



Preliminary Baseline Survey Report: Nepal

Executive Summary

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Introduction

This report is based on information collected in two districts of Nepal (Banke and Dhading) in early 2009, concerning the launch of community-based micro health insurance units for members of Nirdhan and DEPROSC, two grassroots microfinance NGOs. The study entailed a household survey of 2,008 households, 40 focus groups discussions (with potential beneficiaries), in addition to 51 key informant interviews with healthcare providers. The purpose of the study was to collect the data needed for designing and pricing an insurance plan. These data covered the socioeconomic status of the target population, incidence of illness and health-seeking behavior, cost of healthcare, and willingness to pay for health insurance.

Socioeconomic and Demographic Profile of the Target Population

According to the study, the median household size in Banke and Dhading is approximately five persons, and only a few families are very large. Around 68% of the sample population is constituted of either children or young adults (0 to 30 years). 43% of the sampled households have at least one infant, and 26% include at least one elderly member (this is important in context, as infants (under 6 years) and the elderly (above 60 years) have the highest incidence of illness).



Literacy rates and the level of formal education among the young are much higher than among their parents' and grandparents' generations; 88% of the school-age population (6-18 years) are currently attending school, and among the 19-30 year age group, around 40% have six to ten years of formal education. In addition, an impressive 24% of the households report computer literacy.

The mean Monthly Per Capita Consumption (MPCC) used here as proxy for income was reported at NPR 2139 (SEM \pm 33; USD 26.8 or PPP\$¹ 94.2). The income of the highest quintile was found to be more than five times higher than that of the lowest quintile, indicating strong income discrepancy. The major type of occupation among the sample households is self-employment in agriculture (37% of economically active persons), followed by self-employment in business/trade (15%). There is also a non-negligible minority of salaried employees (around 13%) in the sample, and no more than 10% of casual wage laborers. The study noted that household heads that are self-employed in business or salaried employees enjoy higher MPCC than those households whose heads are either self-employed in agriculture or casual wage earners.

The high dependency on agriculture notwithstanding, most of the population owns little land (58% own one acre or less, and around 40% own between one and five acres). The majority of the households (54%) live in Temporary (Kacchi) houses. Most households reported having electricity at home, which they use for lighting, but they continue to use firewood for cooking. Around 40% of the households have no access to a toilet, and another 28% have access only to a non-flush toilet.

We do however note clear signs of asset accumulation; for instance, around 58% of households own mobile phones, around 46% own a television set, and around 29% of the households have a bank account.

We conclude (from the educational profile, computer literacy and prevalent access to banking) that the target population can understand the value proposition of insurance, and could assume responsibility for the operation of their microinsurance, once adequately trained.

Morbidity patterns

Incidence of illness in the month preceding the survey was 12.2% (compare this to 13% for the entire population according to NLSS 2003-2004) in the entire sample. Incidence was higher among women than men in both districts (in Dhading 12.6% vs. 8.0%, and in Banke 16.7% vs. 11.5%), and higher in Banke. The differences across districts and between genders are significant. Around 72% of all reported illnesses were acute; around 20% of the illnesses were chronic conditions (the rest were accidents and undefined). Under-six year-olds are four times more prone to acute illnesses, and older persons are twice as prone to acute illnesses as those over six and under 30. Chronic illnesses are prevalent among older persons; among those younger than 18, incidence less than one percent, four percent among adults (31-45+), and nearly double that rate among the elderly (60+). The pattern of morbidity in rural Nepal, coupled with increasing life expectancy², suggests that the number of chronic illnesses will continue to increase in the near future. This finding will be taken into account when designing and pricing the health insurance package. Illnesses hit rural families harder; when an earning member of the household falls ill, in addition to extra costs, the daily household income is also affected. In the sampled population, it was found that illnesses caused individuals to abstain from normal work for an average of seven and a half days.

Health seeking patterns

Information on health-seeking patterns was obtained through both focus group discussions and household

¹Year 2005 Purchasing Power Parity (=International Dollar) value from the "International Comparison Project" and IMF staff calculation. Available at <http://www.imf.org/external/pubs/ft/weo/2008/update/01/ppp.xls>. Accessed 8 Sep 2009.

