

Social Reinsurance

A New Approach to Sustainable Community
Health Financing

Editors

David M. Dror and **Alexander S. Preker**



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World Bank
1818 H Street, NW
Washington, DC 20433
Telephone: 202-473-1000
Internet: www.worldbank.org
E-mail: feedback@worldbank.org

International Labour Office
4, route des Morillons
CH-1211 Geneva 22
Switzerland
Fax: (+41 22) 799 6938
Internet: www.ilo.org/publns
E-mail: pubvente@ilo.org

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Foreword

Action to improve health and facilitate access to health care is important for individual well-being and national economic performance. But paying for health care is problematic. Equally vital elements of well-being, such as food, are paid through out-of-pocket payments. But that approach does not work well for health care. Unlike food, it is needed unpredictably and can be very expensive. On the face of it, the solution is private insurance. But this approach, too, does not work well because major information problems make individually risk-rated private insurance inefficient, expensive, and unable to cover all medical risks. The U.S. system, substantially reliant on private medical insurance, faces problems that are entirely predicted by economic theory.

All other advanced industrial countries finance health care out of a mixture of (limited) out-of-pocket payments, together with funding through social insurance, and taxation, or from a mixture of the two. Neither approach is perfect. Systems with taxpayer funding of publicly produced health care can be slow to innovate and to respond to consumer preferences; systems based on social insurance combined with private production face continual upward pressures on medical spending. Yet either is capable of delivering a reasonable combination of quality, access, and cost containment.

What, however, of poorer countries with limited (or minimal) fiscal and institutional capacity? Public budgets in such countries cannot afford more than minimal health care systems; and individually risk-rated insurance is likely to face even more problems than in the West because of the limited regulatory ability of government. As a result, when illness strikes, the poor—and especially the rural poor and people working in the informal economy—have to rely on private resources to pay for health care. For poorer people in low-income countries, out-of-pocket expenditure on health care can reach 80 percent of total medical spending, and a recent study of hospital visits in India showed that between one-third and one-half of patients needing inpatient care became impoverished because of inadequate risk management techniques.

Enter Dror, Preker, and their coauthors! This volume discusses community-based approaches to insuring people against medical risk—not based on individual risk rating like private insurance, but along the lines of decentralized social insurance based on the average risk. Recent studies of community savings, loans,

and financing schemes show how even the poor can insure themselves against unexpected events. Community-level health insurance programs improve access to essential drugs, primary care, and basic hospital care for rural populations and informal sector workers, offering at least some protection against the impoverishing effects of illness.

Tapping into experience from other sectors, the authors argue that subsidies can be used more effectively to expand insurance coverage, and that reinsurance can improve the financial viability of community-financed health schemes in settings where larger or more formal health financing mechanisms fail to reach large parts of the population. Reinsurance makes it possible to spread and transfer medical risks previously regarded as common shocks (and hence, uninsurable), such as environmental hazards (risks of pollution), earthquakes, meteorological and electrical storms, and retroactive coverage of asbestos damage.

The authors suggest that reinsurance techniques could also be used to improve the viability of small risk pools typical of community health financing schemes. This is an innovative application to the health sector and to poor populations of lessons learned from other sectors.

This book shows how the underlying idea of social insurance can be made operational in countries without the capacity to finance or organize large-scale systems, thus making it possible to improve access to health care for poor people in poor countries. There is no need to belabor the importance of the topic.

Nicholas Barr
Professor of Public Economics
London School of Economics
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David M. Dror and Alexander S. Preker,
Editors

Abbreviations and Acronyms

ACDECO	Angono Credit and Development Cooperative, the Philippines
ART	Alternative risk transfer
ASA	Association for Social Advancement
ATP	Ability to pay
BAHAO	Barangay Health Workers Aid Organization, the Philippines
BRAC	Bangladesh Rural Advancement Committee
BRI	Bank Rakyat Indonesia
BSMPC	Bagong Silang Multi-Purpose Cooperative, the Philippines
CBHCO	Community-based health care organization
CBO	Community-based organization
CGE	Cost-generating event
DALE	Disability-adjusted life expectancy
DfID	Department for International Development (United Kingdom)
DHS	Demographic health surveys
DOH	Department of health
FR	Finite-risk reinsurance
GDN	Global Development Network
GDP	Gross domestic product
GNP	Gross national product
GRDP	Gross regional domestic product
GTZ	German Technical Corporation
HDI	Human Development Index
HMO	Health maintenance organization
IEC	Information, education, and communication
ILC	International Labour Conference
ILO	International Labour Organization
IMR	Infant mortality rate
ITRMC	Illocos Training and Regional Medical Centre, the Philippines
LGU	Local government unit (the Philippines)
M&E	Monitoring and evaluation
MIU	Microinsurance unit
MFI	Microfinance institution
MGA	Mutual guarantee association

