

Regulating private health insurance to serve the public interest: policy issues for developing countries

Neelam Sekhri^{1*} and William Savedoff²

¹*Health Finance and Policy Advisor, World Health Organization, Switzerland*

²*Senior Partner, Social Insight, USA*

SUMMARY

Private health insurance plays a large and increasing role around the world. This paper reviews international experiences and shows that private health insurance is significant in countries with widely different income levels and health system structures. It contrasts trends in private health insurance expansion across regions and highlights countries with particularly important experiences of private coverage. It then discusses the regulatory approaches and policies that can structure private health insurance markets in ways that mobilize resources for health care, promote financial risk protection, protect consumers and reduce inequities. The paper argues that policy makers need to confront the role that private health insurance will play in their health systems and regulate the sector appropriately so that it serves public goals of universal coverage and equity. Copyright © 2006 John Wiley & Sons, Ltd.

KEY WORDS: health insurance; health policy; private sector; economic development; public policy

THE CHALLENGE OF MANAGING PRIVATE INSURANCE MARKETS

There are several ways to move towards universal financial coverage of health care services and most countries use a combination of these: tax-based funding, social insurance and private payments which include private insurance and out-of-pocket expenditures. (World Health Organization, 2005). Private health insurance is one financing mechanism, which is receiving increased attention, particularly in developing countries, and accounts for a larger share of health spending than is commonly recognized (Sekhri and Savedoff, 2005). As Figure 1 shows, the role of private health insurance in health financing is not correlated to a country's income level. Thirty-eight countries in the world have private health insurance markets, which contribute over 5% to total health expenditures; almost half (47%) of these are in the low and lower–middle income categories. In some countries, such as Brazil,

* Correspondence to: N. Sekhri, CEO, The Healthcare Redesign Group, Inc. 875 A Island Dr., Alameda, CA 94502, USA. E-mail: nsekhri@hcredesign.com

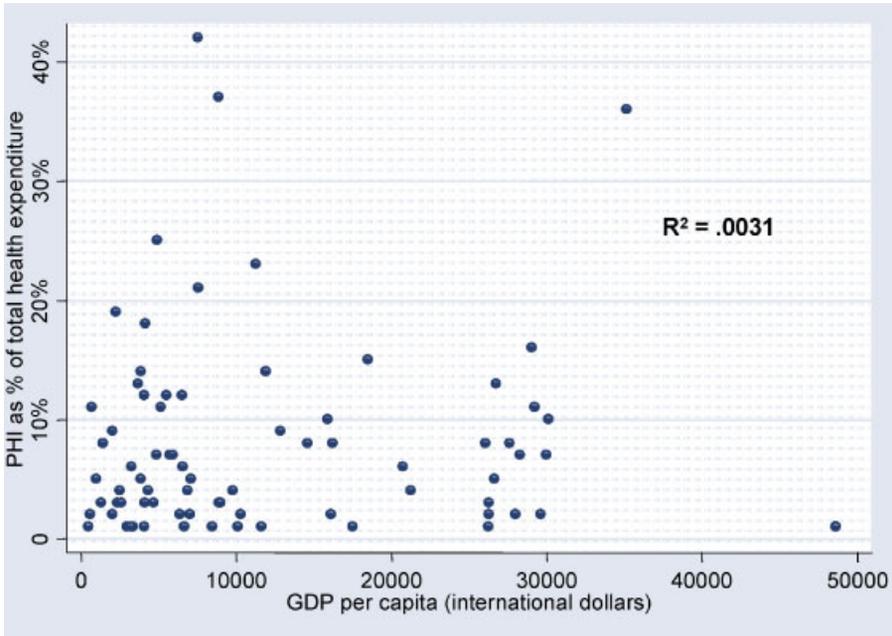


Figure 1. Relationship between Private Health Insurance (PHI) as a percentage total health financing and GDP. *Source:* World Health Organization, National Health Accounts, 2001

Chile, Namibia, South Africa and Zimbabwe, private insurance contributes more than 20% of total health spending (Sekhri and Savedoff, 2005).

The interest in private insurance is often spurred by the fact that out-of-pocket payments for health services are positively correlated with households incurring catastrophic expenditures (Xu *et al.*, 2003), and policy makers wish to provide financial protection for their citizens through pre-payment and risk pooling mechanisms. The General Agreement on Trade in Services (GATS), which calls for opening markets in the service sectors, has also stimulated the development of insurance markets in developing countries, including insurance for health care services (Lipson, 2001; World Trade Organization, 2001).

Insurance markets, however, particularly those that are voluntary, are subject to a variety of market failures, which are compounded in the case of insurance for health services. Governments in developed countries with well-established private health insurance markets routinely intervene in the market to protect consumers and promote public health objectives of equity, affordability and access to health services. Through policies, incentives and regulations they essentially 'conscript private insurance to serve the public goal of equitable access' (Jost, 2001).

Developing countries with incipient private health insurance have an opportunity to learn from the experiences of countries with well-developed markets because the fundamental structure of health care insurance leads to similar issues in different contexts (Donaldson and Gerald, 1993). Furthermore, many strategies for addressing these issues can be adapted by developing countries to establish effective regulatory frameworks from the outset—strategies that promote public goals without

undermining incentives for insurers to enter the market and that recognize the costs of implementing effective regulation relative to other forms of public intervention. Heeding these lessons, developing countries can encourage private health insurers to play a positive role from a public policy perspective and avoid difficulties that would be likely to emerge in an unregulated market.

Nevertheless, adapting lessons from developed countries requires low-income countries, in particular, to confront important ways in which they differ. For example, many developing countries lack institutional capacity to design, establish and administer a strong regulatory framework. Their financial, labour and medical care markets are often characterized by a degree of informality that makes efficient administration difficult and hinders transparency. Low incomes and limited capacity to generate public revenues constrain the options for public policy. Finally, many developing countries have high degrees of economic and political inequality that can distort the design and uses of public intervention in the market.

This paper seeks to provide an understanding of private health insurance on the premise that it is and will be a fact of life for most countries. Therefore, policy makers need to know what regulatory approaches are available to encourage development of private health insurance while guiding it towards socially desirable directions. The paper begins by defining private health insurance, describing its basic features and explaining why regulation is so essential. It then discusses five key questions to guide the design of an appropriate regulatory framework: 'Who can sell insurance?', 'Who is covered by insurance?', 'What services are covered?', 'How are prices set?', and 'How are providers paid?' Once the regulatory framework is designed, however, it has to be implemented. Thus, the paper concludes with a discussion of institutional issues that arise in implementing a regulatory system, issues that are particularly important in developing country contexts.

Methods

This paper is based on a review of selected literature and gathers experiences from a wide range of countries with strong regulatory practices. It also relies on the direct experience of the authors in managing private health insurance plans. Though most of the experiences cited are from high-or middle-income nations, they still provide valuable insights for lower-income countries by showing how private health insurance markets work and describing different strategies for regulating them.

This paper is intended as a practical guide for policy makers and does not include a legal framework or attempt a rigorous evaluation of the field. It is also beyond our scope to cover the regulation of health services providers, which is a large and diverse area that has been addressed by others (Dingwell and Fenn, 1992; Culyer and Newhouse, 1999; Pate, 2002; Söderlund *et al.*, 2003). There are also many valuable resources for concepts and glossaries of terms relating to health insurance (see, e.g., Abel-Smith, 1992; Donaldson and Gerald, 1993; Chollet and Lewis, 1997; Söderlund and Khosa, 1997; Abt Associates, 2000).

Empirical evidence shows significant variation in the effectiveness of specific interventions based on factors such as the context in which the health insurance

market operates, the role that private insurance plays, the history from which private insurers evolved and the policy objectives of the government. Hence, it is difficult to draw definitive conclusions, and the experiences cited should be used as a guide rather than as a scientific evidence base.

What is private health insurance?

The basic function of health insurance is to provide 'access to care with financial risk protection' (Kutzin, 2001). This pertains to any type of insurance mechanism, whether it is privately or publicly funded. Within this function are three sub-components: collection of funds, pooling of funds and purchasing of services.

All types of insurance perform these three functions to some degree, though, in traditional indemnity insurance, the purchasing function is limited to simply paying for services, while managed care models require an active purchasing function. There are several ways to distinguish public from private insurance based on how each of these sub-functions is carried out. The definition used in this paper distinguishes private insurance from public insurance based on the nature of the entity pooling funds, that is, the 'financing agent'. We focus here on the financing agents that correspond to the definition for 'private prepaid plans' used in the system of National Health Accounts (World Health Organization, World Bank, The United States Agency for International Development, 2003). In this definition, public insurance is funded through taxes, either general or social security taxes, whereas private insurance is provided through the direct payment of premiums to insurers. This category of 'private prepaid plans' includes voluntary insurance and mandatory insurance if it is not in the direct control of government; for-profit insurers, non-profit and community-based insurers; and insurers providing primary or secondary coverage (primary insurance serves as the main form of risk pooling for those enrolled; while secondary insurance complements cover provided by a publicly funded system; Sekhri and Savedoff, 2005).

This broad definition reflects the reality of the increasingly varied private insurance arrangements found today which are subject to a variety of regulatory frameworks. A review of insurance arrangements around the world shows that the boundaries between public insurance and private insurance are becoming increasingly blurred. 'Figure 2 suggests the spectrum of arrangements we find classified along three key dimensions:

- Enrolment: whether insurance is mandatory or voluntary;
- Underwriting/pricing: whether contributions are risk-rated (minimal risk transfer), community-rated (transfers between healthy and sick), or income-based (transfers between higher- and lower-income individuals);
- Organizational structure: whether management of the scheme is commercial for-profit, private non-profit, or public/quasi-public.

Although private and public insurance are often discussed in terms of extremes, the most common arrangements are actually found in the centre. On the dimension of enrolment, for example while private insurance tends to be voluntary, this is not always the case. In Switzerland and Uruguay the purchase of private cover is

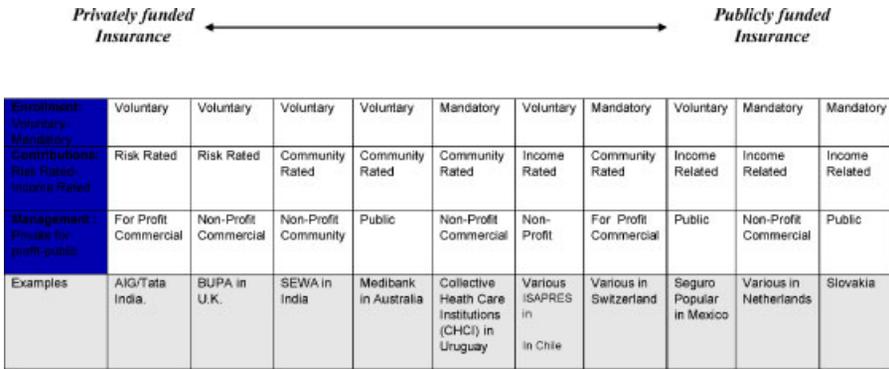


Figure 2. Spectrum of arrangements between privately funded and publicly funded coverage (Sekhri and Savedoff, 2005)

mandatory (similar to public insurance systems), in France nearly half of the employment-based supplementary insurance contracts are mandatory (Auvray *et al.*, 2003); whereas in Mexico the new public insurance scheme (known as Seguro Popular) is voluntary (Secretaria de Salud, 2006). In the dimension of pricing, though private insurance premiums have traditionally been risk-rated, increasingly regulators are mandating community rating which increases risk pooling between the sick and the healthy. Variations are even more pronounced in the organization of insurance schemes. In Australia, India and Ireland, for example the largest ‘private’ insurance companies are publicly owned and operated (Sekhri and Savedoff, 2005).

