Private Health Insurance In Developing Countries

Voluntary private insurance could fill in the gaps that limited public resources cannot cover.

by Mark V. Pauly, Peter Zweifel, Richard M. Scheffler, Alexander S. Preker, and Mark Bassett

ABSTRACT: A joint Wharton School–World Bank conference called attention to the high proportions of medical care spending paid out of pocket in most developing countries. One of the reasons for this, attendees said, is the problem in such economies of generating high tax revenues in a nondistortive way. Since people are paying out of pocket, they should be able to afford some private insurance that can spread the risk of above-average out-of-pocket payments. The potential efficiency gains from greater use of voluntary private insurance seem large, but there are a number of possible impediments to the emergence of such insurance. [*Health Affairs* 25, no. 2 (2006): 369–379; 10.1377/hlthaff.25.2.369]

VIRTUALLY EVERY DEVELOPING COUNTRY with a functioning government uses publicly funded and managed systems for third-party payment for medical care. Either the government directly provides and finances services in a national health service, or it compels other entities (employers or sickness funds) to finance insurance that pays both public and private providers of care. In many developing countries, this system has failed to provide adequate financial protection for its citizens and adequate access to care. The gap shows up in the form of private out-of-pocket spending for services that "universal insurance" cannot or does not supply. Although both history and ideology leads such countries and the global organizations that advise and support them to sometimes be skeptical, the limits to public systems suggest that one possible alternative might be a role for private insurance.

This possibility—the reasons for it to be considered or opposed and the conditions needed for it to happen—were discussed at a conference in March 2005 at

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DOI 10.1377/hlthaff.25.2.369

the University of Pennsylvania, organized by the Wharton School and the International Finance Corporation–World Bank. Two of the authors here, Mark Pauly and Peter Zweifel, developed background studies to set the stage for consideration of this option. This paper summarizes those analyses and the further discussion of implementation issues at the conference. More details of the analysis and more references for statements in this conference summary will be available in a forthcoming World Bank publication.[1]

Evidence Of Government Limitation And Failure

The primary rationale for considering private insurance options is public systems' widespread failure to provide insurance coverage that satisfies the needs and desires of citizens in developing countries for financial protection. Exhibit 1 shows the percentage of health spending paid privately and out of pocket at the point of use in a large set of developing countries. Philip Musgrove and colleagues have provided more extensive analysis of the correlates of high proportions of out-of-pocket payment, finding that there is an inverse relationship with country income but that a large fraction of the variation cannot be explained.[2] Exhibit 1 pro-

EXHIBIT 1
Percentage Of Gross Domestic Product (GDP) For Medical Expenditures Paid Out Of Pocket In Selected Countries, 2002

Country	Percent paid out of pocket[a]
Bangladesh	64
Cameroon	69
Côte d'Ivoire	73
Cyprus	57
Democratic Republic of Congo	70
Ecuador	57
Egypt	58
Georgia	80
Ghana	59
Guinea	84
India	78
Indonesia	48
Kenya	45
Malaysia	50
Nigeria	67
Pakistan	65
Philippines	47
Sri Lanka	49
United Republic of Tanzania	38
Venezuela	46
Vietnam	62

SOURCE: World Health Organization, *The World Health Report 2005: Make Every Mother and Child Count* (Geneva: WHO Press, 2005).

[a] Includes out-of-pocket payments for people covered by both public and private insurance.

"Poor countries train the doctors and nurses who alleviate shortages in Australia, North America, and Europe."

vides evidence for both the incompleteness of government funding and the presence of the key ingredient for private insurance to improve matters in many developing countries: a high level of uninsured private spending. Indeed, the primary purpose of the meeting was not so much to explain the mix of financing but to develop ideas on better ways to deal with high uninsured spending levels when they exist.

Although not all developing countries have such high proportions, a complete understanding of the cause of this problem is lacking. In particular, although we have some hypotheses (discussed later) about why private insurance has failed to emerge to any great extent in most developing countries, we do not know the definitive reason for this supply failure or the relative contribution of alternative plausible hypotheses. The conclusion of the meeting was indeed that there was a great need for answers to this important question. What is noteworthy is that prior to the meeting, this question was generally neglected in the literature on medical care financing in developing countries or was constrained to a discussion of community health plans rather than expanded to include the whole spectrum of voluntary private insurance alternatives.

