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CHAPTER 12

Pharmaceutical benefits in insurance programs

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SUMMARY

Health insurance is a mechanism for spreading the risks of incurring health care costs over a group of individuals or households, protecting the individual from a catastrophic financial loss in the event of a serious illness. Insurance, therefore, spreads the burden of payment for illness among all the members of the scheme whether they are ill or healthy, poor or rich. By their very nature, insurance schemes act as financing agents: they receive funds from employers, households, and the government and use these funds to purchase health care for their beneficiaries. Therefore, the main components of insurance schemes are collecting revenue, pooling resources and risks, and purchasing quality goods and services.

Many countries see the initiation or promotion of one or more insurance schemes as a way to address health financing issues and achieve universal health care coverage for citizens. Health insurance is appealing to governments because it takes the entire financial burden and spreads the total cost of insured health care among various partners. However, when governments consider instituting health insurance, they need to be aware of the realities of implementation; the complexity of the issues involved is often poorly understood. No one, widely accepted model of universal health insurance would be accepted in all societies, and how best to develop one in a resource-poor setting is still a matter of considerable debate. Whatever type of health financing mechanism a country decides to adopt, the transition to universal coverage may require several years, even decades.

This chapter covers four models of health insurance—

- Social or public health insurance
- Private health insurance
- Community-based health insurance
- Health or medical savings accounts

Any health insurance model may or may not cover medicines. Some insurance schemes incorporate medicines as part of a comprehensive care package, others compensate for them separately, and others do not cover them at all. However, strong arguments favor including medicines in insurance schemes because proper use of medicines can help prevent serious illness and death, and because pharmaceuticals make up such a large share of out-of-pocket spending in countries around the world.

Health insurance coverage for medicines offers significant potential to reduce the burden of disease and poverty. Using their power as large-scale purchasers, health insurance programs with pharmaceutical benefits can expand access to medicines at affordable prices to vulnerable populations and enforce better prescribing by clinicians and more cost-effective use by consumers. Furthermore, carefully designed insurance-based financing for medicines is both scalable and sustainable.

In part because of the pervasive potential for “moral hazard” (which in this case refers to more frequent use of services or medicines by members of an insurance scheme than would occur were they not insured), well-managed health insurance programs—whether public or private, mandatory or voluntary—are always looking for ways to manage costs efficiently. Public and private insurance programs control pharmaceutical expenditures through measures related to payment, management, prescribing patterns, dispensing practices, and use. Such programs can therefore profoundly affect the quality of prescribing by making reimbursement depend on adherence to treatment guidelines or restricted formularies. Ultimately, cost-control measures should aim to optimize access to and rational use of essential medicines, which remain a highly cost-effective element of health care, particularly for vulnerable populations.

12.1 The challenge of providing universal health coverage

In many countries, especially those with the fewest resources, poor people are often caught in a vicious cycle of poverty that causes ill health, and ill health in turn sustains poverty. Much of health care in developing countries is financed out-of-pocket, a system that places the largest burden on the poorest people. For example, household spending accounts for more than 60 percent of total health spending in low-income countries (Gottret and Schieber 2006), of which 60 to 90 percent may be spent on medicines

(WHO 2000). In addition to those direct costs, income is lost when family members are sick, and this loss reinforces the poverty-illness cycle. Women are especially vulnerable, because they are usually the main family caregivers.

The objective of universal health coverage is to ensure that all of a country’s citizens have access to adequate and affordable health care. Traditionally, governments have provided a national health service for all citizens with financing through tax revenue. Many of these health systems have not worked well or consistently provided needed medicines, a gap that has led to increased out-of-pocket spending for health care services and medicines in the private sector,

thereby worsening household poverty. Evidence from multiple countries has shown that a lack of health insurance is a key condition related to catastrophic household spending for health care (Xu et al. 2003). In an attempt to make health financing systems more equitable and increase coverage to the entire population, many low- and middle-income countries are exploring ways to strengthen such systems, including through various health insurance models.

People in most high-income countries are already covered by some form of public or private health insurance; however, the median coverage is only 35 percent in Latin America, 10 percent in Asia, and 8 percent in Africa (WHO 2004a). Health insurance coverage that includes pharmaceuticals has expanded access to medicines in many countries, including Argentina, China, Egypt, South Africa, and Vietnam (WHO 2004b).

Health insurance schemes appeal to both citizens and their governments because they help manage the financial burden by spreading the total cost of insured health care among various partners. In addition, donors and international financial institutions, such as the World Bank, are finding health insurance to be an increasingly feasible health financing mechanism for developing countries. Nevertheless, no one model of universal health insurance would be widely accepted in all societies, and although universal health coverage—where no citizens face the risk of losing their life savings because of catastrophic medical expense—is a highly desirable goal, how best to achieve it in a resource-poor country with underdeveloped private or public insurance schemes is still being debated.

This chapter presents an overview of how health insurance plays a role in financing health services, in general, and medicines, in particular. The chapter describes the main components of health insurance and potential problems with insurance systems. Four common types of health insurance schemes are described, with examples of how they are operating in different countries. Finally, although this chapter describes many options and potential paths, the right direction to take will depend greatly on the context of cultural expectations and the status and existence of other legal, financial, and regulatory institutions.

12.2 What is health insurance?

Health insurance is a mechanism for spreading the risks of potential health care costs over a group of individuals or households, with the goal of protecting the individual from a catastrophic financial loss in the event of serious illness. Insurance, therefore, spreads the burden of payment for illness among all the participants of the scheme, whether they are ill or healthy, poor or rich.

In principle, risk sharing through insurance is most worthwhile when the event insured against is largely unpre-

dictable, infrequent, costly, unwanted, and uncontrollable by the insured. A good example is insuring a house against fire. The event is unlikely and unpredictable but would be very costly if it occurred. Many people are prepared to pay a regular premium for a lifetime to gain peace of mind against a catastrophe that they hope will never happen.

Applying this traditional view of insurance to medical care presents some difficulties: people can control some aspects of use; some services are low cost; some conditions are frequently or continuously experienced (for example, medicines needed for chronic conditions); in some cases illness is difficult to define; people sometimes want to incur the risk (for example, pregnancy); and the presence of insurance increases the use of services. Despite these difficulties, the concept of risk sharing through insurance has become highly developed in the health sector.

The principal aims of well-managed insurance schemes are to reduce catastrophic financial loss in the event of a serious illness and to guarantee the funds or access needed to secure necessary, if expensive, medical services. Health insurance provides this financial protection by evening out household health expenditures. In addition, purchasing, payment, and monitoring mechanisms within health insurance schemes can contribute to efficient use of resources and improved quality of care (Eichler and Lewis 2000); for example—

- Access and affordability can be improved by removing financial barriers and by giving providers incentives to serve the covered population.
- Equity can be improved if higher-income people contribute more than lower-income people and relatively healthy people subsidize those who consume more system resources and are relatively sick (risk pooling).
- Efficiency can be improved if incentives are incorporated into the system to encourage appropriate use of resources.
- Quality can be improved if the system is structured to reward providers who deliver high-quality services and penalize those who do not.

This chapter covers four models of health insurance, defined below. Any model may or may not cover medicines as part of its benefit package.

Social or public health insurance: The most typical understanding of social health insurance is that membership is compulsory for a designated population; financial contributions into the system, which are often deducted directly from wages, link to the receipt of benefits; cross-subsidization occurs between high- and low-risk groups and high- and low-income groups; and management usually has some degree of independence from the government (Gottret and Schieber 2006). Social health

insurance schemes have existed in different parts of the world for some time, especially in Western Europe; Germany launched its program in 1883 (Carrin and James 2005).

Private health insurance: Private indemnity insurance is (usually) paid for by voluntary contributions from employers, mutual societies, cooperatives, or individuals. In high-income countries, private health insurance either replaces or supplements public coverage. The Netherlands has the greatest proportion of population covered by some sort of private health insurance, while the United States and Uruguay are countries with the highest private health insurance expenditures relative to total health expenditures (Sekhri and Savedoff 2005).

Community-based health insurance: In many countries in Asia, Africa, and Latin America, prepayment plans based on the concept of pooling risk and resources have been developed for rural populations, groups in informal employment, or others without access to other health insurance. Such schemes are based on community affiliation, and the community is highly involved in managing the system.

Health or medical savings accounts: Not strictly a form of insurance, medical savings accounts (MSAs) encourage individuals, often by providing tax advantages or subsidies, to save for the expected costs of medical care, enlist health care consumers in controlling costs, and mobilize additional funds for health systems. Only a few countries, including Singapore, China, and the United States, use the concept of health savings accounts.