This overlapping of private and public features results from active government intervention in the insurance market. Yet, private insurance is extensive in countries that have well-developed regulatory schemes in part because regulations reflect active and expanding markets, but also because some regulation is, paradoxically, necessary for private health insurance markets to grow.

The need for policy intervention in health insurance markets

The case for public intervention in health insurance is based on a number of factors, including the rationale for regulating financial institutions in general, market failures specific to health insurance, the public’s interest in preserving the health of its citizens and possible policy objectives to address the unequal distribution of income and health risks (Roberts, 2004). Each of these is discussed below.

The need to regulate financial institutions is well recognized. Regulations must correct for systemic risks and instability, and protect consumers from unscrupulous insurers (Herring and Santomero, 2000; Carmichael and Pomerleano, 2002). Carmichael and Pomerleano in *The Development and Regulation of Non-Bank Financial Institutions* and the OECD in *Insurance and Private Pensions Compendium for Emerging Economies* (Insurance Committee Secretariat, 1997a; Carmichael and Pomerleano, 2002) provide minimum regulatory requirements for private insurance institutions.

Basic to insurance coverage is the concept of 'insurable risk'. Ideally an insurable risk should be static (i.e. it should not vary significantly over time); losses should be 'accidental' and not within the control of the insured; an individual's exposure to the risk should be unpredictable, but exposures for a population should be predictable; and this should result in prices that are affordable to those who would need coverage against the risk (Outreville, 1998). In theory, the insurer pools groups of people with identical risks and charges them each the average costs that they are likely to incur (plus an administrative fee) as their premium.

Health insurance presents much greater complexity, however. Health risks are not static, they change over time, and in the long term, everyone will require health services; exposures to some health risks may be in the control of the individual such as those related to behavioural factors like tobacco and obesity; and medical advances keep changing the definition of the 'risks' that are actually being insured. All this leads to unpredictability in assessing exposures to health risks and the subsequent costs of those risks. Health insurance markets, based on traditional insurance principles, have not yet found a solution to insuring long-term health risks, and this is an area requiring greater research.

In addition to the challenges above, insurance markets are subject to a number of market failures, which are well known to economists and extensively studied in the literature (Rothschild and Stiglitz, 1976; Arrow, 2001). Some of these stem from information asymmetry about health risks and costs, which leads to adverse selection and risk selection.

Adverse selection occurs because insurers have less information about an individual's health status than the individual. To protect themselves from this unknown risk, they will tend to set insurance premiums higher. In voluntary markets, this will result in healthier individuals not buying health coverage because their cost will be higher than the potential benefits. Sicker individuals will still choose to buy insurance resulting in a higher than expected average level of risk in the insurance pool. Rating methods that are redistributive and promote equity between people with higher and lower health risks (such as community rating) tend to exacerbate this problem, driving insurance prices even higher and resulting in greater adverse selection. At the extreme, adverse selection can lead to the collapse of the insurance market (Cutler and Reber, 1998).

Risk selection (which is also referred to as cream skimming) occurs when insurers try to counter adverse selection or maximize profit by discouraging sicker individuals from purchasing insurance or by finding ways to insure only lower-risk individuals. Whereas adverse selection leads to rising premiums and a growing concentration of high-risk individuals in an ever-decreasing market, risk selection leaves those who are sickest, without adequate insurance, even when they are willing to pay for it.

Consequently, without public intervention, private health insurance markets will not efficiently match supply to demand. Regulations that can mitigate adverse selection and risk selection include requiring mandatory purchase of coverage, requiring insurers to accept all applicants, limiting exclusions and waiting periods, and implementing risk-equalization schemes. The public sector can also subsidize coverage for those at higher risk for ill health through high-risk insurance pools and

public reinsurance. Approaches to addressing adverse selection and risk selection through policy interventions are discussed below.

Another problem that prevents insurance markets from functioning effectively is the tendency for insured individuals to use more services than if they were not insured. This tendency, called moral hazard, raises the costs of coverage. Co-payments or other forms of cost sharing (deductibles, co-insurance) are often introduced to offset this problem; however, they may work against efforts to minimize financial barriers to accessing necessary health services.

In health care, the problem of moral hazard is compounded because it can also be practiced by doctors who may over-prescribe medications or order unnecessary services, knowing that the insurer and not the patient will be paying. This provider-induced demand decreases the affordability of coverage and dampens insurance demand. Insurers may use different provider payment mechanisms—such as capitation and case rates—to provide an incentive for providers to control costs. But introducing such payments may affect the insurer's ability to attract clients or engage providers. These mechanisms may also encourage the provision of poor-quality care, potentially requiring consumer protection through quality assurance regulations to avoid under-provision of care.

Beyond the difficulties enumerated above, health insurance has one further characteristic requiring consideration of public action. If left alone, health insurance markets will not provide enough coverage in cases where society values the provision of health care services to all its members beyond the effective demand. Societies may want to ensure greater access to health services when (1) they are considered a merit good—that is society as a whole values their provision more than any individual member—or (2) they involve externalities—that is consumption by individuals has effects on others. In the first case, the decision to assure equitable access to care is a political one that reflects social values. In the second case, policies to ensure equitable access may be justified, for example to reduce the spread of untreated contagious diseases, maintain productivity in workplaces that are affected by absenteeism, or protect hospitals from the costs of treating uninsured individuals. Policy makers can address these concerns in several ways: they can have the government directly produce certain health services—as occurs with public vaccination campaigns or providing dental care in schools; they can directly finance certain health services—by offering to pay for contagious disease testing and they can mandate that insurers offer a core package of health services that are considered to be in the public interest. These unique characteristics of health services also warrant public intervention for those who cannot afford coverage, through subsidizing premiums for those below a certain income or direct provision of services to the poor.

As the above shows, private health insurance markets represent a case where government intervention can potentially lead to a better outcome than a *laissez faire* approach. However, public intervention is no panacea for market failures. It has its own associated costs that need to be evaluated relative to its benefits, and regulations that are introduced to address one problem may exacerbate another.

Policy makers must balance the sometimes-competing goals of consumer protection and choice, promoting equity and cost containment. Table 1 provides a

Table 1. Policy goals, objectives and instruments

Policy goal	Policy objective	Potential policy instruments to address objectives
Protect consumers	Ensure financial solvency of insurers	1. Establish sufficient minimum capital and reserve requirements. Review reserve requirements as insurance plans grow in size. 2. Establish financial reporting requirements and ensure transparency in reporting.
	Promote manageable competition in market to encourage affordability and consumer choice	3. Establish reserve requirements that allow different types of insurers to enter the market, for example non-profit, community and managed care plans. May need to establish publicly funded guaranty funds if these insurers are less well capitalized. 4. Establish rules against monopolistic pricing.
	Promote transparency and fairness in transactions between consumers and insurers	5. Establish disclosure requirements for policies and ensure that their content is understandable to consumers. 6. Monitor advertising and sales practices to ensure consumer protection. 7. Provide independent mechanism to resolve consumer grievances.
	Ensure insurance packages provide adequate financial protection	8. Define at least one standard benefit package that all insurers must offer and require insurers to set premiums for this package in similar way (e.g. community rating).
	Address issues of merit goods and externalities in health care	9. Directly provide or purchase health care interventions that are defined as public goods through public funds. 10. Ensure that minimum benefit package contains those items that are considered public goods. 11. Subsidize insurers through public funds to provide coverage for public goods.
Promote equity	Minimize adverse selection and encourage broader risk pooling	12. Require insurance to be mandatory at least for certain categories of households. 13. Encourage group enrolment through employer groups, associations, cooperatives, labour unions. 14. Create incentives for low-risk individuals to join the insurance pool (e.g. tax incentives, rebates, life-time rating methods).

(Continues)

Table 1. (Continued)

Policy goal	Policy objective	Potential policy instruments to address objectives
	Minimize risk selection or cream skimming and encourage broader risk pooling	<ul style="list-style-type: none"> 15. Permit defined waiting periods for pre-existing conditions. 16. Permit insurers to require enrollees to disclose medical history. 17. Cover high-risk individuals through publicly funded programs. 18. Provide mechanisms to protect insurers such as high-risk pools, reinsurance, and risk-equalization schemes. 19. Require guaranteed issue and renewal along with pricing guidelines that do not make premiums unaffordable for sicker individuals. 20. Limit exclusions and waiting periods to the first time that an individual purchases continuous insurance coverage.
	Establish premium setting guidelines that promote cross-subsidies between healthy and sick and/or between income levels	<ul style="list-style-type: none"> 21. Require community rating to promote cross-subsidies between healthy and sick. 22. Encourage income-based contributions where feasible to promote cross-subsidies between high- and low-income individuals (most often done only in social insurance).
Promote cost-containment	Reduce supplier-induced demand	<ul style="list-style-type: none"> 23. Encourage provider payment mechanisms, which share risks and rewards with providers such as case rates, per-diems and capitation. With these, establish quality requirements and methods to monitor under-utilization of services.
	Reduce consumer induced demand (moral hazard)	<ul style="list-style-type: none"> 24. Allow consumer cost sharing through deductibles and co-payments. Monitor cost-sharing practices to ensure that they do not limit access to needed services and that they provide adequate financial protection.

Source: Adapted from Roberts (2004). *Getting Health Reform Right: a guide to improving performance and equity*. Oxford, New York, Oxford University Press.

summary of these key objectives and the potential tools that can be used to address them.

Should different forms of private health coverage be regulated differently?

In addition to the broader conditions for effective insurance markets, such as contract law, judicial review, labour codes and financial regulations focusing on solvency and licensing, many developed countries subject health insurance to 'material

regulations' addressing the types of policies insurers can sell, how they price policies, arrangements with providers and more (Insurance Committee Secretariat, 1997b).

