The role of the purchaser

During the 1970s and 1980s, the role of the purchaser was still limited to that of a financial intermediary providing or reimbursing the necessary services on behalf of the population. Because of increasing cost pressure during the late 1980s, however, several countries tried to integrate market mechanisms into their systems to increase the quality and efficiency of provided services. During the 1990s, purchasing organizations in both social health insurance and tax-financed countries gained more autonomy in management and planning, through both contracting and the management of care (not necessarily “managed care” in a narrow sense). Although care management is a rather recent development, many countries with multiple purchaser systems experimented with contracting during the 1990s.

In geographically distinct multiple-payer systems, which are mainly tax-financed systems, an active role of regional purchasing organizations is frequently referred to as an internal market. In 1991 the British national health service embarked on a large-scale experiment of creating an internal or quasi-market within the health system, by separating purchasers from providers and by encouraging competition among providers. Providers became quasi-independent entities managing their own budgets and financing them through contracts with purchasers (Le Grand 1999). There were two types of purchasers: district health authorities and general practitioner (GP) fund-holding schemes. Large GP practices were given a budget from which to purchase a more limited range of secondary care on behalf of their patients. This move reflected the idea that GPs are a better agent for the patient than health authorities, because they have better information on the quality of secondary providers and better knowledge of patients’ preferences than health authorities.

Although in efficiency, equity, choice, and responsiveness, the internal market may not have delivered as much as its proponents had hoped, it did not do too badly—especially when its performance is compared with what has happened since it was officially abolished in 1997. GP fund-holding seems to have been particularly effective, with recent research suggesting that it reduced waiting times and referral rates (Dixon, Le Grand, and Smith 2003). Several new problems had also become evident. These included high transaction costs; inequities brought about by splitting purchasing between health authorities and GP fund-holders (Dixon, Le Grand, and Smith 2003); and most worrying, a serious deterioration in clinical outcomes in some instances (Propper, Burgess, and Abraham 2002). Most policy analysts agree that in some unmeasurable ways the national health service had changed fundamentally through the internal market reforms. Changes in culture included

extra attention to the concerns of GPs; an overall increase in cost-consciousness; and more clarity about what services should be provided for whom, to what standard, and at what price (Le Grand 1999). Although in 1997 the newly elected Labour government formally abolished the Thatcher internal market, it has developed its own version of an internal market, which maintains the purchaser-provider split. In 2003 it replaced the district health authorities with primary care trusts, in which GPs and other health professionals again hold executive functions. Selected hospitals, called foundation hospitals, are being given more autonomy, and there is a highly controversial scheme to attract private investment for national health service hospitals (Pollock, Shaoul, and Vickers 2002). Thus, the Labour measures have taken the market orientation of the national health service much further than the conservative predecessor government.

Other tax-financed countries have also introduced partial purchaser-provider splits, but mostly on a smaller scale. For example, Sweden introduced internal markets in its national health service in Stockholm County in 1992. Like reforms in the United Kingdom, Sweden's reforms created modest increases in productivity, efficiency, and responsiveness (Quaye 1997). In New Zealand internal markets were introduced in 1993 to achieve greater allocative and technical efficiency and to contain overall health expenditure. Therefore, formerly separate funding streams for general practitioner services and for hospitals and other services were merged, and four regional health authorities (RHA) were established (French, Old, and Healy 2001). In 1996, citing a steep rise in transaction costs after the 1993 reforms, problems with equity of access to care, and substantial deficits in three of the four RHA and many public hospital providers that had to be met by the government (Gauld 1999), a new government decided that the reforms had failed to meet their objectives and decided to merge the four RHA into a single purchasing organization.

Like the move to internal markets in tax-financed countries, selective contracting has developed in some social health insurance countries. In Belgium, France, and Luxembourg, specific benefits are defined by the government, leaving volume and prices to the purchasing organizations. However, the volume of these benefits is quite small. Germany, the Netherlands, and Switzerland even moved one step further. Governments understood that competition among sickness funds cannot work if the single funds have no management instruments to differentiate them in competition. Therefore, sickness funds in all three countries have received more autonomy, not only in selective contracting but also in marketing activities, bonus payments for patients and providers, and other incentive measures.

In the Netherlands, selective contracting has been encouraged since 1992. Under the Anti-Cartel Act, collective contracting in health care has been illegal from 2002 (den Exter and others 2004). Hospitals were exempted from this regulation, but the Anti-Cartel Authority announced that it would sue sickness funds

that did not contract ambulatory providers selectively. However, sickness funds still contract providers on a collective basis, mainly because of the high transaction costs in contract negotiations with each single provider. In the Netherlands, as well as in Germany and Switzerland, sickness funds are also allowed to selectively contract with provider networks and to freely negotiate prices for services. The number of selective contracts is low but growing. Since 2004, German sickness funds are required to spend 1 percent of their total expenditure for such contracts with provider networks under the so-called integrated care scheme. This scheme is expected to achieve greater integration of different service sectors that are traditionally separated and thus to prevent duplication of utilization and achieve better outcomes. Selective contracting also breaks up cartels in ambulatory care, wherein physician associations negotiate on behalf of all social health insurance physicians in each region.

