INNOVATIONS IN INSURING THE POOR

Health Insurance for the Rural Poor: Evidence from Cambodia

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A serious injury or illness usually increases medical expenses and often reduces income. Even worse, some short-term health problems can worsen long-term poverty when families sell productive assets such as land or remove their children from school. In theory, health insurance can help reduce asset sales, reduce the need for new loans, increase the quantity and quality of care, and improve health.

Unfortunately, rigorous evidence on the impact of insurance is scarce, particularly in developing countries. It is hard to study the effects of insurance because of adverse selection, which occurs because households that expect high healthcare costs have the strongest incentives to buy health insurance. At the same time, if cautious, well-educated, or wealthy people both engage in safe behaviors and value insurance, then voluntary insurance can enjoy positive selection. Thus, finding that insurance correlates with either poor health or high income would tell us little about the causal effects of insurance on health and economic outcomes.

In spite of the challenges, several rigorous studies (primarily in rich countries) find that health insurance usually increases access to healthcare. The effect of that increased access on health depends on the value of that care. Scattered results from the United States and other wealthy countries suggest that health insurance usually leads to modest improvements in health. It remains an open question to what extent insurance in developing countries will increase healthcare access and use, reduce financial vulnerability, and improve health outcomes.

Selection and financial sustainability

Even if insurance is valuable to the poor, voluntary private insurance may not be financially sustainable if adverse selection is severe, because only the costliest patients would purchase insurance. With strongly adversely selected customers, premiums will not cover the high costs of care.

Most studies find households with chronically sick members are more likely to purchase voluntary insurance. This adverse selection is an important motivation for the link between employers and healthcare in the United States, in spite of the resulting low portability of insurance. At the same time, in the United States wealthier households have more insurance, potentially leading to some positive selection if wealthier people also tend to be healthier.

SKY Health Insurance in Cambodia

This brief examines how these several forces operate at SKY Health Insurance (an acronym for the Khmer name Sokhapheap Krousar Yeung, or "Health for Our Families") in rural Cambodia. SKY sells insurance for a low premium and contracts with the local public health system so that SKY members pay nothing out of pocket to use local clinics and regional and provincial referral hospitals. Because the public health system is subsidized, SKY insurance receives some implicit subsidies relative to private healthcare. The public health system in Cambodia is often of low quality, but SKY typically enters regions with an above-average public health system and engages in monitoring and other activities to improve the quality of the system.

The evaluation team surveyed potential customers, some of whom purchased SKY insurance and most of whom did not. The survey showed that SKY does a good job of reaching its target audience—the rural poor, for whom high healthcare costs are not infrequent and can be devastating. Most SKY households farm, although many also have other small businesses.

While SKY targets the poor, it also tries to avoid financial losses. Thus, the policy includes several terms that limit adverse selection. For example, it does not cover chronic conditions such as high blood pressure. In addition, SKY does not pay for the delivery of babies within the first few months of joining. Government policy also reduces adverse selection: government programs pay 100 percent of the cost of drugs for very expensive chronic diseases, such as HIV/AIDS and tuberculosis.

SKY would have an easier time being financially sustainable if people who are good risks purchased insurance more often. For example, health insurance is a novel product in this region and the SKY contract is quite complex; thus, SKY might have been more attractive to better-educated consumers. In fact, SKY members and nonmembers have similar education. Similarly, cautious people might value insurance more (and also have lower injury rates). In fact, SKY members and nonmembers have similar levels of risk aversion according to two measures: the survey asked respondents how often they gamble and how much pay they would require to accept a hypothetical riskier job.

Conversely, SKY would have more difficulty being financially sustainable if it suffered from adverse selection. In most of the dimensions studied, however, SKY does not suffer from adverse selection. For example, in Cambodia (as in most of the world), both the very young and the elderly use more health services than others. Yet SKY households do not have a particularly high share of either young children or the elderly. Also, SKY households had similar rates of serious illness (defined as illness that keeps people from their main activity for seven or more days) before the sales meeting when they were first offered SKY insurance. Among those so disabled, SKY members also have similar rates of hospitalization and of very high healthcare costs.