12.3 Main components of health insurance financing

Decisions that affect the availability of health insurance in a country are important to all aspects of health service delivery but are largely outside the control of national medicine policies and essential medicines programs. As insurance assumes a greater role in health care in many countries, however, understanding health financing, and specifically insurance concepts, becomes increasingly important.

By their very nature, insurance schemes act as financing agents: they receive funds from employers, households, and the government, and they use those funds to purchase health care for their beneficiaries. Therefore, the main components of insurance are collecting revenue, pooling resources and risks, and purchasing goods and services (Gottret and Schieber 2006; WHO 2000).

Generally, insurance can be classified as using either a *single payer* or *multiple payer*. In *single-payer systems*, one organization (usually the government) collects and pools revenues and purchases health services for the whole population. All citizens are included in a single risk pool, and single-payer

insurers have powerful influence as the only buyer of health services (a situation known as monopsony). In *multiple-payer systems*, several different organizations perform all functions for specific parts of the population. Their insurance pools have different levels of risk, and consumers may be able to choose their own insurer.

Other basic issues related to sources of health care financing and achieving financial sustainability for pharmaceutical supplies are covered in [Chapter 11](#).

Revenue collection

Revenue collection is the process by which the health system receives money (usually taxes or premiums) from households, organizations, and companies, as well as from donors. Health systems have a limited set of mechanisms for collecting revenue, such as general taxation, mandated social health insurance contributions (usually salary related and almost never risk related), voluntary private health insurance contributions (usually risk related), or out-of-pocket payments from individuals.

Most high-income countries rely on either general taxation or mandated social health insurance contributions. As a country's income increases, so does the proportion of revenue that its government collects. Estimates show that in the early 2000s the average percentage of gross domestic product (GDP) collected by central governments as revenues was related to wealth (Gottret and Schieber 2006; Gupta et al. 2004). Therefore, low- and middle-income countries struggle to collect enough revenue to finance basic health services equitably and efficiently. In general, low-income countries depend far more on out-of-pocket financing, because of their low levels of income (resulting in a limited tax base), large informal sectors, and weak administrative capacity (Schieber and Maeda 1997).

Risk pooling

Risk pooling spreads the financial risk associated with health care among large groups. Pooling requires some transfer of resources (or cross-subsidization) from healthy people to sick people and from rich to poor. Without such pooling, poor people are exposed to serious financial hardship when they get sick; the more extensive the risk pooling in a health financing system, the less individuals will have to bear the financial consequences of their own health risks, and the more they are likely to have access to the care they need (Carrin and James 2004).

In a successful pooling scheme, contributions, whether through tax or insurance premiums, are not based on risk but based on the ability to pay. If the pooling is voluntary, high-risk people and poor people will join the pool because they see personal benefit, while healthier and richer people see less value for themselves (known as "adverse selection").

Fragmentation of the pool, or the involvement of too many small organizations in revenue collection, pooling, and purchasing, restricts the efficiency of all three tasks. In fragmented systems, the number of existing pools and purchasers does not matter, but rather the issue is that many of them are too small to be sustainable. Large pools are better than small ones because they have a bigger share of contributions that can be allocated exclusively to health services. A large pool can take advantage of economies of scale in administration and purchasing and reduce the level of the contributions required to protect against uncertain needs, while still ensuring that funds are sufficient to pay for services without any risk sharing.

When all payments for health care services and pharmaceuticals are made out-of-pocket, this situation represents the highest degree of pool fragmentation. In this case, each person constitutes a pool and thus has to pay for his or her own health services.

Prepayment

Prepayment is a feature of all types of health insurance. Because it unlinks expected health expenditures from the ability to pay, prepayment is a critical mechanism for attaining health care equity. Without prepayment, consumers pay entirely out-of-pocket for health care, purchasing it, like any other service, whenever it is needed. The fairness of health financing is often measured by the amount of prepayment required, because any out-of-pocket spending opens the consumer to financial risk (WHO 2000).

Risk pooling coupled with prepayment redistributes health spending between high- and low-risk individuals (risk subsidies) and high- and low-income individuals (equity subsidies). Pool members pay for expected costs in advance, which relieves them of uncertainty and ensures compensation should a loss occur. However, few systems are able to meet the entire cost of health care from the prepaid and pooled funds. Most require some type of co-payment for the use of health services or the purchase of medicines, which households must pay out of pocket.

Prepayment without pooling simply allows for advance purchase of health services or purchase on an installment basis, such as in the example of health or medical savings accounts, which is presented later.

Purchasing health care services

Purchasing is the process by which pooled funds are paid to providers to deliver health goods and services. All health financing systems face similar challenges in choosing which health services to buy or provide, who should provide them, and which payment mechanisms are used. The fact that a government takes responsibility for collecting revenues for the health system does not necessarily mean that it should

also provide care. To provide services, most health systems use a variety of methods involving a mix of public, private for-profit, and private not-for-profit providers.

The advantages of using pooled resources to purchase services include not only economies of scale but also strengthened capacity to bargain with providers regarding price, quality, and opportunity of services. Purchasing agreements can provide incentives for health service providers—including the promotion of rational medicine use—through contracting, budgeting, and payment mechanisms (see Section 12.5). The purchasing process should include an ongoing search for the most cost-effective services to purchase, the most cost-effective providers to purchase from, and the most efficient mechanisms and contracting arrangements to pay for such services.

Three categories describe the financial relationship between the insurer and the service providers in health insurance. The first is *reimbursement*, where providers are paid after they deliver the services. An example of the reimbursement approach is called *indemnity insurance*, where no contractual arrangements exist between insurers and providers, and the provider is paid a fee for the service. The second is *contracting*, where the insurers negotiate payment agreements with certain doctors, hospitals, and health care providers, to supply a range of services and possibly medicines at reduced cost to those insured. This method can free the patient from the need to pay for health care up front and also helps contain costs and control quality by giving the insurers direct purchasing power over providers. Third is *integration with providers*, when the roles of health care purchasers and providers are under one organizational umbrella (such as a government). One example is a health maintenance organization, where the providers are salaried employees of the insurer (OECD 2004).

12.4 Potential problems with insurance systems

Market failure is the term used by economists to describe circumstances that constrain the smooth operation of the market (Normand and Weber 1994). Economists generally agree that governments need to develop structures and policies to counter the effects of market failure. In the case of health services, the major sources of market failure are the monopoly power of providers and ignorance and uncertainty among consumers (Normand and Weber 1994).

Monopoly power of providers: To protect the public and ensure a basic level of competence, entry into the health care professions is restricted by licensing and other rules that govern access to health care. Thus, the health care professions exercise monopoly power, limited to some degree if providers must compete against one another. A

country's health policy should ensure that this monopoly power does not work against the interests of the patient. In addition to the power exercised by professionals, a "natural monopoly" occurs when only one service provider is available in a particular area who can provide care efficiently. In the case of access to medicines, people in rural areas may have little choice but to buy pharmaceuticals from a retail drug seller or a dispensing doctor if other sources are too far away.

Ignorance and uncertainty among consumers: Consumers depend on health care professionals to inform them of which services are appropriate and also to provide those services. This asymmetry of information further reinforces the monopoly power of professionals. In addition, the time at which any one person will need access to health services or medicines is usually very uncertain. When uncertainty and ignorance about the need or options for health care are combined with the high cost of specific types of care, market failure often results.

In addition, insurance only works if some people pay more in contributions than they take out in services, to compensate for those whose care costs the scheme more than they pay in. An insurance contribution is not a payment for a service but rather the price for insuring a particular risk (Normand and Weber 1994). Therefore, insurance systems face several problems that can undermine the potential benefits of prepayment and risk sharing—

Moral hazard: When members of a health insurance scheme use services or consume medicines more frequently than if they were not insured, the phenomenon is called "moral hazard." Deductibles and co-payments are commonly used to avert this problem. Moral hazard can be overcome by clearly describing the benefit package and trying to coordinate the co-payments and the provider payment methods with incentives for necessary care only.

Adverse selection: This term describes the tendency for people at greatest health risk and people with chronic illnesses to join voluntary insurance programs, whereas the healthiest people, whose premiums should be used to pay the bills of the sicker members, avoid joining. The effect of adverse selection is to raise costs and reduce the risk-sharing effect of insurance, which makes financial sustainability much more difficult to achieve; for example, in Senegal, unstable insurance schemes showed evidence of adverse selection compared with financially stable schemes that registered a larger proportion of household members—both healthy and unhealthy (Atim et al. 2005).

Skimming: This problem occurs when insurers use various screening measures to avoid insuring people at greatest

health risk (and therefore of greatest expense to them). Skimming reduces the equity benefits of insurance by excluding those who are most in need.