Over-regulation can strangle a market as easily as *laissez faire* approaches can undermine the market's capacity to serve public policy goals. The extent to which governments should provide only light regulation of insurers rather than more stringent controls was addressed by the European Commission as a precursor to creating an open market for trade in the European Union (EU). The EU issued a directive that health insurance should only be subject to financial regulations except where a 'general good' could be demonstrated (Mossialos *et al.*, 2002). It is clear that a 'general good' can be demonstrated in policies that provide primary coverage for the population, but in purely supplemental policies, the concept of 'general good' is less evident. Many developed countries have chosen to regulate secondary insurance more lightly than primary insurance, whereas others apply stringent financial and material regulations to both.¹

Another aspect of insurance that affects the scope of regulation relates to the boundaries of private health insurance. Third-party indemnity schemes are universally recognized as 'insurance', but many other organizational forms that assume health expenditure risks have emerged including HMOs, prepaid plans and community insurance schemes. Frequently these different forms face different regulations, but as long as they are insuring individuals against the risks of incurring large financial costs for medical care, they are operating in the same market. If public policy fails to encompass all these organizational forms within the same regulatory framework, it will be possible for firms to evade controls by reconstituting themselves within the most weakly regulated segment of the market. Differentiation may also raise costs to consumers by protecting inefficient insurers and leave certain classes of consumers with weaker quality of care or financial solvency protections.

In some cases, well-designed regulations will automatically accommodate differences among insurers. For example, reserve requirements can be related to the scale of potential claims, and by implication, the size of the insurer. In other cases, differentiation may be justifiable as a transitional measure—a pragmatic response to markets that are highly segmented, have extremely uneven distributions of providers or where insurance institutions are still incipient.

Of particular concern to developing countries is how to regulate community, mutual or non-profit insurers. In an effort to encourage their growth and for a variety of historical and political reasons, these insurers have either been excluded from regulation or been subjected to light regulation through differentiating capital and reserve requirements or exempting them from standards for quality of care or financial disclosure.

However, weak regulation can backfire if such insurers cannot fulfil promises to pay claims or lose credibility over the kind of care they offer. This is illustrated by the case of Colombia, in which the 1993 health reform initially established lower capital

¹In France, supplementary insurance contracts, which adhere to what is called a solidarity principle, are granted specific tax exemptions based on the concept of the 'general good' (Buchmueller and Couffinal, 2004).

and reserve requirements for small cooperative insurers than for commercial for-profit firms to encourage their development. When it became clear that this policy exposed consumers to greater risk (i.e. these small insurers were more likely to have insufficient funds to pay claims) without necessarily improving the supply, equity or efficiency of insurance services, the financial standards were brought into line with those for other segments of the market.

If community insurance schemes are to be eventually integrated into the wider health insurance market, the population will be better served by regulations that equalize their protections with those enjoyed elsewhere. In developed markets, the trend is towards similar regulations for all insurers regardless of scale, ownership or mandate (OECD Health Project, 2004).

Regulation in health insurance is justified to achieve public policy objectives or correct specific market failures; when it is designed instead to advance one particular institutional form over another, these objectives tend to be compromised.

KEY REGULATORY QUESTIONS

Once the need for regulation is understood, a series of questions arise regarding how to regulate private health insurance. In developing countries where the private health insurance market is small and regulations are lacking, the questions can be addressed in relation to goals and context. In other circumstances, the existing profile of the market and regulatory mechanisms have to be taken into account.

In deciding what regulations are needed, countries must first clarify their policy objectives and determine how private insurance will work in the context of their overall health financing system. Will private insurance serve as a supplement to an existing publicly funded benefits package, or will it be the primary form of financial protection for health care costs? Will private insurance be encouraged among those who can afford it, to free up government resources for providing public insurance to poorer groups? Will private insurance be offered subsidies to insure poor and rural populations? The answers to such questions will affect the nature and extent of regulation required. Because private insurance will serve as the primary form of coverage for at least some portion of the population in developing countries for the foreseeable future, the discussion below focuses on regulating primary insurance, not secondary coverage.

In developing a regulatory scheme to address the issues noted above, it is useful to focus on the interaction of the key actors in the health insurance market: insurers, consumers and providers (Figure 3). Policy interventions will address one or more of these relationships, which are necessarily interrelated. Hence effective regulation must ensure coherence between different interventions. In seeking this coherence, it is useful to address five key questions:

- (1) Who can sell insurance?
- (2) Who should be covered?
- (3) What should be covered?
- (4) How can prices be set?
- (5) How should providers be paid?

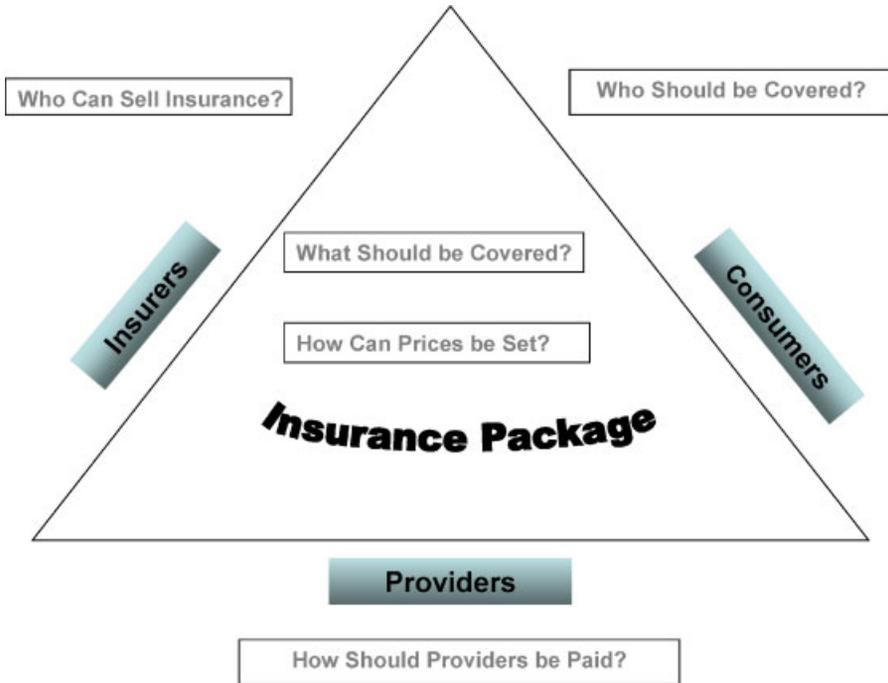


Figure 3. Model for policy intervention: key questions. [This figure is available in colour online at www.interscience.wiley.com]

The following sections address each of these questions in turn. Examples of practices that have shown to be successful in different countries are contained in the highlighted boxes, while Table 2 provides a summary of these questions.

Who can sell insurance?

Even the most *laissez faire* governments must establish policies regarding what kinds of businesses can be active in financial markets. These policies benefit both clients and firms, offering consumer protection and ensuring a viable insurance market. Policy makers need to answer the following questions in setting these policies:

- What will be the importance of private insurers in the health financing system?

If private insurance will be an important source of financing and will cover large numbers of people, more extensive consumer protections become an important consideration. Developed countries where private insurance plays an important role often impose more stringent regulations than those where private insurance is a small share of the market (OECD Health Project, 2004). Consumer protection

Table 2. Summary of key policy questions

Who can sell insurance?	<ol style="list-style-type: none"> 1. What will be the importance of private insurers in the health financing system? 2. Who will be allowed to sell insurance and how can consumers be protected from financial insolvency? 3. To what extent is private insurance being encouraged as a way to provide greater choice to consumers or to make the public system more responsive through opt-out provisions? 4. How much competition should be encouraged? 5. How much collaboration should be encouraged among insurers?
Who should be insured?	<ol style="list-style-type: none"> 1. How broadly should private coverage be extended? 2. Will coverage be mandatory or voluntary? 3. What will be the basis of affiliation in insurance plans, for example group, individual/family? 4. If coverage is voluntary, how can low-risk people be encouraged to join the risk pool to cross-subsidize those who are at higher risk for ill health? 5. To what extent will private insurance be used to provide coverage for high-risk persons? If private insurers will cover high-risk individuals, how can they be encouraged to do this while protecting the viability of the insurance market?
What should be covered?	<ol style="list-style-type: none"> 1. What benefits, if any, should be mandated? 2. How can the public be assured that those who need health insurance can obtain affordable coverage? 3. How important is consumer choice and customization to meet the needs of different groups? 4. What mechanisms will be used to curb unnecessary demand of services from consumers while providing appropriate access to those who need care?
How can prices be set?	<ol style="list-style-type: none"> 1. To what extent is private insurance intended to promote equity through cross-subsidies between high- and low-risk individuals, and the rich and the poor? 2. Are premiums intended to cover current costs or provide a reserve for future health expenditures?
How should providers be paid?	<ol style="list-style-type: none"> 1. What impact will prices in the private sector have on prices in the public system? 2. How can price inflation resulting from insurance be constrained? 3. How can provider-induced demand be reduced while maintaining access and quality? How much risk can be appropriately transferred to providers? 4. Is consumer choice of providers a key objective or will insurers have freedom to practice active purchasing? 5. To what extent is the introduction of private insurance intended to foster more coordinated delivery models of care?

rules cover disclosure requirements for policies and marketing practices to ensure that buyers understand what they are purchasing, and grievance procedures for addressing problems. These rules are distinct from patient protection legislation, which governs contracts between insurers and providers. Consumer protection

regulations for health insurance are common in developed markets and often build on general consumer protections.

- Who will be allowed to sell insurance and how can consumers be protected from financial insolvency?

Ensuring sound financial condition forms the bedrock of insurance regulation. Insurers need sufficient reserves to reimburse medical costs and also to cover the time lag between when a potential compensable medical event occurs and when the claim is submitted to the insurer for payment (claims incurred but not received or IBNR). In new markets, insufficient reserve requirements can cause serious problems because rates of utilization are largely unknown, growth in membership continues to increase needed reserves, processes to submit and adjudicate claims may be slow or in development and provider prices may not be stable. This means that reserve requirements must be set sufficiently high to discourage poorly capitalized insurers from entering the market and reviewed annually to ensure continued solvency. If requirements are set too high, though, this will limit the amount of competition in the market and may discourage non-profit and community insurers from participating. One option for countries wanting to increase the supply of insurers is to provide government guaranty funds or public reinsurance. Reinsurance protects individual insurers by spreading risk among other insurers in the market. It can be required by the government and financed through levies on insurers or can be purchased by an individual insurer through a contract with a reinsurance company that then assumes some portion of its risk. Reinsurance is common in developed insurance markets.

Box 1: Financial Condition and Solvency

In 1999, Lebanon introduced health insurance legislation to increase solvency requirements to protect the viability of its insurance market and protect consumers. Companies are required to have capital of \$800 000 to operate. It is anticipated that this will reduce the number of market players from over 80 to 15–20 (Haidar, 2004).

