CHAPTER FIVE

Who Pays for Health Systems?

Choices for financing health services have an impact on how fairly the burden of payment is distributed. Can the rich and healthy subsidize the poor and sick? In order to ensure fairness and financial risk protection, there should be a high level of prepayment; risk should be spread (through cross-subsidies from low to high health risk); the poor should be subsidized (through cross-subsidies from high to low income); the fragmentation of pools or funds should be avoided; and there should be strategic purchasing to improve health system outcomes and responsiveness.

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How financing works

Health care expenditures have risen from 3% of world GDP in 1948 to 7.9% in 1997. This dramatic increase in spending worldwide has prompted societies everywhere to look for health financing arrangements which ensure that people are not denied access to care because they cannot afford it. Providing such access to all citizens has long been a cornerstone of modern health financing systems in many countries. The main function of the health system is to provide health services to the population, and this chapter concentrates on health financing as a key to effective interaction between providers and citizens. It discusses the purpose of health financing, and the links between health financing and service delivery, through purchasing. The factors affecting the performance of health financing are also examined.

The purpose of health financing is to make funding available, as well as to set the right financial incentives for providers, to ensure that all individuals have access to effective public health and personal health care. This means reducing or eliminating the possibility that an individual will be unable to pay for such care, or will be impoverished as a result of trying to do so.

To ensure that individuals have access to health services, three interrelated functions of health system financing are crucial: revenue collection, pooling of resources, and purchasing of interventions. The main challenges are to put in place the necessary technical, organizational and institutional arrangements so that such interactions will protect people financially the fairest way possible, and to set incentives for providers that will motivate them to increase health and improve the responsiveness of the system. The three functions are often integrated in a single organization, and this is currently the case in many health systems in the world. Although this chapter discusses the three functions separately, it does not imply that an attempt should be made to separate them in different organizations. There is, however, an increasing trend to introduce a separation between financing and provision.

Revenue collection is the process by which the health system receives money from households and organizations or companies, as well as from donors. Contributions by donors are discussed in Box 5.1. Health systems have various ways of 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), out-of-pocket payment and donations. Most high income countries rely heavily

Box 5.1 The importance of donor contributions in revenue collection and purchasing in developing countries

Donor contributions, as a source of revenue for the health system, are of key importance for some developing countries. The absolute amounts of such aid have been large in recent years in Angola, Bangladesh, Ecuador, India, Indonesia, Mozambique, Papua New Guinea, the United Republic of Tanzania and several eastern European countries, but in the larger countries aid is usually only a small share of total health spending or even of government expenditure. In contrast, several countries, particularly in Africa, depend on donors for a large share of total expenditure on health. The fraction can be as high as 40% (Uganda in 1993) or even 84% (Gambia in 1994) and exceeds 20% in 1996 or 1997 in Eritrea, Kenya, The Lao People's Democratic Republic and Mali. Bolivia, Nicaragua, the United Republic of Tanzania and Zimbabwe have obtained 10% to 20% of their resources for health from donors in one or more recent years.

Most aid comes in the form of projects, which are separately developed and negotiated between each donor and the national authorities. Although by no means unsuccessful, international cooperation through projects can lead to fragmentation and duplication of effort, particularly when many donors are involved, each focusing on their own geographical or programme priorities. Such an approach forces national authorities to devote significant amounts of time and effort to dealing with donors' priorities and procedures, rather than concentrating on strategic stewardship and health programme implementation. Donors and governments are increasingly seeing the need to move away from a project approach towards wider programme support to long-term strategic development that is integrated into the budgetary process of the country. In this respect, sector-wide approaches have been effective in countries such as Bangladesh, Ghana and Pakistan.[1]

[1] Cassels A, Janovsky K. Better health in developing countries: are sector-wide approaches the way of the future? *The Lancet*, 1998, 352:1777–1779.

on either general taxation or mandated social health insurance contributions. In contrast, low income countries depend far more on out-of-pocket financing: in 60% of countries at incomes below $1000 per capita, out-of-pocket spending is 40% or more of the total whereas only 30% of middle and high income countries depend so heavily on this kind of financing (see Table 5.1).

In most social insurance and voluntary private insurance schemes, revenue collection and pooling are integrated in one organization and one purchasing process. For organizations relying mainly on general taxation, such as ministries of health, collecting is done by the ministry of finance and allocation to the ministry of health occurs through the government budgetary process.

Pooling is the accumulation and management of revenues in such a way as to ensure that the risk of having to pay for health care is borne by all the members of the pool and not by each contributor individually. Pooling is traditionally known as the "insurance function" within the health system, whether the insurance is explicit (people knowingly subscribe to a scheme) or implicit (as with tax revenues). Its main purpose is to share the financial risk associated with health interventions for which the need is uncertain. In this way it differs from collecting, which may allow individuals to continue bearing their own risks from their own pockets or savings. When people pay entirely out of pocket, no pooling occurs.

Table 5.1 Estimated out-of-pocket share in health spending by income level, 1997
(number of countries in each income and expenditure class)

Estimated annual per capita income (US$ at exchange rate)	Estimated share in total expenditure on health (%)						
	Under 20	20–29	30–39	40–49	50–59	60 and over	**Total**
Under 1000	7	10	9	7	11	19	**63**
1000–9999	16	18	23	15	8	8	**88**
10 000 and over	19	7	4	5	0	2	**37**
All income classes	42	35	36	27	19	29	**188**

Source: WHO national health accounts estimates: income unknown for three countries.

For public health activities and even for aspects of personal health care – such as health check-ups – for which there is no uncertainty or the cost is low, funds can go directly from collecting to purchasing. This is an important consideration with regard to the regulation of mandatory pooling schemes, as consumer preferences for insurance packages often focus on interventions of high probability and low cost (relative to the household capacity to pay), although these are best paid for out of current income or through direct public subsidies for the poor.

Pooling reduces uncertainty for both citizens and providers. By increasing and stabilizing demand and the flow of funds, pooling can increase the likelihood that patients will be able to afford services and that a higher volume of services will justify new provider investments.

Purchasing is the process by which pooled funds are paid to providers in order to deliver a specified or unspecified set of health interventions. Purchasing can be performed passively or strategically. Passive purchasing implies following a predetermined budget or simply paying bills when presented. Strategic purchasing involves a continuous search for the best ways to maximize health system performance by deciding which interventions should be purchased, how, and from whom. This means actively choosing interventions in order to achieve the best performance, both for individuals and the population as a whole, by means of selective contracting and incentive schemes. Purchasing uses different instruments for paying providers, including budgeting. Recently, many countries, including Chile *(1, 2)*, Hungary *(3)*, New Zealand *(4, 5)*, and the United Kingdom *(6–8)*, have tried to introduce an active purchasing role within their public health systems.

