Financial Inclusion Opportunities for Micro Health Insurance in Nepal

An Exploratory Analysis of Health Incidence, Costs and Willingness to Pay in Dhading and Banke Districts of Nepal

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Acknowledgements

The cover page photo originates from the fieldwork done for this report in Nepal. All persons photographed gave their verbal consent. MIA has received written confirmation to this effect from the field partner which took the photograph.

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Introduction

This report is based on information collected in two districts of Nepal (Banke and Dhading) in early 2009 and concerns 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 group 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. Approximately 68% of the sampled population is made up of either children or young adults (0 to 30 years). Forty-three per cent 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) is 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 a proxy for income was reported at NPR 2,159 (SEM ±33; USD 27 or PPP$ 95[1]). The income of the highest quintile was more than five times higher than that of the lowest quintile, indicating a sharp income discrepancy. The major type of occupation among the sampled households was self-employment in agriculture (37% of economically active persons), followed by those attending domestic services (25%) and then self-employment in business/trade (15%). There was also a non-negligible minority of salaried employees (around 13%) in the sample, and no more than 10% were 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

"Approximately 68% of the sampled population is made up of either children or young adults (0 to 30 years). Forty-three per cent of the sampled households have at least one infant......."

[1] Year 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 September 8, 2009.

"The 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%), higher in Banke. The differences across districts and between genders were significant."

non-flush toilet.

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

Based on the educational profile, computer literacy, and prevalent access to banking, we conclude that the target population would be able to understand the value proposition of insurance, and could assume responsibility for the operation of their microinsurance, once adequately educated.

Morbidity Patterns

The incidence of illness in the month preceding the survey was 12.2% (compared with 13% of the entire population according to NLSS 2003-2004) in the entire sample. The 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 were significant. Approximately 72% of all reported illnesses were acute; approximately 20% were chronic conditions and the remainder was accidents and undefined. Children under six were four times more prone to acute illnesses, and older persons were twice as prone to acute illnesses as those over six and under 30. Chronic illnesses were prevalent among older persons; among those younger than 18, the incidence was less than one percent, was 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 expectancy[2], 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 noted that illnesses caused individuals to be away from normal work 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 surveys. Approximately 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 the case of a minor illness, they "wait and see" if the condition improves. If, after a few days, the person is not recuperating, he or she then seeks health care. 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 a 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; at the same time, they also dispense allopathic medicines. Pharmacy attendants often serve in this capacity (and many health workers such as ANM, CMA, or MCHW open pharmacy shops). The focus group discussions revealed that people prefer going to pharmacies because these shops are nearby, are open all day, provide timely and patient-

[2] http://www.unicef.org/infobycountry/nepal_nepal_statistics.htm

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 group discussions indicated that people lacked confidence in the health centers (PHC/HP/SHP) because health professionals are rarely available, the centers are open for too few hours, and clients complained about rudeness toward them; they also thought that the medicines dispensed there were of low quality.

The second most frequently mentioned care-seeking option was the traditional healers in Dhading (28%) and the MBBS (degree) doctor or specialist in Banke (28%). Focus group discussions provided some explanation of the role of traditional healers: "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."

With regard to hospitalization (for hospitalizations within the last year), private providers were utilized more in Banke than public (58%: 37%), while in Dhading private hospitals were used less often than public hospitals (35%: 63%).

A defining characteristic of primary care in the sampled population was that most often the diagnostician/prescriber was also the dispenser of medicines. The conflict of interest inherent in these two functions makes it impossible to disaggregate the cost of consultation from the 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 insurance coverage.

Health Costs

Ninety-seven per cent of the households surveyed faced at least some expenditure on health care in the last year. When overall health costs are examined relative to MPCC (the income proxy), the ratio of highest to lowest quintile was 6.5 (much higher than the 5.32 difference in income). This reflects higher health spending among the richest quintile as a percentage of overall consumption (7.98%) compared with 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 ±434; 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 was NPR 8000 (± 685). When calculated using the age of the hospitalized person, the price of hospitalizations for the under-6 age group was around NPR 4,500 and rose to over 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 associated with inpatient care. While

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more than 90% of respondents said they could 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 reported 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 of Health Care Costs

In 19% of reported episodes of illness (in the previous month) and 53% of reported hospitalizations (in the last 12 months), households had to borrow money, and in another 5% of hospitalizations, households had to sell items in order to pay bills. Seventy-five per cent of the borrowing instances for hospitalization costs were provided by Relatives/Friends/Neighbors. NGOs/relief agencies and financial institutions each were providers in 9% of the borrowing instances, and moneylenders accounted for 5%. This information suggests that the target population is accustomed to mutual assistance, and may 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, 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 approximately 4% among the poorest quintile to around 1.5% among the richest quintile, with a mean of 2.6%).

This low range of WTP requires an explanation. We explored the population's attitudes towards insurance through several questions. For insurance, 87% of the respondents agreed with the statement: "It is all right to pay a health insurance premium for an insurance which pays if I have bills and does not pay if there are no bills." However, only 70% agreed with this statement: "It is all right that my neighbor was sick and he or she got money from the health insurance for the bills but I was not sick and so I 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 may have to pay a premium and may not get any money back because the healthcare costs I had were not covered by the insurance." Based on these responses, we concluded that a considerable segment of the target population does not understand the concept of insurance, and would likely not renew it 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 were most important to 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 the 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 coverage rule")."

In Dhading, the "reimbursement rule" was the priority choice for 54% of respondents, the "equity rule" for 14%, and "catastrophic coverage" for 32%. In Banke, the "reimbursement rule" was the preference for 28.5%, the "equity rule" for 16%, and "catastrophic coverage" for 55.5%. These replies revealed that in Dhading, the majority of the target population expected to get some reimbursement each and every time they incurred medical costs. In Banke, however, the majority wanted catastrophic protection, but a substantial minority wanted the reimbursement rule to apply. If these choices are confirmed, the package would need to vary across 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 used 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 coverage, since 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

"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."

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. Emergency cases require transport by ambulance or jeep-taxi, which are costlier. Providing insurance coverage for transportation to the hospital responds both to the desire of many to apply the reimbursement rule and to cover a real need. In this case, a flat reimbursement amount would be necessary in order to avoid misuse (using expensive transport when cheaper transport would be suitable).

Income Loss

The full cost of hospitalization entails, in addition to the direct cost of the hospital, also indirect costs due to income loss of the patient and/or caregiver; the average indirect cost per hospitalization amounted to the equivalent of nine working days in the sampled population. Compensation for this loss is consistent with the objective of reducing the 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 period of ten days.

Tests and Imaging

Qualified doctors often require diagnostic tests and follow-up; these can range from simple blood tests to complex and expensive imaging. Including tests in the benefits 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 2009[3]). Approximately 94% of the pregnancies in Dhading and 97% in Banke resulted in live births. The rate of prenatal checkup was 3.5 per pregnant woman in both the districts, and the rate of postnatal checkup was less than one.

Ninety-four per cent of 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 hospitals 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 can assume that the rate of institutional deliveries will increase dramatically if this benefit were to be insured, with many more deliveries performed (mainly) in government hospitals. Hence, for the purpose of premium calculation, we will assume the incidence of institutional deliveries to be 100%. On the other hand, we will 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:

Table 1: Benefit options for Dhading and Banke with cap/flat amounts

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 may 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 a view toward 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 the health care 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, the 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 form several options of a benefits 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 benefits package, either by including more benefit types or by increasing the coverage. Furthermore, in response to the population's articulated desire for catastrophic coverage that 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.