■ **Two key facts.** Two key empirical facts motivated this fresh look at voluntary insurance in developing countries. One is based on aggregate data: The proportion of total medical spending paid out of pocket—financed neither by private insurance nor by government provision of care—is very high in many developing countries (in virtually all developing countries, it is higher than the U.S. percentage of 13 percent).[3] The other is that although the absolute level of out-of-pocket payments is naturally higher at higher household income levels, high out-of-pocket payments are by no means concentrated among only a small percentage of very-high-income consumers. Instead, the distribution of such payments spreads far down the scale of income. Generally, the level of payment by the poorest of the poor is quite low, but out-of-pocket payments by relatively low-income people constitute both a large share of the total of such payments and, of course, a large share of family income for those who make them.[4]

Public (and private) systems in the countries in Exhibit 1 are woefully inadequate in providing financial protection to the public. This failure is not likely to improve over time or to be affected by better public administration, less corruption, or pressure by nongovernmental organizations (NGOs) in the developed world. The reason for such high payments in countries that profess to offer nearly free health care for their citizens is simple: The amount of resources that countries have to devote to free health care or health insurance is limited and hard to tap. This is especially true for spending on patented prescription drugs from foreign

sources. Although there are exceptions, the scope for negotiating lower prices for such products is generally limited, and even if price concessions are offered, quantities are usually limited by financially strained public systems.

■ **The poverty explanation.** The all-purpose explanation for the limited access to effective care in countries that profess to have free, universal, and comprehensive provision of medical services is poverty: These countries are too poor, it is said, to afford even some of the most effective care, especially when it must be paid for in hard currency at world prices, instead of being furnished by low-wage local labor. Even a low-wage strategy for the supply of medical services (as opposed to drugs and devices) is limited, as locally trained and highly skilled health professionals emigrate to developed countries in response to low local incomes, poor working conditions, and shortages of modern equipment and supplies. From Ghana to the Philippines, poor countries train the doctors and nurses who alleviate shortages in Australia, North America, and Europe.[5]

■ **A political choice.** The "affordability" argument in itself is incomplete, if not suspect. Even many developing countries (such as India) have enough wealth to provide much higher quality of and access to medical care if they chose to pay the price. Citizens might prefer that their governments spend more on health care, but to do so, they would have to sacrifice other items of public consumption and, honesty requires one to admit, oftentimes side payments to other government officials, subsidies to the national airline, or large-scale public works projects. In this sense, they are no different from some developed countries that also often constrain their medical care systems in preference for other more politically favored items of spending.

■ **Inferior tax systems.** However, there is more than choice and corruption to cause the sorry state of publicly furnished medical services in these countries. Even if their budgets were planned by omniscient, benevolent, and disinterested people, these countries face a serious additional constraint: a limited choice of inferior tax instruments. Tax administration is often poor, the formal economic sector (especially the labor sector) is often limited, and the possibilities for substituting non-taxed income or consumption for the tax base are high. Excise taxes and tariffs are dependable but often distortive and limited in the revenue they can raise. If officials tried to collect more taxes to improve health care, they could ruin (or at least grievously harm) the rest of the economy.

In effect, transferring the financing of a medical resource (or any other resource) from the private sector to the public sector involves an inefficiency cost or distortion—what economists call "excess burden." This distortion can sometimes be so large as to effectively prevent public-sector funding (although determination of its importance is complex and depends on the types of taxes, the level of other taxes, and the amount and form of public spending). Thus, even with the most honest and wise government possible, without external donor funding, developing countries (at their current level of development) would rationally and appropriately choose to limit the scope of their publicly furnished medical care system. At a later

stage, the market system might develop enough to permit more generous tax financing. At this point, countries are fully justified in limiting access to effective medical care, especially the most costly versions.

■ **Advantages of private-sector financing.** In the face of such limits on government-financed care, it is also to be expected (and ought not to be decried) that demands unsatisfied in the public sector will be expressed as private payment. In effect, beyond some spending level (which might be quite low), private payment for insurance might be more efficient as a financing mechanism than public payment, even if the usual equity, externality, and altruistic rationales for market failure are taken as given. Put slightly differently, the high excess-burden cost of taxation generates a kind of public-sector failure that private market structures might help ameliorate. The key efficiency advantage of private payment for insurance is that it is voluntary, not because of any philosophical preference for this feature (although that preference might exist), but rather because voluntary transfers of resources—purchases—do not distort other aspects of consumers' behavior as much as taxation does. Although the explicit administrative cost of private insurance is usually higher than that of public insurance, the offsetting excess burden usually associated with tax-financed public spending limits that spending and could mean that private insurance, on balance, is actually more efficient. On this highly controversial subject, there was no consensus at the meeting.