² http://www.unicef.org/infofycountry/nepal_nepal_statistics.htm

surveys. Around 11% of those who reported an episode of illness also said they did not seek treatment (the same proportion in Dhading and Banke). Focus group discussion participants explained that in a case of minor illness, they wait and see if the situation improves. If, after a few days, the person is not recuperating, they then seek healthcare. In the household surveys, we asked respondents "What kind of person (practitioner) do household members usually go to first to seek treatment?" and the most frequently mentioned practitioner was non-MBBS (non-degree) allopathic practitioner (51% in Banke and 36% in Dhading). These providers are mostly rural medical practitioners (RMPs) who make an initial diagnosis even though they are not certified medical doctors, and dispense allopathic medicines at the same time. Pharmacy attendants often serve in this capacity (and many health workers such as ANM, CMA, or MCHW open pharmacy shops). The focus groups discussions revealed that people prefer going to pharmacies as these shops are nearby, are open all day, provide timely and patient-friendly services, and enjoy higher levels of trust and confidence than public sector health posts. There is no fee for consultations in the pharmacy; the only cost is for dispensed medicines. The focus groups discussions indicated that people do not have much trust in the health centers (PHC/HP/SHP) because health professionals are rarely available, the center is open for too few hours, and clients complained about rudeness towards them, and thought that medicines dispensed there were of low quality.

The second most frequently mentioned care-seeking option was the traditional healer or Ayurveda/Homeopathic/Unani in Dhading (28%), and MBBS (degree) doctor or specialist in Banke (28%). Some explanation of the role of traditional healers was revealed in the focus group discussions: "The practice of seeking medical care from traditional healers has been diminishing day by day; however, the belief [in these healers' powers] still persists, and care-seekers visit them if there are peculiar but instant symptoms such as unconsciousness, murmuring etc. Sometimes if [patients] do not feel better after going through a series of modern medicine, their last resort would again be the traditional healers."

As regards hospitalization cases, public and private providers are almost equally utilized in Banke (50%:48%), while in Dhading public hospitals are used more

often than private hospitals (61%:39%).

The dominant characteristic of primary care in the sampled population is that most often, the diagnostician/prescriber is also the dispenser of medicines. The conflict of interest inherent to these two functions makes it impossible to disaggregate cost of consultation separately from cost of medicine. Therefore, the strategic choice is either to change existing health seeking practices by separating the role of prescriber from the role of dispenser with the introduction of insurance, or to exclude these services from the insurance coverage.

Health costs

97% of the households surveyed faced at least some expenditure on healthcare in the last year. When overall health costs are examined relative to MPCC (the income proxy), the ratio of highest to lowest quintile was 7.85 (much higher than the 5.32 difference in income). This reflects higher health spending among the richest quintile as a percentage of overall consumption (9.7%) compared to 6.6% among the lowest quintile. The average (self-estimated) health expenditure per household per year for the entire population is NPR 9,905 (SEM ± 435.14 ; USD 124).

Hospitalizations (at the rate of 4 per 100 persons per year) account for 17.5% of total health costs. The average cost per hospitalization is NPR 7991 (± 682). When calculated using the age of the hospitalized person, the price of hospitalizations for the under-6 age group is around NPR 4,500 and it increases to above NPR 9,000 for persons aged 30 or above. Therefore, bearing in mind the changes in the demographics (with more adults and increasing longevity), hospitalization costs are likely to increase as well.

Transportation costs are an issue mainly in association with inpatient care. While more than 90% of respondents say they can walk to the place where they receive outpatient care or reach it by public transport, rickshaw or by cycling, some 30% of the hospitalized persons report using an ambulance, jeep or taxi to reach the hospital. The mean cost of transportation for inpatient care (all forms of transport) is NPR 673 in Dhading and NPR 558 in Banke.

Sources of financing healthcare costs

In 19% of reported episodes of illness (in the last one month) and 53% of reported hospitalizations (in the last 12 months), households had to borrow money, and in another 5% of cases of hospitalization, households had to sell items in order to pay bills. 75% of the loans for hospitalization costs were provided by 'Relatives/Friends/Neighbors.' NGOs/relief agencies and financial institutions each provided 9% of loans; and moneylenders accounted for 5%. This information suggests that the target population is accustomed to mutual assistance, and might be receptive to the launch of mutual insurance for the group.