Cost escalation: Rising costs can result from improvements in or greater use of technology, increased use (greater demand caused by insurance coverage), and increases of both the population in general and older populations. Private indemnity insurance suffers from the tendency toward cost escalation because the insurer usually has no contractual relationship with the provider. Thus the tendency is both for insureds to increase their use of medicines and services and for providers to overprovide services. The other models allow for greater cost controls.

Unrealistic expectations: In addition to these problems, insurers, particularly in developing countries, frequently have to deal with misunderstanding of the insurance concept by the public and by health providers. Members may think that premiums are like deposits in a savings account: "If I have paid 10 dollars each month in premiums this year, I must be sure to receive 120 dollars' worth of health services in a year." This belief leads to unrealistic demands that everyone should receive at least as much as he or she has paid in. Insurance is not sustainable in such an environment, because no risk sharing occurs. Other members may avoid using their insurance because they believe that they can claim only as much as they have contributed in premiums. Considerable effort may be needed to educate the insured, the general public, and health providers.

Country Study 12-1 shows some of the problems experienced with a new insurance scheme in Bolivia that targeted women and children. Experienced public and private insurance organizations have developed measures to counter moral hazard, adverse selection, skimming, cost escalation, and lack of familiarity with insurance. Policy makers, government insurance regulators, and insurers need to work together to implement these measures.

12.5 Provider payment mechanisms

Methods of provider payment are a crucial part of the design of all insurance schemes. Each method affects the administrative costs of the scheme according to the complexity of approving claims and making payments. Similarly, all payment methods include incentives that may reduce or increase demand for treatment or medicines by the insured and reduce or increase costs and quality of care by the provider. It is most important that, whichever method of provider payment is chosen, mechanisms are incorporated to contain costs while maintaining needed access and quality of care for the sick.

Country Study 12-1 Financing maternal and child health services in Bolivia

Bolivia has higher maternal and child mortality rates than any other country in Latin America. Most of those deaths occur in the poorest sectors of society and are preventable with adequate health care. In 1996, Bolivian officials began the National Insurance for Mothers and Children (SNMN) program in an effort to lower economic barriers to health care for mothers and children.

Through the program, women and children under five years of age receive free medical care and medicines for certain medical conditions that are common causes of maternal and child mortality, such as unattended births for women, and diarrhea and acute respiratory illnesses for children. All levels of care are covered in the program, including primary care facilities and hospitals.

Since the implementation of the SNMN program, use of health services covered by the program, especially among the poor, increased. However, this increase lowered the motivation levels of health workers because of the influx of patients, which was unaccompanied by an increase in remuneration. As a result, SNMN patients were reportedly being treated unfairly in medical facilities, and amenities received, length of stay, and even treatment prescribed have reportedly all been used to discriminate against insured patients.

In 1999, SNMN was expanded to become the Basic Health Insurance plan, which expanded coverage to

other additional health priorities that had previously been addressed by vertical public health programs, such as tuberculosis. New changes in 2002 doubled the financing, expanded the benefit package, revised reimbursement schedules, and introduced performance agreements between the different levels of the Ministry of Health's decentralized system.

Results suggest that the reforms further increased coverage of priority maternal and child services; for example, between 1998 and 2002, pneumonia and diarrhea coverage for children under five years increased from 69 percent to 100 percent and 29 percent to 43 percent, respectively. Despite these increases, however, after a few years, coverage rates began tapering off and even decreasing. In addition, despite the introduction of public health insurance, households remain an important source of financing for the sector, with out-of-pocket expenditures contributing 30 percent of national health spending.

To encourage additional gains, the government added a matching grant program with conditions to encourage mothers to use health services for themselves and their children; however, this program does not target certain populations, a situation that could exacerbate stubborn rural-urban coverage gaps.

Sources: Partnerships for Health Reform n.d.; Camacho et al. 2003; Narváez 2009.

Designing payment mechanisms for medicines is more challenging because insurers find it more difficult to establish reimbursement schemes that cover all the places that sell medicines, such as pharmacies, clinics, and informal drug sellers, than to administer payments to hospitals for inpatient care, for example.

Cost sharing through co-payment

One of the most common methods used to reduce excessive demand for services and pharmaceuticals, as discussed more fully below, is to have consumers share costs through co-payments or user fees, so that choosing treatment has a personal financial consequence, thereby reducing excess demand and moral hazard as well as increasing revenue levels. If co-payment charges are too high, however, they can discourage people from seeking timely care, which can negatively affect health and longer-term costs. Of course, cost sharing is also likely to be detrimental to poor people's access to care and medicines.

As an incentive to encourage rational medicine use and lower costs to the system, co-payments for medicines can be set at different levels depending on whether the medicine is on an essential medicines list or formulary, or whether it is generic or brand name (see Section 12.6 for a more detailed discussion of tiered payments).

Another cost-sharing mechanism is a *deductible*—a set amount that each person in the insurance scheme must pay each year before he or she can tap into the benefits of the plan.

Capitation payment

A capitation payment is where providers receive a prospective, fixed payment for each person served under the scheme for a particular period of time. Administration is relatively simple and inexpensive. Specific health services are often not explicitly defined, meaning that providers have some flexibility in terms of what they provide. In this system, no incentive exists to provide excessive health care. In fact, the

incentives are actually to provide minimal care and to needlessly transfer patients to higher levels of care. Competition among providers can decrease the tendency to underproduce, because poor service may cause patients to change providers.

Fee for service

Fee for service is a payment mechanism in which the insurer pays providers for each service provided to a patient. Its perceived strength is in encouraging providers to provide health services—particularly preventive care. Administrative costs are likely to be high, because of the costs of billing and reimbursement as well as monitoring fees.

However, this method of payment may also encourage an overdelivery of health services (supplier-induced demand). The same effect can be seen on pharmaceutical sales. Wherever fees depend on medicine sales, the number of medicines prescribed increases. The potential overdelivery can be counteracted by combining fee for service with maximum budgets or by adjusting fees after a specified quantity of services is exceeded. Some co-payment by the patient may decrease the demand and counteract the overdelivery of services.

Case payment

An important example of a case payment is the diagnosis-related group payment method, wherein health facilities or providers are paid an inclusive flat sum for a patient's treatment (including medicines) according to the diagnosed condition. Case payments can be easier to administer than reimbursement from an itemized list, and requiring documentation of adherence to treatment according to guidelines to receive payment can have a positive effect on the use of medicines.

Payment for performance (incentive payments)

In a variation on fee for service or as an adjunct to capitation, doctors or health facilities may be paid or partly paid based on whether they achieve predetermined quality-based performance indicators. Such indicators may include appropriate prescribing of antibiotics, immunization coverage, blood pressure screening, or cervical smears. Performance can also include appropriate management of people with chronic conditions such as HIV/AIDS (based on CD-4 counts) or diabetes (measured through blood sugar levels).

Budget transfer

Many countries use a budget to pay for public health services; for example, in Central Asian countries, governments provide annual budgets to tuberculosis hospitals (Liu and

O'Dougherty 2005). Budgets can be set for providers, which, if strictly fixed, can help contain costs. Budgets can also be earmarked specifically for medicines and supplies. Similar to what happens with use of capitation, savings occur because no link exists between the quantity and mix of health services given to the individual and the amount received by providers. Providers' ability to contain overall costs, though, is limited if the budget is insufficient and results in others having to provide the necessary care. Focusing on the pharmaceutical budget alone, however, without considering the interaction with other service providers—known as the “silo mentality”—can result in suboptimal health care or cost shifting (Drummond and Jonsson 2003).

Salary

Health workers employed by institutions are usually paid a salary. Salaries provide a neutral incentive to providers' actions—what services the provider recommends and what he or she prescribes is based on the needs of the patient, the knowledge of the provider, and the availability of resources (Liu and O'Dougherty 2005). However, as with both budgets and capitation, salaried employees can suffer from low motivation and underproduction, especially when salaries are perceived as low. When the institution is part of the government health system, low motivation can influence providers to seek better remuneration in the private sector or to moonlight in the private sector. To improve productivity, performance-related conditions and incentives can be implemented in addition to salaries.

12.6 Including medicines as part of insurance benefits

Should insurance schemes include medicines in their list of benefits? According to the insurance concepts previously discussed, pharmaceuticals might not be a top priority for insurance coverage: common illnesses for which medicines are needed occur frequently, patients and providers may reinforce overprescription and overuse of medicines, and the potential for fraud and abuse is substantial. Some insurance schemes will incorporate medicines as part of a comprehensive care package, others will compensate for them separately, and others will not cover them at all. [Table 12-1](#) shows that the number of countries with private health insurance that covers medicines has increased from 1999 to 2003.