Managed care and other plans that selectively contract with providers avoid some of the issues related to processing claims because they require the provider to bill the insurer rather than having the patient pay the provider and then seek reimbursement. Well-structured provider contracts specify billing requirements, timeliness of billing and provider fees, thus reducing financial uncertainty. As a result of this, and combined with state guaranty funds for managed care, many states in the United States require lower reserves for managed care plans than for indemnity plans. US-managed care regulations often contain extensive provider-focused quality assurance and access requirements, though this varies by state (California Department of Managed Health Care, 2003).

- To what extent is private insurance being encouraged as a way to provide greater choice to consumers or to make the public system more responsive through opt-out provisions?

If increased consumer choice is a priority, then less regulation may be appropriate. On the other hand, opt-out mechanisms that allow individuals to redirect their health-related taxes to private insurers require considerable monitoring to prevent a negative impact on the overall health care system. Opt-out provisions have been adopted by some countries to encourage private insurance as an alternative to publicly financed health care, to relieve pressure on the public system, or to encourage responsiveness in the public system (Chollet and Lewis, 1997). These provisions often lead to a differentiation of insurance pools and may mean that those remaining in the public system will be poorer and less healthy (Barrientos and Lloyd-Sherlock, 2000). This segmentation can be compensated by explicit risk-equalization and subsidy schemes, but overloading and under-funding the public system may remain a problem.

Box 2: Opt-Out

In Germany, those who earn above a certain income, or self-employed, or are civil servants can opt out of the social insurance system and purchase private insurance. To protect its public system, regulations have been introduced that make it very difficult for those who opt out to reenter the public system. As a result only 8% of the population chooses to purchase private coverage. These are usually individuals in good health or double-income couples (Gress *et al.*, 2002).

- How much competition should be encouraged?

Managing the level of competition is important in emerging markets. Too many insurers make oversight difficult and can threaten the viability of the insurance pool, whereas insufficient competition can negate the benefits of a market. In theory, competition promotes consumer choice and innovation and should result in lower costs for purchasers. Uncontrolled competition, though, can lead to a plethora of small insurers without an adequate membership base to support the risk they are assuming, resulting in unnecessarily high administrative costs, fragmented risk pools, insolvency and consumer confusion. Countries differ in how much competition they choose to foster with some limiting the number of insurers in the market and others promoting a freer market approach.

- How much collaboration should be encouraged among insurers?

In general, insurers should not be allowed to collude in setting prices or to share information—particularly about clients' health risks. But the insurance market works better when there is transparency in operations and more information is available about general costs and actuarial risks. In setting reporting and disclosure requirements, regulations must strike an appropriate balance between protecting proprietary data and the importance of gathering information about the health needs of the population, utilization of services and health systems costs.

Box 3: Competition and Consumer Protection

Australia's private insurance market has had very limited competition with the largest private insurer, Medi-Bank, a state-owned scheme. Other insurers have entered in recent years but competition is limited due to Medi-Bank's dominant position (Colombo and Tapay, 2003a). Until 1994, Ireland had only a state-owned monopoly insurer, VHI, selling private insurance. Although a second private insurer has now entered the market, it is still a minority player (Colombo and Tapay, 2003b). Both countries are trying to encourage some competition to promote innovation and better pricing.

By contrast, the US market is characterized by hundreds of insurers of varying sizes and status. Some are not-for-profit, such as Kaiser Permanente and some of the Blue Cross/Blue Shield plans; others are for-profit, such as Aetna or Prudential, while still others are state-owned such as many county Medicaid insurers. Licensing of health insurers is delegated to the states and only a few insurers are actually national players with a presence in most states. Some smaller insurers were founded by physician or hospital groups and operate in a limited geographic area. The cost to the system of such a plethora of insurers is significant, with administrative costs ranging from 5% to 30% and the long-term viability of many small insurers at risk (Sekhri, 2000).

Many US states require prior approval of all marketing and enrolment materials. California, among others, has established an independent body to address grievances that cannot be resolved through the insurer's grievance procedures (California Department of Managed Health Care, 2003).

Who should be covered?

Choices regarding who should be covered give policy makers the opportunity to guide the breadth and diversity of the insurance risk pool, the level of participation in the market, and influence how rapidly the market will grow. Policy makers need to consider issues such as whether insurance will cover both formal and informal sector workers, whether subsidies will be provided for the poor to purchase

coverage, whether insurance will be voluntary or mandatory, and how both high- and low-risk individuals will be able to participate in insurance pools. The answers to these questions will have a direct impact on market failures such as adverse selection and risk selection.

The following specific policy questions should be addressed in this area.

- How broadly should coverage be extended?

One of the most critical policy questions is which populations should be covered through publicly funded programs (i.e. general taxes and/or social health insurance) and which should be covered through private health insurance plans. Insurance mechanisms, both publicly and privately funded, can most easily cover those in the formal sector. Providing private insurance for the informal sector can be done through community health insurance schemes or through farmers' and shopkeepers' associations where they exist, but these often require government subsidies. Private insurance mechanisms are most difficult to implement for subsistence farmers, the very poor, and refugee populations. These groups are best covered through public funds either directly or through the purchase of health insurance on their behalf by the government.

- Will private insurance be mandatory or voluntary?

Though private insurance is traditionally characterized as voluntary, it can be made mandatory for the entire population or for certain segments, such as the formal sector. Mandatory coverage may be justified in health care because most people will use health services at some point and there is societal benefit to an equitable distribution of payments for these services (Mossialos *et al.*, 2002). Mandatory coverage can reduce the opportunity for adverse selection and mitigate some of the problems in voluntary markets. In countries that envision private insurance as a path towards a public insurance system, mandatory coverage can be an effective transition mechanism with schemes initially applying to specific groups such as formal sector employees, and later expanding to other parts of the population. In many developed countries where private insurance plays a prominent role, or where it is the primary coverage for certain segments of the population, it is either explicitly mandatory or receives such favourable tax incentives that it has become virtually universal.

Box 4: Coverage Options

The new reforms in the Netherlands have removed the distinction between public and private coverage and require all individuals to purchase coverage from a variety of for-profit or non-profit insurers.

In Uruguay, those who fall between certain income bands (between US\$600–\$1800 annually) are mandated to purchase private cover. This

encompasses the working class. Those in higher-income brackets can purchase additional voluntary cover (International Labour Organization, 1997). In 2003, Saudi Arabia introduced compulsory private health insurance for expatriates. This will be implemented in a five-phase programme and ultimately allow coverage of Saudi nationals as well. The first phase will require employers with over 500 employees to provide private insurance coverage. This will be gradually extended to employers with fewer employees (U.S.-Saudi Arabian Business Council, 2002). In Australia, recent reforms require that those with individual incomes over US\$30 000, or families making over US\$60 000, purchase private insurance or pay an increased tax of 1% of their income (Colombo and Tapay, 2003a).

- What will be the basis of affiliation with insurers (group vs. individual/family)?

Group affiliation through employers and labour unions has been the historic basis of private insurance in many countries. Group affiliation is preferable because it spreads health risks more evenly across insurers, and grouping by place of employment is common because members are easy to identify and payments are readily linked to earnings. Generally, in group policies all members pay the same premium regardless of age or health status, and most group policies are either mandatory for the whole group or stipulate that a significant portion of the group must enroll. Insurers prefer group insurance because it limits adverse selection and administrative costs; and consumers benefit from the stronger purchasing power that employers and labour unions can exert on their behalf. In markets where private insurance plays a dominant role, group coverage is common.

However, affiliation through employment may also limit labour mobility and make it difficult to sustain coverage during economic downturns and high unemployment. Family or household insurance may be more suitable where a large informal sector exists and is preferable to individual coverage, which is more expensive to administer, and runs the greatest risk of adverse selection.

Box 5: Affiliation Options

In the US, the majority of health insurance is sold through employment groups with almost all employers with over 200 employees offering group health insurance as a part of the employment package (Jost, 2001). Large employers in some regions of the US, such as the Pacific Business Group on Health and the National Business Group on Health have further consolidated their power by negotiation of insurance coverage on behalf of their members, resulting in increased quality, lower costs and stronger consumer protection (National Business Group on Health, 2004; Pacific Business Group on Health, 2004).

Group policies constitute well over 50% of total policies sold in Denmark, Ireland, the Netherlands, Portugal, Sweden and the United Kingdom (Mossialos and Thomson, 2002).

In Ireland and the Netherlands, employers have been able to encourage portability of health coverage when employees lose or change jobs (Mossialos and Thomson, 2002).

In the US, employer groups, such as the Health Insurance Purchasing Pool in California, the Business Health CAG in Minnesota and the Washington State Health Care Authority, have also introduced portability clauses.

The Yashasvini public/private partnership in India has been able to enroll 1.65 million individuals since it started in June 2003 by focusing only on affiliation through farmers' associations (Narayana Hrudayalaya Institute of Medical Sciences, 2004).

- If coverage is voluntary, how can low-risk people be encouraged to join the risk pool to cross-subsidize those who are at higher risk for ill health?

Attracting low-risk individuals into the insurance pool is a fundamental concern in voluntary markets in which rating methods or other mechanisms to promote equity make it more costly for low-risk individuals to purchase coverage. Some countries have found that explicit incentives (or disincentives), such as tax rebates or penalties or early enrolment benefits, are needed to encourage those who might not participate in the risk pool to purchase coverage (Jost, 2001).

Box 6: Incentives to Participate

To encourage the purchase of coverage in its shrinking private insurance market, Australia instituted legislation in 2000 that provides a 30% tax rebate to those who purchase private cover. In addition it has introduced a life time community rating plan in which those who join after 30 years of age pay a premium over base rates for each year they remain uninsured, encouraging people to enter earlier and stay in the risk pool (Colombo and Tapay, 2003a). Studies show that lifetime community rating has been a particularly successful policy intervention.

- To what extent will private insurance be used to provide coverage for high-risk persons? If private insurers will cover high-risk individuals, how can they be encouraged to do this while protecting the viability of the insurance market?

It is important to note that no developed country, including the United States, uses voluntary private insurance to cover the poor or elderly (Docteur *et al.*,

2003). Other categories of high-risk individuals, though, may be part of the risk pool and unless there are explicit safeguards for both insurers and individuals these groups will be left without affordable coverage. If high-risk persons are covered by public programmes and are not part of the private insurance market, then fewer regulations are needed in this area.

This issue takes on special importance in developing countries with high prevalence of diseases that are costly to treat, such as HIV/AIDS. Private insurers cannot remain solvent if they take on such risks without correspondingly raising premiums to cover the associated costs. Ensuring adequate insurance coverage for individuals at high risk for such illnesses will require government subsidies—in whole or in part depending on circumstances—for this insurance coverage.