Insurance Is Good

If people are sometimes paying substantial sums out of pocket for their medical care, the case for voluntary insurance is obvious. Insurance arrangements could instead permit them to pay smaller amounts, on average. This would avoid having households use up much of their income and wealth to pay for a drug that the country's health system does not provide, or to cover the fee for life-saving surgery as an alternative to being on an impossibly long waiting list in the public system. The health benefits of insurance are positive and clear, but the evidence indicates another profound social benefit: With insurance, a family can avoid a large shock to its wealth, and it can greatly reduce its financial vulnerability.[6]

The lower-middle-class households now making these out-of-pocket payments do suffer financially in efforts to keep a loved one alive. A farmer's stock of seed or fertilizer might be displaced, with devastating consequences for attempts to get ahead. The small business might be sold; the children's school fees might not be paid; or the larger extended family could experience a grievous shock to its financial well-being. Insurance can in principle help people to avoid all of this.

The documentation of the adverse health and financial consequences of out-of-pocket medical care payments in developing countries with public but underfunded systems is comprehensive and compelling.[7] The truth of Kenneth Arrow's statement is plainer here than in almost any other case: "The welfare case for insurance policies of all sorts is overwhelming."[8]

Alternative Forms Of Insurance

The World Bank and other international aid agencies have been considering a variety of forms that real health insurance might take, along with impediments to their organization and possible negative side effects. The key element needed for voluntary insurance to emerge, virtually by definition, is the possibility of risky and costly out-of-pocket medical expenses.

Risk pooling can take a variety of complex institutional forms, but the necessary ingredients are amazingly simple and few. A population subject to the risk of losses from an adverse event such as medical spending for poor health will benefit from insurance as long as its members are risk-averse and the loss-producing events are not highly correlated. To state the almost obvious: If it is known that P people out of a population of N will suffer an illness whose treatment cost is $\$L$, it should be possible to charge in advance a premium of $[P/N] \times L$, the average expense, to each member of the population in advance. If N is reasonably large, it should be possible to collect enough in premiums ($N \times [P/N] \times L$) to just compensate those who suffer losses whose total amount will be approximately $\$PL$. Random events may cause the loss total and the premium total to diverge slightly, but, if N is large enough, this discrepancy per person will become vanishingly small. If people prefer the certain payment $[P/N] \times L$ to the risk, they will be eager to buy the insurance and will gain substantial welfare from doing so. This gain will be partly in the form of improved health, but there is a financial planning gain, even if health is little affected.

This is the famous "Law of Large Numbers," which is at the heart of the theory of voluntary insurance purchasing. The law holds, and it is not repealed in developing countries. In effect, in risk pooling, all agree that those who are lucky enough to stay well pay $[P/N] \times L$ and get nothing in return (after the fact), but those who are unlucky and become ill, receive a large transfer that covers their loss. At its heart, insurance is therefore not the purchase of a commodity, but rather an agreement in which people share good fortune and bad. Insurance organizations, whether for-profit firms, nonprofit and nongovernmental enterprises, or government-run voluntary pools, are merely the administrative veil behind which this risk-sharing agreement is organized and enforced. To be sure, there are, as noted, administrative costs to arranging risk sharing, but if these are low enough, people will still gain from insurance.

Options And Choices

Here we suggest various options for organizing "true" medical insurance, for which real premiums are voluntarily paid for real benefits that are linked to those premiums.

■ **Mutual or community insurance.** Probably the most common form of voluntary insurance in developing countries is also the simplest: a community-based pool.[9] Ideally, a set of households with roughly similar prior health risk would form a

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cooperative or mutual insurance arrangement. Beyond some start-up funds that could come from donors or lenders, the bulk of the revenue for such an organization would come from its customers as premiums. It would in effect be a buyers' cooperative, economically owned and managed by representatives of the insured people. Although generally such schemes work best if the expected losses can be accurately forecast, in principle such mutual plans need not have precise estimates, only the knowledge that whatever the expected losses are, they are roughly similar for all members. Should total claims fall short of the amount collected, the excess can be returned by the plan in proportion to the amount of coverage bought; a shortfall can be covered by assessments on members. Or, with a little more sophistication, reinsurance can smooth the cost of the rare and unusually costly cases or clusters of cases from outbreaks of contagious disease. There is considerable sympathy for a community or "mutuelle" insurance arrangement in the international aid community. But these arrangements are not without problems, which could limit their emergence, generosity, or spread.

