

PRIVATE VOLUNTARY HEALTH INSURANCE IN DEVELOPING COUNTRIES

Chapter 3: MARKET OUTCOMES, REGULATION, AND RECOMMENDATIONS FOR POLICY

Report submitted to the World Bank by

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3.1. Market equilibria in voluntary insurance markets

The situation in developing countries with regard to the financing of medical services has some of the essential ingredients for emergence of a voluntary market even without substantial government intervention. The most important prior ingredient, a high burden of out of pocket payment, is definitely known to be present, and risk averse behavior by consumers seems common if not necessarily universal. If insurance to cover these out of pocket payments could be supplied by any entity, private or public, for profit or non-profit, at premiums close to the average level of benefits or expenses, voluntary insurance ought to be feasible. It would be feasible (though not necessarily optimal) even without subsidies to lower income, and certainly would be feasible with subsidies well short of the total premium. What then are the key concepts and empirical issues that would allow one to predict that a private voluntary market would emerge? Here we discuss what we think are the most important supply and demand issues. We first discuss them in a world with neither subsidies nor special insurance regulation, next in a world with regulation but no subsidies, and finally in a world with both subsidies and regulation.

Consider a world with no government intervention in insurance markets beyond the enforcement of property rights and contracts. To analyze the demand side, we begin by defining a set of potential purchasers as those who anticipate that they might choose at some point in the near future (say, over the next twelve months) to spend out of pocket on medical services or products. The maximum out of pocket spending such a person might contemplate sets a lower bound to the premium that person can “afford.” For many people, even those with moderate incomes in developing countries, this maximum feasible out of pocket payment might well exceed the premium an insurer would have to charge to cover its benefits and administrative costs.

Those in dire poverty who could not afford any substantial out of pocket payment (and who therefore would not be making such payments) are thus excluded from the set of potential unsubsidized voluntary purchasers. Such poor households definitely need a subsidy from someone else if they are to obtain insurance voluntarily. But the “non-pauper” segment of the population could in principle have positive demand for insurance.

On the supply side, the key to the emergence of voluntary insurance is the possibility of premiums close to consumers’ expected expenses (or benefits, given the provisions of

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coverage). Such low enough premiums may be feasible on average. But what is also needed is a set of premiums tailored to each buyer's expected expenses. That will generally be the outcome in competitive markets as long as there is relatively little private knowledge for buyers of insurance.

Probably the most serious threat to the emergence of markets occurs if out of pocket expenses vary strongly with income, as seems to be the case in many developing countries. Feasible insurance requires that lower income people with lower expected expenses face lower premiums than higher income people (minimal adverse selection), and that the use by such lower income people not expand to the level of their higher income counterparts when insurance coverage becomes available (minimal moral hazard). While the existence of such income-related adverse selection or moral hazard does not preclude the emergence of some insurance, it does limit the scope of coverage.

The other necessary condition on the supply side is whether the financial infrastructure and the structure of property rights and contract law exist that can support insurance policies. At a minimum, insurers must be seen to collect premiums and then use these proceeds to pay benefits according to the language in the insurance contract. The actual mechanics of doing this depend on the nature of the insurance contract and the familiarity of the population with transactions that require time to be fulfilled. Consumers who are familiar with borrowing and lending in capital markets will be best situated to understand insurance contracts.

While the insurer needs some capital for reserves, beyond some minimum level there is not likely to be a serious problem. More serious problems will arise from government efforts, some well-meaning and others not, to regulate or tax private health insurance. Taxation obviously inhibits the full growth of a market, and so should be avoided. Regulation to enforce or to standardize contracts has merit, as does regulation to prevent arbitrary and capricious decisions by insurers. Regulation of reserves or premiums (beyond disclosure) may well do more harm than good.

For example, insurers may find that occasionally total claims are unusually high. Requiring insurers to attract enough capital to reduce the chance of this happening to (almost) zero will face consumers with higher premiums but more dependable coverage. There is a trade off when capital markets and premium-setting are still in their infancy; it may be preferable to offer consumers less than guaranteed insurance if the alternative is no insurance at all or absolutely reliable insurance but at a premium so high that few buy.

The other important issues concern the relationship of insurer to provider. The simplest form is for insurers to make indemnity payments to reimburse the insured for out-of-pocket. Insurers can be integrated with providers which might help to limit spending on services of low benefit.

Such empirical evidence as we have suggests that voluntary private insurance is feasible in developing countries but that, without subsidies, it may not be universal in terms of takeup or comprehensive in terms of coverage. We will discuss the various forms of subsidization below. For the present, it is sufficient to conclude that the emergence of a large scale voluntary market is a hypothesis worth testing.

3.2 The likely structure and intensity of regulation of health insurance

Insurance is one of the most strongly regulated industries. This statement certainly applies to health insurance: Even among market economies, many countries have opted for a mandatory national health insurance scheme with uniform contributions and benefits. This may be interpreted as a solution entailing maximum regulation by the government. Even when insurance purchase is nominally non-compulsory, there is usually a strong interest in controlling the form of coverage and as well the set of premiums that can be charged. The question then arises as to the reasons for a government to propose (in democracies) or impose (in authoritarian rule) insurance regulation of differing intensity on coverage or premiums. While the ultimate objective of this chapter is to formulate recommendations with regard to the regulation of health insurance (see section 3.3), it is important to know the general rationale for regulation. Otherwise, the proposal might be in serious contradiction to objectives of the governments addressed. (Recommendation: for ch. 3.3, see Lilani Kumaranayake (1998)). This section therefore contains an attempt at explaining the intensity and (as far as possible) structure of regulation.

For the most part the discussion will be in terms of regulation of insurer reserves, but can extend as well to the extent and form of coverage, and to premiums to be charged.

3.2.1 Proximate ordering of health insurance regulation in terms of intensity of regulation

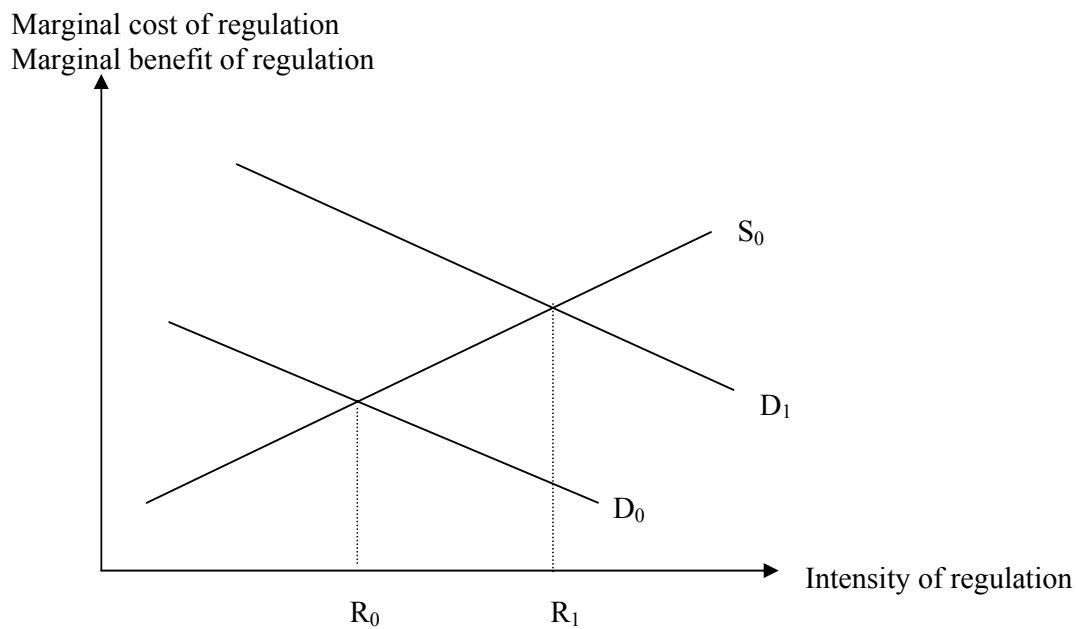
The classic economic theory of regulation was pioneered by Peltzman (1976). He distinguishes three explanations for the existence of regulation. According to the (1) public interest theory, regulation corrects a market failure. For example, a health insurer may just collect premiums and run without providing the benefits promised. The problem with this explanation is that it does not predict the kind and intensity of regulation that is put in place. A radically different view is proposed by (2) capture theory (Posner, 1974): It predicts that the owners of the firms to be regulated get the regulatory authority to act in their interest, viz. to protect them from competition. The problem here is that very often owners of other firms are hurt because they have to pay higher prices for inputs and accept lower prices for outputs. Moreover, this theory presupposes that the authorities in question seek to be captured.