xx Abbreviations and Acronyms

MLE	Maximum likelihood estimator
MMG	Medical Mission Group Hospital and Health Services Cooperative, the Philippines
MMR	Maternal mortality rate
MOH	Ministry of health
NATCCO	National Confederation of Cooperatives, the Philippines
NBFI	Nonbank financial institution
NCR	National capital region, the Philippines
NDHS	National Demographic and Health Survey
NESSS	National Epidemic Sentinel Surveillance System
NGO	Nongovernmental organization
NGT	Nominal group techniques
NHIP	National Health Insurance Program
NHS	National Health Services
OECD	Organisation for Economic Co-operation and Development
OHPS	ORT Health Plus Scheme, Philippines
ORT	Organization for Educational Resources and Training, the Philippines
PHIC	Philippines Health Insurance Corporation (PhilHealth)
PO	People's organization
PPC	Physicians per capita
ROSCA	Rotating savings and credit associations
RC	Risk characteristics
SEWA	Self-Employed Women's Association, India
SHINE	Social Health Insurance Networking and Empowerment, the Philippines
SSS	Social Security System, the Philippines
STEP	Strategies and Tools against Social Exclusion and Poverty, ILO
SU	Social utility
U.N.	United Nations
UNDP	United Nations Development Programme
USAID	U.S. Agency for International Development
U5MR	Under-five mortality rate
WHO	World Health Organization
WTP	Willingness to pay

PART 1

Development Challenges in Health Care Financing

1. Rich-Poor Differences in Health Care Financing

Alexander S. Preker, Jack Langenbrunner, and Melitta Jakab

2. The Role of Communities in Combating Social Exclusion

David M. Dror, Alexander S. Preker, and Melitta Jakab

CHAPTER 1

Rich-Poor Differences in Health Care Financing

Alexander S. Preker, Jack Langenbrunner, and Melitta Jakab

The twentieth century witnessed greater gains in health outcomes than any other time in history. These gains resulted partly from improvements in income with accompanying improvements in health-enhancing social policies (housing, clean water, sanitation systems, and nutrition) and greater gender equality in education. The gains also resulted from new knowledge about the causes, prevention, and treatment of disease and from the introduction of policies, financing, and health services that made such interventions accessible more equitably (Preker and others 2001b).

ACHIEVING FINANCIAL PROTECTION AGAINST THE COST OF ILLNESS

Improving ways to finance health care and protect populations against the cost of illness has been central to this success story. Prior to the nineteenth century, most health-related transactions took place directly between patients and their healers. Patients could express their preference directly as consumers. Subsidies for the poor and collective risk-sharing arrangements did not exist.

With industrialization and the scientific revolution, there was a rapid expansion in knowledge about good health and illness and in the range and cost of available diagnostic methods and interventions. As expensive treatments became available for rare and complex conditions, health systems became differentiated into several subfunctions—financing, input generation, and provision of services (WHO 2000). The *financing function* includes the collection and pooling of revenues and their use by allocating resources or purchasing services from providers. The *input generation function* includes the production, import, export, distribution, and retail of human resources, knowledge, pharmaceuticals, medical equipment, other consumables, and capital. The *service delivery function* includes both population-based public health services and clinical services provided through

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public and private diagnostic, ambulatory, and inpatient facilities for individuals and households. These core functions of health systems are influenced by governments through their stewardship function and by the population through political processes, demand, and markets.

One of the great achievements in financing health care during the twentieth century was the move away from direct out-of-pocket payment and spot market transactions between patients and providers to broad-based insurance and subsidy-based financing (Preker 1998, pp. 103–24). In 1938, New Zealand became the first country with a market economy to introduce compulsory participation and universal entitlement to a comprehensive range of health services, financed largely through the public sector. The United Kingdom followed a similar path 10 years later when it established the National Health Services (NHS) in 1948. Universal access to health care in many East European countries—Albania, Bulgaria, the Czech Republic, Hungary, Poland, Romania, the Slovak Republic, and the former Soviet Union—was achieved through similar legislative reforms. Today, the population in most industrial countries (with the exception of Mexico, Turkey, and the United States) enjoys universal access to a comprehensive range of health services, financed through a combination of general revenues, social insurance, private insurance, and user charges.

As a result of these developments, the share of the world's population protected against the catastrophic cost of illness increased significantly during the twentieth century. Global spending on health rose from 3 percent to 8 percent of global gross domestic product (GDP) (US\$2.8 trillion). At the current 3.5 percent global growth rate for GDP, spending on health-enhancing activities will grow by about US\$98 billion a year worldwide. The matching figures for low- and middle-income countries are 4 percent of the GDP (US\$250 billion), and an expected growth of some US\$8 billion a year.

EXCLUSION OF LOW-INCOME RURAL POPULATIONS AND INFORMAL WORKERS

Costa Rica, Malaysia, Sri Lanka, Zambia, and a number of other countries have tried to follow a similar path, but the quest for financial protection against the cost of illness in middle- and low-income countries has been a bumpy ride.

As described by various reports, many of the world's 1.3 billion poor still do not have access to effective and affordable drugs, surgeries, and other interventions because of weaknesses in the financing of health care (World Bank 1993, 1997; World Health Organization [WHO] 2000; International Labour Organisation [ILO] 2000). Low-income populations still rely heavily on out-of-pocket expenditure instead of risk-sharing arrangements to pay for care, thereby exposing themselves to added risk of impoverishment from the double effect of income loss during illness, the high cost of health care, and variations in the prices charged by providers (Diop, Yazbeck, and Bitran 1995).