Lack of trust. Some of the problems are intrinsic to any form of insurance. Buyers are asked to pay real money, for sure, in return for a promise of a much larger payment if a bad event happens. Buyers might not trust the insurer (even when it is a group of their peers) to make the promised payments. Sellers, by comparison, promise to pay a very large amount of money in return for a small premium if the event occurs: They fear that buyers might misrepresent either the occurrence of the event (which is called moral hazard) or the likelihood of the event (which is called adverse selection). The solution, we know, is a combination of trust and careful, enforceable contract language. Both of these elements are hard to produce from scratch. Buyers cannot all expect to make money from the transaction, and sellers cannot seek to pile up surpluses without limits. Sellers must not expect buyers to be irrationally frugal, even if overuse eventually harms all.

Responsible management. Another set of issues deals more directly with human behavior, especially behavior in groups. Not all consumers can be equally in control of the plan; will those who obtain authority do so based on competence or on political influence, and will they behave responsibly with accurate accounting and honest recounting of bad news?

Different health risks. Yet another problem is different health risk levels in the community. Some in the community might be older, and older age often predicts higher future expenses even for those who are in perfect health now. There is, in principle, an unregulated, unsubsidized, and economically perfect solution to this problem: Charge premiums proportional to the expected loss or risk level of each buyer. This arrangement is absolutely required if lower-risk households are going

to be willing to participate in the pool, and, without them, a "pool" of high risks is not even worthy of the name. Somewhat surprisingly, within quite broad limits, these higher risks will be willing to pay high premiums because the alternative to paying difficult-to-afford premiums is a high risk of high expenses that are definitely unaffordable.

The biggest threat to the emergence of community or mutual pools is the absence of direct entrepreneurial incentives to create them. Although they can, in theory, make all community members better off at almost no resource cost—a true economic perpetual-motion machine—the community or public nature of this good means that the private rewards for its creation are quite weak. We do not want to overemphasize the pessimism here; people are motivated by public benefits, and entrepreneurs from Clara Barton to Bill Clinton have taken the lead in creating entities for the collective good. But we should not be so romantic as to ignore the scarcity of incentives that might require extraordinary people or extraordinary administrative arrangements.

Government regulation. Another threat is that governments might take excessive interest in regulating private insurance: A country might have almost no private insurance now, but if it does have it, officials want it to function with few politically obvious defects. Private insurance should be everything the public system is not. There is also considerable affection for private community arrangements and for attempts to use regulation to shift to them the effort of jobs that properly should be performed by government at its own expense. There is a legitimate political desire to make financial transfers to lower-income high risks to cushion the impact of the high premiums they are charged, which will reduce the amount of income they have left over to spend on the other necessities of life. Such a policy almost never works, since the lower risks bail out and since such regulation can destroy the market by causing "cream skimming" and adverse selection.[10] But politicians are still sorely tempted to try.

The appropriate policy solution to high premiums for low-income high risks is obvious: an income transfer to high-risk low-income people financed by the least distortive tax available (income or consumption). But "taxation via regulation" through marketing community rating often is irresistible to politicians, because it seems to be so consistent with a uniform all-for-one, one-for-all community effort and because it averages "risks" such as age (which, of course, is not really a risk) and is therefore sometimes confused with true insurance.

Still, there was agreement at the conference that community or mutual insurance is often worth a try.[11] Both administrative assistance and reinsurance against high claims (needed only for smaller communities) can help a great deal. But other alternatives were discussed as well.

■ **Nonprofit private insurers.** A second possible device for furnishing insurance is a not-for-profit firm that charges premiums, absorbs any excess losses, and retains (at least for a time) any surplus of premiums over benefits. In many countries, the net

income of nonprofits is exempt from taxation. The control or management of the nonprofit firm can come from a variety of sources, as can the internally generated revenues to furnish equity capital. Often medical care providers such as hospitals and physician associations organize such firms, as do religious and civic groups. Initial equity capital might come from philanthropic donations or be transferred from existing private or NGOs. Capital also might be obtained through borrowing or from subsidies from other sources, and the tax treatment of any taxes on real property, insurance premiums themselves, or net income is often more favorable for such firms than for their for-profit counterparts.

Beyond this question of the sources of capital for reserves in excess of any surplus revenues, these organizations operate simply. They set premiums and use those premiums to buy benefits. They may deal with medical services in a variety of ways, ranging from payment of market-set fee levels to insurer-set fee schedules and capitation payments or salary.