Therefore, Peltzman proposes a more general theory of (3) a market for the commodity 'regulation' for which there is a supply and a demand. Regulation is supplied by the government and public administration. For the government, the benefit of additional regulation is potentially enhanced support from some consumers of the regulated product, and, most importantly, enhanced support from its suppliers (i.e. health insurers), who enjoy protection from competition. These benefits must cover the cost of additional regulation, which in the present context consists of the budgetary expense of implementing and coordinating an expanding set of regulatory activities, along with political opposition from consumers and other suppliers who are harmed. More comprehensive regulation is in the interest of public administration because it generates more power, prestige, and often pay. The amount of regulation provided by government and public administration combined thus is high when a high marginal benefit covers the marginal cost incurred, giving rise to the upward-sloping supply curve S_0 in figure 3.1.

Demand for regulation emanates in part from consumers, e.g. holders of health insurance who pay a high premium (in the case of premium regulation) or who fear that their claims are not secure in the absence of reserves and guarantees (see appendix III to ch. 2. on the governance

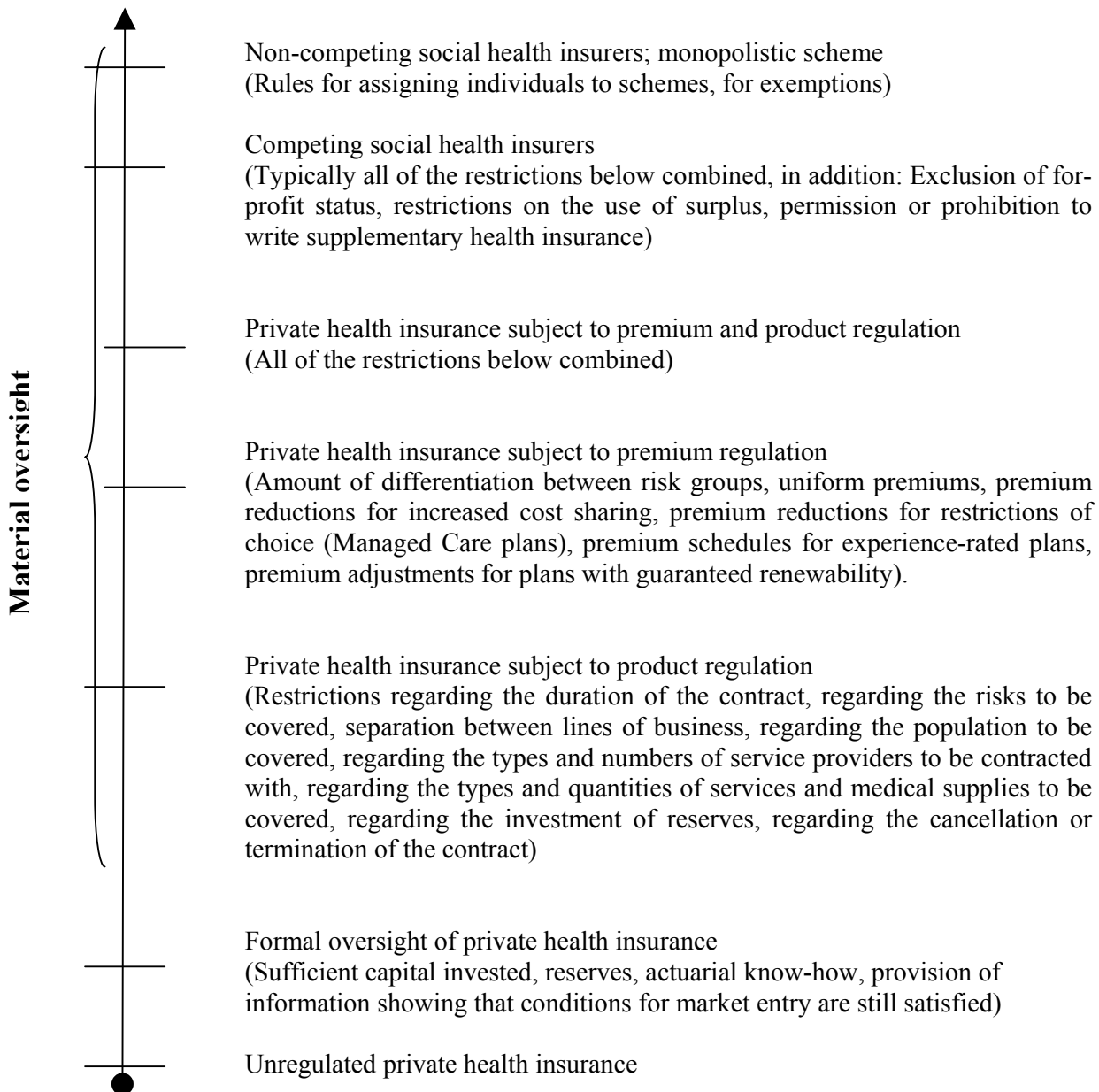
problems of insurers). For consumers as a group there is a tradeoff in unsubsidized markets: more generous or more secure coverage will necessarily lead to higher premiums of some consumers. Hence, non-myopic “consumers” may differ in terms of their demand for regulation. However, as noted above, health insurers themselves may be willing to extend favors to the government and its administration in return for regulation that lowers the intensity of competition. For the first few regulatory steps, they typically count on a high marginal benefit that is more than sufficient to cover the marginal cost incurred by the supplier. With increasing intensity of regulation, this advantage can be assumed to fall, resulting in a downward-sloping demand curve D_0 .

Figure 3.1: The market model of regulation



The market equilibrium determines the quantity transacted, which may be interpreted as the intensity of regulation. While attempts will be made in this chapter to sharpen the prediction to also include the likely types of regulation, a rough ordering of these types in terms of regulatory intensity is provided in Figure 3.2.

Figure 3.2: Types of health insurance according to intensity of regulation



Therefore, unregulated private insurance is an outcome at the origin of figure 3.2. The transition to formal oversight and especially to a uniform monopolistic scheme is associated with a movement away from the origin, indicating increased (and finally maximum) intensity of regulation. Almost always the social insurance arrangements involve mandated (not voluntary) coverage and/or some form of general subsidy.

3.2.2 Hypotheses concerning the regulation of health insurance

Based on the market model of regulation, Adams and Tower (1994) identify shifts of demand and supply schedules that result in a changed equilibrium intensity of insurance in general. Their arguments are adapted to health insurance and to low-income countries below.

H1. Crises in health insurance (and insolvencies in particular) cause the demand function for regulation to shift out (see D_1 in Figure 3.1), resulting in an increased intensity of regulation. This shift may be even more marked in LDCs than in industrial countries (ICs) since LDC households presumably are less diversified, causing the loss in expected utility due to a possible shortfall of insurance protection to be particularly important (see section 3.1). However, lower income households may be less able to afford the high premiums that accompany more heavily reserved insurance.

A first likely response is for an increased degree of transparency, so that potential buyers can judge the security of a particular insurer's policy. However, it is no easy task for a regulator to filter out the information that may permit to predict a future crisis (in the guise of an insolvency in particular) and to communicate it to the insured in a comprehensible manner. A second response is to increase the reserve requirements for health insurers. Tied funds have a steep opportunity cost, however, as they most often could generate a higher rate of return if invested elsewhere. Thus, there is a higher loading surcharge contained in the premium. A third step consists in mandating reinsurance, often to be provided by a public organization. Here, the opportunity cost is more visible to the extent that the health insurers have to pay a reinsurance premium.

There is empirical evidence from industrial countries providing support for H1. The first piece, while not relating to health insurance, is nevertheless instructive. In the United States, the thalidomide tragedy (a tranquilizer widely used in Europe) was averted. U.S. Congress nonetheless approved amendments in 1962 giving the FDA considerably more control over the introduction of new products. The new legislation required much more testing and extended the FDA's authority to regulate pre-market testing (including generic drugs). Equally important, the legislation for the first time required evidence of efficacy (Folland et al., 2001).

With regard to general insurance, the collapse of the Vehicle and General Insurance Company in 1971 in the UK was the event chiefly responsible for the tightening up of insurance company legislation and regulatory procedures (Adams and Tower, 1994).