To promote insurance coverage for individuals who present higher risks than average, regulations can prohibit private insurers from rejecting applicants (guaranteed issue) or cancelling policies (guaranteed renewal). To maintain the viability of the insurance market, insurers can be protected from adverse selection through subsidized high-risk pools and risk-equalization schemes. Some argue, though, that these types of protections can decrease incentives for insurers to actively monitor the utilization of services and practice prudent cost controls, thereby leading to inefficiencies (Söderlund and Khosa, 1997). These strategies are discussed below:

- *Guaranteed issue and renewal* require that all individuals be offered coverage regardless of health status, and protect those who become sick from having their coverage terminated. Guaranteed issue can apply at all times or to certain periods in the year called 'open enrolment' periods (OECD Health Project, 2004). These methods are most effective if rating requirements or price ceilings are specified to prevent insurers from charging unaffordable premiums for high-risk individuals. However, they also have the danger of leading to insurer insolvency so they are often coupled with high-risk pools that provide subsidies for insuring high-risk individuals, or risk adjustment policies to equalize costs of care among insurers (Söderlund and Khosa, 1997).
- *Subsidized high-risk pools* allow individuals with existing and potentially high-cost medical conditions to be insured at affordable premiums. The subsidy is generally financed through general taxes or through levies on insurers.
- *Risk adjustment or equalization systems* (Söderlund and Khosa, 1997; van de Ven and Ellis, 1999; Colombo and Tapay, 2003a–c) are intended to compensate insurers who have enrolled populations with higher than expected health care costs. Mechanisms can be established to create transfers from insurers with lower than expected costs to those with higher than expected costs. The challenge for such mechanisms is to compensate insurers only for the differential in costs associated with the distribution of health risks and not the differential resulting from inefficient management.

Box 7: Insuring High-Risk Individuals

Guaranteed issue and renewal are required in Australia and Ireland for all private health insurance (Colombo and Tapay, 2003a,b).

In the US, federal law through the Health insurance Portability Act (HIPAA), requires guaranteed issue in the small group market which is the most volatile, because a group may be as small as two people (U.S. Department of Health and Human Services, 2004).

The Netherlands has created two mechanisms to ensure that high-risk individuals are not excluded from private insurance pools. First, all individuals in the Netherlands are enrolled in a catastrophic insurance fund (AWBZ) which covers high-cost and long-term care and provides a safety net for insurers. Secondly, there is a mandatory reinsurance pool to which all insurers must contribute (Gress *et al.*, 2002).²

Australia has adopted a government-sponsored reinsurance scheme that allows funds to be transferred to those insurers who have a greater proportion of individuals who are high utilizers of services (Jost, 2001). In this scheme, those insurers who have a disproportionate share of patients with long hospital stays receive a transfer from those with a lower share of these patients (Jost, 2001; Colombo and Tapay, 2003a).

South Africa has analysed the use of high-risk pools and risk-equalization schemes to expand coverage to high-risk individuals (Courtney *et al.*, 1997; Söderlund and Khosa, 1997). Actuarial analyses conclude that high-risk pools would be effective to guarantee access while ensuring low premiums (Courtney *et al.*, 1997).

What should be covered?

This third set of regulations defines the basic benefits that insurers must offer and addresses societal values around health as a merit good. These requirements are intended to protect consumers from unreasonable exclusions and address problems with adverse selection, moral hazard and risk selection. Benefit designs also determine how much financial protection will be provided. Key decisions that policy makers must consider in this area are:

- What benefits, if any, should be mandated?

Primary insurance often contains a core set of benefits to provide adequate financial protection for those who purchase coverage, which may mirror those covered through a publicly funded package. At a minimum insurance coverage should provide financial protection against major medical expenses. The emergence of chronic conditions and the clear benefits of early detection and prevention have

²Unless otherwise noted, reference to private health insurance in the Netherlands is based on information prior to the most recent reforms.

resulted in gradual expansion of health insurance packages to cover benefits that would not be considered true insurance arrangements. Standardizing benefit packages or requiring minimum benefits restrains insurers from designing packages to attract only lower-risk individuals or excluding benefits that would appeal to those with certain conditions.

However, mandating benefits increases the costs of basic packages and can make insurance unaffordable for some. It may also limit innovation and the range of plans available in the market; a standard plan may be too costly for some and offer the wrong mix and level of services for others, which can limit participation in voluntary markets.

Box 8: Benefits Packages

One insurer in South Africa, Discovery Health, has created a unique package that has a premium with two separate components: about two-thirds of the premium pays for the true 'insurance' functions and one-third is set aside as a medical savings account to cover the typically 'prepaid' portion of insurance coverage. This package has been so successful that Discovery Health is now the second largest insurer in South Africa and is expanding to the US and the UK (National Center for Policy Analysis, 2003).

Germany has a Standard Tariff private insurance package, which provides a core set of benefits with premiums pegged to public insurance premiums for those over 55 years of age or with low incomes, who are not eligible for social insurance (Jost, 2001; Gress *et al.*, 2002). In Australia, insurers can only cover inpatient care because insurance is intended to relieve the burden on public hospitals (Jost, 2001; Colombo and Tapay, 2003a). In Belgium insurers cannot cover co-payments in the public system, which are intended to limit over-utilization of services (Mossialos and Thomson, 2002).

- How can the public be assured that those who need health insurance can obtain affordable coverage?

Limited coverage of pre-existing conditions, contract exclusions and waiting periods are stipulated in most policies to discourage adverse selection and keep premiums affordable. But if these restrictions exclude care for more common high-cost conditions, little financial protection is provided. Consequently, in many developing countries people may not be able to buy insurance for high-cost diseases such as AIDS or cancer, which are often the very conditions for which insurance is most needed. Most developed countries allow exclusions for certain conditions but set boundaries on what can be excluded and for what period. Exclusions and waiting periods can be particularly problematic whenever the enrollee switches insurers. Regulations that require portability of coverage partially mitigate this problem by stating that individuals only face exclusions for pre-existing conditions and waiting periods the first time they purchase coverage; after this,

insurers must accept individuals with no waiting periods or exclusions as long as insurance coverage has been continuous. Portability of this kind is particularly important where insurance is employment based because it allows people to change jobs without losing coverage.

Box 9: Coverage Restrictions

In the United States, plans purchased through employer groups sometimes do not impose waiting periods or limit waiting periods to specific conditions such as maternity services. Forty-five of the 50 states have imposed restrictions on the exclusion of pre-existing conditions (Jost, 2001). National legislation (HIPAA) requires uniform waiting periods on pre-existing conditions which, along with other provisions, allow people to change jobs without losing coverage and enable those who lose employment to temporarily retain coverage (Pollitz *et al.*, 2000).

In Germany, waiting periods are limited to 3 months for most conditions and 8 months for certain conditions such as maternity care, psychotherapy and orthodontics. New-borns and those who transfer from social insurance funds are covered immediately (Jost, 2001).

- How important is consumer choice and customization to meet the needs of different groups?

If consumer choice is a policy goal, fewer restrictions on benefits may be appropriate. The attractiveness of offering choice needs to be weighed against the confusion and inefficiency that can occur when myriad plans with minor differences are provided. In addition to the difficulties this presents consumers in understanding what they are purchasing, excessive customization can lead to higher costs associated with administering multiple benefit designs, and create fragmented, unsustainable risk pools.

- What mechanisms will be used to curb unnecessary demand of services from consumers while providing appropriate access to those who need care?

Consumer-induced demand can be addressed through various cost-sharing mechanisms such as deductibles, co-payments, co-insurance and payment ceilings, which are designed to keep insurance premiums affordable.

However, goals around affordability should be balanced by ensuring that those who cannot afford to share health care costs still receive needed services. Some studies show that co-payments may disproportionately reduce service utilization among the poor and discourage people from seeking preventive services that would avoid the subsequent need for costly curative care (Mocan *et al.*, 2001). Also, there is literature to suggest that moral hazard from the consumer is not a problem for referred services (Bardey *et al.*, 2003). In establishing cost sharing, it

is important to note that insurance is only effective if it covers a substantial share of health service costs. Many countries have experimented with the appropriate use of cost-sharing mechanisms to strike a balance between providing effective financial protection and assuring affordable premiums (Beck, 1974; Lillard *et al.*, 1986; Yoder, 1989; Cherkin *et al.*, 1990; Mariko, 2003).

Box 10: Patient Cost Sharing

Several studies have found that demand for preventive services is more likely to decrease as a result of co-payments. Since preventive services are relatively inexpensive and can minimize downstream health care costs, some United States managed care plans reduce co-payments for pre-natal care, well baby check-ups and screenings.

Several health insurers in the United States are implementing differential co-payments to encourage use of higher-quality providers. One has developed a matrix of quality and cost measures on which it evaluates providers. Patients who use these providers have lower co-payments than those who use other providers. Another uses measures of physician quality to offer lower co-payments for those who select higher-quality providers. Aetna is implementing similar programmes (MedPAC, 2003).

Some managed care organizations in the United States use co-payments to encourage cost-effective use of services, for example setting reimbursement for drugs at the level of the generic drug, or charging higher co-payments for those who choose to use doctors or hospitals not in the preferred provider list.

How can prices be set?

Regulating how private companies can price their products is a significant governmental intervention and in health insurance, pricing policies are particularly difficult to design because there are so many competing objectives: affordability and viability, as well as avoiding adverse selection, risk selection and moral hazard. Pricing policies can have a major impact on equity (between people with lower and higher incomes and those with lower and higher health risks) and will guide the extent of risk pooling. They can also protect the viability of the market by stipulating that insurers use the same pricing method at least for a standard benefit package. Otherwise, some insurers will use risk-rated premiums to attract lower-risk individuals, while others may attract more than their fair share of the sick, resulting in an unstable market. In setting pricing policies, key issues include:

- To what extent is private insurance intended to promote equity through cross-subsidies between high- and low-risk individuals, and the rich and the poor?

Methods used to calculate premiums have an important effect on equity and affordability. At one end are income-based contributions, more commonly used in social insurance systems, which promote equity by sharing risk across the rich and poor. In efficient private insurance markets, though, insurers will wish to

charge risk-rated or what are considered 'actuarially fair premiums' reflecting the true risk that the insurer is assuming. These rating methods are useful in voluntary markets because they can lead to more rapid market expansion, but they do not provide the cross-subsidies necessary to ensure equity and can make insurance unaffordable for high-risk populations.

Other forms of rating, such as community rating which imposes a single average premium for all individuals in a region or group, promote solidarity by sharing risk across the healthy and the sick but decrease the attractiveness of coverage for low-risk individuals who are paying more than market value for the services they use.

In principle, equity is best served by rating methods that share risks between the healthy and the sick, but unless insurance is mandatory and all insurers are required to use the same rating method, healthier individuals will leave the insurance pool and insurers will have an incentive to engage in risk selection. As a result, premiums will increase for those who remain and threaten the viability of the market.