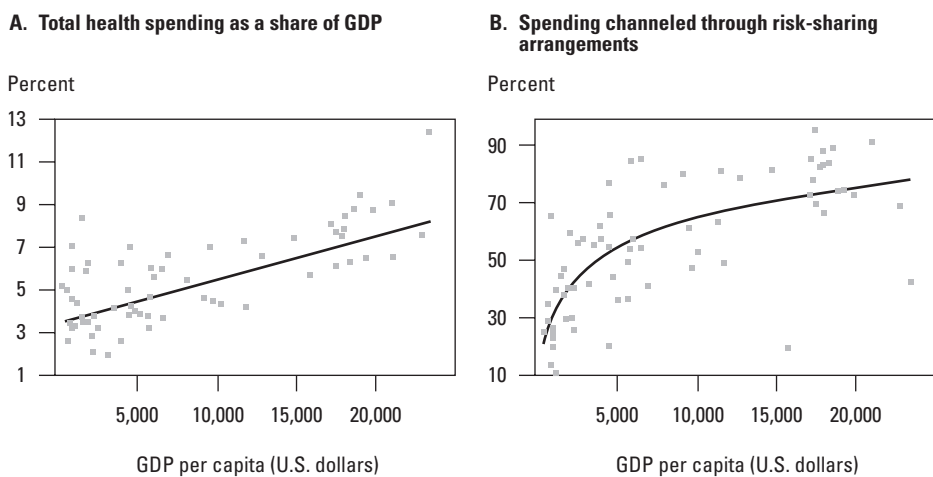
When ill, low-income households in rural areas continue to use home remedies, traditional healers, and local providers who are often outside the formal health system. Often, only the rich and urban middle classes have access to the health care advances of the twentieth century. In many low-income countries—where public revenues are scarce (often less than 10 percent of GDP) and institutional capacity in the public sector is weak—a large share of financial resources is still not channeled through formal risk-sharing arrangements.

As a result, although 84 percent of the world's poor shoulder 93 percent of the global burden of disease, only 11 percent of the US\$2.8 trillion spent on health care reaches the low- and middle-income countries (WHO 2000). Two observations stand out. Poor countries spend less in both relative (spending per GDP) and absolute (U.S. dollars per capita) terms (figure 1.1A). Poor countries rely much more on out-of-pocket expenditure than on financial resources channeled through risk-sharing arrangements (figure 1.1B).

UNDERSTANDING THE ORIGINS OF RICH-POOR DIFFERENCES IN HEALTH CARE FINANCING

Health care financing through collective arrangements has two independent objectives: it provides the financial resources to diagnose, prevent, and treat known illness and to promote better health; and it provides an opportunity to protect individuals and households against the direct financial cost of illness

FIGURE 1.1 Spending and Risk-Sharing Arrangements



Source: World Bank data.

when channeled through risk-sharing mechanisms (Hsiao 1994; Mossalios, Figueras, and Dixon 2002; Schieber and Maeda 1997).¹ Different issues arise in the case of the public and private engagement in health care financing and service delivery. The need for collective arrangements and strong government action in health care financing is often confused with public production of services. The poor and other excluded populations often seek care from private providers because public services in rural and low-income urban areas are often scarce or plagued by understaffing, supply shortages, and low-quality care. Poor households and community-financing schemes therefore often turn to private providers for the care they need. Such engagement by private providers can still be pro-poor if there are mechanisms to exempt the poor or subsidize user fees (Preker, Harding, and Girishankar 2001, pp. 209–52) and if purchasing arrangements include coverage for the poor (Preker and others 2001a, pp. 80–108).