Willingness to pay for health insurance.

The respondents were asked through a bidding game to state their willingness to pay (WTP) for health insurance. The mean amount that respondents were willing to pay for health insurance was NPR 11.20 per person per month (or NPR 725.76 per household per year, i.e. USD 9.1 or PPP\$ 32) and the median amount was NPR 10 per person per month (or NPR 648 per household per year). When WTP was expressed as a percentage of MPCC, the level ranged from 1.2% in the lowest quintile to a mere 0.3% in the highest quintile, with a median of 0.79% and 0.25% respectively. The levels of expressed WTP were considerably lower than those recorded in rural India, in poor districts of a poor state like Orissa (where WTP ranged from around 4% among the poorest quintile to around 1.5% among the richest quintile, with a mean of 2.6%).

This low range of WTP begs an explanation. We explored the population's attitudes towards insurance through several questions. For insurance, 87% of the respondents agree with the statement: "It is alright to pay health insurance premium for an insurance which pays if I have bills and does not pay if there are no bills." However, only 70% agree with this statement: "It is alright that my neighbor was sick and so s/he got money from the health insurance for the bills but I was not sick so did not get money, even though we both paid the premium." In addition, only 52% in Dhading and only 22% in Banke would accept the following situation: "I want health insurance even though it is possible that I pay a premium and do not

get any money back because the healthcare costs I had were not covered by the insurance." We gather from these replies that a considerable segment of the target population does not understand the concept of insurance, and would likely not renew if they did not have claims. Therefore, it will be necessary to provide insurance education while implementing the insurance scheme.

Benefit package options

The Micro Insurance Academy (MIA)'s strategy for benefit package design hinges on the involvement of potentially insured group(s) in the rationing of benefits to suit both perceived priorities and expressed WTP. For this purpose, we asked respondents to identify which of the following three features of insurance was most important for them:

1. "I want health insurance to cover some part of every bill, regardless of the amount of the bill ("reimbursement rule")."
2. "I want health insurance to pay a small part when the bill is small, and a big part when bill is big ("equity rule")."
3. "I want the health insurance to pay everything of very expensive bills and I pay small bills myself ("catastrophic cover rule")."

In Dhading, the "reimbursement rule" was the priority choice for 54% of respondents, the "equity rule" for 14%, and "catastrophic cover" for 32%. In Banke, the "reimbursement rule" was the preference for 28.5%, the "equity rule" for 16%, and "catastrophic cover" for 55.5%. These replies reveal that in Dhading, the majority of the target population expects to get some reimbursement each and every time they incur medical costs. In Banke, however, the majority wants catastrophic protection, but a substantial minority wants the reimbursement rule to apply. If these choices are confirmed, the package would need to differ across the locations.

Hospitalizations

Hospitalization is a rare and costly event, with a probability of 4% and costing around NPR 8,000 on average. This average cost is four times the MPCC. Therefore, most health insurance schemes would need to cover hospitalizations. However, covering the full cost of hospitalizations would require a premium of approximately NPR 27 per person per month (p.p.p.m.), i.e. a factor of 2.4 above the expressed



WTP (of NPR 11.2 p.p.p.m.). The common practice to narrow the premium-WTP gap is to limit coverage up to a cap. For example, if reimbursements were capped at NPR 5,000, the premium would drop to NPR 10.1 p.p.p.m. However, at this cap, only about 65% of cases would be insured in full, mainly the less expensive cases; the total payable by the insurance scheme would cover only about 16% of total hospitalization costs of the entire population. Clearly, this cap would not provide catastrophic cover, as most costs would be above the cap and would have to be paid out-of-pocket by the insured household. This method may respond to the reimbursement rule, but for many insured, this method would not provide catastrophic protection.