Argentina's health insurance system (Obras Sociales) was regulated in the late 1990s to increase transparency, an objective that can be reached through merely formal regulation (Jack, 2000). At the same time, mandatory reinsurance was implemented, which already comes closer to material oversight. Minimum reserve requirements for health insurers were enforced in countries such as Thailand and India during the 1990s. Without access to investment capital or reinsurance, many West African mutual schemes (mutuelles) have been building their own reserves. In essence, many are capitalized by their enrollees. Members are required to contribute premiums for some time, in some cases more than a year, before receiving benefits. These initial collections form the reserve fund. Mutuelles without reserves who have underestimated utilization have failed (USAID, 2000).

Demand for regulation may be so strong as to make some form of social health insurance the preferred alternative. However, to keep the likelihood of insolvency of such an insurance scheme low, generally reserves must still be accumulated, be it within the system or with the government. Since they must be liquid on short term notice, they carry a considerable opportunity cost as well.

H2. The higher the intensity of regulation, the more effort health insurers make in terms of organizational and lobbying activities. This follows from the fact that for the intensity of

regulation to be high, demand for regulation must be high ceteris paribus (like D_1 in figure 3.1). This strong demand is reflected also in their willingness to invest in activities that support regulation.

Again, a first piece of evidence relates to regulation in general. In the year 1998, the U.S. tobacco industry spent 66.6 mn dollars for lobbying (up from 38.2 mn in the previous year according to The Center for Responsive Politics) in order to defuse bankruptcy threatening events and negotiate compromises. Increased intensity of regulation was certainly looming in the guise of a 10 bn dollars verdict against Philip Morris in a class action suit for deceiving customers, a ban on workplace smoking in New York, the Master Settlement Agreement amounting to 206 bn with 46 states, and RJR Nabisco Holding's settlement with the States concerning Medicaid (Wall Street Journal).

Fully relevant to health insurance, the Health Insurance Association of America and the American Association of Health Plans announced a merger with the explicit aim to make their lobbying more effective. Again, this falls in a period when e.g. Medicare legislation considered additional regulation with regard to health insurers (Best's Review).

In all countries these efforts may even take the form of favors or bribes to members of the administration or even the government. The cost of these practices may well be smaller than that of the public relations campaigns waged in ICs. Both increase the loading contained in the health insurance premium, causing a loss of efficiency.

H3. Producer groups are better able to influence regulation than consumers, and groups consisting of a small number of producers better than larger groups. This follows from two facts. First, producers specialize whereas consumers diversify. Producers therefore have a far greater interest in influencing the conditions in the market they serve. Since regulation strongly influences these conditions, they have a powerful motive to influence regulation. Individual consumers typically spend a small fraction of their incomes on any given good or service (health insurance, say), making them rather indifferent with regard to the conditions prevailing on that particular market. They therefore do not have much reason to influence regulation (of health insurance, say). The second consideration is the cost of organizing a pressure group. If health insurance is written by few companies, it takes little effort to organize an association for lobbying purposes. This means that the actual demand for regulation is often determined by the health insurers in a market with few such firms, rather than by the consumers.

The American Medical Association (AMA) has been known for its effective organization of already focused professional interests, while its Canadian counterpart is often hampered by language conflicts. In the 1940s, the AMA was successful in blocking the creation of a national health insurance scheme as proposed by President Truman. Canadian physicians were also opposed to national health insurance, but they were unable to prevent its adoption (Folland et al., 2001). On the other hand, the AMA was instrumental in having certain benefits included in the list of insurance benefits. This example suggests that H3 applies as much to healthcare providers as to health insurers. In recent years, the AMA's political power has waned as many societies of specialist physicians have entered the lobbying arena.

Closer to LDC experience, the South African Fedsure holdings group – which at present comprises several health insurers and healthcare providers – started to influence regulation effectively in the late 1990s; here the cause was changes in the legal system (Health System Trust, 1998).

In LDCs, the cost of organizing a pressure group comprising residents and firms outside the capital city has been prohibitive until very recently. Technological improvements such as the spreading of mobile phones and the introduction of the Internet have served to reduce the cost of mobilizing and organizing pressure group activities. However, the group profiting from low cost of organization continues to be government employees, whose interest in regulation was noted above. To expand the domain of public influence, they will tend to favor premium regulation, especially uniform premiums.

However, such “community rating” encourages high-risk insureds to take up coverage while low-risk individuals stay out of the scheme if possible. At the same time, health insurers themselves have a clear incentive to attract low risks, notably through product differentiation (see ch. 3.1). This in turn calls for regulation that imposes uniformity not only with regard to premiums but also products. Differentiation with respect to healthcare providers contracted must be suppressed as well because provider profiles may be used for cream skimming purposes.

This means that an important advantage of competition, viz. the structuring of products in accordance with the different preferences of purchasers, is lost. What remains are the rather high costs of acquisition that characterize competition with differentiated products in general and health insurance in particular. In this situation, it is easy to argue in favor of social health insurance in the guise of a uniform scheme, entailing the maximum degree of regulation in Figure 3.2.

H4. Highly regulated but less “captured” insurance markets are characterized by many small insurers, provided the industry is domestic rather than dominated by multinationals. There are several reasons for this. First, large firms typically do not necessarily have to rely on regulation to be successful competitors; they need regulation only if their large size and dominance is due to regulation itself. If they are few (because of natural economies of scale relative to the size of the market), they can themselves control the market through agreements at very low cost. Second, to the extent that there are at least local returns to scale (for which there is some evidence from ICs, see e.g. Fecher et al. 1991), the attenuation of competitive pressure permits small units to remain below minimum efficient scale; therefore, they remain small. Finally, regulatory knowledge constitutes an asset for incumbent insurers which they lose when exiting from the market. This serves to keep market concentration low (see ch. 2.5).

This effect of regulation may easily furnish the justification for an even more regulated solution, resulting in uniform social insurance. Especially when already bound by premium and product regulation, small insurers writing the same policy are inefficient indeed. One may be tempted to argue that once regulation reaches a level where social health insurance replaces private insurance, there is no need for lobbying anymore, obviating expenditure of doubtful social value. This is true of visible lobbying by health insurers and their associations. However, for professional associations and sellers of medical supplies, decisions taken by a national health insurance scheme have a far greater impact on incomes and profits than those individually taken by competing health insurers, calling for a stepped-up lobbying effort by those groups.

In Germany, health insurance is heavily regulated. Indeed, as of 2003, it features no less than 370 sickness funds for a population of 80 mn people. In the United States, with a population triple this size, there are some 300 commercial health insurers. By way of contrast, the American Association of Health Plans representing managed care organizations has 1,000

members (Best's Review, Nov. 2003). This may be interpreted as the consequence of earlier special U.S. regulation fostering managed care organizations.

Once more, Argentina's experience may serve to illustrate the hypothesis. There, no less than 360 Obras Sociales cover less than 9 million formal-sector employees (World Bank, 2004).

The direction of causation here is ambiguous, however. Is there strong regulation because there are many small organizations, or are such small organizations able to survive only because regulation protects them?

H5. Highly regulated health insurance markets tend to be characterized by large public bureaucracies. In Figure 3.1, a high intensity of regulation is associated (for a given supply schedule S_0) with high marginal cost (accumulating to a high total cost) of regulation.

An important question in this context is whether the transition to higher intensities of regulation occurs along the same supply function or is associated with a function indicating lower marginal cost. Here, two things should be noted. First, a uniform social insurance scheme certainly saves on costs of acquisition (in response to reduced adaptation to preferences). However, these expenses have nothing to do with the (marginal) cost of oversight and regulation. These are costs of enforcing constraints on the behavior of economic agents who pursue their own objectives. Second, these monitoring costs occur in a public agency for social health insurance as well. In principle, they are lower when those being monitored work in the same rather than some outside organization. However, the tendency to deviate from stated objectives may be the stronger. A social health insurer collects a large amount of contributions, creating a strong temptation of embezzlement. In contrast, premium contributions are divided up between competing private health insurers, with the owners of the company having a clear incentive to prevent embezzlement, e.g. by letting management participate in profit. These considerations speak against a downward shift of the supply curve of Figure 3.2 when a transition to social health insurance occurs.

As an illustration of the hypothesis, data on red tape (a proxy for the size of bureaucracy) taken from Mauro (1995) and compiled by Business International may be used. In strongly regulated countries, such as China and traditionally Ghana, the relevant index values are 6 and 7.67 respectively on a scale from 1 to 10 (where 10 indicates extreme bureaucracy). In comparison, less regulated countries such as Argentina and South Africa have values 3.34 and 3 respectively.