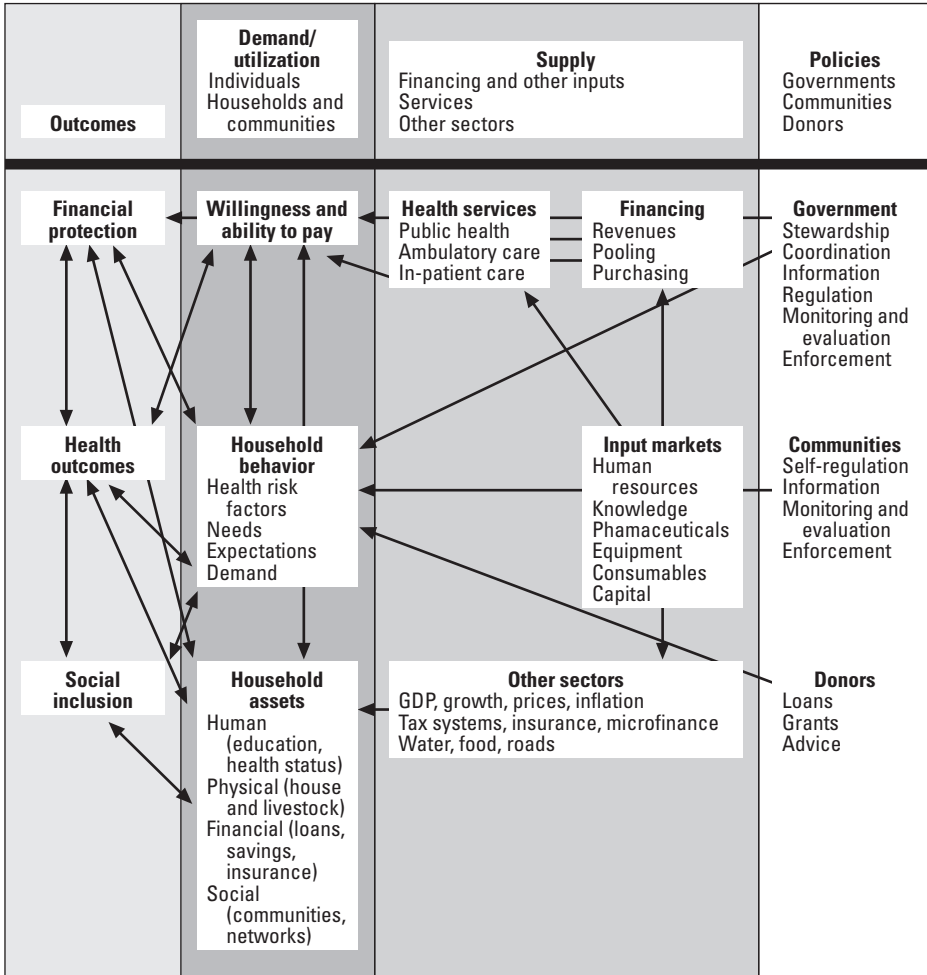
The causal links leading to financial protection and sustainable health care financing are complex (figure 1.2). The following four-part framework summarizes the key outcomes of improved health and better financial protection; demand and utilization patterns; supply in the health system and related sectors; and policy actions by governments, civil society, the private sector, and donors (adapted from Claeson and others 2001).

Outcome indicators. First, although financial protection is highlighted as the key outcome indicator in this report, the WHO (2000) has highlighted three broad goals of most health systems: financial fairness (an indicator that combines progressivity and financial protection into one indicator); disability-adjusted life expectancy (DALE, an indicator that combines life-expectancy and disability measures); and responsiveness (a consumer satisfaction indicator that combines ethical and consumer quality dimensions).

Demand and utilization in influencing financial protection. Second, there is a complex interplay among household assets (human, physical, financial, and social), household behavior (risk factors, needs, and expectation for services), ability and willingness to pay, and availability of insurance or subsidies (Soucat and others 1997). This part of the analysis emphasizes the importance of household and community behavior in improving health and in reducing the financial risks.

Supply in health system and related sectors. Third, there is a hierarchy of interest from non-health-sector factors in improving financial protection (such as GDP, prices, inflation, availability of insurance markets, effective tax systems, credit, and savings programs) to more traditional parts of the health system (preventive and curative health services, health financing, input markets, and access to effective and quality health services—preventive, ambulatory, and inpatient). In respect to the latter, organizational and institutional factors contribute to the incentive environment of health financing and service delivery systems in addition to the more commonly examined determinants such as management, input, throughput, and output factors (Harding and Preker 2001).

FIGURE 1.2 Determinants of Outcome: Health and Financial Protection



Source: Based on World Bank Poverty Reduction Framework; Claeson and others 2001.

Policy actions by governments, civil society, and the private sector. Finally, through their stewardship function, governments can deploy a variety of policy instruments to strengthen the health system, the financing of services, and the regulatory environment within which the system functions (Saltman and Ferroussier-Davis 2000). These policy instruments include access to information, creation of an appropriate regulatory framework, use of contracts, subsidies for the poor, and direct public production of services. In countries with weak government capacity, civil society and donors can be encouraged to play a similar role.

KEY OBSTACLES IN EXTENDING FINANCIAL PROTECTION THROUGH FORMAL ARRANGEMENTS

In many low-income countries, the poor are often excluded from formal arrangements, lacking both a sustainable source of financing to pay for health care and financial protection against the cost of illness. The following section summarizes some of the key obstacles to extending social protection against the cost of illness through formal health care financing arrangements (see box 1.1 for a summary of the complex flow of funds through the health system).

Problems in Mobilizing Financial Resources at Low-Income Levels

Several factors make the policy options for financing health care at low-income levels different from those at higher income levels. In resource mobilization, these factors include:

- A lower absolute level of financial resources can be mobilized at low-income levels and in poor communities.