In all three countries sickness funds have also received more autonomy to excel in care management activities. In Switzerland, the two biggest funds are offering disease management programs, but the share of participants is rather low, at 5 percent of estimated potential participants (Weber and others 2004). To boost participation rates, the German government followed an innovative approach to increase the attractiveness of programs. Sickness funds are allowed to offer disease management programs, and participants enrolled in approved programs have been treated as a separate category in the risk structure compensation scheme since 2002. Thus, sickness funds with a high share of disease management program participants receive a higher budget from the pooling organization (Federal Insurance Authority). This was expected to stimulate the sickness funds to try to attract and care more about the chronically ill insured (instead of looking at them as “bad risks”). Critics pointed out that the act mainly provides an incentive for the sickness funds to enroll as many chronically ill insured as possible, but not necessarily to improve their care, as the individual sickness funds get compensated for the average expenditure of all disease management program participants across sickness funds (by age and sex) (Busse 2004).

Remuneration of providers

The shift toward purchaser-provider splits in tax-financed health systems and more active purchasing by sickness funds in social health insurance systems has been accompanied by changes in physician and hospital remuneration mechanisms in many countries. The new transparency of service provision that was created by the active contracting process and a heightened cost-consciousness by decision makers, purchasers, and providers alike might have been the main triggers for changes in remuneration mechanisms, rather than purely the desire to control costs.

Historically, provider remuneration has been mainly time- and population-based in tax-financed countries, whereas in social health insurance and mixed

systems, (for example, in France, Germany, Japan, and the United States) service-based remuneration methods were and are still commonplace. During the 1980s, global budgets alongside fee-for-service payments for private hospitals or private patients in public hospitals, were still the main mechanism to finance public hospital care in most tax-financed high-income countries. Hospitals received a prospective annual fixed budget with which to cover all their services. Most of the time this budget reflected historical spending rather than service intensity or morbidity of patients cared for. Fee-for-service remains the principal means of paying hospital services in Japan; in some cantons in Switzerland, hospitals are paid according to individual services provided (Docteur and Oxley 2003).

In 1983 the U.S. Medicare program became the first major public payer to introduce a payment per patient episode—the diagnosis-related group (DRG) system. With this type of remuneration mechanism, financing is based on a prospectively specified payment per discharge unit standardized for variation in types of cases or case mix. Different pathologies are grouped into homogeneous cost groups on the basis of either medical conditions or surgical interventions, and average costs of treatment for each group are estimated. When discharged from the hospital, the patient is assigned to a specific group and the hospital receives a lump sum corresponding to the average cost of a patient in this group.

Since then, the majority of tax-financed or social health insurance countries have introduced some form of per case payment systems in their hospital financing systems—most partially and in some combination with global budgets. Tax-financed countries that have developed their own DRG payments or adapted existing systems from other countries and implemented them include Sweden (1985), Finland (1987), Portugal (1989), Canada (1990), Australia (1993), the United Kingdom (1992), Ireland (1993), Italy (1995), Denmark (1999), and Norway (1999). The first social health insurance country to introduce DRG payments was Belgium in 1995, followed by Germany (a partial system in 1995, revised in 2003), France (1997), Austria (1997), Switzerland (1997), the Catalonia region in Spain (1998), and the Netherlands (2003). In Japan (2003) a system called diagnosis procedure combination was introduced. Hospitals receive a defined number of points, each with a fixed value, for each service. Korea has developed its own DRG system, but has not implemented it (Fischer 2003).

Over the years, problems have emerged with per case payment methods, including their administrative and operational complexity, their dependence on the availability of relatively consistent and comprehensive activity and cost data, and the need for incentives to ensure that costs are limited by service type within remuneration boundaries (Langenbrunner and Wiley 2002). On the positive side, prospective pricing systems appear to have encouraged greater cost efficiency in the hospital sector. Evidence from the United States indicates that there have been significant falls in average length of hospital stays compared with other remuneration methods, although this may also have been accompanied by lower intensity of care

in certain cases (Chalkley and Malcolmson 2000). In Sweden, a comparison of counties that used prospective remuneration systems with those that did not suggested cost differentials of 10 percent in favor of prospective remuneration (Gerdtham and others 1999; Gerdtham, Rehnberg, and Tambour 1999).

However, the use of these remuneration methods may conflict with overall expenditure control, particularly in the presence of excess supply or productivity reserves. For example, the introduction of DRGs in Stockholm County led to a sharp rise in activity and spending, and as a result, central expenditure control was reimposed through penalties for exceeding volume limits (Docteur and Oxley 2003).

For ambulatory care, the traditional mechanisms of fee-for-service payments in social health insurance systems and salaries in tax-funded systems have been largely replaced by combination systems, which try to outweigh the positive and negative incentives of each individual payment mechanism to encourage providers to align their behavior with the purchaser's objectives. Examples are the mixed capitation payment to physician associations and point-based fee-for-service payment to individual German physicians or the capitation payment to British GPs, which is supplemented by fee-for-service payments for underprovided services, for example, childhood immunizations or cancer screening activities. The same development can be seen in the remuneration of hospital doctors, who now more often receive performance-related payments on top of their salaries.

Endnotes

1. As explained below, medical savings accounts can have the character of compulsory contributions and are therefore subsumed under social security.

2. One must also keep in mind "tax expenditures" resulting from the deductibility of health insurance premiums from corporate and individual taxes as another form of public expenditure. Such deductibles in the United States amount to some 10 percent of total health spending, and if included as a public expenditure significantly increase the U.S. public share.

3. Since the introduction of compulsory health insurance in 1996, Switzerland has had a system of both income- and risk-unrelated per capita health insurance premiums. These premiums differ among insurers but are community-rated for all insured of a particular insurer in a certain region (usually at the subcanton level) (Minder, Schoenholzer, and Amiet 2000).

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