H6. Highly regulated health insurance markets are characterized by a high contribution per member of the association to support its lobbying efforts. This follows from the fact that the more comprehensive regulation, the greater the total amount of assets affected by it. The owners of these assets accordingly have a considerable interest in influencing regulation, and if an association provides a vehicle for this, they want to support it.

Since this hypothesis relates to the internal flow of funds from members of a lobbying organization to the organization, empirical evidence is hard to come by. In addition, this hypothesis is of minor relevance for the performance of a health insurance system and is therefore stated in the interest of completeness only.

Overall, however, the six hypotheses emanating from the market model of regulation seem to receive a sufficient amount of empirical support for this model to provide a useful basis for

formulating some recommendations for policy concerning voluntary private health insurance in LDCs.

3.3 Recommendations for policy

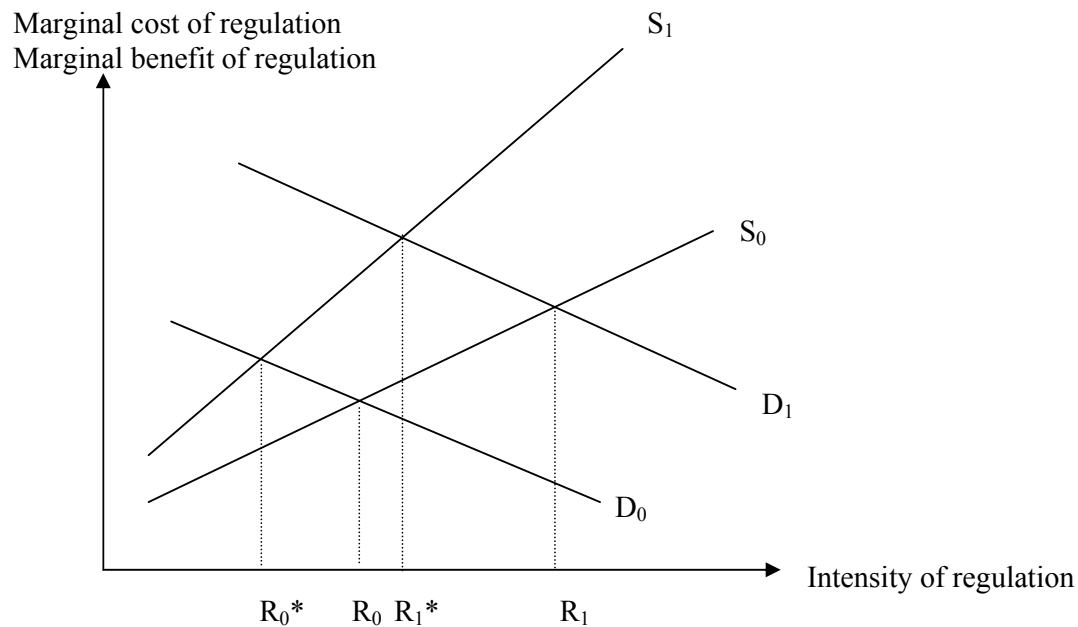
3.3.1 Defining ‘optimum’ and ‘excessive’ intensity of regulation

The objective of this section is to formulate recommendations for LDCs with regard to an institutional framework for private voluntary health insurance that prevents the amount of regulation from becoming excessive in the following sense. The equilibrium regulation derived from the simple market model of section 3.2 is optimal from the point of view of the respective parties. However, there is reason to expect that the demanders of regulation do not take into account the efficiency losses that go along with regulation. Higher risk consumers who push for lower uniform premiums are not concerned about low-risk consumers who lose from premiums that are actuarially unfair to them. Incumbent health insurers do not care about the increased market closure due to heightened barriers to entry that often go along with regulation. As a matter of fact, these demanders of regulation may well be interested in precisely the market closure effect of regulation. That is, those demanding regulation disregard the negative “external” effects on others who are not party to their arrangement with the suppliers of regulation.

In sum, regulation often is at a level that burdens the economy with negative external effects. To the extent that the parties acting on the market for regulation disregard these externalities, the outcome will be an excessive intensity of regulation. However, the government as the supplier of regulation might have reason to take these external effects into account. Specifically, the efficiency losses incurred could lower its chance of staying in power. If this feedback mechanism were perfect, the government would have to base its regulatory policy not only on the marginal budgetary cost engendered but also on the marginal cost of the externality created.

The argument is illustrated by figure 3.3, which reiterates the basic elements of figure 3.1. A government who under the influence of its administration disregards the efficiency losses of regulation operates along S_0 . In combination with demand D_0 , the equilibrium outcome is R_0 . However, if it were to fully take into account the marginal cost of the externality (often called deadweight loss) caused by regulation, its “true” supply function would run higher. It would usually also run steeper, the presumption being that more regulation causes a higher additional deadweight loss if it is already comprehensive and elaborate than if it has a low intensity still. Absent any demand shock, the true social optimum is R_0^* , which is less than R_0 .

Figure 3.3: Efficiency loss of regulation as an externality



Overall efficiency can be restored by internalizing external effects to an optimal degree. A leading instrument to achieve this is the internalizing (Pigou) tax, levied on the party who causes the externality. In the present context, the government and its administration as the suppliers of regulation can be said to be ultimately responsible for the external effect. Thus, the optimal solution may conceivably call for a taxation or penalty on the government (or public administration) itself! This is hardly a practical proposal, although there are examples in the US of new governmental regulations to control the spread of regulation.

The better alternative is to devise constitutional rules that bring the outcome of the market for regulation closer to the true optimum. In terms of figure 3.3, ways are sought to shift both the demand and supply function inward so that the equilibrium outcome R_0 approaches the true optimum R_0^* . More generally, the objective is to formulate guidelines designed to preserve the contribution voluntary private health insurance may make to the overall efficiency of the health care system and of the economy as a whole without going so far in terms of the absence of rules and transparency as to destroy the market through neglect.

3.3.2 Limiting consumers' demand for regulation of voluntary health insurance

Since financial crises may boost consumers' demand for regulation (see hypothesis H1 of the preceding section), they should be minimized. In figure 3.3, with the marginal cost of the externality increasing, a demand shock causes the amount of excess in regulation to increase [$(R_1 - R_1^*)$ is greater than $(R_0 - R_0^*)$]. Without much loss of generality, crises can be equated with insolvencies. An insolvency constitutes a risk for public policy, which means that it has a probability of occurrence and an associated (financial) consequence. Therefore, policy could be directed at (1) reducing the probability of occurrence if this can be done without causing other inefficiencies and, more importantly, (2) mitigating the financial consequences of an

insolvency. The discussion will be limited to private and community-based health insurance (CBI) because public health insurance is considered to be at the upper end of the spectrum of regulatory intensity to begin with.

- (1) Lowering the probability of occurrence: When regulating private health insurance, this is the objective adopted by many governments, in conformity with the maxim, “prevention is better than cure”. However, there are several disadvantages to this approach. First and foremost, preventing insolvency implies that it is the health insurer that is protected in the first instance. Policyholders enjoy protection indirectly and only partially because even a very inefficient insurer may be kept afloat. Quite generally, this type of insolvency regulation has the side effect of considerably reducing the pressure of competition on health insurers. Typical devices like industry-wide guarantee funds or bailout arrangements create moral hazard for individual firms that prompt behavior that can actually increase the probability of default.

Second, day-to-day management decisions can have an important impact on the probability of insolvency. For example, a drive to increase market share runs the risk of including unfavorable risks in the portfolio or setting premiums too low, thus increasing the future probability of insolvency. This makes material oversight by the regulator (see figure 3.2) just about a necessity. Finally, probabilities are intrinsically difficult to measure and to communicate. The regulator is called upon to demonstrate that without its intervention, insolvency would have been “almost certain”. Conversely, if ever an insolvency occurs, it would have to prove that this probability is still “sufficiently low”. Clearly, trying to lower the probability of insolvency has important efficiency-reducing side effects.

- (2) Mitigating the consequences of insolvency: Here, consumers are assured that if the private health insurer should fail, a sizable part of their claims still would be paid. However, as soon as the insurer is vertically integrated to some extent (see ch. 2.4.1), healthcare providers typically hold claims against the insurer (e.g. in the guise of promised capitation payments). This means there are competing claims to be satisfied; whichever institution is in charge thus must have considerable know-how in adjudicating claims.