However, there are strong arguments for including medicines in insurance schemes. First, pharmaceuticals are an essential component of modern health care. Second, early treatment of acute illnesses, such as malaria, and treatment of chronic illnesses, such as diabetes, can reduce costly care for complications and hospitalizations (for both patients and systems). Third, because pharmaceuticals make up

Table 12-1 Countries with medicines covered by health insurance in 1999 and 2003*

| Medicines coverage | Country income level | | | | | |
|--------------------------|-------------------------|-----------------|-------------------------|-----------------|-------------------------|----------------|
| | Low-income | | Middle-income | | High-income | |
| | Number of countries (%) | | Number of countries (%) | | Number of countries (%) | |
| | 1999 | 2003 | 1999 | 2003 | 1999 | 2003 |
| Public health insurance | 8/23 (34.8) | 8/23 (34.8) | 27/35 (77.1) | 26/35 (74.3) | 8/9 (88.9) | 7/9 (77.8) |
| Private health insurance | 8/17 (47.1) | 13/17 (76.5) | 16/29 (55.2) | 24/29 (82.8) | 5/6 (83.3) | 6/6 (100.0) |

Source: WHO/TCM 2006.

* For countries with data on both years.

such a large share of household health costs in many countries, their inclusion in an insurance program will make the program more acceptable and desirable and help prevent catastrophic expenditures that increase poverty. Fourth, it is possible to pay only for medicines included in standard treatment guidelines or essential medicines lists, thereby significantly reinforcing the quality use of essential medicines.

Country Study 12-2 shows how extensively a lack of insurance coverage for medications affects the elderly in the United States.

Inpatient pharmaceutical supplies for insured individuals are usually provided by the hospital as part of routine inpatient care. Insurance coverage for outpatient medications may be provided through private pharmacies, insurer-affiliated pharmacies, in-house pharmacies, or pharmaceutical benefits management schemes (see below). The pharmaceutical supply mechanism depends in part on whether the insurer functions only as the financier of services or whether, as with managed care, insurance is linked to specific health providers.

When private pharmacies are used, insurers either reimburse members after they have purchased medicines or reimburse the pharmacy directly. This system provides flexibility for the member but has high administrative costs and is open to considerable fraud and abuse. Insurers may require that prescriptions be filled only at specific insurer-affiliated pharmacies that have a contract or working agreement with the insurer. The member's choice is limited, but administrative costs are less, and abuse is easier to control.

Managed-care organizations and polyclinics often maintain their own in-house pharmacies. Pharmacy staff may be on salary, or the entire pharmacy service may be contracted out. In either case, the insurer-provider can exert greater control over which medicines are available and what prices are charged.

Pharmaceutical benefits management (PBM) schemes contract with insurers to manage pharmacy services. The PBM provider negotiates pharmaceutical prices with suppliers, sets the formulary of medicines to be used, reviews and adjudicates claims, reviews patterns of use by patients

and providers, audits the program to prevent fraud and abuse, and implements programs to make medicine use more rational. PBM may provide such services through subcontracts with local pharmacies and through mail-order pharmacy services. Although unheard of in most countries, purchase of medicines by mail—especially medicines for chronic diseases—has existed for many years in North America and is widely accepted. Although PBM appears to add another middleman and additional expense, successful PBM schemes reduce costs to insurers.

Controlling the costs of medicines through insurance programs

Well-managed insurance programs—whether public or private, mandatory or voluntary—always look for ways to control costs while ensuring quality. Controlling the cost of individual services allows an insurance scheme to keep premiums down, expand benefits, or (for commercial insurers) increase profits. Public and private insurance programs control pharmaceutical expenditures through measures related to payment, management, prescribing patterns, and use. Control methods can be used separately or in combination.

1. Control of payment

- Co-payments are payments made by the member, such as a charge of 1 U.S. dollar (USD) per item for generic medicines and USD 2 per item for brand-name medicines. Co-payments are intended to prompt the patient to consider carefully whether the medication is useful or not; however, they may discourage poor patients from taking needed medications.
- Tiered co-payments require patients to pay different amounts for their prescriptions, depending on how the medicines are classified. A simple tiered plan will include generics and brand-name medicines (as above). Other tiers may include preferred branded versus nonpreferred branded or even a mail-order program.

Country Study 12-2**Patterns of medicine use by senior citizens in the United States**

The social health insurance system for older citizens in the United States, Medicare, did not include pharmaceutical benefits until 2006. In anticipation of the addition of medicines as a benefit, a nationwide survey of over 17,000 older Americans looked at issues that included patterns of medication usage and adherence, current pharmaceutical insurance coverage (from a supplemental plan to Medicare), and out-of-pocket costs.

Results showed that almost 90 percent of those in the survey took prescription medications, even though three-quarters of them had no prescription insurance coverage. Nearly half reported taking five or more prescription medications. Not surprisingly, out-of-pocket costs were high—nearly one-third spent over USD 100 per month for their prescription medications—and 37 percent of seniors without prescription insurance cover-

age reported not adhering to their regimen because of cost (for example, not filling a prescription, skipping doses, or taking smaller doses).

In another study, researchers looked at middle-age and elderly groups who reported taking less medication than prescribed for chronic conditions because of cost. In the two to three years of follow-up, more of the patients who restricted their medication use reported a significant decline in their health status, such as those with cardiovascular disease having suffered higher rates of angina, nonfatal heart attacks, and strokes. Therefore, patients not adhering to treatment regimens because of lack of insurance coverage for medicines may suffer worse health outcomes.

Sources: Safran et al. 2005; Heisler et al. 2004.

- Co-insurance is a specified percentage to be paid by the member—for example, 25 percent for drugs used in serious and chronic illnesses, 50 percent for most other pharmaceuticals, and 75 percent for symptomatic treatments for minor illnesses.
 - A deductible is a specified initial amount the insured must pay before services are covered. It is usually a set amount per quarter or per year.
 - Maximum allowable cost or maximum reimbursement price (benefit capping) specifies the highest reimbursement amount for each item to control medicine charges, encourage generic substitution, or establish co-payment levels.
2. Control of prescribing patterns
 - Provider pharmaceutical budgets encourage providers to work within a total pharmaceutical budget for a patient population. Prescribers may be offered a financial incentive for meeting budget targets.
 - Prior authorization requires the insurer to approve the individual prescription before it can be dispensed. This control can be used to enforce adherence to a formulary or essential medicines list or to limit the use of a certain class of medicines.
 - Step therapy restricts a patient from receiving the most expensive therapy first without trying the less expensive alternatives.
 - Selective reimbursement of medicines on formulary lists or essential medicines lists encourages compliance. The use of other products or therapeutic categories, including nonprescription medications, vitamins, and minerals, can be discouraged by lack of reimbursement.
 - Voluntary or mandatory prescribing or dispensing of generic equivalents lowers costs if the brand-name premium is significant.
 - Standard treatment guidelines are recommended to prescribers, especially in managed care programs, for common or high-cost diseases.
 3. Control of use
 - Prior authorization by the insurer is sometimes mandated for all prescriptions but is more common for specific medicines or medicine categories, such as “lifestyle” medicines, vitamins, or over-the-counter medications. Alternatively, coverage could be limited to people with a specific condition (for example, making Cox-2 inhibitors available only to those with documented gastrointestinal problems).
 - Caps on services may be instituted, such as limits on the quantities dispensed, number of items given at one time, frequency of refills, or total expenditures. Commonly, insurance schemes will limit the amount of medication per prescription, such as a thirty-day supply or 100 units. In the case of expenditure limits, the scheme may cover only a certain amount of money’s worth of medicines per month or year; however, this control method penalizes those most in need of medications, resulting in higher medical costs overall (Hoadley 2005).
 - Use review identifies overprescription or other forms of inappropriate prescribing or dispensing.

This control examines the specific prescriptions for inappropriate use rather than overall usage patterns; for example, identifying a prescription that should not be dispensed to a pregnant woman.

Reference price systems for pharmaceuticals are a cost-containment method introduced in the late 1980s. The basic premise is that a cluster of similar medicines is associated with one specific price accepted by the government for reimbursement purposes. Should a physician prescribe a product priced above this reference price, it is the patient who pays the difference. This policy is meant to increase the cost-consciousness of patients and to incite them to demand reference-priced medicines. For more information on reference pricing, see [Chapter 9](#) on pharmaceutical pricing policies.

These cost-control measures vary in terms of their administrative complexity, effect on access to medicines, effect on rational use of medicines, and acceptability to members and health care providers. Schemes that fail to ensure service quality *and* control costs are not likely to be sustainable.