1.   Introduction

Nepal is one of the poorest countries in the world and in Asia. With GDP per capita of PPP$ 1,100 (2008[4]) it is ranked as 209th out of 229 countries/territories (CIA World Factbook; browsed 8.8.2009). Only 17% of the population is urban (CIA World Factbook 2008); the rural majority has lower socioeconomic status and diminished access to services, notably health care. For example, "…Only 62 percent of households in the country are within 30 minutes of reach [of a health post or hospital]. The urban-rural gap is large (89 percent versus 57 percent). Among rural areas, the West Hills/Mts. are at a disadvantage. Among development regions, the Central has the best access while the Far-west has the least access. Most strikingly, the mean time taken to reach this facility by households in the bottom four consumption quintiles is about 1 hour 15 minutes while that for the richest quintile is only 16 minutes…"(National Living Standards Survey 2003-04, p.53). Indeed, 33.9% of those with an acute illness did not consult anyone, and 36.1% consulted a paramedic, while only 26% consulted a qualified doctor (op-cit. p.80). The population's Out-of-Pocket-Spending on health (OOPS) was reported to be 67.1% of total health expenditure in 2002 (WHO WHR 2006, Annex 6). Unlike the situation in some neighboring countries, health costs in the public and private sectors were similar; e.g., on average, the total cost of outpatient treatment was Rs. 698 at a government health facility and Rs. 662 at a private health institution [Nepal NLSS 2003-04 Table 6.7; costs included diagnostic & other service cost + medicine cost + travel cost]. This situation is different from some neighboring countries, and the data reflect not merely the cost of consultations but other costs as well, although perhaps they are not comparable. Travel is difficult, so that in 2003/04, for example, only 37.2% of Nepal's population lived within 30 minutes of a paved road and only 53% could reach a bus stop within that time. Travel costs to healthcare facilities were not negligible, be it to public or private facilities. This background highlights why grassroots groups seek assistance in improving the access to healthcare facilities and in reducing health-related financial exposure of their members.

1.1.   The baseline study

In May 2008, Save the Children, a large international NGO with activities in Nepal since 1981, and the Micro Insurance Academy, a charitable trust devoted to stewarding grassroots groups to operate mutual (micro) health insurance, agreed to launch activities in Nepal together. In July 2008, MIA and SC organized a workshop for several Nepalese microfinance organizations, at the end of which the stakeholders signed a "Declaration of Understanding   National Microinsurance Program Design Workshop" (Annex 1) stating that the participants "took a firm commitment to launch and scale up community-based microinsurance following the mutual model"… Designing and pricing benefits packages were however contingent on obtaining relevant information on the incidence of illnesses and health-seeking behavior, cost of health care (per episode of care, per illness, by benefit type etc), and the socioeconomic status of the target population (to assess ability & willingness to pay). Hence, MIA and SC approached funding sources, and when funds became available, the baseline study began in 2009.

"…Only 62 percent of households in the country are within 30 minutes of reach [of a health post or hospital]. The urban-rural gap is large (89 percent versus 57 percent). Among rural areas, the West Hills/Mts. are at a disadvantage……"

[4] All the countries around Nepal had a higher GDP per capita: Bangladesh PPP$ 1,600 (ranked 197th); Pakistan PPP$ 2,600 (ranked 170th); India PPP$ 2,800 (ranked 168th); Bhutan PPP$ 5,600 (ranked 134th); and China PPP$ 6,000 (ranked 132nd).

This report provides the initial summary of the situation as established through the baseline study in Dhading and Banke Districts, Nepal. This study is the result of efforts by several players: Save the Children Nepal provided project management and logistics in Nepal; Nirdhan (in Banke) and DEPROSC (in Dhading), two grassroots NGOs that decided on launching microinsurance for their members and facilitated our meetings with respondents for this purpose; and the Micro Insurance Academy, which took the technical lead on survey design, selection of technical partners, data collection, analysis and writing this report. MIA wishes to thank all the partners for their invaluable support.

1.2. Locations and timing of the baseline study

At the suggestion of Save the Children, and pursuant to a process of due diligence, MIA and SC chose to cooperate with two grassroots NGOs for this study:

1.2.1. DEPROSC (active mainly in the central hill region of Nepal), whose members in Dhading were included. The Dhading district (population 363,401 persons) is located in a hilly terrain, where many villages are difficult to reach from the (only) central highway. The population is dispersed, neighboring villages are quite far apart, and neighboring houses within the same village can be quite distant from each other. Access is difficult year-round, and is further aggravated during the monsoon season (May to August) and in winter (December to February). Dhading has 52 health institutions (Table 2).

1.2.2. Nirdhan (active mainly in the Therai), whose members in Banke were included. The Banke district (population 413,972 persons) in the Therai region (a flat river plain of the Ganges in the south of Nepal) enjoys a subtropical climate and a higher population density, with more and better roads. Most imports (commodities like certain food grains, machinery and equipment, petroleum products, fertilizer, etc.) arrive from India along land routes that transit this region. Banke is home to many ethnic groups, a condition said to lead to some unstable political conditions. During the time this survey was conducted, "bandhas" (politically motivated general strikes) were held rather frequently, which added a challenge for a timely and orderly conduct of the baseline. Banke has 48 health institutions (Table 2).

Table 2: Snapshot Profile of the Dhading and Banke Districts

Districts	Population	Village Development Committee (VDC)	Municipality	Hospitals (Govt.)	Primary Health Care Centre (PHCC)/ Health Centre (HC)	Health Post (HP)	Sub-Health Post (SHP)	Total Health Institutions	PHC Outreach Clinic	Female Community Health Volunteers (FCHV)	Traditional Birth Attendants (TBA)
Dhading	363,401	50	0	1	2	16	33	52	190	450	135
Banke	413,972	46	1	1	2	10	35	48	230	665	289

Source: http://www.moh.gov.np/dist_profile.asp Accessed August 13, 2009.

Both NGO partners were selected because of their good outreach to the community and the difference between the two districts they work in: one hilly and close to Katmandu and the other in the Therai.

This study started in January 2009 with due diligence on partner selection, subcontractor selection, study design and logistical project planning, and discussions with government officials. This phase ended by mid March, and fieldwork followed during the next six weeks, until the end of April 2009. During May, we uploaded and cleaned the data, and the remaining two and a half months were used for analysis, plotting of data and report writing.

2.   Methods

The sources of information for this baseline study included quantitative information (obtained through a household survey), qualitative information (obtained through Focus Group Discussions (FGDs) with groups of prospective affiliates in the microinsurance, and Key Informant Interviews (KIIs) with several providers of care across Dhading and Banke), and some harvested data from official sources. Different methods were used to obtain the qualitative and quantitative data, as explained below:

2.1.   The household (HH) survey questionnaire

We obtained cross-sectional data by using an integrated questionnaire. We validated and finalized the questionnaire after incorporating comments and suggestions from a number of experts, notably the Central Bureau of Statistics (Nepal) and the local grassroots NGOs. The original English version was then translated into Nepali, and back-translated into English. We also conducted a pre-test (in 80 HHs, and in 2 locations) to validate cognitive suitability, and corrections were made as necessary after the pre-test. The survey questionnaire included, inter alia, sections on HH demographics, education, income, and self-reported illness episodes in the HH within the month prior to the interview, as well as questions on how healthcare costs were financed. In addition, we inquired about certain aspects of social capital and the willingness to pay for health insurance.

2.2.   The research tools for the FGDs and KIIs

The tools for the KIIs included structured interviews with traditional healers, providers in public health facilities, grassroots and government health workers/auxiliaries, private hospital providers, local pharmacies, pathology lab providers, and district hospital representatives. The FGDs entailed facilitated discussions between male and female groups through open-ended and semi-structured questions. The FGDs were focused on collecting information from the sample population and the KIIs on information from the providers, on socioeconomic profile, health seeking behavior, estimates of incidence of illness, sources of financing, perception/preference/ and priorities with regard to health insurance, factors affecting willingness to pay for health insurance and the current status of health service delivery. The data collection tools (questionnaires and upload methods of replies) were adjusted to incorporate lessons from a pre-test (2 FGDs plus one KII).