The regulatory instruments used to attain this second objective belong to the domain of purely formal supervision. Still, they are not without side effects either that may be efficiency-reducing. In particular, the imposition of conditions for market access necessarily creates barriers to entry, a consideration absent from the Insurance Core Principles issued by the International Association of Insurance Supervisors (2003).

The traditional requirement that sufficient capital be put up for starting business actually serves both objectives (1) and (2). Updating such a requirement through solvency margins (comparing liabilities to reserves, the European Union approach) or risk-based capital requirements (comparing risk-weighted items of the balance sheet with reserves, the United States approach) tends to already interfere with current insurance operations. For example, under its 1999 revision of its Insurance Act, India combines a capital requirement with a solvency margin (Mahal, 2004).

One solution could be mandated reinsurance, purchased from competing reinsurance companies who have expertise in adjudicating claims. However, there are at least two problems. First, the solvency of the reinsurer is an issue, and assessing it may amount

to a difficult task for either a health insurer or the government, especially if the company does business worldwide. Second, judging from the experience made with credit insurance for banks, insuring parts of a health insurer's liabilities could encourage it to be less careful in its underwriting policy (Demirguc-Kunt and Huizinga, 2004).

A mandatory guaranty fund financed by private health insurers may look like an attractive alternative. Its drawback lies in the fact that the management of such a fund will find it difficult to deal at arms' length with either the contributors or the government. Especially maintaining independence from the government is crucial once substantial funds have accumulated because pressure to help finance the government deficit is high. Finally, the government itself could take on the reinsurance function. In this way, risk pooling becomes very comprehensive, involving all taxpayers of the country. However, unless the government is capable of setting reinsurance premiums according to true risk of insolvency, this solution is burdened with moral hazard because a health insurer can gain market share by attracting unfavorable risks (and hence increasing the likelihood of insolvency) without any financial sanction.

On the whole, relying on (internationally diversified) reinsurers may dampen the demand for regulation of private health insurance most effectively. Their premiums of course look expensive compared to the government alternative. However, the government too must hold reserves if it takes such a reinsurance function seriously. This means it must generate additional tax revenue, which comes at an efficiency cost of some 25 percent per dollar even in an industrial country (Ballard et al, 1985). These efficiency losses occur because excise taxes reduce the volume of transactions in the product markets while income taxes impact negatively on the supply of labor and hence the volume of hours worked. Combined with the likely lack of expertise in providing reinsurance on the part of the government, having health insurers purchase cover from competitive reinsurers may turn out to be the lower-cost alternative.

The threat of insolvency is particularly imminent in the case of community-based health insurers (CBI) (Dror, 2002). Demand for regulation emanating from CBI members therefore is potentially great. However, for some time to come it is still mitigated by the fact that members of CBI predominantly live in rural areas, which makes for high cost of organizing a pressure group. Still, it may be worthwhile to analyze again the two alternatives for regulatory policy towards insolvencies.

- (1) Lowering the probability of occurrence: In the case of CBI, lack of actuarial know-how (rather than negligent management) still seems to be the primary reason for insolvency. Accordingly, purely formal oversight (see figure 3.2) can importantly contribute to limiting the demand for regulation.

A wider acceptance (or change) of the payment methods of CBI's should also reduce the risk of insolvency and as such the demand for regulation. As outlined in chapter 2, some CBI schemes, use barter in order to finance their health treatment e.g. at hospitals and contract nurses.

- (2) Mitigating the consequences of insolvency: This alternative has much less appeal in the case of a CBI. First, as stated in ch. 2.3, item (10), contributions to CBI are

sometimes paid in kind, particularly in Sub-Saharan Africa. Storing foodstuffs, cattle and the like is a very costly way of holding reserves (compared to money), and these reserves cannot be used freely to satisfy claims against the scheme. Second, to the extent that these schemes are local monopolies, there is no competitor to whom the insured can turn when the existing scheme fails. This consideration implies that the first possibility, of mandating reinsurance, runs into difficulties. A reinsurer would want to put narrow limits on the duration of its obligation to cover claims. Even then, as noted by Dror (2000), many CBI still lack the data base to estimate their claims distribution with any degree of precision. This uncertainty spills over to the reinsurer who typically has to cover the upper segment of the loss distribution (excess loss contract). Since the reinsurer wants to keep its own risk of insolvency at a certain level, it charges a safety loading to compensate for uncertainty about loss distribution, which makes reinsurance costly.

Dror (2000) therefore advocates the creation of mutual reinsurance of CBI schemes (which is similar to the establishment of a guaranty fund). To overcome the initial lack of capital, a great deal of government involvement is needed that is not easily reversed once the fund is operational. When it comes to estimating the insolvency risk of contributing insurers, the manager of such a fund would encounter the same problems as a commercial reinsurer. Finally, the government itself may assume the reinsurance function. However, it will face great difficulty limiting the duration of its commitment because members of a failed CBI will accuse the government of denying access to healthcare services once it stops payments.

With regard to CBI schemes, the most promising alternative for dampening consumers' demand for regulation seems to be to lower the probability of insolvency through minimum requirements in terms of actuarial know-how.

3.3.3 Limiting insurers' demand for health insurance regulation

According to hypothesis H3 of section 3.2.3, demand for regulation mainly comes from health insurers rather than consumers because insurers stand to benefit more while facing a lower cost of organizing a pressure group. These two elements are addressed in turn, again in the context of private health insurers and CBI schemes.

- (1) Keeping the benefits of regulation low: The principal benefit of regulation to a private insurer consists in moving up the barriers to entry. Without such barriers, even an insurer enjoying a monopoly is constrained in its decisions on all dimensions of supply, viz. benefit package, loading of the premium, and vertical integration (see ch.2).
- (2) Keeping the cost of organizing a pressure group high: Again, this is very difficult to achieve because even formal oversight causes licensed insurers to be more homogeneous, which usually results also in more homogeneous interests. With increasing intensity of regulation, insurers need to be in contact in order to elaborate appropriate interpretations of and responses to the norms. These contacts facilitate the creation of a pressure group. The second factor is the number of firms in the market. When they are few, it takes little effort to define a joint position with regard to regulation.

It may be noted that there is scope for a regulatory spiral. Given that health insurers can bring their demand for regulation to bear (in keeping with H3 of section 3.2.3), the higher intensity of regulation induces them to invest in lobbying activities (H4), which in turn helps them to exert pressure for more regulation as long as benefits accruing to them are sufficient to cover the extra cost. Strict competition policy is required to prevent this spiral from turning.

With regard to CBI, somewhat modified considerations apply.

- (1) Keeping the benefits of regulation low: Barriers to entry protecting CBI are usually high to begin with (see e.g. section 2.5). Indeed, there is little chance of a newcomer driving the incumbent CBI into insolvency and of triggering an insolvency crisis.
- (2) Keeping the cost of organizing a pressure group high: This cost is high at the time being in view of the limited management capacity available to CBI. However, this may change because more professionalism will be required from these schemes quite generally.

3.3.4 Making the supply of regulation costly to government and administration

In terms of figure 3.3, if the supply function S_0 shifts up towards the function incorporating the externality of regulation, the equilibrium intensities of regulation (R_0 , R_1) approach the true optima (R_0^* , R_1^*). Again, there are two ways to bring about such a shift, increasing the budgetary cost of regulation to the government and making the government and public administration bear more of the marginal cost of the externality caused by regulation.

- (1) Increasing the budgetary cost: Having public administration operate at higher cost than necessary just in order to keep the resulting intensity of regulation low does not make sense. There is one qualification: One way for the regulatory agency to keep its own cost of regulation down is to deal with few rather than many firms, possibly even just with an association, a behavior which contributes to demand for regulation. Producing a given intensity of regulation at a higher cost may help to avoid this effect, thus improving the quality of regulation.
- (2) Making government and administration bear more of the negative externality: An explicit internalizing tax is out of question because a government does not tax itself. But it would be possible to penalize the budget of a regulatory agency if its decisions can be shown to cause efficiency losses. More practically, however, at least the government can be made to take the efficiency losses more fully into account if these losses have an impact on its chance of holding on to power. This condition is satisfied to some extent in very open economies where international investors withdraw if they deem the loss of efficiency dramatic enough, or in countries characterized by direct democratic control in the guise of popular initiatives and referenda. It would also require making information about the performance of regulators available to voters; a source of information other than the regulatory agency itself would avoid bias.

Summing up, prospects for avoiding excessive intensity of regulation through making a government and its administration face its true cost are rather bleak in many LDCs.