Prepayment and collection

Traditionally, most policy discussions regarding health system financing centre around the impact of public versus private financing on health system performance. Chapter 3 clarifies the central role of public financing in public health. For personal health care, however, it is not the public–private dichotomy that is most important in determining health system performance but the difference between prepayment and out-of-pocket spending. Thus, private financing, particularly in developing countries, is largely synonymous with out-of-pocket spending or with contributions to small, voluntary and often highly fragmented pools. In contrast, public or mandatory private financing (from general taxation or from contributions to social security) is always associated with prepayment and large pools. The way policy-makers organize public financing or influence private financing will affect four key determinants of health system financing performance: the level of prepayment; the degree of spreading of risk; the extent to which the poor are subsidized; and strategic purchasing.

A health system where individuals have to pay out of their own pockets for a substantial part of the cost of health services at the moment of seeking treatment clearly restricts access to only those who can afford it, and is likely to exclude the poorest members of society *(9–12)*. Some important health interventions would not be financed at all if people had to pay for them, as is the case for the public good type of interventions discussed in Chapter 3 *(13)*. Fairness of financial risk protection requires the highest possible degree of separation between contributions and utilization. This is particularly so for interventions that are high cost relative to the household's capacity to pay.

In addition to affording protection against having to pay out of pocket and, as a result, facing barriers to access, prepayment makes it possible to spread the financial risk among

members of a pool, as discussed later in the chapter. Individual out-of-pocket financing does not allow the risk to be shared in that way. In other words, as already proposed by *The world health report 1999 (14)*, there has to be prepayment for effective access to high-cost personal care.

The level of prepayment is mainly determined by the predominant revenue collection mechanism in the system. General taxation allows for maximum separation between contributions and utilization, while out-of-pocket payment represents no separation. Why then is the latter so generally used, particularly in developing countries? *(15)*.

The answer is that separation of contributions from utilization requires the agencies responsible for collection to have very strong institutional and organizational capacity. These attributes are lacking in many developing countries. Thus, although the highest possible level of prepayment is desirable, it is usually very difficult to attain in low income settings where institutions are weak. Relying on prepaid arrangements, particularly general taxation, is institutionally very demanding. General taxation, as the main source of health financing, demands an excellent tax or contribution collecting capacity. This is usually associated with a largely formal economy, whereas in developing countries the informal sector is often predominant. While general taxation on average accounts for more than 40% of GDP in OECD countries, it accounts for less than 20% in low income countries.

All other prepayment mechanisms, including social security contributions and voluntary insurance premiums, are easier to collect, as the benefit of participating is linked to actual contributions. In most cases, participation in social insurance schemes is restricted to formal sector workers who contribute through salary deductions at the workplace. This makes it easier for the social security organization to identify them, collect contributions and possibly exclude them from benefits if no contribution is made. Similarly, identification and collection is easier for voluntary health insurance and community pooling arrangements. Nevertheless, such prepayment still requires large organizational and institutional capacity compared to out-of-pocket financing.

In developing countries, therefore, the objective is to create the conditions for revenue collecting mechanisms that will increasingly allow for separation of contributions from utilization. In low income countries, where there are usually high levels of out-of-pocket expenditure on health and where organizational and institutional capacity are too weak to make it viable to rely mainly on general taxation to finance health, this means promoting job-based contribution systems where possible, and facilitating the creation of community or provider-based prepayment schemes. Evidence shows *(16, 17)*, however, that although the latter are an improvement over out-of-pocket financing, they are difficult to sustain and should be considered only as a transition towards higher levels of pooling or as instruments to improve the targeting of public subsidies in health. In middle income countries, with more formal economies, strategies to increase prepayment as well as pooling arrangements include strengthening and expanding mandatory salary-based or risk-based contribution systems, as well as increasing the share of public financing, particularly for the poor.

Although prepayment is a cornerstone of fair health system financing, some direct contribution at the moment of utilization may be required in low income countries or settings to increase revenues where prepayment capacity is inadequate. It can also be required in the form of co-payment for specific interventions with a view to reducing demand. Such an approach should only be used where there is clear evidence of unjustified over-utilization of the specific intervention as a result of prepayment schemes (moral hazard). The use of co-payment has the effect of *rationing* the use of a specific intervention but does not have the effect of *rationalizing* its demand by consumers. When confronted with co-payments,

people, particularly the poor, will reduce the amount of services demanded (even to the extent of not demanding a service at all) but will not necessarily be more rational in distinguishing when to demand services or which services they need to demand. Therefore, using user charges indiscriminately will indiscriminately reduce demand, hurting the poor in particular.

Free-of-charge services do not translate automatically into unjustified over-utilization of services. Services that are free of direct charge are in reality not necessarily free or affordable, particularly for the poor, because of other costs associated with seeking health care, such as the cost of medication (when not available free of charge), under-the-table payments, transportation, or time lost from work *(18, 19)*.

Given its potentially negative impact on necessary services, especially for the poor, co-payment should not be chosen as a source of financing except for low-cost relatively predictable needs. Rather, it can be used as an instrument to control over-utilization of specific interventions (when such over-utilization is evident) or to implicitly exclude services from a benefit package when explicit exclusion is not possible. Because of the desirability of separating contributions from utilization, out-of-pocket payment should not be used unless no other alternative is available. All prepaid arrangements are preferable, except for low-cost interventions for which the administrative costs involved in prepayment arrangements might not be worthwhile.

Spreading risk and subsidizing the poor: pooling of resources

Pooling is the main way to spread risks among participants. Even when there is a high degree of separation between contributions and utilization, prepayment alone does not guarantee fair financing if it is on an individual basis only – that is, via medical savings accounts. Individuals would then have limited access to services after their savings were exhausted. It is claimed for medical savings accounts, which have been implemented in Singapore and in the United States, that they reduce moral hazard and give consumers the incentive to buy services more rationally, but while there is evidence of reduced expenditure and of substantial savings among those who receive tax benefits and can afford to save *(20)*, there is no evidence of more rational purchasing. And individual financing fosters fee-for-service payment and makes it harder to regulate the quality of provision *(21)*. People with a high risk of having to use services, such as the sick and the elderly, would be denied access because they could not save enough from their income. On the other hand, the healthy and the young, whose risk is usually low, might prepay for a long time without needing the services for which they had saved. In this case, mechanisms allowing for cross-subsidies from the young and healthy to the sick and old would benefit the former without damaging the latter. Thus, systems as well as people benefit from mechanisms that not only increase the degree of prepayment for health services, but also spread the financial risk among their members.

Although prepayment and pooling are a significant improvement over purely out-of-pocket financing, they do not take questions of income into account. As a result of large pools, society takes advantage of economies of scale, the law of large numbers, and cross-subsidies from low-risk to high-risk individuals. Pooling by itself allows for equalization of contributions among members of the pool regardless of their financial risk associated with service utilization. But it also allows the low-risk poor to subsidize the high-risk rich. Societies interested in equity are not indifferent to who is subsidized by whom. Therefore, health

financing, in addition to ensuring cross-subsidies from low to high risk (which will happen in any pool, unless contributions are risk-related), should also ensure that such subsidies are not regressive (see Figure 5.1).