An alternative reimbursement method would be to insure the full cost of hospitalizations minus a co-payment. For instance, when the co-payment is NPR 1,000, the premium would be about NPR 23.9, and the insurance would cover 89.3% of total hospitalization costs. At a co-pay of NPR 2,000, the premium would be around NPR 21.7, and the insurance would pay 80.8% of total costs. This second method is correct in theory, but the premium and co-pay would be unaffordable. One option could therefore be to include reinsurance coverage for the local schemes, i.e. the schemes would bear the risk up to a certain threshold (e.g. NPR 5,000) and cede all or part of the risk above it (e.g. from 5,001 to 10,000) to a reinsurance provider. This would respond to the respective clients' desire to find coverage for catastrophic costs and have a share of each bill paid. However, unless a subsidy can be secured to pay for reinsurance of the costliest hospitalizations, it will be impossible to offer adequate catastrophic protection at premiums resembling the expressed WTP levels.

Transportation

The majority of hospitalized persons needed transportation to the hospital. Cases of emergency require transport by ambulance or jeep-taxi, which are costlier. Providing insurance cover for transportation to the hospital responds both to the wish of many to apply the reimbursement rule, and to cover a real need. In this case, a flat reimbursement amount is necessary in order to avoid misuse (using expensive transport when cheaper transport would be suitable).

Income loss

In addition to the costs of hospitalizations, hospitalization also results in income loss for the patient and/or caregiver; an average of 7.5 working days are lost per hospitalization in the sample population. Compensation for this loss is consistent with the objective of reducing financial exposure of households. To simplify the administration of this benefit and reduce abuses, we propose compensation in the form of a flat daily amount, starting from the third day of hospitalization, and for a maximum of ten days.

Tests and imaging

Qualified doctors often require tests for diagnosis and follow-up; these can range from simple blood tests to complex and expensive imaging. Including tests in the benefit package is consistent with the reimbursement rule as they occur more frequently than hospitalization. It would however be necessary to set a cap on this benefit to keep the premium affordable.

Maternity

The Crude Birth Rate was 17 per thousand among respondents in both districts (compared to the estimated national birth rate of 23.2 per thousand for 2009³). Around 94% of the pregnancies in Dhading and 97% in Banke resulted in live births. The rate of antenatal check-up was 3.5 per pregnant woman in both the districts, and the rate of post-natal check-up was less than one.

94% of the live births in Dhading and 85% in Banke were normal deliveries. The average cost of a normal delivery at home was NPR 383 in Dhading and NPR 844 in Banke; the cost of institutional delivery varied from a low of roughly NPR 1,000 (in SHP or HP) to a high ranging between NPR 6,117 and 9,750 (in private hospital in the two districts). Delivery in a government facility in Dhading cost NPR 5,521 (±886) on average and in Banke NPR 3,756 (±733). The incidence of deliveries at home, as reported in this survey, was around 60%. However, we assume the rate of institutional deliveries could increase dramatically if this benefit was to be insured, with many more deliveries performed (mainly) in government hospitals. Hence, for the purpose of

³The CIA World Factbook, accessed 9 September 2009.

premium calculation, we assume incidence of institutional deliveries to be 100%. On the other hand, we also assume unified costs for normal and C-section deliveries, and for delivery in a private or government facility.

Consultations and medicines

As stated above, the prevailing consultation practice makes it impossible to calculate a separate premium for consultations and for prescribed medicines, as the data on incidence and unit cost cannot be separated. Should the microinsurance scheme decide to limit consultation benefits only to qualified doctors that do not dispense medicines, it might be possible to reimburse such consultation fees.

Combination of benefit packages

We present below a table of options for benefits and the corresponding premiums:

Benefit type	Cap/flat NPR	Premium (NPR p.p.p.m)	
		Dhading	Banke
Hospitalization	3,000	7.1	7.0
	5,000	10.4	9.9
Transportation	250	0.7	0.5
	500	1.0	0.8
Tests	300	4.0	5.6
Income loss (amount in NPR per day of Compensation)	40	0.6	0.5
	80	1.2	1.1
Maternity	3,000	3.8	3.7
	5,000	5.9	5.1

As can be seen in the table, the prospective insured persons can combine several options within the expressed levels of WTP.