3.3.5 Changing access and redistributing welfare through regulation of unsubsidized insurance markets

Our emphasis on efficiency must not allow one to forget that a primary concern with health insurance is equity of access. Policy makers are likely to ask first, “Does private voluntary health insurance make a contribution toward the provision of coverage for segments of the population that are without coverage at present?” There are two potential objectives here. First, as already noted, the absence of insurance leads to large fluctuations in resources for other types of consumption; high financial risk experienced by some citizens may be of concern to others for a host of reasons: altruistic, externality, and equity. The same motivations also lead to concerns about the use of medical care; the greater “access” to medical care embodied in conventional insurance may raise insurance premiums and costs, but that additional use may also be valued positively by others. Both regulation and subsidization are undertaken in developed and developing countries to advance the goals of access to insurance and care that is greater than what individuals would voluntarily choose on their own. This issue needs to be addressed because attempts to deal with it have important consequences for regulatory policy.

Any practical quest to grant access to health insurance to individuals who are not able to pay the premium themselves implies that a redistribution of resources must take place. (It would be possible to use a mandate to purchase insurance without any explicit redistribution but this approach is almost never taken.) While market insurance redistributes wealth ex post (from purchasers who did not suffer a loss to those who have suffered a loss), it does not redistribute wealth ex ante. Nevertheless, the idea of using an insurance vehicle for additional ex ante redistribution in favor of those thought to be needy has great appeal. In fact, the ICs of continental Europe who have an insurance-financed healthcare system use social health insurance for systematically redistributing wealth ex ante; generally the redistribution appears to favor lower income people and those at higher ex ante risk of medical expenses, although the longer lives of higher income people reverse the lifetime income related redistribution to some extent.

However, the strategy of redistribution via insurance is usually incompatible with consumer choice and competition. (In contrast, explicit redistribution through general-revenue taxes and transfers can exist in a competitive, unrestricted market.) In order to survive economically, any unsubsidized health insurer must recover the expected value of benefits to be paid plus a loading for administrative expense and solvency. A single insurer’s policy of charging less than expected costs for enrollees who are poor or at high risk therefore entails an expected loss that must be recouped from enrollees who are wealthy or at low risk, unless there is a subsidy. But if consumer choice is permitted, such healthy and/or wealthy individuals will migrate to an insurer not following such a pricing policy that charges a lower premium for the same expected benefits. This forces the incumbent insurer to lower its premiums for the healthy and wealthy, ultimately to the point where the premium equals the expected value of benefits plus loading. This argument shows that under the force of competition, with all insurers constrained to earn the market rate of return on capital, there cannot be any cross-subsidization, even if an insurer would try to do so. Put in still another way, competitive insurance is a mechanism for chance-driven or ex post redistribution (between those who happen to suffer a loss and those who happen not to) but not for systematic or deterministic redistribution (from the rich to the poor or from those already in good health to those already in poor health).

Governments do, nevertheless, sometimes seek to redistribute income through health insurance systems. One way to do so is to require all firms among a number of otherwise competitive insurers to charge premiums that differ from expected expenses—that are higher for higher income people or higher than those based on expected losses for low risk people. While “paying” consumers cannot then find another insurer who will offer them a better price, they can and do sometimes choose to go without insurance at all. The usual solution to this problem is to create a monopoly with compulsory membership, which amounts to abrogating consumer choice and, in a de facto sense, converting the insurance premium into a tax (a compulsory payment for public purposes). This monopoly need not be publicly administered; the government can subcontract it or auction it off to a privately owned health insurer for enrolling a defined population. The ‘outsourcing’ of Medicaid beneficiaries to private insurance plans by some states in the United States corresponds to this solution. Incentives for efficiency can be preserved in principle, provided the government and its administration are free from corruption and is able to monitor insurer performance and cost. With substantial sums at stake, the potential for confusion and corruption is considerable, however.

Another solution is ‘managed competition’. Consumers have a choice between competing health insurers who however must charge compulsory uniform premiums. Uniform premiums may appear to be pro-poor, but need not be. A rich individual who also is in ill health typically demands more medical care than a poor one. Yet he or she pays the same contribution as a poor person who happens to be in good health. On the other hand, uniform premiums incentivize any insurer concerned with net income to engage in risk selection (‘cream skimming’) because only favorable risks generate positive net contributions.

Risk selection effects can be controlled to some degree by implementing a second round of regulation in the guise of a risk adjustment mechanism. Briefly, insurers who have more than the average share of unfavorable risks on their books obtain a compensating payment from competitors who have too many favorable ones (van de Ven and Ellis, 2000). Ultimately, it takes detailed diagnostic information to discern the different types of risk; even ICs have great difficulty organizing the transfer of this data from medical service providers to the regulator. Uniform premiums combined with risk adjustment therefore amounts to a very costly policy alternative for LDCs.

The problem is that mixing tasks by engaging in systematic redistribution, along with insurance, cannot be performed by competing health insurers. Redistribution is the task of the government. If it seeks to grant access to health insurance to the needy, it can simply pay them a subsidy or issue a voucher of a certain value. The analogy is evident: Given a consensus that people should wear shirts, the efficient way to attain this objective is to give consumers a voucher for the purchase of a shirt (provided the market for shirts is competitive).

Put slightly differently, trying to increase access to insurance to one deserving group by underpricing their insurance, and making up the difference by overpricing insurance to others in the economy, is like financing an insurance subsidy to the target group with an excise tax on insurance bought by others. Even if the deserving group can be well targeted and the insurance offered to them is ideal, and even if the overcharged group deserves to make a sacrifice, the basic economics of taxation tells us that partial excise taxes are almost always inefficient and often inequitable. They are inefficient precisely because the addition of the tax causes people to avoid the taxed good. In the case of cross subsidized health insurance, without subsidies and with voluntary purchases, the evidence from developed countries suggests that such “community rating” may well actually increase the number of uninsured as

well as create incentives for cream skimming (Pauly and Nichols, 2003). Accordingly, it seems difficult to recommend this strategy to a developing country.

3.4 Subsidized and regulated insurance.

How might efficient *subsidized* insurance work, and what are the consequences of alternative models of public support? We first describe a benchmark “minimum regulation” model of earmarked subsidies.

3.4.1 Minimum administrative regulation

An insurance subsidy could take the form of providing the potential beneficiary with a certificate or voucher of eligibility for a subsidy. Along with a receipt for paid-up contribution, he or she could then be redeemed at the nearest administrative unit. Vouchers are, however, often burdened with higher transaction costs than direct government outlays because they need to be protected against counterfeit and distributed to people. On the other hand, they do not require a large public bureaucracy to administer insurance and pay medical providers.

3.4.2 Minimum regulation/specification of the benefit package

“Access to health insurance” must be defined if government chooses to regulate the benefit package bought with the aid of an insurance subsidy. (This assumes that insurers are not permitted to offer cash back to insureds.) What will happen in a voluntary but subsidized market depends both on the form of the subsidy and the minimum benefit package. At one extreme, the subsidy might be a fixed monetary amount (possibly conditional on household characteristics such as income or risk), and the minimum benefit package might be any insurance with a premium as high as the subsidy. Consumers who wanted more generous packages than what could be purchased with the subsidy could pay an additional premium. Because the minimum insurance is free of charge to the consumer, we would expect the takeup rate to be 100 percent. At the other extreme, the benefit package might be required to be identical for all insurers and equal to some politically chosen level, with the subsidy potentially covering only a portion of the cost. Then some consumers might decide to forego the subsidy if they felt that their own payment was too high. Other things equal, the first strategy would, for a given per person subsidy, get more people to choose to buy insurance than under the second strategy, but the second strategy might assure more generous coverage for those who do choose to buy. An intermediate approach would be to specify the subsidy as some proportion of the premium. This would offer a large subsidy to those who choose more generous coverage, but would probably induce some people who would have declined expensive policies to at least choose some coverage. Proportional subsidies also provide a kind of automatic risk adjustment if higher risks are charged higher premiums.

The problem posed by strict requirements of uniformity might be mitigated somewhat by permitting insurers to offer a set of actuarially equivalent policies. Insurers might choose to offer coverage in selected hospitals to urban customers while limiting ambulatory care, or CBI schemes might limit hospital coverage in exchange for better drug coverage. But the potentially high additional premium would still remain an obstacle to those who attach lower value to insurance. It should be noted that this product differentiation is efficiency enhancing under fully risk adjusted subsidies; insurers would have no reason to favor good risks if they charge a premium that is scaled to risk.