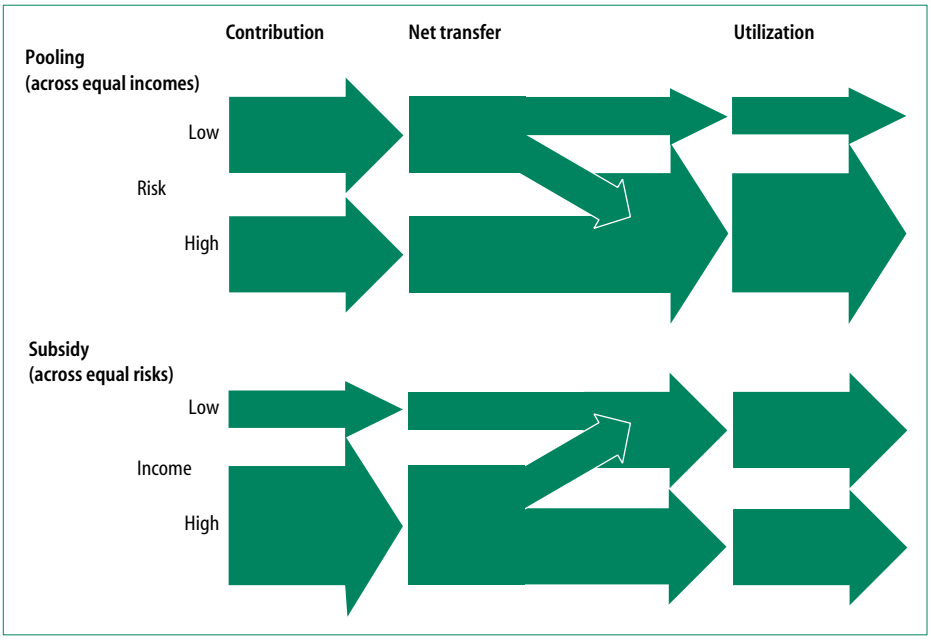
Health systems throughout the world attempt to spread risk and subsidize the poor through various combinations of organizational and technical arrangements *(22)*. Both risk- and income-related cross-subsidies could occur among the members of the same pool, for example in single pool systems such as the Costa Rican social security organization and the national health service in the UK, or via government subsidies to a single or multiple pool arrangement.

In practice, in the majority of health systems, risk and income cross-subsidization occurs via a combination of two approaches: pooling and government subsidy. Cross-subsidization can also occur among members of different pools (in a multiple pool system) via explicit risk and income equalization mechanisms, such as those being used in the social security systems of Argentina *(23)*, Colombia (*24*) and the Netherlands (*25*). In these countries, the existence of multiple pools allows members of pools to have different risk and income profiles. Without some compensatory mechanisms, such arrangements would offer incentives for pooling organizations to select low risks, and to exclude the poor and the sick.

Even under single pool organizations, decentralization, unless accompanied by equalization mechanisms for resource allocation, may result in significant risk and income differences among decentralized regions. Brazil has introduced compensatory mechanisms in the allocation of revenues from the central government to the states to reduce such differences (*26*).

Table 5.2 shows four country examples of different arrangements for spreading risk and subsidizing the poor. Some organizational arrangements are less efficient than others in ensuring that these two objectives are achieved, particularly if the arrangements facilitate fragmentation, creating numerous small pools. Collecting, pooling, purchasing and provi-

Figure 5.1 Pooling to redistribute risk, and cross-subsidy for greater equity
(arrows indicate flow of funds)



sion imply flows of funds from sources to providers through a variety of organizations, which may perform only one, or several of these tasks. Figure 5.2 illustrates the structure of health system financing in four countries which differ greatly in the degree to which there is formal pooling of funds and purchasing, rather than consumers paying directly to providers without any sharing of risks.

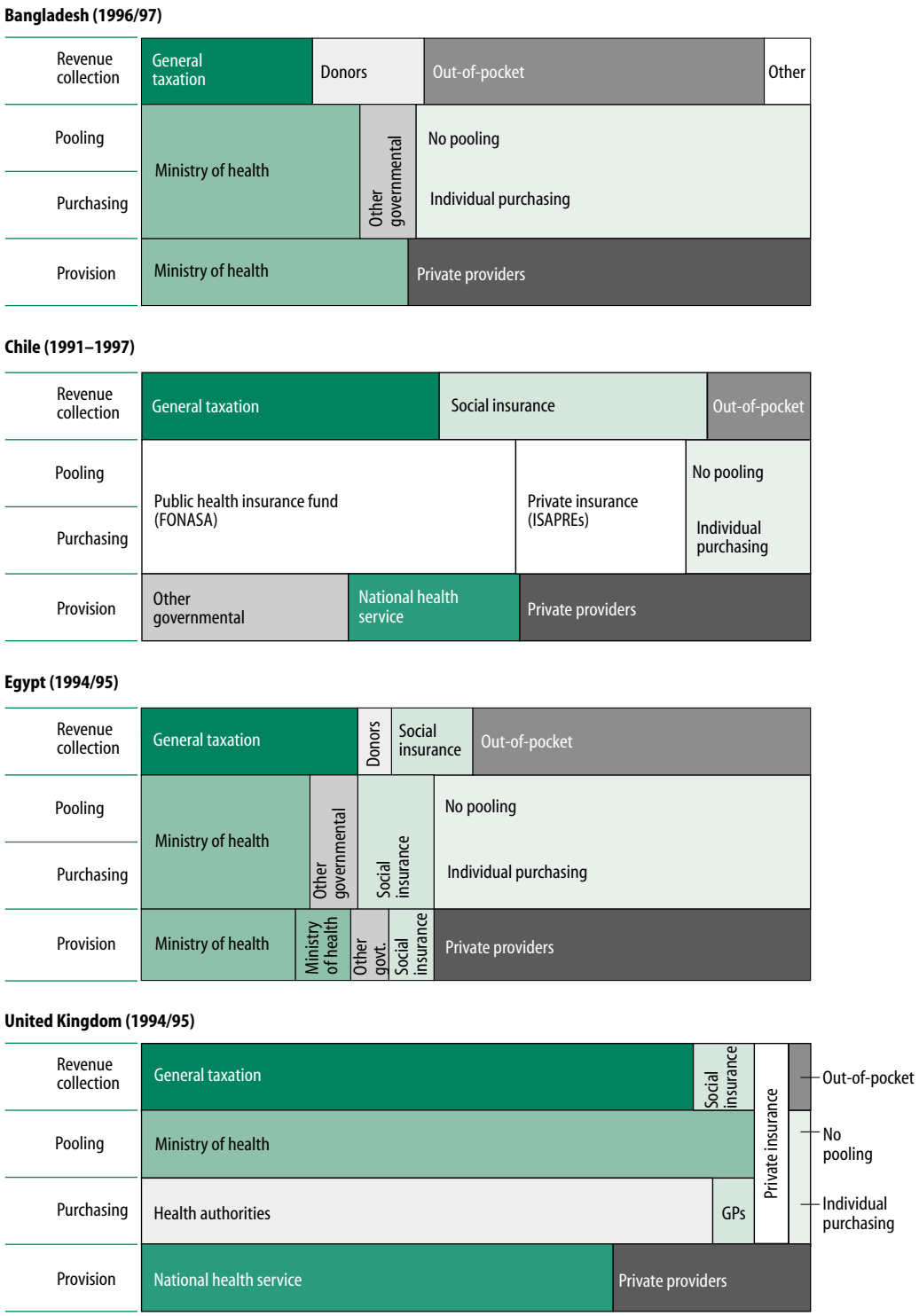
Large pools are better than small ones because they can increase resource availability for health services. The larger the pool, the bigger the share of contributions that can be allocated exclusively to health services. A large pool can take advantage of economies of scale in administration and reduce the level of the contributions required to protect against uncertain needs, while still ensuring that there are sufficient funds to pay for services. Given that needs vary unpredictably, the estimation for an individual could be unaffordably large. By reducing this uncertainty, the pool is able to reduce the amount set aside as a financial reserve to deal with variations in the health expenditure estimates for its members. It can then use the funds released for more and better services.