BOX 1.1 FLOW OF FUNDS THROUGH THE HEALTH SYSTEM

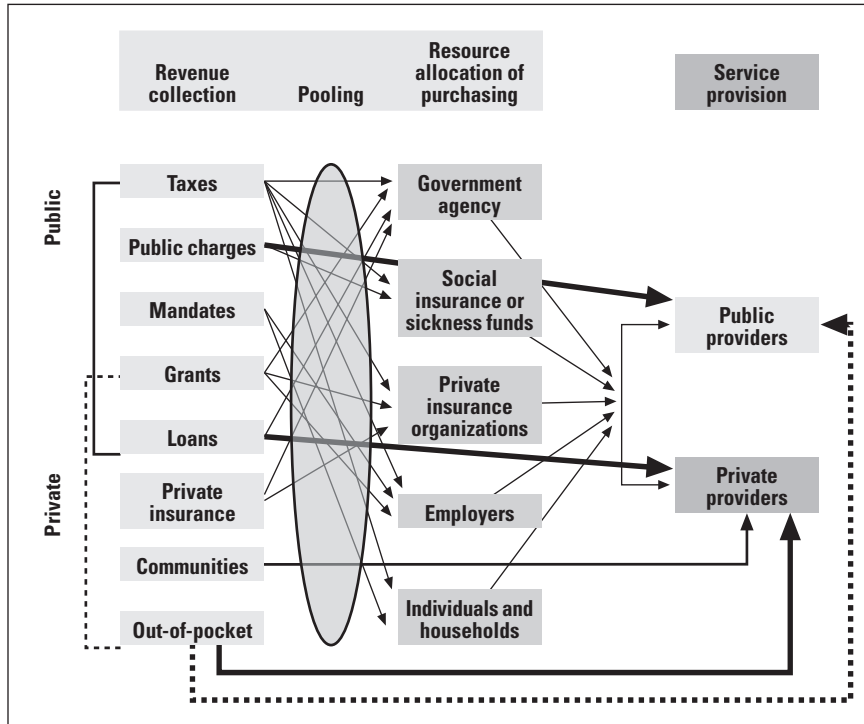
The flow of funds through the health care system and public/private mix is complex, as shown in the figure below. This flow can be differentiated into three discrete activities: collecting revenues (source of funds), pooling funds and spreading risks across larger population groups, and purchasing services from public and private providers of health services (allocation or use of funds).

In very few countries do organizational and institutional structures correspond, one-to-one, with the three core subcomponents of the health financing function. In most countries, these three subfunctions of health care financing coexist under different organizational configurations. In all countries, the ministry of finance collects and pools public resources through general taxation. Through the budgetary process, some of these funds are allocated to the ministry of health or directly to providers. Parallel to these arrangements, many countries also integrate the collection of premiums and pooling of financial resources through social insurance funds, voluntary private insurers, community-financing schemes, or employers.

Finally, in all countries, providers collect some revenues directly as out-of-pocket payments at the time of treatment. As seen earlier, the poorer the country, the more likely is significant “leakage” of financing through such direct patient/provider channels, thereby exposing individuals and households to the financial risk of illness and exposing providers to an inability by poor populations to pay (heavy black arrow in the figure).

(Box continues on the following page.)

BOX 1.1 (continued)



Source: Adapted from Schieber and Maeda 1997.

A combination of general taxation, social insurance, private health insurance, and limited out-of-pocket user charges has become the preferred health financing instruments for middle- and higher-income countries where income is readily identifiable and taxes or premiums can be collected at the source. By contrast, in low-income countries where income is not readily identifiable and collecting taxes or premiums at the source is difficult, other instruments such as community financing, personal savings, and direct out-of-pocket fees play a larger role in health care financing—by design or default.

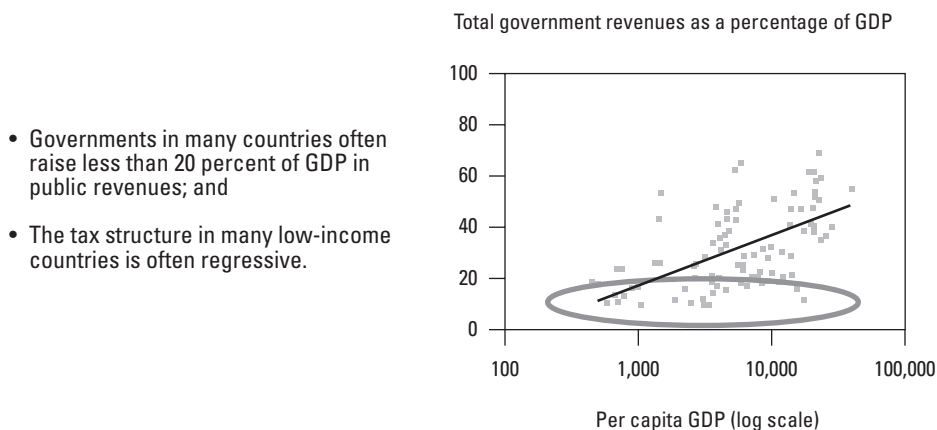
- A larger proportion of the population lives in rural areas, relies on barter transactions, has irregular seasonal employment, and works in the informal sector. This makes it difficult to link the collection of premiums with employment, to enforce compulsory membership (membership in community schemes is usually voluntary), and hence to secure a steady income stream for health care.

- Willingness and ability to pay are difficult to assess—hence, the high reliance on consumption taxes at low-income levels and the regressive nature of the general revenues tax structure.
- The transaction costs are high and governments’ or social insurance agencies’ capacity is weak to collect taxes and social insurance premiums in low-income countries from rural and low-income workers. This problem reduces the resources that can be made available to subsidize care for the poor.