Given a subsidization scheme, competing insurers have an incentive to provide a benefit package of a given cost that is most valuable to consumers, because that is the way to make profit. One way to achieve this goal is to strike exclusive contracts with health care providers. This means that both insurers and providers should enjoy freedom of contract, and cartels or collusion should be prosecuted. Competition among plans serves to protect consumers from insurers who might impose excessively strict limits on access.

3.5 Ideal and alternative public-private combinations

The discussion up to this point has dealt with a situation in which the market is created for voluntary insurance and government's role is limited to subsidizing those in need of help to access it. The more typical arrangement in developed and developing countries is for the basic insurance to be publicly financed and controlled, and private insurance treated as a supplement or addition to it. While it is clear that in theory a final combination could be approached from either direction, here we categorize and discuss various versions of voluntary private market that might be fostered or permitted to grow alongside a dominant public plan.

3.5.1 The ideal subsidy to the ideal insurance policy

Here we provide a verbal discussion of a way to define the optimal insurance policy (under optimal, not minimal, regulation) for people with a given set of characteristics and the optimal subsidy to voluntary health insurance that will lead to purchase of that policy. The notion of optimality used here is further specified in Pauly (1971).

Consider a part of a country's population with similar characteristics related to the need for medical care and financial protection. This might be a set of households of given size, income, and health risk. Suppose initially that all households in that set have the same demands for medical care (as a function of out of pocket price) and the same demand for health insurance (as a function of the insurance loading or premium).

The optimal quantity of medical care is that quantity at which the marginal benefit or value of care, to the household and to others in the community or society, just equals the marginal cost of care. (We discuss risk reduction benefits further below.) The marginal benefit to the household from medical care is measured by its (informed) demand curve for medical care; the price at which the representative household would demand a given quantity of care provides a money measure of its marginal valuation at that quantity. The marginal benefit from medical care for this household to others in the community not in the household is motivated by the kinds of externalities discussed earlier, related to protection from contagious disease, altruistic motivation, and possibly motives of equity as well. Presumably the schedule of community marginal benefit declines as well with the level of medical care user per household. The optimal quantity is that at which the sum of these two marginal evaluations equals the marginal cost. The optimal *insurance* is a policy that has the level of cost sharing at which this optimal quantity will be demanded by the representative household.

Probably the optimal level of insurance will vary across households. At a given level of health risk, we know that higher income households will consume more than lower income households. This means that the level of cost sharing could be high for higher income households, but could be zero (or even negative) for poor households.

The optimal subsidy to insurance is that subsidy needed to induce them to buy the insurance with benefits at least as great as the optimal benefits defined above. Again, high income households that are sufficiently risk averse might be willing to buy insurance with the socially optimal level of cost sharing, or even a lower level, entirely without subsidy. The need for insurance subsidies arises if a set of households would demand no insurance or insurance with higher levels of cost sharing than those levels that lead to the optimal use of care. The minimum optimal subsidy to insurance would then equal the difference between the maximum premium that household would be willing to pay for a policy with optimal cost sharing and the actual premium needed to cover benefits and administration costs for that policy. The government would require the subsidy be used to purchase the optimal policy. Almost certainly this subsidy will rise as income falls, and for the poor will be nearly equal to the entire premium.

Two probable complexities alter this simple conclusion. First, if others in the community are concerned about financial protection for a household as well as about its use of medical care, it is possible that the extent of protection at the optimal level of cost sharing may be judged to be too low. Then, unless some other instrument exists to hold medical care use at its optimal level, there will have to be a tradeoff between increasing financial protection versus causing more moral hazard. Second, household of similar observable characteristics are not likely to be identical. If they have different degrees of risk aversion, limiting the eligible policies to a single policy may (for reasons noted earlier) cause some households to remain uninsured. A compromise may be to widen the range of policies for which a lump sum subsidy can be used, or offer a proportional subsidy for a range of policies.

A diagram (figure 3.4) can illustrate the notion of optimality and the size of the required subsidy. Suppose D represents the “average” demand for medical care for a “non-rich” household. One possibility is that this household remains uninsured in the absence of a subsidy; if so, it would demand X units of care and pay for them entirely out of pocket at a unit price of P . Suppose that Y represents the social optimal level of use. (The marginal benefit or valuation of others in the community would then equal $(P-C)$, the difference between the fair premium and the household’s evaluation.) Insurance with a per unit coinsurance of C would then be optimal, and would induce this household to consume Y units.

The total actuarially fair premium for this coverage would equal $Y(P-C)$. However, the household should be willing to pay at least $X(P-C)$, the expected value of its out of pocket expense, plus $\frac{1}{2}(Y-X)(P-C)$, which is the value of the additional use induced by the insurance coverage. To this would be added a risk premium reflecting the household’s value of insurance coverage per se. The market premium P^* (= loading + $Y(P-C)$) would be the actuarially fair premium plus the administrative loading, and the subsidy needed would be the difference between this premium and the household’s willingness to pay. Even if the household were risk neutral, the maximum subsidy needed would be $P^* - \{0.5(Y+X)(P-C)\}$. This subsidy is equivalent to the loading plus $0.5(Y-X)(P-C)$. So, unless the loading is very high or the increase in access to care very large, the optimal minimum subsidy could be substantially less than the premium.

Suppose instead that even in the absence of a subsidy, the household had chosen to buy insurance, but preferred a policy with a higher level of coinsurance than C . Then there would still need to be a subsidy to get consumers to choose more generous coverage voluntarily, but the subsidy could be even smaller than the one described above, since it would need to cover only part of the cost of a smaller increase in access.

3.5.2 Alternative models of public-private interaction

In reality the ideal model of insurance subsidization is not followed. Instead, different countries have used different combinations of subsidized public and private activities. In some cases, these combinations are the result of explicit choices; in others they are the unintended consequences of political decisions made for various other reasons. Here we categorize these alternative “models,” and comment briefly on how close they are likely to approximate the ideal.

Many existing studies categorize arrangements as “substitution” or “complementarity” in a rather loose way. The economic definition would view public and private spending as substitutes if lower public prices, generally associated with higher public spending, led to reduced private spending, and complements if private spending increased along with lower public prices. Our judgment is that in almost all cases the two types of spending are substitutes. Public and private spending may sometimes “fit” better together (and so could be called “complementary”) than in other situations, but they would still be substitutes in the economic sense. Where there are matching arrangements (e.g., the government program pays $x\%$ of whatever total cost a person chooses to incur), it is true that higher private spending will trigger higher public spending. But as a rule, a higher value of x will lower private spending once consumers have adjusted (basically, as long as the price elasticity of the demand for care or insurance is less than unity, which appears to be the case), so it would be more correct to say that government *policy* is a substitute for private spending.

Our classification of systems other than the ideal one already described is based on two characteristics: whether the government spending program is *closed-ended* or *open-ended*, and, within the open-ended set, whether the public sector *plans or controls* for private spending, or, alternatively, ignores it in setting public policy.

Closed-ended public. The simplest system to describe is one in which public spending is chosen as if public and private spending were in “water-tight” compartments. The government chooses its level of spending on health care or health insurance as a predetermined amount which is “closed-ended” in the sense that it is not subsequently changed if people also engage in insured or uninsured private spending. (This arrangement is also sometimes termed “defined contribution.”) A typical national health system model would represent this kind of arrangement. Private purchasing and insurance may and often does arise, however, when and if the amount provided publicly falls significantly short of what individuals would demand privately.

Suppose, for example, that the level of government spending is determined by a community or public demand curve like D in figure 3-5; the government chooses to fund and supply X units of care. If an individual’s demand curve is like I in that figure, the person will spend privately and might even choose insurance to cover the private spending. Note, however, that if the individual demand curve were at I' or lower, there would be no private supplementation. Similarly, the lower the level of D , given some level of I , the greater the likelihood of private supplementation.

Relative to the efficient outcome described earlier, this system will usually fall short. If D really is the community demand curve described in that analysis, X will be a sub-optimal quantity. But even when supplementation occurs, the quantity still falls short of the optimum. The problem is that, in this individual-adjustment equilibrium, neither the individual nor the

public sector takes the marginal valuation of the other party into account. It is better, from an efficiency point of view, to permit private demand such as I to be exercised, rather than forbid private supplementation as some countries (e.g., Canada) do, but the improvement in efficiency will still fall short of the ideal.

