The Impact of Health Insurance in Rural India

Abhijit Banerjee (MIT), Esther Duflo (MIT), Richard Hornbeck (MIT) [1]

Background

Worldwide, most poor households do not have health insurance coverage, even for catastrophic health events requiring hospitalization. While public facilities are available and free in some countries, adverse health events often lead to drops in consumption, sales of assets, and indebtedness. The lack of health insurance may also have adverse consequences on health outcomes by leading households to under-invest in health. In India, childbirth constitutes a striking example of this phenomenon: most deliveries take place at home, a factor that may contribute to the country's high maternal and infant mortality rates. Public health facilities are free but often inadequately staffed and equipped, and private facilities are expensive.

The provision of formal health insurance is likely limited by the traditional concerns of health insurers, concerns which are often heightened in the developing world. For example, the lack of a formalized system of health provision makes it difficult to administer health insurance and verify claims while avoiding superfluous claims or outright fraud. In addition, adverse selection (where individuals that are more likely to need the insurance are more likely to buy insurance) is a problem for insurance markets throughout the world.

Microfinance institutions (MFIs) are potentially well-placed to deliver health insurance to their clients for three main reasons. First, they have the ability to reach a large rural client base in a cost effective way, which lowers transaction costs and increases the risk pool. Second, making insurance mandatory for loan clients can mitigate adverse selection if the main reason clients join the organization is to get a loan. Third, insuring major health shocks can reduce the default risk for the MFI's loans.

The Program

SKS Microfinance is piloting a program that bundles its loans with a mandatory catastrophic health insurance policy. The policy covers costs related to maternity, hospitalizations, and accidents. The client must insure herself, and can include her husband as well as up to two children. The premium, including administration fees, varies from Rs. 350 to Rs. 525 depending on the number of family members covered. There is no co-payment or deductible, but there is an annual cap on expenditures that varies from Rs. 10,000 to Rs. 20,000. Network hospitals provide cashless service, while valid non-network hospital claims are reimbursed. The loans and insurance products are administered by SKS in the state of Karnataka, and ICICI Lombard underwrites the insurance policy.

From 201 candidate villages, we randomly selected 101 villages to receive the program. In the treatment villages, clients are required to purchase health insurance at the time they renew their loan or take out a midterm loan. The pilot was rolled out from June to November 2007, with all clients being signed up within the year following the rollout.

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The Analysis

Using the random assignment of households to treatment or control status, we plan to investigate: the impact of insurance on individuals' health and healthcare consumption; the induced amount of adverse selection in the MFI's client base; the extent to which health insurance mitigates the impact of health shocks on individuals' consumption, indebtedness, and accumulation of productive assets; and the impact of insurance on individuals' ex ante willingness to invest.

Before the pilot rollout, we collected baseline survey data on 4,500 households randomly selected from a list of SKS clients. The data collected includes: household composition, economic status and assets, means of livelihood, household expenses, eating habits, and health status. From these households, 24,000 adults were surveyed on their means of livelihood, income, educational background, expenses, health status, and medical treatment patterns.

An endline survey, planned to begin in November 2008, will follow-up with these households more than one year after they were eligible to sign up for the health insurance (or comparable times in nearby control villages). We plan to conduct subsequent rounds of endline surveys, as the project continues. We have also been collecting additional data on major health events in the entire SKS client population, defined as any health event that substantially disrupted a person's ability to perform normal daily activities for more than one week. We plan to implement soon a survey of infant weights to monitor the effect on infant health, and a survey of new SKS clients to monitor adverse selection on signup as well as withdrawal. We combine our survey data with SKS's administrative data on client lists, loan takeup, insurance claims, and some basic client characteristics.

Preliminary results

The health insurance product appears to have reduced loan renewal rates. The rate of loan renewal is 11 percentage points lower in the treatment areas, off a base renewal rate of 70% in control villages. New client signup does not appear to be affected.

However, we do not find evidence of adverse selection. Loan renewal does not vary systematically with households' health over the previous year. These health measures include the household's total number of major health events in the past year, and then separately the number of deaths, births, illnesses or injuries that prevented normal daily activities for more than one week, any other event that required surgery or hospitalization, and any other event costing more than Rs. 300 to treat.

From the baseline data, the randomization successfully balanced observed household characteristics in treatment and control villages. On average, households experienced a large number of major health shocks within the last year at the time of the survey: 4.7% had a death, 10% had a birth, and 51% had a major illness (an average of 2.4 times). When these households consulted a health provider, they tended to visit a private hospital and spent an average of Rs 1,867 (or 40% of average monthly household expenditure).

To finance these expenditures, 66% of households report using their savings, and used savings for 90% of the total cost. However, 44% of households used a loan to pay for the expenses, and used the loan for 89% of the total cost. These loans were from individual money lenders 67% of the time, who are known to charge annual interest rates of roughly 60%. Households rarely report selling assets to pay for expenses.

When birth complications appeared, 20% of households in the last year had to move to a different facility and two-thirds found it necessary to stop somewhere else on the way to get

money. Avoiding this delay could potentially be a major benefit of the cashless network in the SKS health insurance policy.

Despite this apparent need for health insurance, only 13% of households have been offered health insurance or are aware of it being available in their village. Only 0.5% of all households have a health insurance policy. The average cost of those policies is Rs 1,213, more than twice the cost of the most popular SKS health insurance option. People may have a poor understanding of how insurance works, but life insurance policies are relatively more common in this area: 43% of households have been offered life insurance or are aware of its availability. Indeed, 26% of households have a life insurance policy, at an average annual cost of Rs 3,411.

Policy implications

First, the project will inform whether microfinance institutions are an effective channel for providing health insurance. This will depend on the degree of adverse selection, and how their premiums and administrative fees relate to the quantity of healthcare consumed.

Second, the project will provide insight into a number of economic parameters that play an important role in the optimal design of health policy. This includes the response of healthcare to health insurance; the extent to which formal insurance mitigates the impacts of health shocks on health, income, and asset accumulation; and how uninsured health risks affect ex ante investment incentives.