Access to medicines and rational medicine use

Cost-control measures must not reduce access to essential medicines, which are a highly cost-effective element of health care. Yet insurers, particularly those in new programs and low-income countries, are wary of the costs of overuse and fraud. In an extreme response to this problem, one Latin American country in the mid-1990s proposed omitting medicines entirely from its national health insurance scheme.

Unfortunately, those most in need are often the most affected by cost-control measures. Experience in developed countries has demonstrated that overly restrictive cost-control measures can reduce medicine use but increase total health care costs because of deferred treatment and increases in hospitalization and other costs. A study of Medicare beneficiaries in the United States showed that a cap on medicine benefits resulted in a 31 percent savings in pharmaceutical costs, but that those savings were offset by poorer clinical outcomes and increased hospitalization rates and visits to the emergency department (Hsu et al. 2006).

Rational medicine use in the context of insurance schemes requires a careful balance between controlling costs and ensuring access to needed medications. As mentioned previously, control measures can be used to provide financial incentives for prescribers, dispensers, and patients to follow standard treatment guidelines, formularies, and essential medicines lists, as part of a strategy to promote rational medicine use. Furthermore, a group of members of an insurance scheme serve as a defined population for implementing such rational-use strategies and can also provide data to monitor the effects of these strategies. Essential medicines

or formulary lists, standard treatment guidelines, prescriber and dispenser training, public and patient education, and other measures described in Part III are relevant to improving medicine use in the context of insurance schemes.

12.7 Social health insurance

Social health insurance is a compulsory system, such as a social security fund or national health insurance fund, that includes members of a designated population. Payments to the system are linked to the receipt of health benefits, so only members of the designated population may access services. Key features of a successful social insurance plan include (WHO/SEARO 2003)—

- Compulsory or mandatory membership
- Prepayment contributions from payroll deductions based on income and not risk
- Cross-subsidization and coverage of a large proportion of the population
- Benefit based on need
- Arrangement of social assistance to cover vulnerable populations
- Collected revenue administered by a quasi-independent body

Financial contributions into the social health insurance system can come from workers, employers, the self-employed, and the government—either as an employer of civil servants or as a subsidizer for people not in the formal employment sector. Workers and employers generally contribute based on the worker's salary, while the self-employed make contributions based on estimated income or a flat rate. The government may pay for the unemployed, elderly, or others who cannot afford to pay into the system. These schemes typically contract with a mix of public and private providers to offer a specified benefit package. Social health insurance funds may cover preventive and public health care, or the ministry of health may retain these responsibilities.

One of the fundamental principles of social health insurance is that contributions are not based on risk but are instead based on ability to pay, reflecting an objective of equal access to health care and opting for a certain degree of equity in financing. Countries are relatively successful at collecting wage contributions from people employed in medium and large firms. However, care must be taken to ensure that imposing deductions on wages for health insurance will not distort the labor market by increasing tax evasion or reducing the size of the formal sector. Collecting from the informal sector, from small businesses, and from independent workers has proven to be extremely difficult, and countries should include within their system framework mechanisms to protect the poor.

Services may be provided through government facilities, insurer-operated facilities, private facilities, or a combination of these. Medicines may be provided through contracts with pharmacies. Often, the schemes have an independent agency that manages the health insurance fund, thereby separating the financing of care from the provision of care.

Challenges of social health insurance systems

Low-income countries often find generating enough tax revenue to finance social health insurance difficult. Economic growth may be too modest and compliance among the income earners may be insufficient. These countries also have difficulty introducing or enlarging a social health insurance plan because it requires consensus among disparate partners to accept that those with similar health care needs should receive similar health service benefits, regardless of their level of contribution—an acute issue when countries have a significant disparity between rich and poor.

Moreover, governments need a strong organizational and managerial framework to support a social health insurance scheme because of the complexity of the collection and purchasing activities, which can generate huge funds. Therefore, good governance and transparent practices are extremely important. Often, the challenge is compounded by communication and infrastructure problems such as inadequate roads, telecommunications, and banking facilities that inhibit the scheme from collecting contributions and organizing reimbursements, managing revenues and

assets, and monitoring the related health and financial information. A lack of adequate human resources with the necessary expertise can also result in management weaknesses and increased costs. WHO provides useful guidance for the design of social insurance schemes (Carrin and James 2004; Normand and Weber 1994).

Finally, social health insurance requires strong political support, which can be impossible in countries with political instability or economic insecurity. For many low-income countries, social insurance may not be feasible because “the fundamental problem in these countries is not ineffective financing. The real problems are the systems of political governance that regularly under-finance health care services or spend public funds inefficiently. Under such conditions, even the best-designed social insurance system will fail” (Savedoff 2004, 184).

12.8 Community-based health insurance

Low-income countries often have large populations that live in rural areas and work in informal sectors, which limits how well the government can effectively collect taxes to fund social health insurance or other tax-based health funds. Because of this difficulty reaching certain groups, community-based health insurance schemes (also known as mutual health organizations or *mutuelles de santé*) have been one way to fill government gaps and protect marginalized population groups against the cost of illness. According to one analysis (Preker et al. 2002b), community-based health financing (CBHF) schemes appear to extend cover-

Country Study 12-3

The effect of HIV/AIDS on a community-based health program in Tanzania

The Community Health Fund (CHF) is a voluntary prepayment scheme that entitles members to access health care for a year, without restriction based on their health status. However, the scheme was designed without considering the effect that HIV/AIDS would have on the community. A study was conducted in the Hanang district to measure the level and costs of HIV/AIDS-related services that CHF members and nonmembers sought during 2002.

Results showed that CHF members used outpatient services 2.5 times per year compared with 2.1 visits for nonmembers; however, although the overall numbers of visits did not vary much, CHF members with HIV/AIDS used outpatient services on a more regular basis, suggesting that membership created a culture of seeking health care more expediently. As a result, the difference in the

number of inpatient visits between members and nonmembers was dramatic: CHF members were 40 percent less likely to be hospitalized than nonmembers, resulting in a sizable cost savings. In addition, when members were hospitalized, their stays were significantly shorter than the stays of nonmembers. Because the region had been experiencing shortages of hospital beds, this result benefited all patients in the district, not just those with HIV/AIDS. Overall, the study concluded that CHF members were managing their HIV/AIDS conditions better through regular outpatient services than nonmembers and that a focus on identifying HIV-positive patients and getting them into treatment earlier would result in further benefits to the community.

Source: Chanfreau et al. 2005.

Table 12-2 Organizational features of selected community-based health insurance schemes in West Africa

| CBHF scheme and region | Premium per person per month (USD) (2003) | Co-payment percentage | Benefit package |
|-----------------------------|--|--|--|
| And Faggaru Thiès, Senegal | 0.35 per person per month + 1.72 one-time membership fee | 0 | <ul style="list-style-type: none"> • Pre- and postnatal care • Family planning • Delivery • Primary health care • Medicines • Hospitalization |
| Fissel Thiès, Senegal | 0.17 per person per month + 0.86 one-time membership fee | 20 | <ul style="list-style-type: none"> • Deliver • Hospitalization (only medicines) • Medicines (outpatient) • Primary health care • Transport |
| Darou Mousty Louga, Senegal | 0.17 per person per month + 1.72 one-time membership fee | Hospitalization: 0 All other services: 50 | <ul style="list-style-type: none"> • Delivery hospitalization (only medicines) • Medicines (outpatient) • Primary health care • Prenatal care |
| Nkoranza, Nkoranza, Ghana | 0.10 per person per month | 0 | <ul style="list-style-type: none"> • Excludes outpatient care, except snakebites • Hospitalization includes: medical consultations, admission fees, complicated delivery, lab analysis, X-ray, medicines, and referral |
| Dodowa, Dangme West, Ghana | 0.09 per person per month | 0 | <ul style="list-style-type: none"> • Outpatient services • Basic laboratory services • Pre- and postnatal care • Family planning • Delivery • Child welfare services, immunization • Ambulance services |

Source: PHRplus 2004.

age to a large number of rural and low-income populations that would otherwise be excluded from collective arrangements to pay for health care.

Membership in community-based health insurance schemes is usually voluntary, and the organizations are always nonprofit and based on the concepts of mutual aid and social solidarity. Membership may be based around geographical entities (villages or districts), trade or professional groupings (such as trade unions or agricultural cooperatives), or health care facilities. Such schemes have been around for many years, but recently they have attracted increased interest; for example, in Ghana, the number of community-based health financing schemes increased to 159 from only four in about two years. Estimates place the numbers of these schemes worldwide in the hundreds or even thousands (PHRplus 2004).