The macroeconomic instability that often exists at low-income levels (fiscal deficits, inflation, and fluctuating exchange) contributes to the instability of the income stream through formal taxation mechanisms (figure 1.3). This problem is seen even in countries that once had public financing and universal entitlement to health care such as some of the countries that underwent severe economic shock following the transition from central planning to more market-oriented economies. In those countries with large rural and informal employment sectors, collective health care financing arrangements have all but collapsed (Preker, Jakab, and Schneider 2002).

When a country’s taxation capacity is low, 10 percent of GDP or lower, it would take 30 percent of government revenues to meet a 3 percent of GDP health expenditure target through formal collective health care financing channels. In most countries, public expenditure on health care is much lower than this, often not surpassing 10 percent of public expenditure. Hence, less than 1 percent of GDP of public resources is available for the health sector. At an income level of US\$300 per capita or less, the resulting US\$3 per capita often cannot cover even minimal basic care for the poor (World Bank 1997).

FIGURE 1.3 Low-Income Countries Have Weak Capacity to Raise Revenues



- Governments in many countries often raise less than 20 percent of GDP in public revenues; and
- The tax structure in many low-income countries is often regressive.

Source: World Bank data.

Individuals and households in low-income countries often have a greater capacity and willingness to pay through direct out-of-pocket payments to providers and community-financing schemes than through the scarce resources that can be mobilized through formal channels (Sari and Langenbrunner 2001). Coupled with the low quality and strict rationing of services, even the poor often bypass public providers to seek the care they need directly from the informal sector and private providers. This exposes the poor to a significant risk of impoverishment from the cost of illness (Wagstaff, Watanabe, and van Doorslaer 2001), especially when their illness requires hospitalization (Peters and others 2001). In many countries, community-financing schemes have developed to offer less formal prepayment schemes that offer limited services (Arhin-Tenkorang 1995; Atim 1999). However, many of these schemes operating among low-income groups encounter both a recovery gap (chapter 13, this volume) and a compliance gap (chapter 17, this volume, presents data from the Philippines).

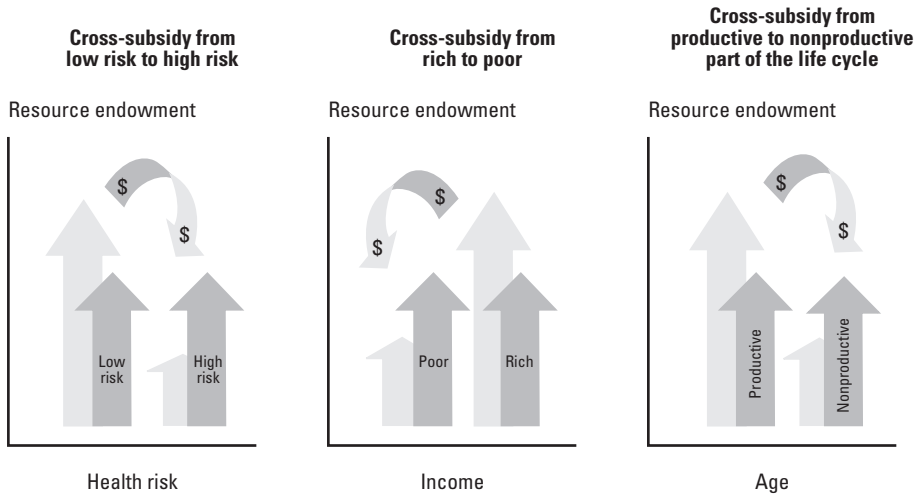
Problems in Revenue Pooling at Low-Income Levels

A different set of problems is faced during the pooling of financial resources at low-income levels. Although the rich are better able to contribute than the poor, the poor bear a much larger share of the disease burden. Sharing costs across income groups is, therefore, a fundamental aspect of financial protection in the health sector. Furthermore, people use health care most during childhood, the childbearing years, and old age—when they are the least productive economically. Smoothing out income across the life cycle can, therefore, also contribute to financial protection in the health sector. Based on these observations, three types of revenue transfers occur in the health sector during the revenue-pooling process: from rich to poor (subsidies); from healthy to sick (insurance); and from the economically active part of the life cycle to the inactive early and later years (savings), as shown in figure 1.4.

Such revenue pooling often falls apart at low-income levels for several reasons:

- Tax evasion is widespread among the rich and middle class in the informal sector, allowing higher income groups to avoid contributing their share to the revenue pool.
- Any pooling that does exist is usually fragmented along income levels, preventing effective cross-subsidies between higher- and lower-income groups. For example, many countries have separate financing systems for formal-sector and government workers (social insurance), the poor (general revenue subsidies), the rich (private insurance and personal savings), populations in rural areas and the informal sector, and other excluded segments of the population (self-help and community financing schemes).
- Personal and household savings are often the main source of intertemporal transfers.

FIGURE 1.4 Revenue Pooling Equalizes Inequities



Source: Preker and others 2001a.