2.3. Other data sources

The data sources used as benchmarks for the purpose of comparison to our results include the Nepal Living Standards Survey reports (2003/04) published by the Central Bureau of Statistics (CBS), Nepal.

2.4. Sampling

Sampling of the survey population followed a three-stage process:

2.4.1. **Selection of districts:** The survey districts were those in which our NGO partners were active. Purposive selection of partner NGOs is in line with the MIA strategy to "harness rather than invent" groups so that learning to operate microinsurance can occur with groups that are already successful in other group activities.

2.4.2. **VDC / Ward selection:** Districts in Nepal are subdivided into Village Development Committees (VDC), which are further subdivided into wards. In Dhading, a random sample was drawn from the full list of the 9 VDCs. In Banke, there were too many VDCs to follow the same procedure, and in some wards the partner NGO Nirdhan had little outreach. Hence, we restricted our random choice to wards in which Nirdhan had outreach to at least ten members and randomly selected 51 wards fulfilling this criterion in the 17 VDCs we focused on. The maximum number of wards covered in one VDC was seven; the minimum one.

2.4.3. **Member and Non-Member selection:** In each district, we needed to know not only the features of the intervention population, but also those of a control group. This was necessary to verify possible differences between the members' groups and those who were not members. Therefore, we sampled an equal number of members and non-members in each district. For the member sampling in Banke, we randomly sampled 500 members from the members' list, respecting a proportional number of members in the local ward population (member strength in ward to member strength in district), and added 40 per cent more names to forestall the hurdles of outdated lists, unavailability or refusal to respond, etc. In Dhading all member lists in the different VDCs were combined, and a random sample of 500 (plus a buffer of 40%) drawn. The sampling of non-members followed the rule of always matching the number to that of the members' interviews in each village. The selected non-members in each village were from the same neighborhood as the respondents, with a view toward comparable patterns.

2.5. Statistical analysis

A template for data entry was developed with Microsoft Access (v. 2003). The data were analyzed and plotted using SPSS (v. 15.0) and Microsoft Excel (v. 2003).

2.6. Data cleaning

Data cleaning entailed checking the data for errors and inconsistencies, and

eliminating invalid entries.

2.7.   Construction of a proxy for income

With a view toward comparing our data with the benchmark national data, we constructed a comparable income proxy. In the HHs, we inquired about certain HH expenses for the month preceding the survey and certain expenses in the last year. The conversion to annual data was obtained by adding up the following two categories: monthly expenditures multiplied by 12 + annual expenditures. The items included in the two categories are listed below:

Monthly expenditures: food, tobacco; alcohol; fuel, gas and electricity; entertainment; telephone, cable and Internet; toilet articles; household items; transportation/travel; house rent, rent (appliances, furniture); consumer taxes, leases and fees (water); domestic servants.

Annual expenditures: bedding, clothing and footwear; education; durable goods; agricultural/business equipment; agricultural inputs like seed, fertilizer, etc.; repair and maintenance; vacations and holidays; social functions; remittance(s) sent; insurance premiums; health care.

The annual income proxy (based on household consumption) was then normalized per person by dividing household consumption by household size for each household. Average values were obtained based on averaging the per HH normalization.

2.8.   Data Yield

The HH survey covered 2008 households in total. A summary of the data yield by district is shown below.

[5] For 7 individuals of Dhading there was no recorded response for the gender question. Similarly, in Banke 5 individuals had no recorded response for the gender question. In this table and in a number of tables later on the total number of cases sometimes may not match up; this is because there was no recorded response in the questionnaire for a particular question.

Table 3: Summary Data Yield of the HH (household) survey 2009

Survey Sample Size							
Districts	No. of VDCs	No. of HHs	No. of persons[5]	No. of males	No. of females	Urban HHs	Rural HHs	No. of persons currently insured for health care
Dhading	9	1,000	5,233	2,606	2,627	1	998	9
Banke	17	1,008	5,672	2,878	2,789	5	1,003	3

The Qualitative survey included a total of 51 KIIs and 40 FGDs in the two districts. The table on the next page is a breakdown of the survey:

Research activity	Number of respondents/groups		
	Dhading	Banke	Total
FGDs with men's groups	6	12	18
FGDs with women's groups	6	16	22
Total FGDs	12	28	40
KIIs with traditional healers	5	8	13
KIIs with providers in public health facilities	6	8	14
KIIs with grassroots government health workers/auxiliaries	5	4	9
KIIs with private hospital providers	0*	1	1
KIIs with local pharmacies	5	7	12
KIIs with pathology lab providers	0*	1	1
KIIs with district hospital representatives	0*	1	1
Total KIIs	21	30	51

2.9. Respondents

Thirty-eight per cent of the respondents were Household Heads (HHHs), about 50% were the spouses of the HHHs, and the remaining 12% were other members of the household (Table 16). Approximately 66% of the respondents were females (Table 17), and in 91% of the member households, the respondents were the members themselves (Table 18).

3. Findings

3.1. Socioeconomic profile of the population

The mean household size for the entire sample was 5.4 persons (Fig. 1). The median family size was 5 for both districts. Mean family size was 5.2 in Dhading and 5.6 in the Banke sample, and the difference is highly significant (p <0.0001, t-test see Table 20). The largest household in our sample from Dhading had 14 members, while the largest household in Banke had 25 members.

Figure 1: Household size by district

	Districts Total	Dhading	Banke
Mean	5.4	5.2	5.6
Median	5	5	5
SEM	0.05	0.06	0.08
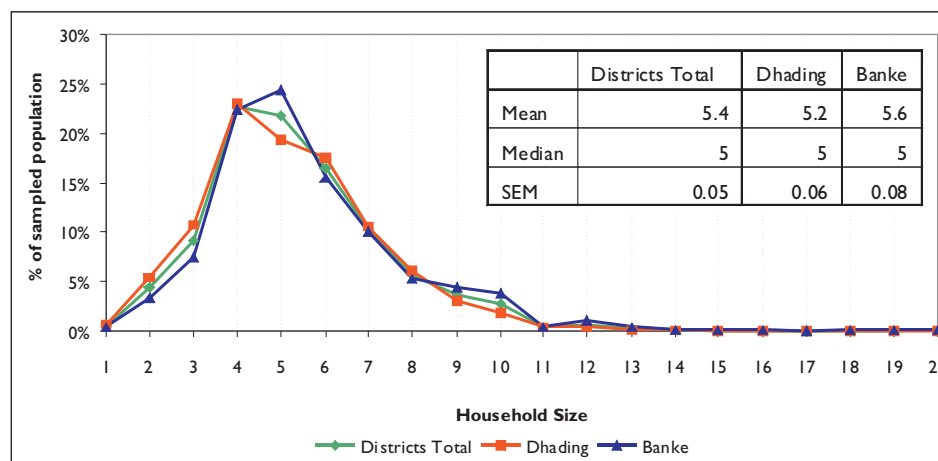
*These practitioners were not found in the VDCs visited.

The proportion of males to females (gender ratio) was almost the same within each age group in the entire sample (the two districts combined), with a higher proportion of males in the above 45 age categories (Table 5). In Dhading, the age categories between 15 and 45 years showed a higher ratio of women to men.