All community-based health insurance schemes share the goal of finding ways for communities to meet their health financing needs through pooled revenue collection and resource-allocation decisions made by the community. Like all insurance schemes, they allow members to pay smaller premiums on a regular basis to offset the risk of having to pay large health care fees upon falling sick. This system also removes the financial barrier at the time of need, so people are more likely to seek health care services earlier. [Country Study 12-3](#) shows how people living with HIV/AIDS in

Tanzania have improved their health-seeking behavior with the help of a community-based health insurance plan.

Community-based management

Unlike other insurance plans, community-based health insurance schemes usually depend upon members to help manage and run the scheme; therefore, the fund managers are accountable to the interested households rather than to the government. Perhaps the most fundamental role of management is to administer the scheme's resources and activities to ensure that income is sufficient to cover the fund's expenses each year. The plan managers need to discern the community's needs and preferences and take them into account in the scheme design.

Most community schemes make a collective decision on what to purchase. Schemes cover different levels of care depending on the needs and preferences of the scheme members, their ability to pay, and the availability of services in the area. The more extensive the package of services offered by the scheme, the larger the premium needed to sustain the scheme, reaching cost levels that may discourage people from joining. Contributions have to be set low to encourage people to join but also have to be balanced against the expected benefits. [Table 12-2](#) shows how selected community-based schemes are organized in West Africa.

Community-based management can certainly be cost-effective, but it can be difficult to do well. A recent assessment of twenty-seven community schemes in Thiès, Senegal, concluded that, overall, financial performance was poor (Atim et al. 2005). The main reasons for this poor performance were adverse selection, low dues recovery, unrecovered loans, frequent changes to benefit packages without changes to premiums, and limited use of financial tools.

Because the schemes are normally voluntary, if households do not trust those managing the fund they may withdraw their membership. Evidence shows that people are more likely to enroll if client households are directly involved in the design and management of the schemes, whereas top-down interference with the design and management of the schemes appears to stunt their sustainability (Preker et al. 2002a).

Challenges with community-based health insurance

Community-based health insurance schemes are small in size, a condition that affords them the benefits of social regulation mechanisms by peer pressure, solidarity, and the neighborhood nature of social control. Their small size is also their main challenge; financial reserves tend to be small because of the low income of the contributing population. Schemes that share risk only among the poor and sick deprive their members of much-needed cross-subsidies from healthier groups with higher incomes. In addition, schemes that operate outside of formal health systems may limit their members' access to a more comprehensive range of care.

A Nigerian study in rural, urban, and peri-urban communities showed that fewer than 40 percent of the people were willing to pay for community-based health insurance; the figure was less than 7 percent in the rural community (Onwujekwe et al. 2010). Even if premiums are minimal, the poorest people may find community-based health insurance plans difficult to join. Cash-poor households may be excluded because few schemes allow payment in kind (because of the added complexity of management). Governments and donors can help by subsidizing premiums for the poorest segment of the population; some schemes set aside a certain percentage of total funds to pay for care for the indigent (PHRplus 2004). For example, in Rwanda, the government and more than ninety community-based schemes have decided to subsidize premiums for the poor to access a defined package of services (Gottret and Schieber 2006).

Although mutual health organization membership in Ghana, Mali, and Senegal offered protection against catastrophic expenditures related to hospitalization, membership did not affect how much members paid for medicines, which represented the largest proportion of the cost of outpatient care (Chankova et al. 2008).

Country Study 12-4 shows the results and recommendations from an assessment of the sustainability of community-based insurance schemes in Uganda.

A proposed solution to the size issue is to create an organization that offers “reinsurance” to several community-based health insurance schemes, thereby spreading the risk among multiple programs. The management of such an organization remains a challenge, but this approach could be a way of protecting several schemes against catastrophic liabilities while maintaining the advantages of community stewardship (see Fairbank 2003 for an extensive discussion).

12.9 Private health insurance

Private health insurance refers to schemes that are financed through private health premiums, which are usually (but not always) voluntary. With private insurance, the money can be paid directly to the insurance company either through employers or communities or individually. The insurance company may be either for profit or not-for-profit.

Although the government often regulates this type of insurance, the pool of financing is not usually channeled through the general government. In developing countries, private insurance schemes are offered primarily by employers, but the proportion of the population covered by private insurance tends to be very small.

One frequently cited characteristic of private insurance is that premiums are risk related; meaning that if the client is older or has a chronic disease, the premiums will be higher than if the client is young and healthy. Sometimes, an insurer will use historical data on a community or employment group to determine the risk of future claims compared with those of other communities or employment groups.

Worldwide, varied private insurance models exist, with some arrangements blurring the boundaries between public and private insurance. A recent proposal for a taxonomy of health insurance (OECD 2004) classified four types of private insurance, each of which has a different way of determining contributions—

Private mandatory health insurance: Insurance is legally mandated and premiums may or may not be risk related.

Private employment group health insurance: Insurance is a benefit of employment and is usually not risk related.

Private community-rated health insurance: Policies are voluntarily taken up by individuals or groups, and insurers are legally required to apply community-related rather than risk-related calculations for premiums (no discrimination based on age, health status, claims history, or other factors).

Private risk-related health insurance: Policies are voluntarily taken up by individuals or groups, and insurers apply risk-related premiums.

Country Study 12-4**Strengthening and sustaining community-based health insurance schemes in Uganda**

An assessment of fourteen community-based health insurance schemes in Uganda investigated activities and best practices that were contributing to the schemes' financial stability and sustainability.

Findings and recommendations included—

Quality of life: Scheme members reported a significant improvement in quality of life as a result of membership. The addition of local outpatient clinics to the package of covered benefits allowed more convenient and cheaper access to primary care for some members.

Management and governance: Management and governance structures varied across schemes; each scheme should include a community-based representative as part of the decision-making process.

Financial management and viability: A larger number of members was a better predictor of cost recovery than the amount of premium payments; therefore, an increase in premiums could result in a loss of members, which would be detrimental to cost recovery. Schemes need to improve accounting mechanisms and improve the financial management skills of scheme managers.

Risk management: Schemes used different ways to manage financial risk, such as co-payments to decrease moral hazard and membership restrictions to avoid adverse selection. Some of these control mechanisms may have limited the growth of membership and thus the size of the risk pool, and the effectiveness of these measures depended on how well the members understood and supported them. Schemes are strengthened when their members are informed about insurance concepts.

Marketing and membership incentives: Schemes with more members are financially more secure, so schemes

must always be recruiting new members and working to retain current members. Marketing research improves the ability to enroll new scheme members. Some schemes successfully used insecticide-treated net subsidies as an incentive to recruit new members.

By the mid 2000s, community-based health insurance schemes had lost much of their momentum in Uganda. While about a dozen schemes continued, with approximately 30,000 people enrolled, few new schemes had been launched since the late 1990s. An evaluation carried out on two schemes found explanations from both the supply and demand side.

Demand-side problems included—

Lack of understanding: Members and potential members did not understand the basic principles of community-based health insurance schemes.

Lack of trust: There was widespread mistrust of financial institutions among Ugandans due to the collapse of some financial institutions in the 1990s.

Inability to pay premiums: Eight out of ten people interviewed cited inability to afford the required contribution.

Supply-side problems included—

Limited interest or knowledge: Health care providers and managers were often unaware of or unexperienced with community-based health insurance.

Lack of coherent government framework: Uganda had no specific procedures in place regarding community-based health insurance, despite mentioning such programs specifically in health policy documents.

Sources: Derriennic et al. 2005; Basaza et al. 2007.

The main market imperfections of private insurance models are the insurers' incentives to avoid insuring people at greatest health risks (skimming). Conversely, because private insurance plans are usually voluntary, people at greatest health risk and people with chronic illnesses have an incentive to join the program and the healthiest have an incentive to avoid joining (adverse selection). Adverse selection raises costs and reduces the risk-sharing effect of insurance.

Expansion of private health insurance

Some think that the development of a private insurance market may form the foundation for the future evolution of social insurance by creating capacity within a coun-

try (Pauly et al. 2006). In countries with limited public resources, health insurance allows tax revenues to be targeted at services to provide health care for the poor. However, close government regulation is critical, and regulatory capacity is often weak in developing countries; in the worst-case scenario, governments may take resources from the poor to support the establishment of the health insurance system.