- Are premiums intended to cover current costs of care ('pay as you go') or are they intended to provide reserves for future health care expenditures?

Instability in the price of insurance premiums is a particular problem where government intervention on provider prices and utilization of services is minimal. Capital premium setting mechanisms can improve the predictability of premiums because, like life insurance policies, they include a reserve for future costs of health care.

Box 11: Setting Premiums

Australia and Ireland require all insurers to community rate premiums even though they provide only supplementary insurance (Colombo and Tapay, 2003a,b).

Chile has established a mandatory contribution for public insurance coverage equal to a fixed share of earnings. Since individuals can opt out of the public insurance system, higher-income individuals can buy private insurance with their mandatory contribution that is unaffordable to others (Barrientos and Lloyd-Sherlock, 2000).

Germany has adopted a unique system of level lifetime rating which operates like a full life insurance policy in that premiums are calculated based on age, gender and health status when one joins the plan. Premiums are designed to cover current health care costs as well as accumulate reserves to fund health costs associated with old age. Although, in theory, premiums should not increase substantially over time, unanticipated medical cost inflation has resulted in an upward adjustment in recent years. Germany also offers large rebates for those who do not use medical services over defined time periods (Gress *et al.*, 2002).

South Africa requires all medical schemes to community rate premiums and has introduced a system of unfunded lifetime community rating which levies penalties on those who become part of the insurance market later in life (Khunoane, 2003).

Many states in the United States mandate community rating or do not permit fully risk-rated premiums for small groups (Jost, 2001). Since group insurance is the norm in the United States, community rating for individuals within a group is a common practice (Jost, 2001).

How should providers be paid?

Some would argue that the question of provider payments does not fall under the rubric of insurance regulation. However, purchasing is one of the key sub-components of health financing, and provider payment methods directly address the problems of provider-induced demand. When insurers are passive, as in traditional third-party indemnity coverage, there is a tendency for consumers to demand more health care and for providers to induce more health care than might otherwise be justified (Barros *et al.*, 1986; Peabody *et al.*, 1995; Söderlund and Khosa, 1997).

Where passive insurance arrangements have contributed to cost escalation, a variety of active purchasing and risk-sharing arrangements between providers and insurers have emerged to better align incentives. This has further led to integrated insurer and provider arrangements such as managed care plans where insurers are actively involved in overseeing the care provided to enrollees.

Provider charging practices also have an effect on the amount of financial protection actually offered through insurance. Some studies show that rather than reducing out-of-pocket spending for consumers, insurance can paradoxically lead to an overall increase in payments when providers respond by raising their prices (Gertler and Solon, 2002).

Policies and regulations governing provider fees are new in many developed insurance markets; interventions cover how providers are paid how much they are paid, and how care is delivered. Policy questions relevant in this area are:

- What impact will prices in the private sector have on prices in the public system?

To the extent that the same providers serve both the public and private sectors, cost inflation in the private sector may increase overall prices in the health care system. If public providers are permitted to augment their incomes through private practice, it may also divert staff away from the public system resulting in less access to care for public patients. Establishing a common fee schedule for payment of physicians that applies to both private and public insurers may mitigate this problem.

On the other hand, with effective controls, allowing providers to charge more in private practice can subsidize the public system and maintain lower public sector wages.

- How can price inflation resulting from insurance be constrained?

To ensure that insurance provides adequate financial protection, provider-charging practices can be addressed through public policy as well as through individual insurance contracts. Provider fee schedules and salaries paid by private insurers can be regulated to contain costs, to encourage the provision of particular services, or to encourage competition.

In addition, rules limiting differential pricing and balance billing to patients may be needed to ensure that insurance coverage will provide adequate financial protection. These rules mean that providers cannot charge insured patients more than

uninsured patients, and that they cannot seek additional payment from patients above what the insurer is reimbursing.

- How can provider-induced demand be reduced while maintaining access and quality? How much risk can be appropriately transferred to providers and how should this be structured?

Sharing risks and rewards with providers and constraining provider-induced demand may be even more important in controlling costs than strategies aimed at reducing consumer demand. Aligning incentives between payers and providers gives providers a financial stake in the viability of the system. Ensuring that providers can manage this risk and do not become insolvent is an important public policy concern.

Considerable research has been done in the area of provider payment mechanisms and their impact on provider-induced demand. Abel-Smith (1992); Hastings *et al.* (1973); Laffont and Tirole (1993); Pauly (1980); Ransom (2000); Stearns *et al.* (1992), among others, provide useful information on this topic.

- Is consumer choice of providers a key policy objective or will insurers have freedom to practice active purchasing and provider selection? Will the introduction of private insurance be used to foster more coordinated care delivery?

Encouraging insurers to strategically purchase from higher-quality, cost-effective providers can limit cost escalation, but also restricts freedom of provider choice and can be politically difficult to implement. The introduction of private coverage can be used to create incentives for providers to form linkages or vertically integrate, which can improve continuity of care for patients. Managed care plans that do this have been shown to have a positive impact on cost and quality of health care (Sekhri, 2000; Campbell *et al.*, 2001).

Box 12: Provider Payments

The Netherlands has a single provider network, which serves both publicly and privately funded consumers. Providers are private entities but must negotiate a fee schedule with the government that applies to both their public and private patients (Gress *et al.*, 2002).

Germany regulates fees charged by providers in its social insurance system, but allows providers to charge higher fees to private insurers. This is a conscious attempt to keep social insurance fees low by creating cross-subsidies from private insurers to the public sector. As a consequence, costs per member for private insurance in Germany have increased an average of 40% more than equivalent costs for those in the social insurance system (Busse, 2001).

One of the most positive outcomes of sharing risks and rewards with providers through capitation has been the development of more integrated models of care delivery and disease management in the United States. These have been shown to provide less expensive, and in many cases, higher-quality care (Sekhri, 2000).

The discussion above highlights the key policy questions that should be addressed when establishing a regulatory scheme for health insurance. Each country must decide to what extent it wants to intervene in the natural functioning of the market based on its public policy goals, health priorities, politics and culture. As the above examples show, there is justification to actively regulate and monitor private insurance. Policy makers should not underestimate the effect of a private insurance market on the publicly funded system. On the negative side, an active private insurance market may drive up prices for publicly funded services, lure providers away from the public system and generate excessive demand that limits provision of needed medical services. On the positive side, a private insurance market can provide financial protection for some segments of the population, strengthen the health system's institutional capacity, give people greater access to higher-quality services, encourage development of private provider capacity, encourage responsiveness by providers and introduce innovations that promote quality and cost-effectiveness.

The key to minimizing the negative tendencies of the market and capitalizing on its potential rests in responsible government stewardship of market forces. Building the capacity to exercise this stewardship effectively is the focus of the next section.

WHAT INSTITUTIONAL CAPACITY IS REQUIRED TO IMPLEMENT AN EFFECTIVE REGULATORY STRUCTURE?

Defining the actors, rules and context for the private insurance market and designing the regulatory framework are only the first steps. The framework also needs to be implemented. If the framework is well designed, it should be easier to implement but the institutional capacity to steer a private insurance market is never simple. It requires skilled people, functioning institutions and good governance.

Many developing countries are constrained to the extent that they lack these critical factors and some factors are more difficult to address than others. If skilled people are lacking, it may be possible to train staff, hire individuals from other countries, or contract technical support to assist in 'learning on the job'. If governance is a problem in the public sector, it might be possible to make regulatory agencies accountable to independent consumer groups; however, few regulatory frameworks can function without broader confidence in the capacity of public sector institutions.

The challenges of implementation vary substantially across countries, even within regions, but some regional patterns are also evident. For example, most countries in Latin America have relatively large and active private insurance markets in contrast to Eastern Europe, Asia and Africa. However, Latin America and Eastern Europe share some characteristics: more highly educated populations, stronger public institutions and more experience with government regulation of the private sector when compared to most countries in Sub-Saharan Africa and Asia. Ultimately, the challenges of implementation will be specific to the particular country, its resources, strengths and weaknesses.

Before discussing the main elements required to develop the institutional capacity to implement efficient and equitable insurance markets, several broad points need to

be emphasized which relate to three key constraints faced by policy makers (Laffont and Tirole, 1993).

- First, developing institutional capacity is not restricted to strengthening a single government office. Steering private insurance markets to serve public policy goals involves many different tasks that do not necessarily have to be done by a single actor. For example, if accreditation of insurers is required it can be carried out in a number of ways: a public agency could be established, a professional association could be charged with the responsibility, or several accreditation firms could be created similar to the way private companies rate bonds or companies that are publicly traded. Similarly, there may be tasks that are better combined under one organization, such as collection, collating and processing different kinds of information, while others might be better separated, such as auditing which may be housed in an independent agency.
- The second point is the importance of collecting reliable data and information. Regulators cannot function without data on the financial and operational performance of all insurers, public and private, non-profit and for-profit. The collection of data in health allows policy makers to ensure that both public and private resources are effectively deployed to address the highest disease burden and protect consumers.
- The third point is that insurance markets are dynamic. This means that beyond establishing mechanisms for routine monitoring and specialized audits, an intelligence gathering capacity is required to investigate, analyse and solve problems that will arise over time. An advantage of markets, by definition, is that they allow many actors to take independent initiatives to innovate and compete. But this very advantage is also the crux of the difficulty in supervising the market. Regulators always have to stay one step ahead of the people and firms they regulate.

Key elements in developing institutional capacity

Organizations do not implement public policy, people do. Therefore, whether they work for the public sector or not, a well-functioning market requires people with a variety of professional skills. A partial list might include accountants, actuaries, data processors and managers, financial analysts, auditors and investigators, medical experts and public health professionals.

To attract qualified people in a regulatory agency, keep them motivated and reduce the temptation to serve the interests of insurers over citizens, it is best if the institutions that employ them pay at or above the wages received by people with comparable skills in the private market. If this is difficult, and it is commonly problematic for public institutions ruled by civil service codes, an alternative strategy is to hire promising people early in their careers and seek to instill in them a sense of public service and loyalty. Human resource planning should proceed with the full understanding that there will be a regular flow of staff out of these functions into the private market and they will need to be replenished with new recruits.

The tasks that these people will carry out can be grouped into four general categories: legislation and licensing, monitoring, auditing and intelligence.