However, the distribution of the total population in the different age groups was significantly different across the districts, and the difference was statistically significant (p value = 0.008, Chi-Square test (Table 21)). Likewise, the distribution of the male population in the different age groups across the two districts was significantly different (p = 0.019, Chi-Square test-Tables 22 and 23), but the same was not true of the female population.

Table 5: Gender breakdown by age category

Age Category	Districts Total		Dhading		Banke	
	Male	Female	Male	Female	Male	Female
<6	51%	49%	51%	49%	50%	50%
6 to 14+	50%	50%	50%	50%	50%	50%
15 to 18+	49%	51%	45%	55%	53%	47%
19 to 30+	50%	50%	49%	51%	51%	49%
31 to 45+	50%	50%	49%	51%	50%	50%
46 to 59+	53%	47%	53%	47%	53%	47%
>=60	54%	46%	57%	43%	51%	49%
Total	50%	50%	50%	50%	51%	49%

The segment of children ages 0 to 14+ represented 34% of the population; the younger working population aged 15 to 30+ represented another 33% of males and 34% of females (Table 24). The population pyramid is shown in Fig. 2. As can be seen, the share of males and females is quite similar in all age groups.

Figure 2: Age distribution of the sampled population by gender-Districts Total
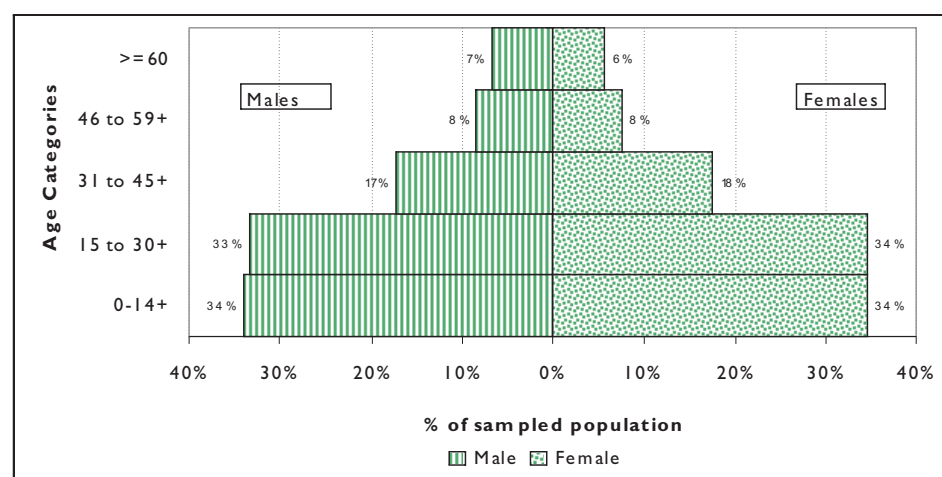
We looked in more detail at households with infants (the under 6 age group) and elderly members (the 60+ age group), since these groups are vulnerable in terms of health care. Since there was no significant difference across the districts, we looked at the aggregate data. Thirty per cent of the households had one infant, and 13% of the households had more than one infant (Fig. 3); taken

"The higher number of school years completed among the younger generation demonstrates the improvement in education levels in the sampled population"

together, approximately 43% of the sampled households had at least one infant. As for an elderly household member, 18% of the households had one elderly person in the household, and 8% of the households had more than one elderly member; taken together, 26% of the sampled households had at least one elderly person in the household.

Figure 3: Households with infants and elderly members by district
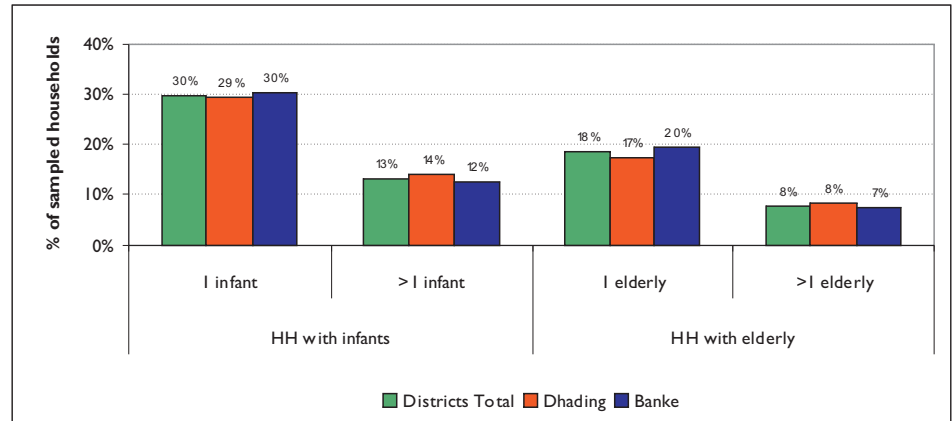
The higher number of school years completed among the younger generation demonstrates the improvement in education levels in the sampled population (Fig. 4). Noticeably, the majority of those 31 years and above reported "no education" or "informal education", while the majority of the school-age population reported educational achievements. It is noted that the Banke cohort was better educated than the Dhading one, and the difference was statistically significant, (p = 0.00, Chi-Square test see Table 28).

Figure 4: Education profile of the sampled population-Districts Total
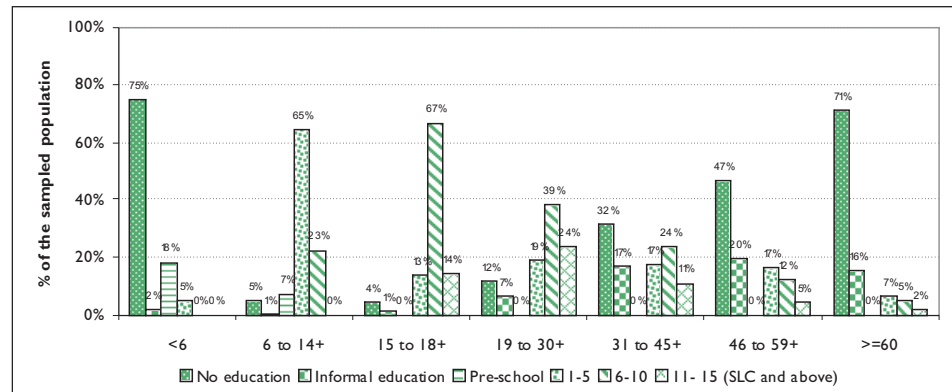
Note: Literate individuals who had not specified their level of education are included in the "Informal Education" class.

The population distribution of males and females was also examined in the different levels of education. A Chi-Square test was conducted on the education level of the two gender categories to assess the difference in education levels of the two genders (Table 30). It was found that statistically the two categories (male and female) are significantly different (p value = 0.00) when it comes to education level. This means that the population distribution in the different education levels for male is not the same as females.

Another way to examine the level of educational achievement is by checking literacy rates by age and gender. This is summarized in Fig. 5. As can be seen, the literacy level was almost the same for males and females (95% each) in the age group of 6-14+ years (primary school-going age). Beyond that age group, literacy levels among females were lower than among males, and respondents aged 60 years or more reported the lowest literacy rate among all age groups for both males (45%) and females (10%).