Private insurance can exist alongside single-payer systems, such as social health insurance, by substituting for social health insurance, by complementing it by covering services not otherwise included, or by supplementing it by providing improved coverage to what is already covered (for example, providing access to elective surgery without

Country Study 12-5 Percentage of insurance in health care spending in twenty-four countries: Social insurance versus private insurance

An analysis of insurance in twenty-four countries in three regions showed that Latin America and the Caribbean had the most developed social insurance markets, whereas in East and Central Africa, neither social nor private insurance funds a significant proportion of health expenditures. In the Middle East and North Africa, social insurance schemes generally covered civil servants and those employed in the formal sector.

| Region and country | Social insurance | Private insurance |
|----------------------------------|------------------|-------------------|
| Latin America/Caribbean | | |
| Bolivia | 37.7 | 2.5 |
| Dominican Republic | 4.8 | 7.5 |
| Ecuador | 21.5 | 10.3 |
| El Salvador | 20.5 | 1.1 |
| Guatemala | 27.8 | 3.9 |
| Mexico | 34.3 | 1.4 |
| Nicaragua | 10.5 | Not available |
| Peru | 24.6 | 3.1 |
| <i>Average</i> | 22.7 | 4.3 |
| East/Central/South Africa | | |
| Ethiopia | 0.0 | 0.0 |
| Kenya | 4.0 | 3.0 |
| Malawi | 0.0 | 1.0 |
| Mozambique | 0.0 | 0.0 |
| Rwanda | 0.0 | 0.0 |
| South Africa | 1.0 | 41.0 |
| Tanzania | 0.0 | 3.0 |
| Uganda | 0.0 | 0.0 |
| Zambia | 0.0 | 0.0 |
| <i>Average</i> | 1.0 | 5.0 |
| Middle East/North Africa | | |
| Djibouti | 20.0 | 0.0 |
| Egypt | 12.4 | <1.0 |
| Iran | 19.0 | 1.0 |
| Jordan | 0.0 | <4.0 |
| Lebanon | 16.0 | 15.0 |
| Morocco | 2.6 | 16.2 |
| Tunisia | 35.0 | 5.0 |
| <i>Average</i> | 13.0 | 6.0 |

Source: Nandakumar et al. 2004.

waiting on a list) (Anderson and Hussey 2005). Although all citizens wishing to access private coverage for one of these purposes are eligible to buy it, where it is available, only high-income individuals are likely to take the opportunity, creating an equity gap in access to health care (Anderson and Hussey 2005). [Country Study 12-5](#) shows the extent of coexistence of social and private health insurance in twenty-four countries.

A number of countries have encouraged the expansion of private health insurance; for example, South Africa has a tax-based public system that primarily serves the low-income population, but it is supplemented by a private insurance system that mostly higher-income people purchase to supplement the public system. The government has increased regulation of the private insurance market to increase the equity between the public and private systems (Anderson and Hussey 2005).

12.10 Health or medical savings accounts

Health or medical savings accounts are individual accounts established to encourage consumers to save for expected costs of medical care, enlist health care consumers in controlling costs, and mobilize additional funds for health systems. MSAs are not considered a form of insurance because no pooling of risk occurs between healthy and sick and rich and poor. Because individual savings alone generally cannot protect someone from the financial risk incurred through catastrophic illness or long-term chronic disease, MSAs, in practice, have been used in conjunction with social insurance schemes. They may be administered by public organizations, as in China and Singapore, or by private entities, as in the United States and South Africa.

Medical savings accounts were introduced in Singapore in 1984; elsewhere, experience is limited to few countries, and mainly in the form of demonstration or pilot projects. Even in Singapore, government budget and out-of-pocket payments still play the predominant role in health spending, with MSAs accounting for only a small proportion (see [Country Study 12-6](#)).

Contributions may be mandatory or voluntary. If MSAs are voluntary, other benefits—such as tax exemption—are usually included to create incentives for participation. In this case, maximum contribution levels may be required to prevent the program from being used purely as a tax shelter. Singapore has instituted a compulsory minimum level of contribution with the aim of ensuring that individuals accumulate enough funds to cover health care in their older age.

An alternative model proposed in Canada is for third parties, such as the government, to fund savings accounts. Local health authorities would pay equal amounts into each individual's medical savings account instead of purchasing health care services for the entire population.

Challenges with medical savings accounts

The theory behind MSAs is that they will help control health costs by creating an incentive for consumers to purchase health services wisely, because money left in the account can be used for future health care needs. Proponents argue that with comprehensive health insurance, neither doctors nor patients have incentives to consider the cost-effectiveness of proposed treatments. But the counterargument is that moral hazard arises more among providers than among consumers because of the information asymmetry between service providers and patients. From this perspective, the existence of money in a person's MSA influences providers much like the existence of third-party insurance (Hanvoravongchai 2002).

Another concern about the MSA model is that it is less equitable than comprehensive benefit systems. Those who are indigent or suffer from chronic illnesses are unlikely to be able to accumulate enough savings to cover their needs.

MSA schemes that include high deductibles can also prevent the poor from accessing health services.

Increasing an individual's resources may improve access to needed medicines; however, with the issue of supplier-induced demand and where a provider's income depends partially or totally on profits from pharmaceutical sales, an incentive exists to prescribe multiple medicines (poly-pharmacy) and to use brand-name as opposed to generic medicines. These tendencies can be combated by strategies that restrict prescribing to an essential medicines list (China) or through large co-payments (United States).

12.11 Implementing an appropriate insurance scheme

Many countries see the initiation or promotion of one or more insurance schemes as a way of addressing health financing issues progressively and equitably. The concept of

Country Study 12-6 Medical savings accounts in Singapore

In 1984, Singapore adopted a system of compulsory, individually owned medical savings accounts to help people pay for their medical expenses. The government implemented three different health financing programs depending on need: Medisave, Medishield, and Medifund. The funds are invested and managed by the government; private insurance is not encouraged.

The Medisave program is a national health care savings program. Citizens begin contributing 6 to 8 percent of their wages, which increase according to their age. These funds can then be used to pay for specified inpatient (at both public and private hospitals) and certain expensive outpatient services, such as renal dialysis. Primary care and medicines cannot be paid for from this account. Medisave accounts are not taxed and earn tax-free interest.

The Medishield program was established in 1990 as a catastrophic insurance program to supplement Medisave accounts, which alone are not sufficient to pay for prolonged hospitalizations and treatment for chronic illnesses, especially for low-income workers who contribute less to their accounts. Premiums vary, increasing with age.

The Medifund program was established in 1993 for low-income workers whose medical bills still may not be covered by the other two programs. The government funds this program from the budget surplus, so it is not

guaranteed, reinforcing the government's position that health care is not an entitlement. Funds are distributed on a case-by-case basis.

The combination of subsidies and MSAs appears to provide a safety net, yet the system still has many limitations. In 2002, out-of-pocket spending still accounted for one-third of total health spending in Singapore, while Medisave, Medishield, and Medifund combined accounted for less than 10 percent. The remaining 60 percent came from government health spending on subsidies and from employer-provided benefits.

This limited role of the MSA thus far can be attributed to strict spending criteria, such as caps on per day cost of hospital stays and surgical procedures, and high deductibles and co-payments. The high co-payments in the Medishield program can still be a financial barrier for some people. The extent of this burden, and possibly a sign of the inequality of the system, is seen in the increase in applications for assistance from Medifund. The number rose from 58,000 in 1997 to 91,000 in 2000. Nevertheless, the MSA system is estimated to have contributed to Singapore's relatively low spending on health care (3.3 percent of GDP in 2006). A more extensive evaluation will not be available until 2030, when the system is expected to achieve full implementation.

Sources: Gottret and Schieber 2006; Massaro and Wong 1996; Hanvoravongchai 2002; WHO 2009.

cross-subsidization of the young for the old and the well for the sick is a valuable way to expand the pool of those covered and to maximize risk sharing. However, when governments are considering instituting health insurance, they need to consider the realities of implementation; the complexity of the issues involved is often poorly understood.

When examining the implications of various insurance proposals, it is critical to consider the “enabling environment” of the country (Eichler and Lewis 2000). These factors include all circumstances of the country that affect the health sector, such as the economy, the government’s ability to assume leadership and regulatory roles, the realities of the current health financing and delivery system, and cultural factors (such as the acceptance of social responsibility). Assessing the enabling environment reveals existing constraints and points to interventions that might be needed to facilitate reform (see [Box 12-1](#)).

Besides the immediate issue of deciding who and what will be covered under the insurance plan, other crucial issues to address include policy objectives, organization and geographic availability of health services, premium calculation and payment mechanisms, use and cost control measures, and administrative arrangements. In the case of medicine coverage, questions that policy makers need to answer include—

- Who receives a medicines benefit?
- Which medicines are covered (limited to formularies or generics over brand names)?
- In which settings are medicines covered (inpatient, outpatient, emergency)?

Box 12-1

Assessing a country’s enabling environment for insurance reform

What obstacles and facilitating elements exist in the “enabling environment” of the health sector?