Fragmentation of the pool – in other words, the existence of too many small organizations involved in revenue collection, pooling and purchasing – damages performance of all three tasks, particularly pooling. In fragmented systems, it is not the number of existing pools and purchasers that matters, but that many of them are too small. In Argentina, prior to the 1996 reforms, there were more than 300 pooling organizations (*Obras Sociales Nacionales)* for formal sector workers and their families, some with no more than 50 000 members. The administrative capacity and financial reserves required to ensure financial viability for the small ones, together with the low wages of their beneficiaries, guaranteed that their benefit packages were very limited. A similar problem occurs with community

Table 5.2 Approaches to spreading risk and subsidizing the poor: country cases

Country	System	Spreading risk	Subsidizing the poor
Colombia	Multiple pools: multiple competing social security organizations, municipal health systems and Ministry of Health.	Intra-pool via non-risk-related contribution and inter-pool via a central risk equalization fund. Mandated minimum benefit package for all members of all pools.	Intra-pool and inter-pool: salary-related contribution plus explicit subsidy paid to the insurer for the poor to join social security; supply side subsidy via the Ministry of Health and municipal systems.
Netherlands	Multiple pools: predominantly private competing social insurance organizations.	Intra-pool via non-risk-related contribution and inter-pool via central risk equalization fund.	Via risk equalization fund, excluding the rich.
Republic of Korea	Two main pools: national health insurance and the Ministry of Health. National health insurance, however, only covers 30% of total health expenditures of any member.	Intra-pool via non-risk-related contribution. Explicit single benefit package for all members.	Salary-related contribution plus supply side subsidy via the Ministry of Health and national health insurance from Ministry of Finance allocations. Public subsidy for insurance for the poor and farmers.
Zambia	Single predominant formal pool: Ministry of Health/Central Board of Health.	Intra-pool, implicit single benefit package for all in the Ministry of Health System and at state level. Financed via general taxes.	Intra-pool via general taxation. Supply side subsidy via the Ministry of Health.

Figure 5.2 Structure of health system financing and provision in four countries



Note: Widths are proportional to estimated flows of funds.
Source: National health accounts estimates.

pooling arrangements in developing countries. Although an improvement over out-of-pocket financing, their size and organizational capacity often threatens their financial sustainability *(16, 17)*. Predominantly out-of-pocket financing represents the highest degree of fragmentation. In such a case, each individual constitutes a pool and thus has to pay for his or her own health services.

Larger is better for pooling and purchasing. But economies of scale show diminishing returns and, beyond a critical size, marginal benefits may be negligible. The argument for large pools is therefore not an argument for single pools when multiple pools can exist without fragmentation, and when their size and financing mechanisms allow for adequate spreading of risk and subsidization of the poor.

Health system policy with regard to pooling needs to focus on creating conditions for the development of the largest possible pooling arrangements. Where a particular country for the moment lacks the organizational and institutional capacity to have a single pool or large pools for all citizens, policy-makers and donors should try to create the enabling conditions for such pools. Meanwhile, policy-makers should promote pooling arrangements whenever possible, as a transitional stage towards the future aggregation of pools. Even small pools or pools for segments of the population are better than pure out-of-pocket financing for all. Opposing or neglecting such arrangements until the capacity exists for the establishment of an effective single pool has two drawbacks. It deprives consumers of improved protection. And it may prevent the state from regulating such initiatives and steering them towards future large or single pool arrangements. Introducing regulations such as community rating (adjusting for the average risk of a group), portable employment-based pooling (insurance that a worker keeps when changing jobs) and equal minimum benefit packages (access to the same services in all pools), in addition to protecting members of the pools, may pave the way for larger pooling in the future.

For low income economies where the formal sector is small, this means promoting pooling at the community level. Communities' lack of trust in local pooling organizations might be a limiting factor, but such initiatives offer an important opportunity for international cooperation whereby donors act as guarantor for the community and help create the necessary organizational and institutional capacity. For middle income developing countries, this means both encouraging the creation of pools and, where possible, either directly establishing a large pool or enacting regulation to specify a minimum size of pool for financial viability, as well as regulating pooling initiatives in a way that will facilitate consolidation in the future.

However, competition among pools is not entirely bad. It can increase the responsiveness of pooling organizations to their members and provide an incentive for innovation. It can also offer incentives for reducing costs (to increase market share and profits), for example through mergers, as in the reform of the quasi-public health insurance organizations (*Obras Sociales*) in Argentina in 1996. Lack of competition meant that the administrators were little concerned about high administrative costs and small benefits for their members, as they had in any case a captive group of contributors. Competition and the resulting mergers, together with explicit subsidies for low-income beneficiaries, have allowed members of small pools to join larger pools and obtain better benefits for the same level of contributions.

Despite its potential benefits, pooling competition poses significant problems to health systems, particularly in selection behaviour by both pooling organizations and consumers. Mandatory participation (that is, all eligible members must join the pooling organization) significantly reduces the scope of selection behaviour but does not totally eliminate the

incentives associated with it, particularly under non-risk-related contribution schemes.