Figure 5: Literacy level by gender of the sampled population-Districts Total

"…..school attendance among the young showed that 88% of the school-age population (age 6 to 18 years) were currently attending school, and this was almost equally strong among males (89%) and females (86%)."
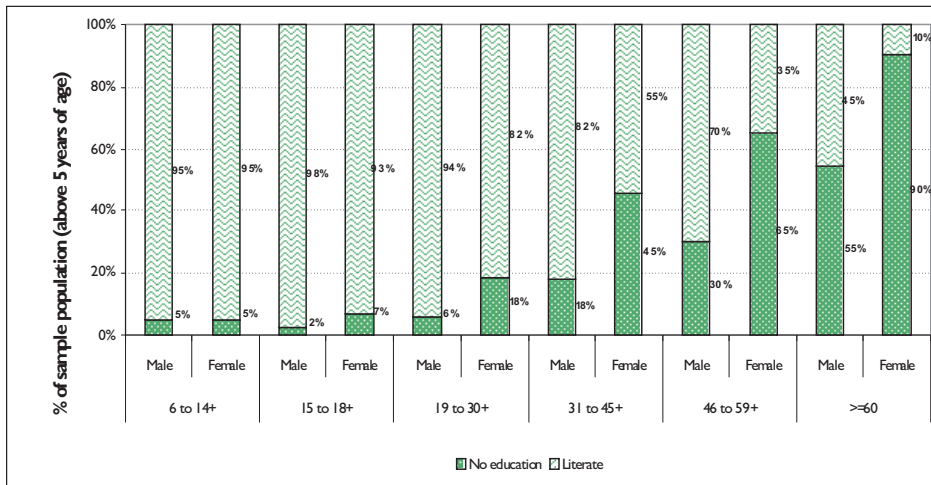
A comparison of these low literacy rates and the big discrepancy between elderly males and females with school attendance among the young showed that 88% of the school-age population (age 6 to 18 years) were currently attending school, and this was almost equally strong among males (89%) and females (86%) (Fig. 6).

Figure 6: Share of school-age population (6-18 years) currently attending school-Districts Total
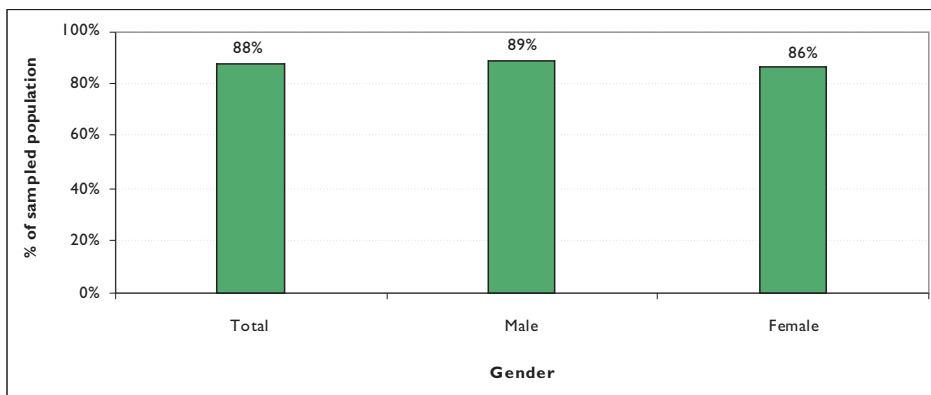
We now look at the rate of income earners; 40% of the sampled population was reported to be income earning members of the household. About the same number were reported in the two districts individually (41% for Dhading and 39% for Banke (Fig. 7)).

"A comparison of the mean number of income earning members of households in different monthly-per-capita-consumption categories showed that a high monthly consumption per person in households correlated with a lower number of income earning members (on average) in the households (Fig. 8) for the two districts combined."

Figure 7: Percentage of income earning members in the population by district
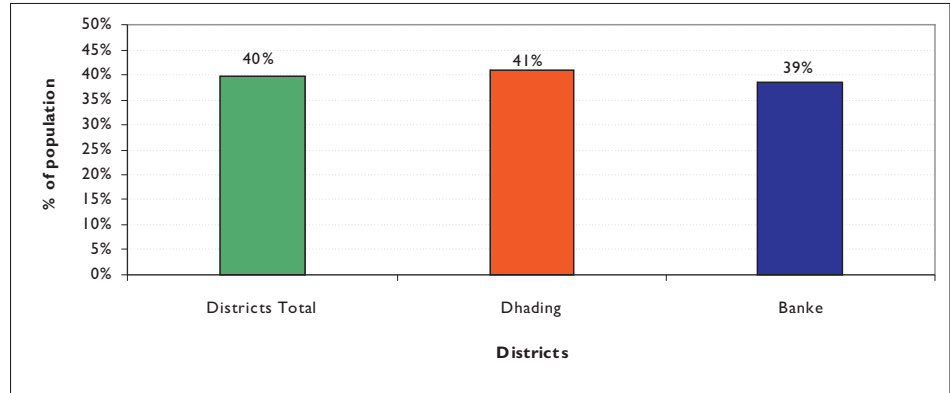
A comparison of the mean number of income earning members of households in different monthly-per-capita-consumption categories showed that a high monthly consumption per person in households correlated with a lower number of income earning members (on average) in the households (Fig. 8) for the two districts combined. A gradual decline was observed in the average number of income earning members with the higher MPCC quintiles. The first MPCC quintile consisted of households that, on average, had 2.4 (the highest of all quintiles) income earning members, whereas the highest quintile consisted of households having on average 1.9 (the lowest of all quintiles) income earning members.

Figure 8: Mean number of income earning members for households in different consumption categories- Districts Total
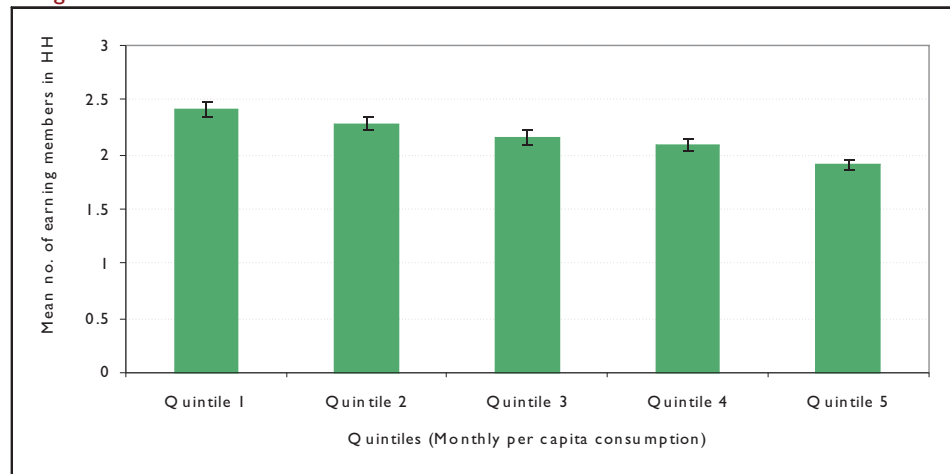
The distribution of the sampled population by activity shows that a large proportion of the sampled population comprised individuals who attended educational institutions. For both districts combined, among the female population, 24% were engaged in domestic duties for the household as compared to 2% of the male population in the same activity status (Fig. 9). This is the only activity status category where the share of the female population (18% and 29% in Dhading and Banke respectively) was more than the share of the male population, in both districts combined and individually (Table 35). For the two districts combined, the proportion of females working as salaried employees (2%) and casual wage labor (2%) was much smaller than the proportion of males (11% and 8% for salaried and casual wage labor respectively) involved in these occupations. However the proportion of females

who were self-employed in agriculture (18%) and business/trade (6%) was comparable to the proportion of males (19% and 8% for agriculture and business/trade respectively) engaged in these activities, for the two districts combined. Nevertheless, when we look at the two districts individually, we see that for self-employment in business/trade, the shares of the male and female population were equal for Dhading (9% each) but not for Banke (7% male and 4% female population). A Chi-Square test (Table 36) was then conducted on the activity status of the population in the two districts and it was found that statistically the two categories (Dhading and Banke) were significantly different when it comes to the activity status of the population (p value = 0.00).