- Dissatisfaction with the quality and scope of services provided through ministries of health and other public providers leads many low-income groups to bypass formal financing systems to obtain the services they think they need directly from the informal sector and private providers through direct out-of-pocket payments. This undermines all three pooling systems described above.

In many countries, local community-financing schemes have emerged partially as an informal-sector response to these shortcomings in revenue pooling at low-income levels. (See box 1.2 for conceptualization of various risk sharing arrangements.)

Problems in Allocating Resources and Rationing Care at Low-Income Levels

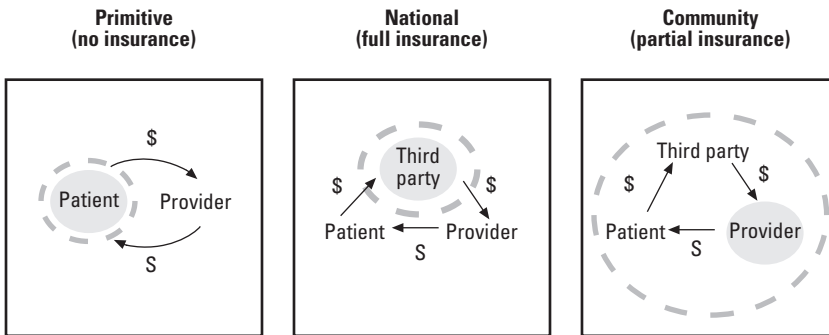
In most countries, the potential range and scope of services that can be provided through resource allocation or purchasing services in the formal public sector is unsustainable without some form of care rationing.

How to ration such care is a critical policy decision that all countries face. Yet there is surprisingly little consensus among either professionals or practitioners on this topic (Musgrove 1999, 2000; Jack 2000). Rationing may occur through: *low-end truncation* by introducing copayments or excluding from the publicly financed package high-frequency, low-cost interventions such as dental care, drugs, eyeglasses, hearing aids, and allied health services; *high-end truncation* by excluding low-frequency,

BOX 1.2 DIFFERENT APPROACHES TO SHARING RISKS

The financial burden of health risks can be shared in many ways. Different health care systems approach this issue differently. Three common approaches are:

- Primitive (no insurance)—All risk shouldered by the patient
- National (full insurance)—All risk shouldered by the insurer at the broadest possible level (national)
- Community (partial insurance)—Risk shared among insurers, patients, and providers



\$ Money
S Services

Note: The dashed circle indicates the flow of risk.

Many low-income countries still expect patients to shoulder most health risks, as they offer no insurance. Examples include India and every country in sub-Saharan Africa. In most other countries, the state assumes some patient risks through their ministries of health or national health insurance programs. For reasons described in this chapter, few low-income countries have the capacity or resources to implement this type of risk-sharing arrangement for the whole population. Most therefore restrict their national health service coverage to a subsegment of the population.

Community-financing schemes have stepped in to fill this gap by assuming some but not all the risks of health care financing. These schemes share risks across the insurer, patients, and providers. Patients share some risk since most community schemes put ceilings on benefits or exclude certain services or conditions. Costs not covered by the plan remain with the patient. And providers that work with these schemes also shoulder some risk, since they cannot turn away patients who have partial coverage but cannot pay the difference. In these circumstances the providers become insurer of last resort.

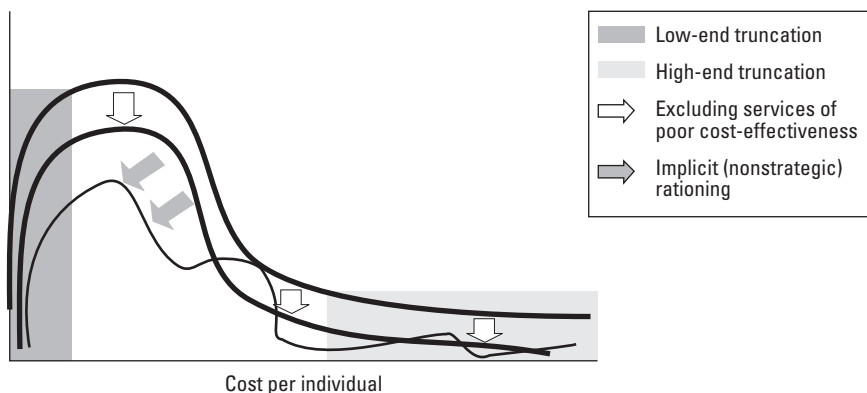
very expensive interventions such as high-technology diagnostic services and heroic aggressive surgery or chemotherapy that can extend life only by a few weeks or days; *elimination of ineffective care* such as alternate therapies and unproven interventions; and *random quality deterioration* by not making any explicit decision but allowing the quality to erode slowly over time (figure 1.5).