Selection behaviour is a potential problem of competition whenever and at whatever organizational level pooling is performed *(27, 28)*. It is particularly a problem for competition under non-risk-related contribution schemes. Either pooling organizations will try to pick the lowest risk consumers (risk selection), who will contribute but not cause expense, or the highest risk consumers will seek coverage more actively than the rest of the population (adverse selection). Pooling competition then becomes a battle for information between consumers (who usually know more about their own risk of requiring health interventions) and the pooling organization (which needs to know more about consumers' risks to ensure long term financial sustainability). This has significant consequences for the administrative costs of pooling organizations. If adverse selection predominates, pooling organizations end up with increasing costs, are obliged to demand increasing contributions, and may eventually face financial default. This applies not only to private health insurance schemes but also to community pooling arrangements. Evidence shows that managing adverse selection is a major challenge for community pooling arrangements *(17)*, which mostly rely on voluntary affiliation. If instead risk selection predominates, as is most likely when there is weak regulation of pooling competition, the poor and the sick will be excluded.

Exclusion from the pool is a problem that should be corrected through a combination of regulation and financial incentives. Regulation may cover such aspects as mandatory participation, non-risk-related contributions or community rating (the same price for a group of members sharing the same geographical area or the same workplace), and prohibition of underwriting (requesting additional information regarding health risks). Financial incentives may include risk compensation mechanisms and subsidies for the poor to join a pool. These approaches reduce the problems of pooling competition but are administratively expensive because of the high transaction costs within the system, associated with moving from hierarchical organizational arrangements for non-competitive pools to a market in pooling *(29, 30)*.

Regulation and incentives should also be directed to avoiding fragmentation of the pool as a result of competition. If organizational and institutional incentives are adequate, large pools are much more efficient than pooling competition. Single national pools, as the largest pools attainable and as non-competing organizations, might be seen as the most efficient way to organize pooling. They avoid fragmentation and all competition problems but also forego the advantages of competition.

In most health financing arrangements, pooling and purchasing are integrated within the same organization. Allocation of funds from pooling to purchasing occurs in the organization through the budgetary process. There are, however, a few instances in the world where attempts have been made to separate the functions and allocate resources from a pooling organization to multiple purchasers through risk adjusted capitation. For example, in Colombia *(31, 32)* and the USA *(33, 34)*, attempts have been made to take advantage of purchasing competition to minimize the pooling competition problems discussed above.

Strategic purchasing

Health systems need to ensure that the package of health interventions they provide and finance responds to the criteria discussed in Chapter 3. They also need to ensure that the way interventions are provided helps to improve the system's responsiveness and financial fairness. Strategic purchasing is the way to achieve this.

But, as shown in Chapter 3, the burden of ensuring the effectiveness of health interventions rests mainly on the shoulders of providers. To play their role effectively, providers need adequate inputs and organizational arrangements, as well as coherent incentives, both within and from outside the organization. Purchasing plays a central role in ensuring coherence of external incentives for providers through contracting, budgeting and payment mechanisms.

Strategic purchasing faces three fundamental challenges: What interventions to buy? From whom to buy them? And how to buy them? Size is also important for purchasing organizations. Large purchasers can not only take advantage of economies of scale but also of better bargaining capacity (monopsony power) regarding price, quality and opportunity of services, in dealing with natural monopolies on the provider side.

Strategic purchasing requires a continuous search for the best interventions to purchase, the best providers to purchase from, and the best payment mechanisms and contracting arrangements to pay for such interventions. Identifying the best providers means getting the best deals (for example, fast access for patients to the contracted services). It means establishing strategic alliances for the future development of those providers and for disseminating their best practices to other providers.

The important role of public health and the technical characteristics of what interventions to provide are discussed in Chapter 3. In purchasing personal care, the determination of what interventions to buy takes place at two levels. One level is largely related to stewardship. Here, society determines (most of the time implicitly) the relative weighting of the goals of the system – health, responsiveness, and fair contribution to financing. It does so by determining priorities for the public financing of specific programmes, or via regulation and financial incentives for voluntary or mandated private financing. In the presence of weak stewardship, the relative weighting of health system goals is defined de facto by the purchaser and the market forces. The second level is the purchaser's responsibility. This means that the purchaser is responsible for the day-to-day identification of the interventions to achieve the system goals (as defined at the stewardship level), as well as the determination of co-payment and other financial aspects. It also means that the purchaser has authority for negotiating with providers with regard to the expected quantity, quality, and availability of the interventions to be purchased and provided.

Purchaser organizations also need to define from whom to buy. This definition is crucial in allowing them to avoid becoming involved in the micro-management of providers. In order to set incentives for cost control, an emphasis on preventive care, and maintaining or improving the quality of services, purchasers need to prioritize among *units* of purchasing: that is, whether to buy individual interventions, specified packages of care, all the care for individuals or groups, or all the inputs needed for that care. Each unit of purchasing needs to be of a critical size, and to include a wide enough diversity of individual providers to ensure an appropriate mix of services. Such units make it easier for the purchaser and the provider to agree on a payment mechanism in which the provider shares the risk with the purchaser (that is, the provider is partly responsible for a full range of interventions for a relatively fixed amount of money). The spectrum of risk sharing, from all the risk borne by the purchaser to all of it transferred to providers, is discussed in *The world health report 1999*.

With such units, it is also easier for purchasers to make long-term contracts with providers who would take care of all aspects of necessary health care for groups of members of the pool. If the purchasing unit is too small, the purchaser will have difficulty in agreeing on a risk sharing payment mechanism, because of the potential fragmentation of the pool, and will have to resort to traditional input purchasing or fee-for-service. Such a situation will

force the purchaser to focus on short-term isolated interventions, as the absence of a risk sharing agreement will make it difficult to conclude a long-term contract for interventions for groups of the population. This will increase the overall administrative costs in the system relative to the volume of interventions involved.

With regard to how to buy, there are two objectives. The first is to avoid micro-purchasing, that is, such small scale buying of interventions that it constitutes the micro-management of providers. (There are, however, circumstances where micro-purchasing or micro-management may be justified, particularly for high complexity, very expensive and low frequency interventions.) The second is to design and implement effective contractual, budgeting and payment mechanisms. Avoiding micro-purchasing implies focusing the provisioning process on setting the right external incentives and evaluating results. The challenge here is to set purchasing goals that allow providers all necessary discretionary power in the provider–citizen contact, but which leave the purchaser the capacity to influence overall access to personal and non-personal services for members of the pool.

The budgeting and provider payment mechanisms are an essential part of the purchaser–provider interaction. Together with contracting, they establish an environment in which there are incentives for providers to act in accordance with the following four objectives: to prevent health problems of members of the pool; to provide services and solve health problems of members of the pool; to be responsive to people's legitimate expectations; and to contain costs.

No single budgeting or provider payment mechanism can achieve all four objectives simultaneously *(35)*. Table 5.3 summarizes the characteristics of the most common budgeting and payment mechanisms designed to meet those objectives. While line item budgets can be effective in controlling costs, they provide few incentives to achieve the other three objectives. In contrast, while fee-for-service provides strong incentives to deliver services, it also provides incentives that lead to an overall increase in the cost of the system. Therefore, purchasers need to use a combination of payment mechanisms to achieve their objectives. Free choice of provider by consumers increases responsiveness under all payment systems, but particularly under those needing to attract patients to ensure payment by the purchaser (fee-for-service or diagnostic related payment).