Figure 9: Activity status by gender of the sampled population-Districts Total
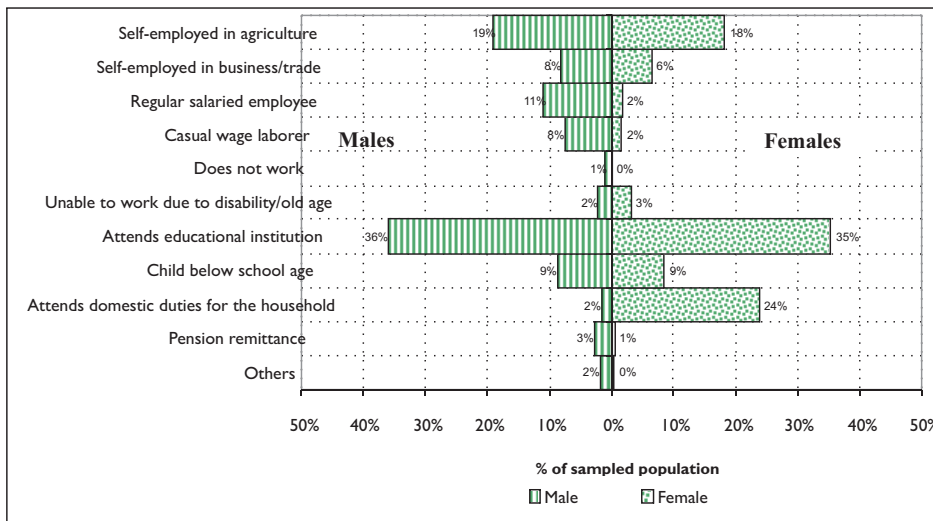
Of the economically active sampled population, the majority (37% of the population) were found to be self-employed in agriculture (Fig. 10), followed by 25% of the population which were involved in household domestic duties. The second highest category was probably due to the higher share of women involved in household domestic duties. The lowest share of the population (9%) was found to be working as casual wage laborers.

Figure 10: Profile of the economically active sampled population-Districts Total
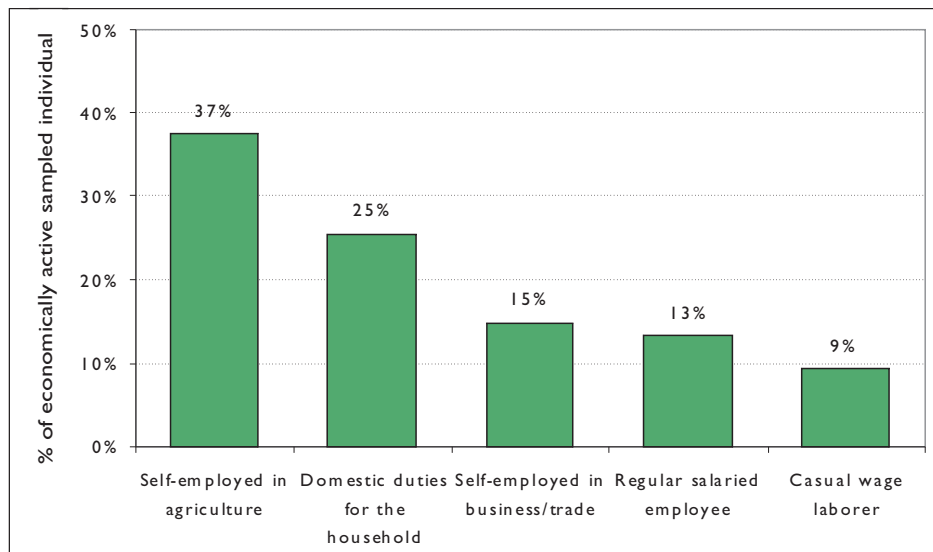
"As expected, regular salaried employees had the highest education level among the different activity status categories, in the 6-10th (43%) standard and 11-15 (SLC and above) (34%) categories, for the two districts combined."

The activity status of the population was then examined with respect to their education level. For the districts combined, a large proportion of the population that was self-employed in agriculture were found to be uneducated (38%), but at the same time there was also a small proportion with an education level of class 11-15 (5%). For the two districts combined, the share of population that was self-employed in business/trade was found to be more educated than the share of population that was self-employed in agriculture. Sixteen percent of the self-employed business/trade population had no education, while 36% had an education level of 6-10 and 15% a level of 11-15 (SLC and above) (Fig. 11). As expected, regular salaried employees had the highest education level among the different activity status categories, in the 6-10th (43%) standard and 11-15 (SLC and above) (34%) categories, for the two districts combined. The share of population having no education in the casual wage labor and domestic duties for household activity status again went up to 33% and 44% respectively.

When comparing across districts it was found that Banke had a higher share of the casual wage labor population in the 6-10th standard (34%) education level category compared to Dhading (17%), while Dhading had a higher share of the casual wage labor population in the 1-5th standard (42%) when compared with Banke (19%) (Table 38). A Chi-square test (Table 39) was conducted for the economically active population on the different education levels across the districts. It was found that statistically the education levels of the economically active population across the districts (Dhading and Banke) were significantly different (p value = 0.00).

Figure 11: Education level of the economically active sampled population-Districts Total
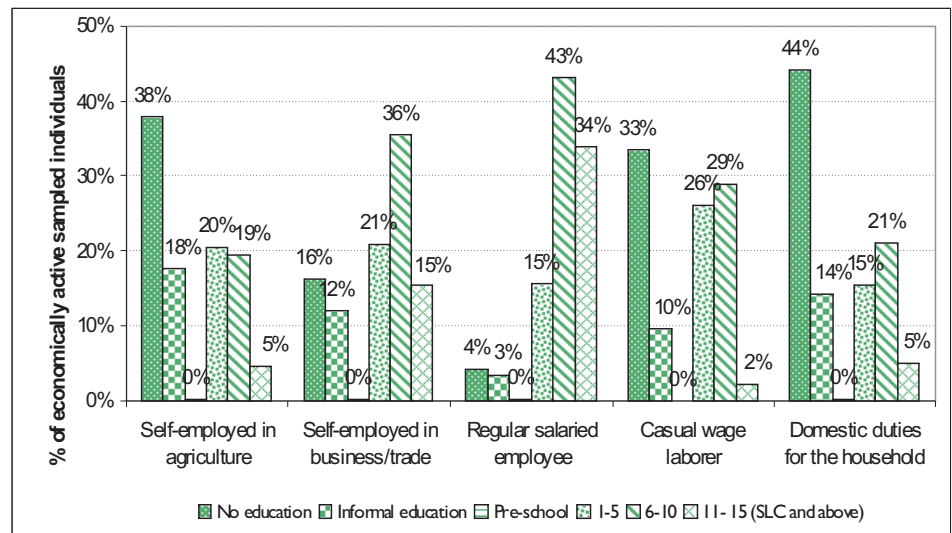
When looking at the assets of the sampled population, land ownership within the population was examined first. For the two districts combined, most respondents owned land (84%), but plot size was mostly less than 5 acres (97% of the sampled households had <5 acres of land or no land). A plot size of less than 5 acres also accounted for 77% of the total land ownership of the population (Fig. 12). The highest land ownership reached 53.65 acres for a household in Banke district. When looking across the districts, it was found that the cumulative share of the population for the different land size categories were quite similar, while differences were observed in the cumulative land size

values. Dhading had 89% of the total land size owned in Dhading in the < 5 acres or no land category, while Banke had 67% of its total land size owned in the < 5 acres or no land category (Table 41). An Independent sample T-test (Table 42) on the size of the land owned in the two districts revealed that there was a significant difference (p value = 0.009) in the mean values of the land size owned between the two groups (Dhading and Banke).