Ensuring financial inclusion of “bad risks”

Our data confirmed that the very young and the elderly have a higher incidence of illness and therefore higher levels of health care utilization. Most (commercial) health insurers exclude these “bad risk” groups. As our implementation model is “inclusive” (i.e. entails en-bloc affiliation of entire households and communities), all premium calculations were based on the assumption that all age groups are covered by the insurance. This policy results in a higher premium. With the view of reducing the premium to match the amounts that the insured can pay, we propose to calculate the premium according to risk estimates

reflecting only the adult population, and seek external (donor or government subsidy) funding to cover the added cost of including the most vulnerable groups in the insurance scheme (“risk equalization mechanism”). This external funding is perfectly in line with policies to promote the Millennium Development Goals, particularly those that aim to support healthcare of infants and children, who suffer from acute illnesses more frequently. The costs spent on them now are lower, which might reflect under-spending on these (not yet productive) household members. Child mortality in Nepal is 47.46 per 1000, ranking 54 out of 224 countries (the best rank is 224, with 2.31 deaths per 1000). The United Nations and World Health Organization's Millennium Development Goals attach a priority to reducing child mortality.

According to our data, incidence rates of illnesses are significantly higher for women than for men, which would justify including the added cost within the risk equalization mechanism particularly with a focus on maternity-related costs. Furthermore, the elderly in the Nepali context people aged 45 or more incur the highest costs, partly because they are more prone to chronic diseases. They are the main cost driver in the overall insurance scheme and a risk equalization mechanism takes the additional financial burden of insuring the old from the overall community.

Conclusion

The baseline study and the analysis described in this report have proven the need for health insurance, and the feasibility of launching community based mutual insurance in the Banke and Dhading districts of Nepal. Levels of WTP, while modest, make it possible to compose several options of a benefit package, allowing prospective clients to choose according to their priorities. With the introduction of the “risk equalization mechanism,” it will be possible to enhance the benefit package, either by including more benefit types or by increasing the coverage. Furthermore, in response to the population's articulated desire for catastrophic coverage which is unaffordable to them at their preferred WTP range we seek to introduce reinsurance-like services to cover costlier risks. This link to reinsurance would also provide an entry point to link micro health insurance schemes to commercial insurers, with the objective of strengthening the sustainability of the scheme in the long term.



Making Health Insurance an Affordable Reality for Poor Families in Nepal

Only 3 percent of the world's families living on less than \$2 a day have access to insurance services. The other 97 percent go through life at the mercy of illness, loss of a family breadwinner, drought, death of livestock, and other predictable life-cycle shocks from which they and their children may never recover.

The Micro Insurance Academy and Save the Children, in close collaboration with local microfinance providers, have joined hands to bring to poor families the means to protect themselves and their children against the impact of health-related risks.

Designing and Piloting an Innovative Micro Health Insurance Program in Nepal: Save the Children and MIA have completed the preparatory steps to introduce community-based micro health insurance schemes in Nepal. The needs and the opportunities for this activity are exceptionally high in Nepal, reflecting the seasonally fluctuating incomes of families and their constant vulnerability to shocks, the country's sizable potential market, the active involvement of the recently formed Nepal Microinsurance Coalition, and the Government of Nepal's commitment to support this innovative development.

Following the large-scale success of microcredit in the country, microinsurance has the potential to become another important intervention to benefit poor families. At present, however, the exact nature of the opportunities and challenges for micro health insurance in the country remains largely unknown. Our team has completed a thorough Baseline Survey, and its analysis will help develop context-specific benefit package options for the target groups. The team has also consulted with government bodies on regulatory issues, evaluated the value proposition of "off-the-shelf"

commercial options, and approached commercial insurers to develop complementary reinsurance products.

A Localized and Context-Specific Program: MIA and Save the Children approach micro health insurance as a new and effective way to enhance community empowerment, local ownership and focus on high-impact intervention. This approach enables communities to select their preferred insurance benefit package according to their risk profiles and ability and willingness to pay. In collaboration with its local partners, the team will train community members to administer and govern the selected insurance scheme, which will be fully owned by the community.

Mobilization of Resources for Pilot Program Implementation: MIA and Save the Children are currently inviting funding for the next phase of the project. The team estimates that resources of \$1,000,000 will help pilot the micro health insurance program with up to 50,000 people in rural Nepal. Success with the pilot will open the door to replication at scale, with the goal of reaching up to one million beneficiaries within five years.

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September 2009