Capitation means a fixed payment per beneficiary to a provider responsible for delivering a range of services. It offers potentially strong incentives for prevention and cost control, to the extent that the provider receiving the capitation will benefit from both. If the contract is so short that a particular preventive intervention would have a noticeable effect only beyond the duration of the contract, there will be little or no incentive for prevention.

Table 5.3 Provider payment mechanisms and provider behaviour

Provider behaviour / **Mechanisms**	Prevent health problems	Deliver services	Respond to legitimate expectations	Contain costs
Line item budget	+/–	– –	+/–	+++
Global budget	++	– –	+/–	+++
Capitation (with competition)	+++	– –	++	+++
Diagnostic related payment	+/–	++	++	++
Fee-for-service	+/–	+++	+++	– – –

Key: +++ very positive effect; ++ some positive effect; +/– little or no variable effect; – – some negative effect; – – – very negative effect.

Similarly, if the provider is not allowed to benefit from or reinvest the surplus resulting from savings, there is little incentive for cost control beyond that required for the financial sustainability of the provider organization.

Because of its advantages in cost control and prevention, capitation has been introduced in many purchasing organizations in the world. It has been used in the UK national health service with regard to general practitioners and later played a more important role in sharing risk with the introduction of general practitioner fundholding, allowing surpluses to be invested in the fundholder's practice *(6)*. It has also been used for provider networks in Argentina's social security organization for retirees *(23)*, in New Zealand with independent practice associations *(36)*, and in the United States with health maintenance organizations *(37)*. When risk-sharing payment mechanisms are used, depending on the specific terms of the payment mechanism, part of the pooling function of spreading risk among members of the pool may be performed by the provider. Thus, when an integrated pooling/purchasing organization contracts with smaller providers, each provider may also become a pooling organization. There is thus a risk of fragmenting the pool if the provider groups are too small. This has been the main argument for shifting from general practitioner fundholding to larger pools, the primary health care groups, in the UK in 1999.

Supply side provider payment mechanisms, such as line item budgets, focus purchasing efforts on inputs and make it impossible for providers to respond flexibly to external incentives. Too often these are the main resource allocation mechanisms for public providers in developing countries. As a result, providers do not continuously adapt their mix of services. This has been a serious barrier to improving health system efficiency in many developing countries *(38)*. It has also been a major obstacle to the improvement of public–private collaboration in the provision of services *(39)*. Line item budgets are in these respects much worse than global budgets, which also control costs.

What does moving to more flexible resource management at the provider level require? *The world health report 1999* introduced an answer to this question *(14)*: it means reaching more explicit agreements between purchasers and providers regarding services to be provided (performance agreements, quasi-contracts and contracts). Quasi-contractual arrangements refer to non-legally-binding explicit agreements between two parties, in this case between the purchaser and the provider. Resource management also requires the introduction of "money follows the patient" schemes, particularly where policies favouring the free choice of providers are introduced. Doing it well demands significant organizational and institutional capacity, along with propitious political conditions, particularly because of the potential consequences for public providers. Failure to develop such capacity and political conditions before or simultaneously with entering into contracting and demand side financing reforms can have negative consequences to judge from experience in India, Mexico, Papua New Guinea, South Africa, Thailand and Zimbabwe *(40, 41)*. Contracting out clinical services is particularly complex even when limited to non-profit providers such as church hospitals in Ghana, the United Republic of Tanzania and Zimbabwe *(42)*.

In summary, purchasers need to move from supply side payment to demand side provider payment mechanisms, from implicit to explicit contracting, and from fee-for-service to some form of risk sharing payment mechanisms. Contracting, shifting to demand side payment, and introducing risk sharing provider payment mechanisms require a high level of technical, organizational and institutional capacity, as well as significant political leverage because of the likely resistance of providers to bearing more risk and being held more accountable, particularly in the public sector.

Organizational forms

The debate on policy alternatives for health system financing often focuses exclusively on technical aspects, underestimating the importance of organizational and institutional factors. Examples of the results of this approach include the provider payment mechanism reforms designed in the early 1990s in some Latin American countries (Argentina, Chile, Costa Rica, and Nicaragua) *(39)*. These reforms initially underestimated the importance of organizational and institutional effects, assuming that having the right price signals would be sufficient to change provider behaviour. It seems to have been assumed (explicitly or implicitly) that managers of public providers would – mainly by virtue of such new mechanisms as diagnostic-related payments or capitation – understand the price signals, know how to respond and be willing to act accordingly, despite the culture of their organizations. These reforms also underestimated the importance of and difficulties involved in providing managers with a flexible enough legal and administrative environment to make the correct changes. Furthermore, the reforms seem to have assumed that the government would be willing and able to deal with the political problems associated with such flexibility. Experience over the last 10 years shows that these assumptions are not always correct, and that more emphasis on organizational and institutional change is required to make provider payment reforms work.

Characteristics of provider organizations are analysed in Chapter 3. A similar analysis is valid for health financing organizations. Some of the most important factors affecting the performance of health financing organizations and, through it, the financial risk protection provided by the health system are discussed below.

In addition to contributing to the health system via out-of-pocket payment at the moment of demanding services, citizens also contribute to most health systems in the world through various combinations of the following *organizational forms*.

- *Ministry of health,* usually heading a large network of public providers organized as a national health service, relying on general taxation – collected by the ministry of finance – as the main source of revenue, and serving the general population.
- *Social security organization* (single or multiple, competing or not), mostly relying on salary-related contributions, owning provider networks or purchasing from external providers, and serving mostly their own members (usually formal sector workers).
- *Community or provider based pooling organization*, usually comprising a small pooling/purchasing organization relying mostly on voluntary participation.
- *Private health insurance fund* (regulated or unregulated), mostly relying on voluntary contributions (premiums), which may be risk-related but are usually not income-related, and are often contracted by an employer for all a firm's employees.

Providers can play a role as pooling organizations under a non-risk-adjusted capitation payment mechanism, as discussed above. In this scenario, internal incentives for providers coexist with internal incentives for financing organizations, which may impede coherence among incentives.

Each organizational form deals with the technical characteristics of health financing in a particular way. This is particularly evident in comparing private risk-related health insurance with social security. Social security organizations spread risk among the whole pool through non-risk-related contributions. All members of the pool pay a proportion of their salary, regardless of their risk. In contrast, voluntary private health insurance contributions charge the same premium only for the members of a similar risk category in the pool (such

as the same sex, age and place of residence). There are multiple categories in private health insurance, and members are charged according to the risk category to which they belong. The social security and risk-related private insurance approaches are contradictory, and their coexistence creates different incentives for consumers. All consumers whose risk category is such that private insurance would charge them less than the amount that they would have to pay under social insurance have the incentive to avoid contributing to social insurance and use private insurance if they are allowed to. High-risk people, however, have the incentive to contribute to social security, loading it with high-risk members and increasing the per capita cost of services for members of the pool. The Chilean case, presented in Box 5.2, is an example of this phenomenon *(43)*, in which contributors can opt out of social security and direct their contributions to private insurers. The contradictory incentives can be controlled only if social insurance is mandatory.