Figure 12: Land Ownership-Districts Total
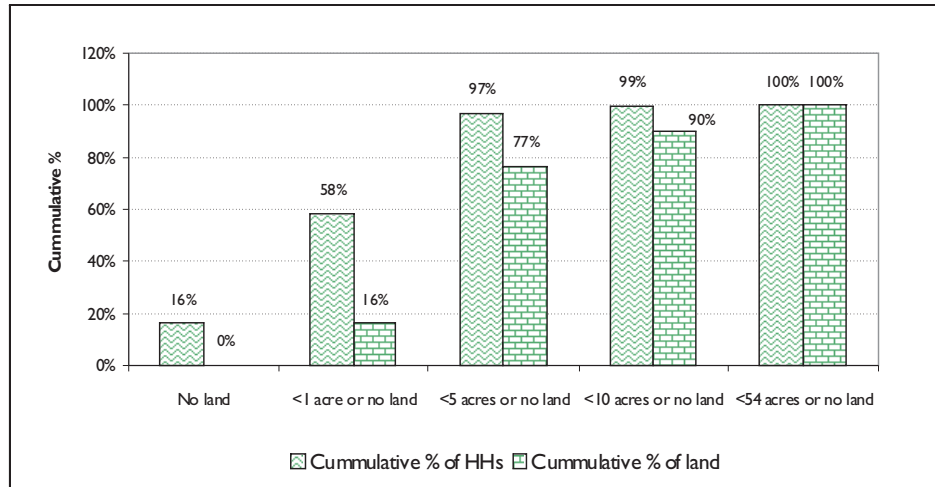
Of the sampled households in Dhading, 50% lived in temporary (kacchi) houses, and 37% lived in semi-permanent (ardha pakki) houses. The remaining 12% lived in permanent (pakki) houses. In comparison to this, the proportion of households in Banke that lived in permanent and temporary houses was higher (Fig. 13). A Chi-Square test (Table 44) was conducted to see the difference between the house types that were found in Dhading and Banke. It was found that statistically the two categories (Dhading and Banke) were significantly different when it comes to house type (p value = 0.00).

Figure 13: Type of housing by district
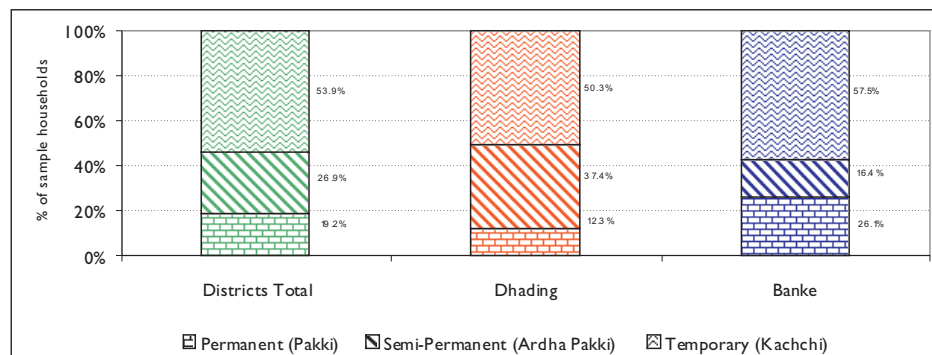
A review of the assets owned by the sampled population showed that a majority of households owned a mobile phone (58% for districts total) and radio (74% for districts total). While 81% of the Banke households owned a bicycle, only 12% of households in Dhading owned one, owing to the hilly terrain in Dhading. Almost 30% of households held a bank account. While a small proportion of households owned a landline or a computer, there was a higher proportion that knew how to operate these two assets (Fig. 14 and 15).

"Dhading had 89% of the total land size owned in Dhading in the < 5 acres or no land category, while Banke had 67% of its total land size owned in the < 5 acres or no land category."

Figure 14: Ownership of assets by district
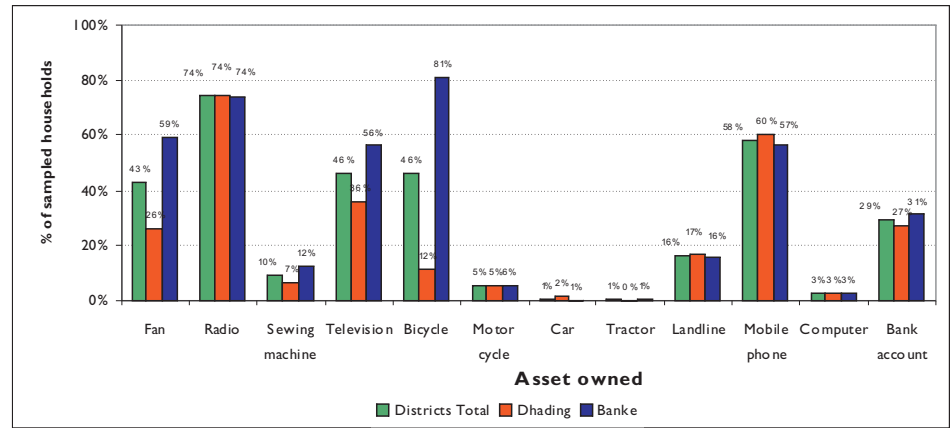
Figure 15: Ownership and use of ICT equipment by district
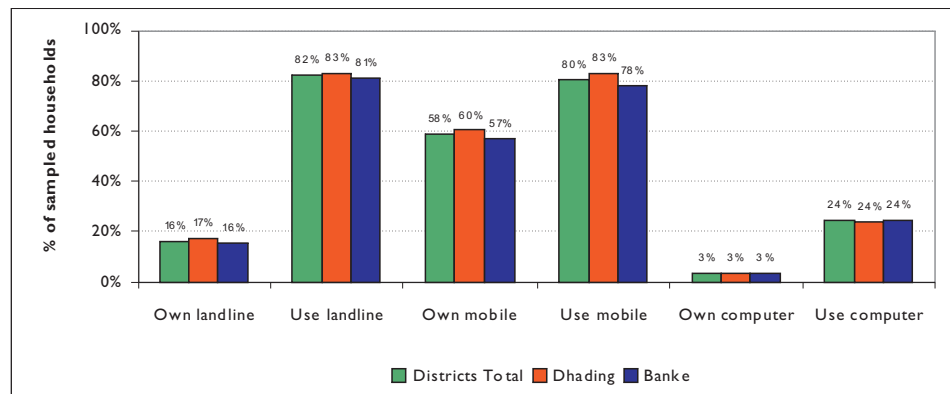
The primary source of drinking water for the Dhading sampled population was piped water (96%). The population of Banke (85%) on the other hand relied largely on covered wells and hand pumps for drinking water (Fig. 16).

Figure 16: Source of drinking water by district
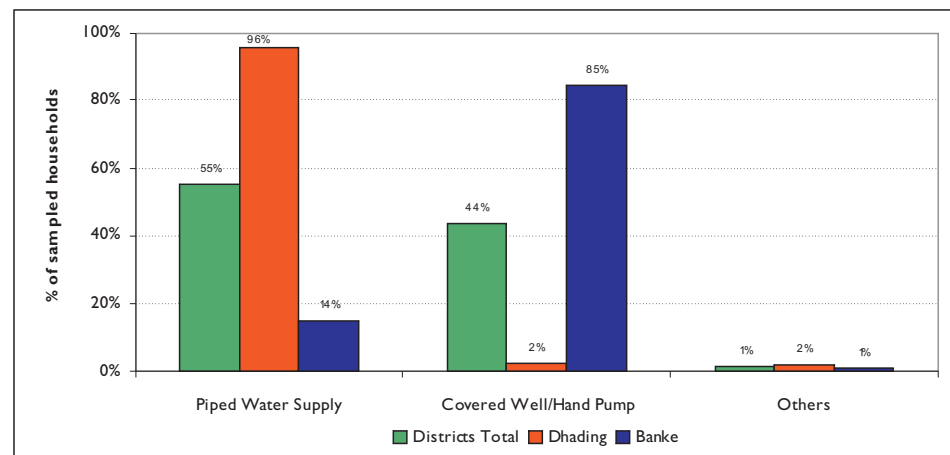
Around 81% of the households in the two districts combined had access to electricity, while the rest of the population used kerosene/oil/gas (16%) and other sources (3%), such as solar and battery light for lighting purposes (Fig. 17).