- *Legislation and Licensing* focuses on setting up the legal framework for health insurance and verifies whether insurers who enter the market comply with regulatory requirements (Insurance Committee Secretariat, 1997b).
- *Monitoring* includes procedures for insurance firms to report financial status, health services utilized by clients, and grievances or conflicts. At a minimum, a regulatory entity will require financial information from insurers regarding their reserves, risk categories of their investments and cash flow. Information on utilization patterns, enrolment, claims experience, IBNR and administrative costs is also important and can be used to forecast whether an insurance company might be at risk of failure so that early actions can be taken. Health services information is also required including provider lists; licenses and accreditation certificates to ensure quality and location of all providers to verify geographic access. Grievances and conflicts will arise and proper procedures must be established such as internal ombudspersons, arbitration boards, regulatory review, or as a last resort, legal actions. Grievance procedures should include some recourse to outside agencies such as the regulator or a separate medical body to ensure adequate consumer protection. All grievances should be acknowledged and reported on a standard basis and this information should be made publicly available (Insurance Committee Secretariat, 1997a; California Department of Managed Health Care, 2003).
- *Auditing* is necessary because insurance markets are decentralized and institutions that are guiding that market must rely heavily on compliance with the reporting requirements enumerated above. In different countries, the degree of compliance will vary, but in no country will it be 100%. In this regard, regulation of the insurance market shares many of the problems faced by tax administrators. The only way to improve compliance or keep it from deteriorating is to make certain there is a non-trivial risk that non-compliance will be detected and punished. Two kinds of auditing processes are highly complementary. The first is automatic and focuses on cases that surpass certain significant limits. For example, it may be appropriate to require detailed audits of the largest insurers on a rotating basis or of particularly large financial transactions. The second must be randomized as it assures that every insurer has some risk of being audited and facing potential consequences. If truly randomized, the results of these audits can be used to determine what kinds of abuses may be being practiced in the market and how widespread they are.
- The role of *intelligence* is critical for adapting to changing market behaviours and adjustments in public policy goals. It requires people and institutions to utilize the information provided by those monitoring and auditing the insurance market and combines this 'internal' information with 'external' data, whether related to the overall condition of financial markets, the degree of insurance market concentration, insurance coverage in the population, or health outcomes. Certain key elements of this steering function should be carried out by a high-level government office because they constitute the essence of policymaking.

Institutions, accountability and governance

No specific institutional forms are universally preferable because the context within which they will operate is so different. The institutions created and charged with carrying out the various tasks discussed above will vary depending on the type of legal system (e.g. common law, Napoleonic codes), the degree of market competition, the likelihood of private supply responses to identified functions, the effectiveness of the civil service and domestic political volatility and institutions.

Regulation of all forms of health insurance, such as indemnity coverage and HMO, is best invested in one agency focusing specifically on health. Regulating health insurers involves ensuring quality and accessibility of services provided, not just financial oversight, and this is best done by a separate health insurance body.

Institutional independence from political interference is a second element in assuring good governance. Examples for assuring institutional integrity can be found in most countries like those that guarantee central bank independence. Arrangements include staggered appointments for agency heads that are longer than the normal terms for elected office and do not coincide with elections. Perhaps more than any other aspects, decisions regarding forms of governance require balancing the benefits of independence. This is achieved mainly by protecting regulators from being 'captured' by insurers against the benefits of responsiveness to officeholders and accountability to the public.

Finally, countries need to be openly vigilant regarding the potential for fraud, abuse and corruption. This is not specific to private insurance markets as corrupt practices occur in all kinds of health systems, whether public or private. However, for countries that are dealing with private insurance markets for the first time, provision needs to be made for stemming the emergence of new forms of fraud and abuse. Public transparency is an important tool to prevent capture by special interests and limit fraud. This involves making as much information public as possible through open hearings on regulations, special decisions, standards and performance, financial information on those who assume particularly sensitive responsibilities and publication of all licensing information.

Box 13: Institutional Options

In Chile and Colombia, specific public agencies (*Superintendencias*) have been established at the national level and given responsibility to regulate private health insurance agencies. In both cases the regulatory agency has powers to monitor and sanction firms for failure to comply. In general the emphasis has been on financial conditions, solvency, and scale and consumer protection rather than on quality of health care or equity. In recent years this emphasis has begun to shift (Chollet and Lewis, 1997).

Morocco has established a regulatory body, the National Health Insurance Agency (ANAM) to coordinate private and public insurers. This body also monitors national contracts between insurers and providers ensuring consistency in prices, data, quality and implementation of best practices (Abdeljalil, 2002).

Uruguay has an extensive regulatory framework to manage its mandatory private insurance programme, which covers 60% of the population (Pan American Health Organization, 1998). The Ministry of Public Health monitors the operations of for-profit institutions while the Ministry of Economy and Finance is responsible for non-profit insurers (Chollet and Lewis, 1997). In Brazil, insufficient regulation by the government led the trade group for prepaid group practice, *Associacao Brasileira de Medicina de Grupo* (ABRAMGE) to create its own regulatory agency. Some of the goals of this regulatory body include providing guidelines to reduce false advertising and fiscal irregularities (World Bank, 1994).

Many states in the United States, as well as Chile's *Superintendencia de ISAPRES*, use the internet as a form of public dissemination on the costs and quality of insurers.

CONCLUSIONS

Moving towards risk pooling in health systems financing is important in promoting equity across income groups and protecting households from incurring catastrophic health expenditures (World Health Organization, 2000). In most developing countries regressive out-of-pocket payments represent a majority of total health spending and countries must find multiple ways to encourage the transition towards financing methods which provide adequate financial protection for their people (World Health Organization, 2000).

Historically, private health insurance has been important in moving towards universal publicly funded coverage in many Western European countries. As this paper shows, policy makers in developing countries may be able to benefit from this experience by introducing regulated private coverage, which can provide social protection for workers and their families, create the basis for larger risk pools and build institutional capacity for managing future public health insurance structures. In developing countries where tax revenues are limited, it can relieve the burden on the public sector, allowing limited public funds to be focused on purchasing care for the most vulnerable populations, while those who are able can contribute to their health care costs. Figure 4 shows one path towards achieving universal coverage using private insurance as a transitional mechanism when public funding is low, and as a supplementary form of financing as public funding increases.

Ensuring that private insurance serves the public interest requires active stewardship of diverse players. This is a capability that many developing countries have historically not cultivated choosing instead to directly finance and operate publicly owned facilities. In the past two decades, however, there has been a growing and largely successful trend in developing countries towards divestiture of traditionally government-controlled industries, such as energy, telecommunications and transport. This trend is relevant to health insurance since it develops the skills and structures needed for stewardship of all types of markets.

Although regulating health markets is challenging, so are efforts to operate efficient, high-quality public systems of hospitals and clinics. In fact, oversight and regulation of

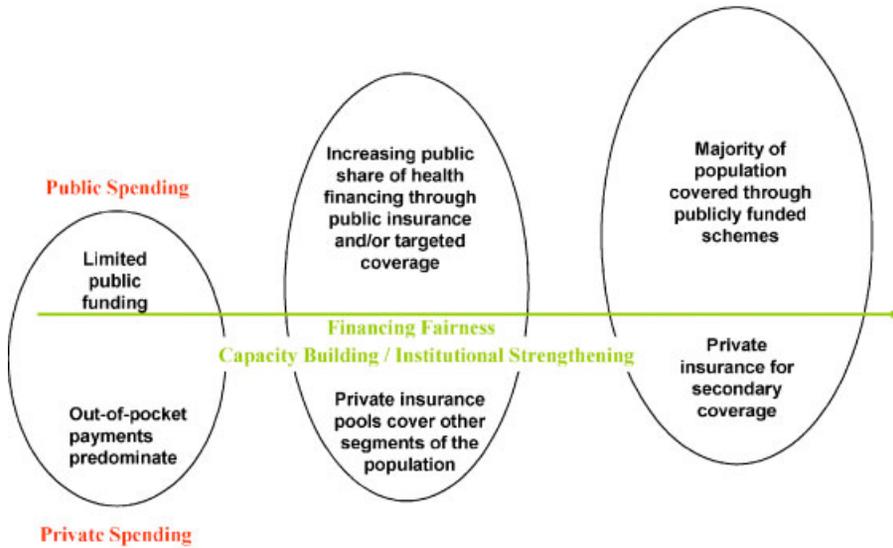


Figure 4. One path towards universal coverage

health care rather than its direct provision may conform more closely to the comparative advantages of governments. Undoubtedly, the most difficult aspect of stewardship is enforcement. But most countries are already laying the foundation for enforcement in other areas of governance: establishing the rule of law, promoting transparency and establishing an independent judiciary. Good governance will evolve over time and along with it enforcement of regulations in health markets.

Debate in the international health community on the role of private coverage has often been characterized by an easy dismissal of private insurance as fundamentally undesirable and destined to erode equity and efficiency in health care. But as this paper shows, a wide range of tools and experiences are available to regulate private insurance markets so that they will play a positive role in the development of equitable health systems. Policy makers should actively engage in understanding the value of these tools and in employing them to serve the needs of the public.

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REFERENCES

- Abdeljalil AG. 2002. Compulsory health insurance at the heart of the debate in Morocco. Proceedings of the AIM International Conference, Marakesh: Association Internationale de la Mutualité, October 18, 2002, 31–40. www.aim-mutual.org/docs/alami_en.pdf.
- Abel-Smith B. 1992. Health insurance in developing countries: lessons from experience. *Health Policy Plann* 7(3): 215–226.
- Abt Associates. 2000. A glossary of health terms for translators. Partnerships for Health Reform Project. <http://www.phrplus.org/Pubs/hts2.pdf>.
- Arrow K. 2001. Kenneth Arrow and the changing economics of healthcare (special issue). *J Health Polit Policy Law* 26: 823–1214.
- Auvray L, Doussin A, Le Fur P. 2003. Santé, soins et protection sociale en 2002: enquête sur la santé et la protection sociale, France 2002. Biblio no. 1509. Centre de Recherche d'Etude et de Documentation en Economie de la Santé (CREDES): Paris. http://www.irdes.fr/En_ligne/Rapport/rap2003/rap1509.pdf.
- Bardey D, Couffinhall A, Grignon M. 2003. Efficacité et risque moral ex post en assurance maladie (Efficiency and ex post moral hazard in health). *Revue française d'économie* XVIII: 165–197.
- Barrientos A, Lloyd-Sherlock P. 2000. Reforming health insurance in Argentina and Chile. *Health Policy Plann* 15(4): 417–423.
- Barros FC, Vaughan JP, Victora CG. 1986. Why so many caesarean sections? The need for further policy in Brazil. *Health Policy Plann* 1: 19–29.
- Beck RG. 1974. The effects of copayment on the poor. *J Hum Resour* 9: 129–141.
- Buchmueller TC, Couffinhall A. 2004. *Private Health Insurance in France*. OECD Health Working Papers. OECD: Paris.
- Busse R. 2001. *Voluntary Health Insurance in Germany: A Study for the European Commission*. European Observatory on Health Care Systems: Madrid.
- California Department of Managed Health Care. 2003. Knox-Keene health care service plan act of 1975. California Department of Managed Health Care: Sacramento, CA. <http://www.hmohelp.ca.gov/library/regulations/default.asp#statutes>.
- Campbell P, Quigley K, Collins A, Yeracaris P, Chaora M. 2001. Applying managed care concepts and tools to middle and lower income countries: the case of medical aid societies in Zimbabwe. Harvard University: Cambridge, MA; 1–7. www.hsph.harvard.edu/ihs/publications/pdf/No-84.PDF.
- Carmichael J, Pomerleano M. 2002. *The Development and Regulation of Non-Bank Financial Institutions*. World Bank: Washington, DC.
- Cherkin DC, Grothaus L, Wagner EH. 1990. The effects of office visit co-payments on preventive care services in a health maintenance organization. *Inquiry* 27(1): 24–38.
- Chollet DJ, Lewis M. 1997. Private insurance: principles and practice. In *Innovations in Health Care Financing*, Schieber GJ (ed.). The World Bank: Washington, DC; 77–114.
- Colombo F, Tapay N. 2003a. *Task Force on Private Health Insurance, Private Health Insurance in Australia: A Case Study*, Pub. no. DAFPE/AS/PHI/WD(2003)12. Organization for Economic Co-operation and Development: Paris; 1–47.
- Colombo F, Tapay N. 2003b. *Task Force on Private Health Insurance, Private Health Insurance in Ireland: A Case Study*, Pub. no. DAFPE/AS/PHI/WD(2003)13. Organization for Economic Co-operation and Development: Paris; 1–50.
- Colombo F, Tapay N. 2003c. Health insurance: report on case studies in selected countries. SG/ADHOC/HEA 8, 1–22. Organisation for Economic Co-operation and Development: Paris.
- Courtney TD, Hauboldt RH, Litow ME, Sturm MG. 1997. *Government Private Sector Health Care Proposals in South Africa*. Millman & Robertson: Seattle.
- Culyer AJ, Newhouse JP (eds). 1999. *Handbook of Health Economics*. Elsevier Science B.V.: Amsterdam.
- Cutler DM, Reber SJ. 1998. Paying for health insurance: the trade-off between competition and adverse selection. *Q J Econ* 113: 433–466.
- Dingwell R, Fenn P (eds). 1992. *Quality and Regulation in Health Care: International Experiences*. Routledge: London.