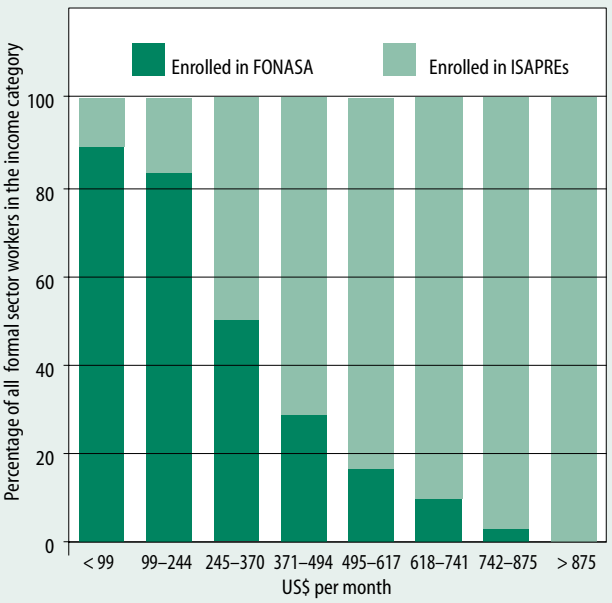
Health financing functions are often integrated in a single organization. For ministries of health (or national health services), however, collecting is usually done by the ministry of finance. Some health systems with multiple social security organizations have introduced central collecting agencies in charge of risk equalization among pools (as in Colombia, Germany, and the Netherlands). Various attempts have been made to separate the pooling

Box 5.2 The Chilean health insurance market: when stewardship fails to compensate for pooling competition problems and for imbalances between internal and external incentives

In 1980, Chile implemented a radical reform of the health system. It separated financial administration in the public health sector from public providers and the Ministry of Health, creating the National Health Fund (FONASA), which is financed by a combination of general taxation (for the poor who also are included in the pool) and a 7% payroll tax contribution for formal sector workers. It simultaneously allowed for the introduction of private competing health insurance organizations (ISAPREs). All formal sector workers and their families have to contribute either to FONASA or an ISAPRE. All the rest of the population is covered by FONASA. In contrast with FONASA which charges all members the same 7% payroll tax irrespective of the risk, ISAPREs are allowed to adjust the contribution (with the 7% payroll tax as a minimum contribution) and the benefit package to the risk of the principal and his or her family. These organizational forms reflect opposing rationales. While FONASA is based on salary-related contributions with no exclusions, ISAPREs in practice are based on risk-related contributions. Apart from the very limited power of the Ministry of Health, no regulatory agency was in a position to regulate ISAPREs until 10 years after they were created. As a result, ISAPREs grew from covering 2% of the population in 1983 to 27% in 1996.

Lack of regulation, weak stewardship (for political reasons), and an explicit policy to channel all cross-subsidies through FONASA only, resulted in severe segmentation of the market. ISAPREs focused on the richest, and risk-selected the healthiest. Only recently has it been possible to introduce regulation to reduce risk selection. Segmentation has determined that while more than 9% of the total Chilean population is older than 60 years of age (generally the highest risk group in the population), that population group represents only about 3% of ISAPRE beneficiaries. At the same time, as shown in the graph, while almost all low income workers are in FONASA, very few are in the ISAPRE system. There is continued debate in Chile over reform of the health insurance system to address this structural problem.

Health insurance of formal sector workers, enrolment in FONASA and ISAPREs by income level, Chile, 1994



Source: ISAPREs Association and FONASA, 1995.

Source: Baeza C, Copetta C. *Análisis conceptual de la necesidad y factibilidad de introducir mecanismos de ajuste de riesgo y portabilidad de los subsidios públicos en el sistema de seguros de salud en Chile. [Conceptual analysis of the necessity and feasibility of introducing mechanisms for risk adjustment and portability of public subsidies in the health insurance system of Chile.]* Santiago, Chile, Centro Latinoamericano de Investigación para Sistemas de Salud (CLAISS) and Fondo de Promoción de Políticas Públicas de la Universidad de Chile, 1999 (in Spanish).

and the purchasing functions (as in Colombia and the United States). The organizational separation of collecting and pooling is less frequent than the separation between purchasing and provision, and it has been less explored. It appears to be less important for setting the right incentives for providers than the separation between purchasing and provision as introduced under managed competition and internal market reforms *(44–47)*.

Incentives

As for provider organizations described in Chapter 3, health financing organizations are subject to internal incentives. Organizational performance depends on the coherence of the following internal incentives.

- The level of *autonomy* or decision rights that the organization has *vis-à-vis* its owner, its overseeing authority or the government. Critical decision rights include setting contribution levels (premiums or payroll tax), co-payment levels, prioritization of interventions to be purchased, designing and negotiating contracts and provider payment mechanisms, selectivity in contracting with providers, and in many cases, freedom to determine investments.
- The degree of *accountability.* As autonomy increases, owners, overseeing authorities or the government require mechanisms to make the organization responsible for the expected results via hierarchical supervision, regulation or financial incentives.
- The degree of *market exposure*, that is, the proportion of revenues earned in a competitive way rather than acquired through a budget allocation. Particularly important for performance is whether governments provide budget supplements for deficits that originate from poor performance.
- The degree of *financial responsibility* for losses, and rights to profits (retained earnings and proceeds from the sale or rental of capital).
- The degree of *unfunded mandates*, that is, the proportion (in terms of revenues allocated) of mandates for which the organization is legally held responsible but for which it is not allowed to charge fees, and for which the organization does not receive any compensatory financial transfer. Such mandates may be to include the very poor or the very sick in the pool, as is usually the case for ministries of health or national health services. There may also be a mandate for the purchaser to pay for emergency care in a life-threatening situation, no matter where the care is provided and whatever the cost.

All prepaid health financing systems in the world are composed of combinations of the four organizational forms described above. It is clear that each organizational form has a different level of exposure to internal incentives. For example, ministry of health or ministry of finance organizations are much more likely to bear unfunded mandates than private insurance funds. Furthermore, because of the differences in market exposure and accountability between such organizations, their responses to unfunded mandates will be significantly different. While ministries of health or finance can respond to unfunded mandates by adjusting the quality or opportunity of interventions or even generating budget deficits, private insurance funds might respond by excluding members who are at a high risk of requiring the services required by the unfunded mandates. To avoid negative equity consequences, particularly under increasing autonomy, regulatory and financial incentives (e.g. risk compensation mechanisms) are necessary to protect the sick and the poor.