- National income is a constraint.
- Governments lack the capability to effectively collect taxes.
- National reforms such as decentralization affect the health sector.
- Laws and regulations may seriously limit the range of feasible insurance reform options.
- The legal and regulatory framework for the health sector may be inadequate.
- The government may not be ready to assume a leadership and regulatory role.
- Powerful interest groups must be considered.

Source: Eichler and Lewis 2000.

- What will the cost be to the member, the member’s family, the insurance program?
- How can the insurance program influence access to and quality use of medicines?
- What are the desired and undesired effects of medicine policies in insurance, and how can these be routinely monitored?

The ability to administer the health insurance scheme efficiently is a central element of sustainability. The requirements for an active management system to ensure revenue collection, determine co-payments that optimize efficiency and quality care, and manage the benefit package are crucial and demanding. Any insurance system lacking an effective monitoring system that allows frequent changes to accommodate differing circumstances is likely to become insolvent or fail to provide adequate service.

An initial factor to consider when designing or reforming a health insurance scheme is the potential for building on existing successful institutions. For example, if a country already has a well-run tax-based health care system, continuing with this approach may be appropriate. Or if a tradition of community-based health insurance exists, the country may decide to build on it. In all cases, government stewardship and a strong political will to undertake the necessary health financing reform are essential.

The overall structure of the social health insurance scheme should be laid down in a health insurance law. Details that may be subject to frequent change can be established in regulations. Appropriate legislation should specify issues of membership and population coverage; organization, responsibilities, and decision-making authority; the method of financing; and the relationship with providers and the benefits provided by health insurance. Including legislation to protect consumers is particularly important if public faith in the schemes is to be maintained. Therefore, honest and fair marketing regulations need to be put in place and a transparent process for reporting, investigating, and resolving disputes needs to be ensured.

Whatever type of health financing mechanism a country decides to adopt, the transition to universal coverage may take several years, even decades. For example, in Japan, thirty-six years elapsed between the enactment of the first law related to health insurance and the final law implementing universal coverage (Carrin and James 2005). ■

ASSESSMENT GUIDE

General health financing

- What is the country's GDP per capita?
- What is the total national health expenditure (public and private) per capita?
- What is the total national health expenditure as a percentage of GDP?
- What is the percentage breakdown of health spending by source (public, private, nongovernmental organization, donor)?
- What percentage of health care costs is paid out of pocket?
- Does the country already have an efficient tax-based health care system that might form the basis for a tax-based insurance program?
- Does a tradition of community-based insurance exist in the country or region that might facilitate the introduction or expansion of this sort of scheme?
- Are national laws or regulations related to health insurance in place?
- Is there a plan for universal health coverage through insurance?
- Is the government's organizational and managerial framework strong enough to support its role in administering a health insurance scheme?

Insurance systems

- What types of health insurance currently exist: social, private, community? Are existing plans compulsory or voluntary?
- What percentage of the population is covered by each form of health insurance?
- What are the benefit packages? Do limitations exist, such as co-payments and deductibles?
- What are the characteristics of the covered populations: formally employed? high-income?
- What percentage of those insured has policies that cover medicines? What medicines are covered and what restrictions exist on medicines?
- What are the premiums for each form of insurance? Are the premiums calculated on degree of risk?
- What conditions are covered by each form of insurance?
- Is reimbursement dependent on insurance company treatment guidelines or a medicine list for each form of insurance?
- How are providers chosen and reimbursed for each form of insurance?

Glossary

Adverse selection: The tendency for people at greatest health risk to join voluntary insurance programs, while the healthiest people, whose premiums should be used to cross-subsidize the bills of the sicker members, avoid joining.

Capitation payment: A prospective, fixed payment to providers for each person served under the scheme for a particular period of time.

Case payment: An inclusive flat sum paid to health facilities or providers for a patient's treatment (including medicines) according to the diagnosed condition.

Co-insurance: A specified percentage to be paid by the member for the service or medicine; for example, 25 percent for medicines used in serious and chronic illnesses, 50 percent for most other pharmaceuticals, and 75 percent for symptomatic treatments for minor illnesses.

Community-based health insurance (also known as mutual health organizations): A usually voluntary prepayment plan to pool risk and resources centered on the concepts of mutual aid and social solidarity. Membership may be based on geographical entities, trade or professional groupings, or health care facilities.

Co-payment: Cost-control measure in insurance schemes in which the member pays a set charge per item received; co-

payments may be lower for generic medicines, higher for brand-name medicines.

Cross-subsidization: A risk-sharing concept, where the healthy subsidize the ill and the rich subsidize the poor.

Deductible: A set amount that each person in the insurance scheme must pay each year before he or she can tap into the benefits of the plan.

Exemption: A release from payment of fees for specific population groups or disease or medicine types, employed in many revolving drug fund schemes to promote access to services.

Fee for service: A payment mechanism where the insurer pays providers for each service provided to a patient.

Health insurance: A financing scheme characterized by risk sharing, in which regular payments of premiums are made by or on behalf of members (the insured). The insurer pays the cost or a set portion of the cost for covered health services.

Health maintenance organization (HMO): A type of managed care organization that provides health insurance that is fulfilled through hospitals, doctors, and other providers with which the HMO has a contract. Unlike traditional indemnity insurance, care provided in an HMO generally follows a set of care guidelines.

Health or medical savings accounts: Not strictly a form of insurance, medical savings accounts encourage individuals, often by providing tax advantages or subsidies, to save for the expected costs of medical care.

Indemnity insurance: A type of insurance where no contractual arrangements exist between insurers and providers and the provider is paid a fee for the service.

Managed care: Insurance systems in which the insurer plays an active role in overseeing the utilization and quality of service, for example, through health maintenance organizations (HMOs), preferred provider organizations (PPOs), and managed indemnity insurance.

Market failure: A term used by economists to describe circumstances that constrain the smooth operation of the market (Normand and Weber 1994).

Maximum allowable cost (MAC) or maximum reimbursement price (MRP): Cost-control measure in insurance schemes that specifies the highest amount that will be reimbursed for each pharmaceutical item dispensed.

Moral hazard: In the context of health financing, when members of a health insurance scheme use services or consume medicines more frequently than if they were not insured.

Multiple-payer system: Where several different organizations collect and pool revenues and purchase health services for specific parts of the population.

Mutuelles de santé: Term used in West Africa for community-based health insurance plans.

Out-of-pocket spending: When a person pays a nonreimbursable fee directly to a health service provider at the time of service or to a dispenser for a medicine or other health commodity.

Payment for performance (or incentive payments): A variation on fee for service in which doctors or health facilities are paid based on whether they achieve predetermined quality-based performance indicators.

Pharmaceutical benefits management scheme: Mechanism in which organizations contract with insurers to provide pharmacy services, often through subcontracts with local pharmacies and through mail-order pharmacy services.

Premium: In private insurance schemes, the money that is regularly paid to the insurance company for health insurance coverage.

Prepayment: A payment made in advance that guarantees eligibility to receive a service when needed at limited or no additional cost. Prepayment is a feature of all types of health insurance.

Prior authorization: Cost-control measure in insurance schemes in which the insurer retains the right to approve medicine use before medicines are dispensed to the patient.

Private health insurance: A scheme that is usually paid for by voluntary contributions from employers, mutual societies, cooperatives, or individuals.

Purchasing: The process by which pooled funds are paid to providers to deliver health goods and services.

Reference price systems: A cost-containment method for pharmaceuticals where a cluster of similar medicines is associated with one specific price accepted by the government for reimbursement purposes.

Reimbursement: A system where providers are paid after they deliver the services.

Reinsurance: When a direct insurer contracts with a second insurer to share risks that the direct insurer has assumed for its members. Often associated with small community-based plans, reinsurance protects the direct insurer from catastrophic liabilities.

Risk pooling: A method that shares the financial risk associated with health care among large groups. Pooling requires some

transfer of resources (or cross-subsidization) from healthy people to sick people and from rich to poor.

Single-payer system: Where one organization (usually the government) collects and pools revenues and purchases health services for the whole population.

Skimming: A problem that occurs when insurers use various screening measures to avoid insuring people at greatest health risk (and therefore greatest expense).

Social or public health insurance: A compulsory system, for civil servants, people in the formal employment sector, and certain other groups through programs such as social security funds, national health insurance funds, and other systems. Premiums are often deducted directly from salaries or wages.

Step therapy: A restriction on a patient from receiving the most expensive pharmaceutical therapy without first trying the less expensive alternatives.

Tiered co-payments: The different payments that patients make for their prescriptions, depending on which tier the medicine falls in; for example, generic or brand name.

Universal health coverage: The concept of ensuring that all of a country's citizens have access to adequate and affordable health care.

User fee: An out-of-pocket payment made by the patient at the time a health service is provided.

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