Many low-income countries opt to ration services by not making any explicit decisions regarding the scope and range of services. Instead, they use nonspecific broad expenditure caps that push rationing decisions to lower levels of the provider system. Faced with enormous expectations and demand from the population, providers often find it easier to allow service quality to deteriorate—through drug shortages, equipment breakdowns, capital stock depreciation, and lowering of hygiene standards—than to make politically and ethically difficult rationing decisions. Politically and ethically difficult rationing decisions about the targeting of public expenditure to the poor are also difficult in such an environment. As a result of such difficulties, the rich often benefit more from public subsidies and public expenditure than do the poor (Gwatkin 2001, pp. 217–46).

As in the case of problems in resource mobilization and pooling at low-income levels, even the poor often prefer to bypass such quality rationing by publicly financed providers when they think they can find services in the informal sector and from private providers that will respond more directly to their needs and expectations for care. (See box 1.3 for a more detailed discussion on selected issues relating to resource allocation and purchasing.)

FIGURE 1.5 Cost-Risk Concentration Curve

Frequency of event (percent of population at risk)



BOX 1.3 WHAT TO BUY USING PUBLIC FUNDS, IN WHICH FORM, HOW MUCH TO BUY, AND HOW TO PAY FOR IT?

Musgrove (1999) provides a decision tree on the rational use of public financing in the health sector.

What to buy using public funds. It starts with the overarching issue of allocative efficiency by asking if the proposed expenditure is for public goods, generally population-based services. If the answer is “yes,” the next step is to rank such expenditures in terms of cost-effectiveness—or even better, cost-benefit analysis—to decide which will be funded. If proposed expenditures do not meet public goods criteria, the tree asks whether significant externalities or risks of catastrophic costs are involved and whether the proposed beneficiaries are poor. Thus, allocative efficiency, risk, equity, and cost-effectiveness interact to determine public-financing decisions in health. Economic principles govern each decision point but, because many other factors are often weighed, the outcomes will vary considerably across countries. The overriding principle is to maximize the potential impact on populations and the poor. In most countries there are important tradeoffs between achieving overall population health impact and targeting maximum benefits of public expenditure on the poor.

In which form? Risk-sharing arrangements may buy or allocate resources across a continuum, ranging from simple to complex units obtained. At the lower end of complexity, resources may be spent on suppliers of inputs such as pharmaceuticals, equipment, supplies, or labor. Moving up the ladder, resources may be spent on suppliers of specific interventions such as vaccinations or diagnostic services. At a higher level of complexity, resources may be spent on suppliers of complex services such as integrated ambulatory and inpatient care. Finally, at the highest level of complexity, resources may be spent on suppliers that may try to maximize outcomes such as a reduction in morbidity or mortality. Risk-sharing arrangements that choose suppliers that provide the desired units of care are more likely to get good value for money than those that blindly follow historical resource allocation.

If the unit desired is periodic blood pressure checks, a low-complexity intervention, coordination among providers is not necessary. Individual doctors, nurses, medical aids, and others are all able providers. But if the desired unit of care is a reduction in morbidity from cardiovascular disease, the range of providers able to deliver that service would change dramatically. Integrated provision of such care often requires a much greater range of services and complex coordination of networks of doctors, ambulatory care centers, lab and imaging facilities, and hospitals, as well as public health services that can do outreach and health promotion. The risk-sharing arrangement would no longer want to identify individual doctors or nurses as eligible providers, but complex networks of provider organizations already coordinating their operations. Although integrated population interventions would be the most effective way to provide

(Box continues on the following page.)

BOX 1.3 (continued)

health services, it is extremely demanding organizationally and institutionally for both insurers and providers. Improving overall health status would be the most desirable unit to focus on, but risk-sharing arrangements do not usually have direct control over the non-health-sector determinants such as education, income, and housing that affect health outcomes. Therefore, output proxies are usually used instead.

How much to buy? How much to buy should be determined by a balance between the supply of services, their prices, and the demand for such services, based on willingness and ability to pay. Most individuals and households will defy this logic when faced with the prospect of long-term disability and death. In those circumstances, patients are often willing to go deeply into debt and pay a much higher price than the market would otherwise bear. This imbalance is further distorted by subsidies and third-party insurance that reduce the cost of care to the individual consumer. Supply, instead of the usual market signals, is therefore often the limiting factor that determines how much to buy.

How to pay for it? Patients can pay directly out-of-pocket, but the high and unexpected costs of care encourage that costs be mediated through third-party insurers or organizations that pool resources. When providers are reimbursed indirectly through intermediaries, it is the payment mechanism used rather than prices and demand that creates the incentive environment for suppliers of services. The payment mechanism can be analyzed and is developed along two different axes: (a) unit of payment and (b) level of payment. Each aspect is technically difficult. The larger the unit of payment, the more difficult it is to develop an appropriate price for it. The level of payment, if too high, could encourage overutilization. If the level is too low, access could be hurt or informal payments extracted from patients. An optimal payment system for providers should induce providers to perform high-quality, effective treatments, while at the same time promoting a rational allocation of resources to and within the health sector. In reality, international experience and the literature reflects tensions across these multiple objectives. No payment system addresses all objectives equally well (Langenbrunner and Wiley 2002, pp. 150–76).

NOTE

1. We will not deal with the indirect impact of illness on loss of income from interruption in employment, although this is clearly another important dimension of financial protection against the cost of illness.

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