The key research finding here is a nonfinding: None of these methods seems intrinsically superior to any other, and all affect behavior depending on the level of payment and the precise specifications of the unit for which payment is made. The tax advantages to tax-exempt nonprofits appear sometimes to cushion administratively wasteful behavior, sometimes to be translated into lower premiums for nonpoor customers, and sometimes to be used as subsidies for population subgroups thought to be deserving or politically influential. Likewise, any surplus of premiums over benefits could be returned as lower future premiums for some or all buyers, or as subsidies for other kinds of programs.

■ **For-profit insurers.** These types of organizations obtain additional equity for reserves from private shareholders, although as in the previous case, the great bulk of funds to pay claims comes from premiums. Many traditional public health policy analysts are skeptical of this type of supplier, but that skepticism might be weakening in view of the failure of other alternatives. Shortfalls between premiums and benefits paid out reduce stockholders' wealth (and the firm's market value); profits are paid to owners as dividends or reinvested in firm capital. These firms are often regarded as having stronger incentives for managerial efficiency than their nonprofit counterparts but also as having stronger incentives (competition permitting) to charge higher profit-increasing premiums.

This form of insurance is fairly rare in developing countries; it is often forbidden explicitly by law or implicitly by regulatory process. Where it does exist, and where regulation is light, it is moderately successful, garnering a small but not negligible market share (usually among the middle class) and making positive but modest profits. The scope for expansion of for-profit insurance under an aggressive, market-oriented regulatory regime is virtually unknown, because such experiences are rare. But one of the main conclusions of the conference was that at least on a priori grounds, these organizations deserve a fair trial on a level playing field, probably in competition with nonprofits and mutuals.

There will be scandals with for-profit insurers, as there have been with nonprofits and mutuals. But the alternative is not perfection; it is a public system that is at best limited and often is scandalously inefficient and incompetent. Some experiments with an alternative were seriously discussed at the conference and may be tried.

The Elephants On The Sofa

The theoretical case for using insurance to spread the risk of out-of-pocket payments is compelling. There are, the meeting concluded, two key questions too big to be ignored. One is not too difficult: Why tolerate, encourage, or advocate private insurance for developing countries when developed countries largely rely on social insurance? The answer, already given, is that the low incomes and imperfect tax instruments available to developing countries mean that public resources are rationally going to be limited to levels below those needed to satisfy all demand from citizens. Given that there is to be private spending, it is better that it be insured (to some extent) than not.

The difficult question is the usual question asked of potentially efficiency-improving ideas: If it is so desirable, why does it not already exist? In this context, why does private insurance often fail to emerge? This is obviously the key question, whose answers would suggest both whether there would be possible improvements and what the nature of those improvements would be.

That there are no intrinsic impediments to private insurance was the main conclusion of the conference. That it is feasible in practice is shown by the fact that a small fraction of countries, sometimes labeled as "developing," do have a fairly large fraction of private spending covered by insurance: most of the Mercosur countries of Latin America, English-speaking countries in the Caribbean, and countries on the Arabian Peninsula. Even here, a somewhat higher income seems to be important (although there are many developing countries with similar incomes that do not have insurance for out-of-pocket spending). But of all of the rest of the developing world, only two countries (Zimbabwe and South Africa) have private insurance that covers more than a quarter of private spending on medical care. Even in countries with some private insurance, the fraction of private spending covered is very low: 5 percent in Ivory Coast, 7 percent in Nigeria, and 1 percent in Sri Lanka.[12]

The discussion at the meeting identified three possible causes of small or nonexistent markets for private insurance: inadequate demand because of low risk-aversion or misperception, restrictions on supply because of regulation (or a regulation-induced death spiral), and high administrative costs. The great unknown is the last factor: How efficiently can private firms (for-profit or nonprofit) administer insurance, and, when they do their best, will the administrative cost be below the risk premium (over an actuarially fair premium) that most potential demanders would be willing to pay? The existence of private markets in some countries,

with administrative costs for even individual insurance as low as 18 percent (in Chile), suggests grounds for optimism.[13] At a minimum, this approach suggests a somewhat different focus for insurance system design in developing countries. The typical analysis focuses on the adequacy of insurance coverage in achieving access and the fairness of premiums. This approach does not deny that those are desirable goals but views as a first step the ability to offer insurance that people will find attractively enough priced (relative to the benefits provided and their own income constraints) that they are willing to buy it.

NOTES

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