- Docteur E, Suppanz H, Woo J. 2003. The US health system: an assessment and prospective directions for reform. Economics department working papers no. 350. Organization for Economic Co-operation and Development: Paris.
- Donaldson C, Gerald K. 1993. *The Economics of Health Care Financing: The Visible Hand*. The MacMillan Press Ltd: Washington, DC.
- Gertler P, Solon O. 2002. *Who Benefits from Social Health Insurance? Evidence from the Philippines*. University of California: Berkeley, CA.
- Gress S, Groenewegen P, Kerssens J, Braun B, Wasem J. 2002. Free choice of sickness funds in regulated competition: evidence from Germany and the Netherlands. *Health Policy* **60**(3): 235–254.
- Haidar J. 2004. Insurance industry in Lebanon. Student report. Lebanese American University: Beirut. May 5. <http://csrd.lau.edu.lb/Publications/StudentReports/Insurance%20Industry%20in%20Lebanon.htm>.
- Hastings J, Mott F, Barclay A, Hewitt D. 1973. Prepaid group practice in Sault Ste. Marie, Ontario: Part 1: Analysis of utilization records. *Med Care* **11**(2): 91–103.
- Herring RJ, Santomero AM. 2000. What is Optimal Financial Regulation? *The New Financial Architecture: Banking Regulation in the Twenty-first Century*. University of Pennsylvania, Wharton School: Philadelphia.
- International Labor Organization. 1997. International Social Security Association (ISSA) Database 1997. <http://www.issa.int/engl/homef.htm>.
- Insurance Committee Secretariat. 1997a. Insurance and private pensions compendium for emerging economies, twenty guidelines for insurance regulation and supervision in emerging economies; Book 1, Part 1:1a. Organisation for Economic Co-operation and Development: Paris. <http://www.oecd.org/daf/insurance-pensions/>.
- Insurance Committee Secretariat. 1997b. Insurance and private pensions compendium for emerging economies; Book 1, Part 2:4. Organisation for Economic Co-operation and Development: Paris; 1–10. <http://www.oecd.org/daf/insurance-pensions/>.
- Jost TS. 2001. Private or public approaches to insuring the uninsured: lessons from international experience with private insurance. *N Y Univ Law Rev* **76**(2): 419–492.
- Khunoane B. 2003. Consultative Forum on Risk Equalisation: The Context for Health Financing Reform in South Africa. Presentation in Midrand. Department of Health: Pretoria, South Africa, July 10. <http://www.doh.gov.za/docs/sp/2003/sp0710.html>.
- Kutzin J. 2001. A descriptive framework for country-level analysis of health care financing arrangements. *Health Policy* **56**(3): 171–204.
- Laffont J-J, Tirole J. 1993. *A Theory of Incentives in Procurement and Regulation*. The MIT Press, Massachusetts Institute of Technology: Cambridge.
- Lillard LA, Manning WG, Peterson CE, Lurie N, Goldberg GA, Phelps CE. 1986. *Preventive Medical Care: Standards, Usage and Efficiency*. R-3266-HCFA. RAND Publications: Santa Monica.
- Lipson DJ. 2001. GATS and trade in health insurance services: background note for WHO commission on macroeconomics and health. Paper no. WG4: 7, 2–10. CMH Working paper series. Commission on Macroeconomics and Health: Geneva.
- Mariko M. 2003. Quality of care and the demand for health services in Bamako, Mali: the specific roles of structural, process and outcome components. *Soc Sci Med* **56**: 1183–1196.
- Medicare Payment Advisory Commission (MedPAC). 2003. Using incentives to improve the quality of care in medicare. Chapter 7 in Report to the Congress: Variation and Innovation in Medicare. MedPAC: Washington, DC; 107–127.
- Mocan HN, Tekin E, Zax JS. 2001. The demand for medical care in urban China. 7673. NBER working paper no. 7673.
- Mossialos E, Dixon A, Figueras J, Kutzin J. 2002. *Funding Health Care: Options for Europe*. Open University Press: Buckingham, UK.
- Mossialos E, Thomson S. 2002. Voluntary health insurance in the European Union: a critical assessment. *Int J Health Serv* **32**(1): 19–88.
- Narayana Hrudayalaya Institute of Medical Sciences. 2004. Narayana Hrudalaya: Bangalore, India. <http://www.hrudayalaya.com/Pages/Yashasvini.htm>.

- National Center for Policy Analysis (NCPA). 2003. Medical savings accounts and prescription drugs: evidence from South Africa. NCPA policy paper no. 254. National Center for Policy Analysis: Washington, DC and Dallas, TX. <http://www.ncpa.org/pub/st254/st254a.html>.
- National Business Group on Health. 2004. <http://www.wbgh.com>.
- OECD Health Project. 2004. *Private Health Insurance in OECD Countries*. OECD: Paris.
- Outreville JF. 1998. *Theory and Practice of Insurance*. Kluwer Academic Publishers: Boston.
- Pan-American Health Organization (PAHO). 1998. "Uruguay" in *Health in the Americas*, Volume II. PAHO: Washington, DC; 519–529.
- Pacific Business Group on Health. 2004. <http://www.pbgh.org/>.
- Pate DC. 2002. *Regulation of Health Care Professionals: A Casebook Approach*. Carolina Academic Press: Durham, NC.
- Pauly MV. 1980. *Doctors and their Workshops: Economic Models of Physician Behavior*. NBER, University of Chicago Press: Chicago.
- Peabody JW, Lee SW, Bickel SR. 1995. Health for all in the Republic of Korea: one country's experience with implementing universal health care. *Health Policy* **31**: 29–42.
- Pollitz K, Tapay N, Hadley E, Specht J. 2000. Early experience with 'New Federalism' in Health Insurance Regulation. *Health Aff* **19**(4): 7–22.
- Ransom S. 2000. *Enhancing Physician Performance*. American College of Physician Executives: Chicago.
- Roberts MJ. 2004. *Getting Health Reform Right: A Guide to Improving Performance and Equity*. Oxford University Press: Oxford, New York.
- Rothschild M, Stiglitz J. 1976. Equilibrium in competitive insurance markets: an essay on the economics of imperfect information. *Q J Econ* **90**: 629–649.
- Secretaria de Salud. 2006. *Seguro Popular*. Secretaria de Salud: Mexico. Available from www.salud.gob.mx.
- Sekhri N. 2000. Managed care: the US experience. *Bull World Health Organ* **78**: 831–840.
- Sekhri N, Savedoff WD. 2005. Private health insurance: implications for developing countries. *Bull World Health Organ* **83**(2): 127–134.
- Stearns SC, Wolfe BL, Kinding DA. 1992. Physician responses to fee-for-service and capitation payment. *Inquiry* **29**(4): 416–425.
- Söderlund N, Khosa S. 1997. The potential role of risk-equalization mechanisms in health insurance: the case of South Africa. *Health Policy Plann* **12**(4): 341–353.
- Söderlund N, Mendoza-Arana P, Goudge J (eds). 2003. *The New Public/Private Mix in Health: Exploring the Changing Landscape*. Alliance for Health Policy and Systems Research: Geneva.
- U.S. Department of Health and Human Services. Centers for Medicare and Medicaid Services. 2004. The Health Insurance Portability and Accountability Act of 1996 (HIPAA). <http://www.cms.hhs.gov/hipaa/>.
- U.S.-Saudi Arabian Business Council. 2002. The medical sector in the Kingdom of Saudi Arabia. <http://www.us-saudi-business.org>.
- van de Ven WPMM, Ellis RP. 1999. Risk adjustment in competitive health plan markets. In *Handbook of Health Economics*, Culyer AJ, Newhouse JP (eds). Elsevier Science B.V: Amsterdam; 1–5.
- The World Bank. 1994. The Organization, Delivery, and Financing of Health Care in Brazil: Agenda for the 90s, Pub. no. 12655BR. World Bank: Washington, DC.
- World Health Organization. 2000. *The World Health Report 2000. Health Systems: Improving Performance*. World Health Organization: Geneva.
- World Health Organization. 2005. *Sustainable Health Financing, Universal Coverage and Social Health Insurance*. WHA 58.33. World Health Organization, World Health Assembly Resolution: Geneva.
- World Health Organization, World Bank, The United States Agency for International Development. 2003. *Guide to Producing National Health Accounts: With Special Applications for Low-Income and Middle-Income Countries*. World Health Organization: Geneva.
- World Trade Organization. 2001. *GATS—Fact and Fiction*. World Trade Organization: Geneva.
- Xu K, Evans DB, Kawabata K, Zeramdini R, Klavus J, Murray CJL. 2003. Household catastrophic health expenditure: a multicountry analysis. *Lancet* **362**(9378): 1–13.
- Yoder RA. 1989. Are people willing and able to pay for health services? *Soc Sci Med* **29**: 35–42.