Another example of the significant differences in internal incentives concerns to whom each organizational form is accountable. Because ministries of health or finance are accountable to government, external incentives are required to make sure that they are also responsive to consumers. On the other hand, because private health insurance is accountable to owners and consumers, external incentives and regulation are needed to make sure that benefit packages and insurance practices are coherent with national priorities and policies regarding health, financial fairness and responsiveness. Often, as was the case with unregulated private health insurance in Argentina until 1996 *(23)*, private insurance responds to consumer demand by focusing benefit packages on low-cost and high frequency interventions, and excluding very high-cost and low frequency interventions (catastrophic events) which are most appropriately included in pooling arrangements. Regulating minimum benefits for all members, including coverage of catastrophic events by each fund or through re-insurance, is necessary in these circumstances.

Table 5.4 summarizes the level of each internal incentive for each of the four organizational forms.

To increase health system performance, stewardship has a major role to play in health financing. This is because external incentives are needed to compensate for differences in the internal incentives faced by the different health financing organizations.

A set of external incentives (rules and customs) governs the way the different organizational forms interact within the system. The three key external incentives that influence the behaviour of health financing organizations are the rules and customs relating to governance**,** public policy objectives, and control mechanisms.

- The rules and customs relating to *governance* shape the relationship between organizations and their owners. Ownership (public or private) usually provides the right to make decisions over the use of an asset and the right to the income that remains after all fixed obligations are met. Specification and limitation of these rights is often a major element of regulation.
- The rules and customs related to *public policy objectives* that influence the behaviour of organizations include budget implementation directives (for ministries of health or national health services), criteria for eligibility for public subsidies (for private insurers and community pools), and required auditing procedures.
- The rules and customs relating to *control mechanisms* shape the relationships between organizations and the public authorities, as well as between organizations

Table 5.4 Exposure of different organizational forms to internal incentives

Organizational forms / Internal incentives	Ministries of health or finance	Social security organizations	Community pooling organizations	Private health insurance funds
Decision rights (autonomy)	Limited	Variable but usually high	High	High
Accountability	Government, voters	Board/often government	Owners / consumers	Owners / consumers
Market exposure	None	Variable; high when multiple organizations compete	High	High
Financial responsibility	None or very limited	Low	High	High
Unfunded mandates	High	Low	None or very limited	None or very limited

and consumers. In this context, the public authorities are those involved in areas such as policy-making, regulation and enforcement. The public authorities have a range of instruments at their disposal with which to set external incentives for health financing organizations, ranging from hierarchical command and control (e.g. political or administrative instructions from the government to the ministry of health or national health service) to regulation and financial incentives. These instruments may include rules related to such subjects as the percentage of payroll tax to be devoted to financing social security organizations, the minimum contents of benefit packages, allowed exclusions and pre-existing conditions which must be covered, duration of contracts, commercialization and marketing restrictions, the pricing of private insurance, and the mandatory sending of information to the regulatory agencies.

As for internal incentives, the four organizational forms are subject to different degrees of exposure to the various external incentives. Table 5.5 summarizes the most important differences.

The difference between the external incentives for ministries of health or finance and private health insurance funds is particularly relevant. While hierarchical control influences ministries of health or finance, it has little or no influence on private insurance or community pooling arrangements. The introduction of private competitive health insurance (as an explicit policy option) or the growth of informal community pooling arrangements (or informal health insurance) require stewardship to shift from hierarchical control to using regulations and financial incentives as a means of influencing behaviour. This shift usually represents a significant change in the way control has traditionally worked. It requires an ability to anticipate and implement the necessary legal and administrative changes, and it demands a significant alteration in the skill mix and culture of control organizations.

Evidence from trends in health financing reforms in some eastern European and Latin American countries *(3, 48)* shows the potential negative effects of failure to strengthen control and shift to different external incentive instruments when private competitive health insurance is introduced. Risk selection is almost certain, taking high income low-risk consumers out of the public pools and worsening the financial situation of the latter.

To realize their potential, external and internal incentives should be coherent and aligned to address two fundamental problems increasingly evident in developing countries: the decision-making process being "captured" by other interests; and inefficiencies in supply side financing.

Table 5.5 Exposure of different organizational forms to external incentives

Organizational forms / External incentives	Ministries of health or finance	Social security organizations	Community pooling organizations	Private health insurance funds
Governance	Public, low level of decision rights	Public or quasi-public with variable levels of decision rights	Private, high level of decision rights	Private, high level of decision rights
Financing for public policy objectives	High	Variable; government and market	None, except when receiving conditional public subsidies	None, except when receiving conditional public subsidies
Control mechanisms	Hierarchical control	Variable degrees of hierarchical control, regulations and financial incentives	Regulations and possibly financial incentives	Regulations and possibly financial incentives

As internal and external incentives make ministries of health or finance and even single social security organizations focus more on political concerns than on the interests of consumers, these organizations are particularly vulnerable to capture. In other words, decision-making in the pooling or purchasing organization is driven by interests other than health, responsiveness to beneficiaries and financial fairness. Capture may happen as a result of fiscal interests, corporate interests, union interests, political party interests, and so on. There are many examples of systems where social security revenues are used for fiscal purposes (a common problem in Latin America in the past) or where the government, as an employer, simply does not pay its social security dues under tripartite financing arrangements (workers, employers and government all contribute), as in Costa Rica during the 1980s. Strikes by physicians and their effects on salaries in national health services also show the vulnerability of such systems to capture by professional interests and illustrate one danger of large-scale public provision.

How financing affects equity and efficiency

The most important determinant of how fairly a health system is financed, as illustrated in Chapter 2, is the share of prepayment in total spending. Out-of-pocket payment is usually the most regressive way to pay for health, and the way that most exposes people to catastrophic financial risk. How revenues are collected therefore has a great impact on the equity of the system.

But even if nearly any form of prepayment is preferable, on these grounds, to out-of-pocket spending, it also matters greatly how the revenues are combined so as to share risks: how many pools there are, how large they are, whether inclusion is voluntary or mandatory, whether exclusion is allowed, what degree and kind of competition exists among pools, and whether, in the case of competing pools, there are mechanisms to compensate for differences in risk and in capacity to pay. All these features affect the fairness of the system, but they also help determine how efficiently it operates. The argument in favour of a single pool or a small number of pools of adequate size, and against fragmentation, concerns the financial viability of pools, the administrative costs of insurance, the balance between the economies of scale and (when there is little or no competition) the risks of capture and unresponsiveness, and the limitation of risk selection (which is a matter of efficiency as well as equity). Inefficiencies in collecting and pooling revenues reduce both the funds available for investment and for providing services, and people's access to those services that can be financed.

Purchasing, finally, also affects both equity and efficiency, by determining which investments are made and which interventions are bought, and for whom. Revenues may be collected fairly and with minimal waste, and be pooled so as to assure that the healthy help support the sick and the rich help support the poor. The performance of the system will still fall short of its potential if the pooled resources are not used intelligently to purchase the best attainable mixture of actions to improve health and satisfy people's expectations.

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