The only exception is that 69 percent of declining households, but 78 percent of SKY households, have at least one member in what the respondent described as "poor health." (The health question was asked a few months after households joined SKY.) Thus, these results will underestimate adverse selection if SKY insurance improves health. The results will overestimate adverse selection if buyers are more aware of their health problems either because of increased healthcare after joining SKY or because SKY attracts consumers who focus more attention on health problems.

Economic theory suggests that this adverse selection should be more severe at higher prices. Intuitively, at low prices, even the healthy would find insurance attractive; in the extreme case of zero price, everyone would be covered and there would be no adverse selection. When some randomly chosen households were offered a coupon to purchase SKY insurance at a steep discount, however, there was no support for the hypothesis of more adverse selection at higher prices. The gap in self-reported poor health was similar for those paying the normal price as for those paying the much lower coupon price.

SKY does, however, face adverse selection in retaining its members. Those who use SKY-funded healthcare are far more likely to remain SKY members than are households that never receive SKY-funded benefits.

Remaining questions

The results reported here are preliminary and based only on the baseline household survey. In the next few years, this evaluation will produce more results on who self-selects into SKY and who remains a member. The evaluation team will use the randomized coupons to create a randomized controlled trial of the effects of health insurance.

These results can help inform policymakers' decisions about the role of private health insurance. If results show that SKY does a good job of protecting health, increasing healthcare use among the ill, and facilitating asset accumulation, then policymakers will have more justification to address obstacles to the spread of health insurance.

Any business serving the rural poor faces many obstacles, ranging from poor infrastructure to low literacy. Voluntary health insurance for the global poor faces the challenges of providing care that consumers value, lowering transaction costs, and minimizing adverse selection. More research is needed to see how well SKY and other innovative voluntary insurance programs are meeting these challenges. Research is also needed to compare voluntary insurance with mandatory insurance programs, universal public care, and other alternatives. In a world where the poor face multiple risks and use multiple means to address those risks, it is also important to understand how health insurance and other modern financial instruments can fit into potential customers' complex financial lives.

Longer-term research is important as well. SKY executives, for example, consider the risk of adverse selection to be a start-up cost. To the extent SKY faces adverse selection, they anticipate that this problem will decline as SKY's market share rises. This trajectory is consistent with economic theory under certain assumptions; it is important to monitor how it plays out in Cambodia.

Any voluntary insurance program faces a tension between financial sustainability and helping those in need. Thus, financially sustainable insurers in the voluntary market will tend to exclude preexisting conditions and care for some high-cost conditions.

Voluntary insurance markets typically work better when the insurance is not expected to cover chronic and very expensive conditions. These are also the conditions most subject to adverse selection. Cambodia's coverage of HIV/AIDS and tuberculosis treatment, for example, is a good complement to SKY's voluntary insurance.

When adverse selection is important, insurers can follow the U.S. pattern and move to insuring groups, as when employers provide health insurance. SKY is expanding its offering of health insurance to large Cambodian employers such as the government and export-oriented factories. This approach is likely to spread, and more insurers in developing countries are likely to bundle health insurance with employment or other naturally occurring groups. Because most rural households have self-employed farmers and small entrepreneurs but not employees, some health insurers will probably work through farmers' groups, trade associations, and similar organizations.

At the same time, employer-provided or occupation-specific health insurance will never reach many of the poor. Employers also face incentives to pay for care for those conditions from which rapid recovery is possible, but not expensive and chronic conditions. Finally, health insurance linked to an employer or occupation does not work well when people change jobs.

Thus, a country interested in using private insurance to achieve universal coverage will eventually need some combination of subsidies for the poor and mandates for health insurance (as many U.S. states require for automobile insurance). Such regulations are appropriate to the extent adverse selection is a market imperfection like pollution and other externalities. At the same time, most developing countries can afford only small subsidies, and many of their poorest citizens cannot afford to pay much for healthcare. This evaluation of SKY health insurance in Cambodia must be coupled with studies of many other innovations as the world learns how to help those most in need. ■

For further reading: See evaluation website at http://faculty.haas.berkeley.edu/levine/sky/overview.doc and D. I. Levine, N. Hema, and I. Ramage, *Insuring Health: Testing the Effectiveness of Micro-health Insurance to Promote Economic Wellbeing for the Poor*, BASIS Brief no. 2007-05 (Madison, Wis., U.S.A.: Department of Applied and Agricultural Economics, 2007), http://www.basis.wisc.edu/live/amabrief07-05.pdf.

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