Open-ended public, no planning for private behavior. A different approach is one in which the public sector specifies a set of insurance benefits, but permits patients and doctors to determine how much they will be used. This is an open-ended or “defined benefit” approach. If (as is often the case) the coverage of the government plan is less than completely comprehensive, because it involves patient cost sharing or fails to cover some useful services at all, it is possible that private spending and private insurance may emerge to cover these uncovered services. This is the arrangement in traditional US Medicare supplemented by private “Medigap” policies which pay for deductibles, copayments, and drugs not covered by Medicare; French voluntary health insurance or supplementary insurance in Croatia are other examples.

Suppose that the level of patient cost sharing has been chosen to be optimal in the sense that it is thought to represent the ideal balance among financial protection, access, and the government’s budget. The problem is that if there is positive private demand for insurance to cover the copayments, such coverage defeats the cost containment purposes of copayment. It makes total medical spending too high, and it makes the government’s budget too large. The reason is that the people who have private coverage of copayments will use more medical care than if there were no such coverage and they paid out of pocket. This additional use (for which the public insurance pays in part) will raise the cost of the public program, but buyers of the supplemental insurance will not pay for the additional publicly funded use. Thus there is an implicit subsidy to private supplemental coverage, precisely because the additional moral hazard it causes is only partially captured in its own premiums. Estimates of this “cost spillover” have been made for US Medicare, and they are in the range of 25% of Medigap (supplemental) premiums. Short of a tax on supplemental coverage to reflect this cost, there will be excessive purchases of supplemental coverage. (Ginsburg, 1988.)

If such a tax were to be imposed, and there was still demand for private coverage, that would also not be efficient, however, because it would mean that the rate of use of care at the public copayment level was less than the socially optimal level. Put slightly differently, if the public insurance were the optimal insurance described above, and if supplemental insurance were properly priced, there should be no demand for supplemental insurance, at least not by the average person.

Open-ended public, planning for private behavior. The alternative version of open-ended public coverage is a model in which government explicitly regulates and manages private supplemental coverage. Usually there are some rules for such coverage, but usually they involve the usual types of insurance regulation. It would be theoretically possible for government to plan a program of nominal public coverage, subsidies, and permitted private coverage that would lead in the end to the optimal insurance discussed above. In effect, the “real” social insurance program would be the public-private combination, and the subsidies and rules that go with it, not the public insurance alone. The main problem with this approach is administrative complexity; it is generally more costly and more complicated, for obvious reasons, to manage two insurance plans as one rather than a single plan. Indeed, some estimates suggest that if US Medicare were merged with US Medigap into a single plan, the administrative cost savings would be sufficient to finance a substantial improvement in coverage, possibly including full coverage of prescription drugs. (Citation.) Moreover, if the

ideal plan is the combination, why should the option of declining private supplementary coverage be kept open?

3.6 Conclusion

The conclusion is that these alternatives to the case of optimal subsidies to optimal private plans are less efficient. There are models which get close to the optimal case. Chile permits people to transfer their public subsidy to private insurance. While there are some potential sources of inefficiency in the way this system is set up (Sapelli, 2003), it does seem to have stimulated a substantial private market. The US Medicare + Choice plans allows people to transfer their public contributions to equivalent (or better) private plans; this arrangement was working well until payment levels were cut. Those payment cuts have now been restored and growth of private health insurance has resumed.

While neither of these examples nor any other real world programs are exactly equivalent to the ideal, there is considerable evidence that the model of voluntary private insurance with targeted subsidies is feasible. Whether it is feasible in developing countries, and whether it can get close to the ideal, is an open question at this point, but one definitely worth exploring.

Figure 3.4

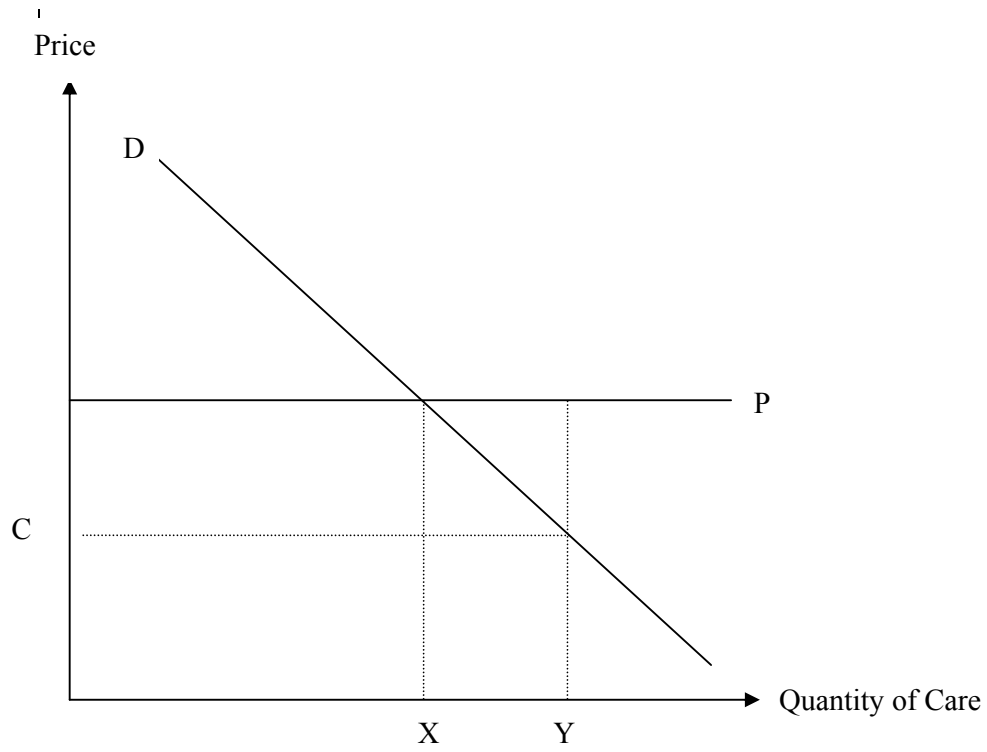
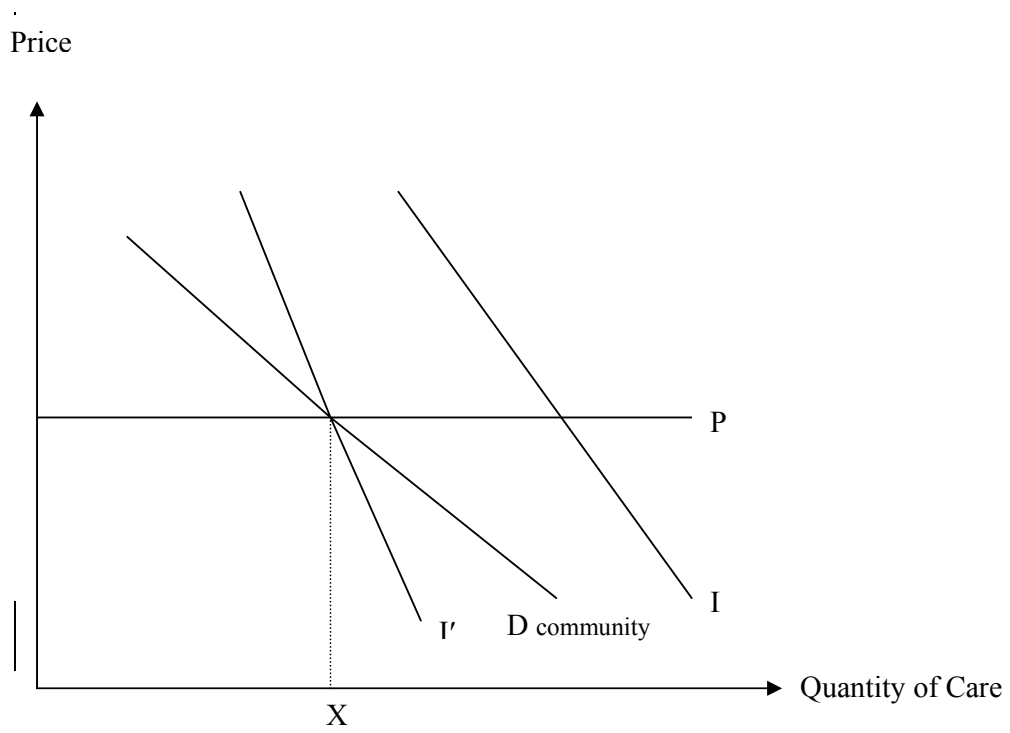


Figure 3.5



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