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Figure 17: Source of lighting by district
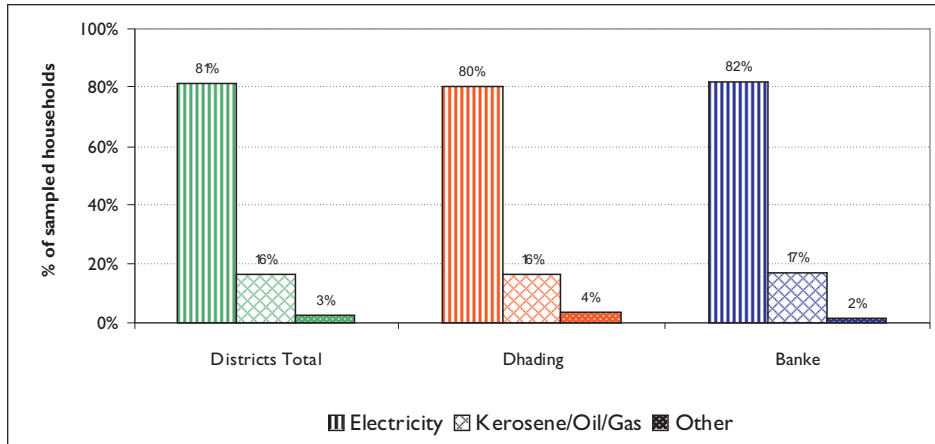
The sampled population used primarily wood/firewood for cooking (81% for the districts combined), and only 11% (for the districts combined) of households were using cylinder gas (Fig. 18).

Figure 18: Source of cooking fuel by district
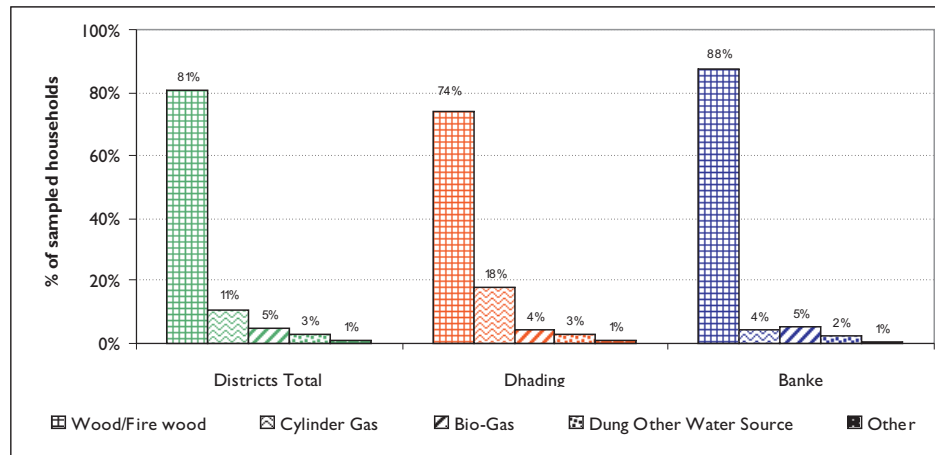
There were significant differences in the location of the cooking area among households in the two districts. Forty-three per cent of the households in Dhading and 78% of the households in Banke had their cooking area inside their house, and it was separated from the living area by a wall (Fig. 19). At the same time, 21% of the population in Dhading and 7% of the population in Banke, were found to be cooking in the open/outside the house.

"The mean monthly per capita consumption (MPCC) for the two districts combined was NPR 2,159."

Figure 19: Location of cooking area by district

Legend:
- Cooking area is inside the house and it is separated from the living area by a wall
- Cooking area is inside the house and is not separated from the living area
- Cooking is done in the open/outside
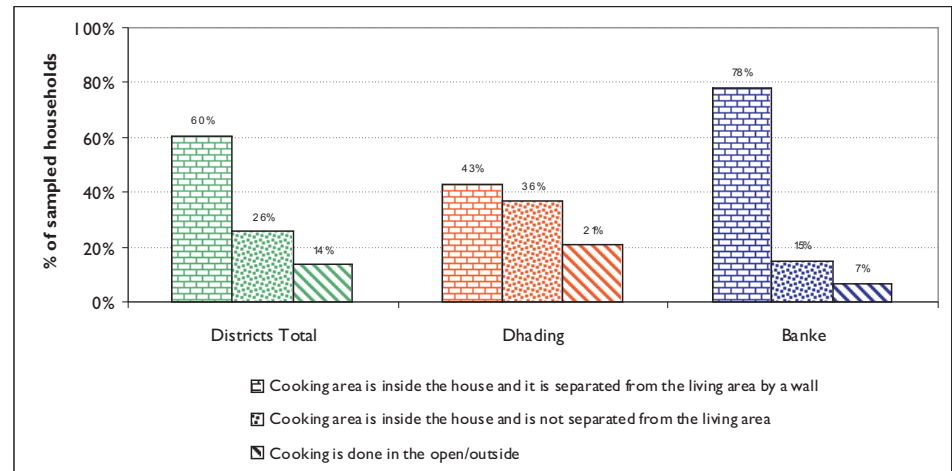
Around 39% (for districts combined) of the sample households did not have toilets in their house. Two per cent of the households (for districts combined) were found to be using communal latrines (Fig. 20).

Figure 20: Type of toilet by district

Legend:
- No toilet
- Household Flush (Connected to Septic Tank)
- Household Non-Flush
- Communal Latrine
- Household Flush (Connected to Municipal Sewer)
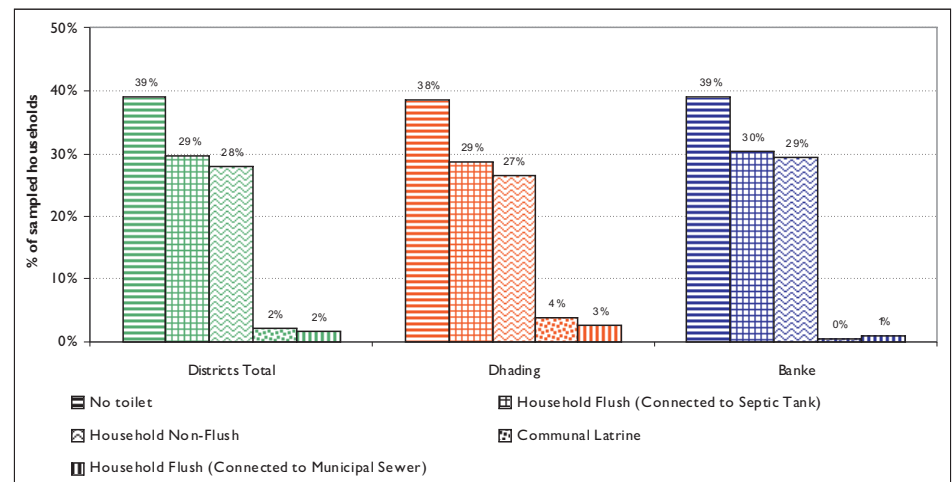
The mean monthly per capita consumption (MPCC) for the two districts combined was NPR 2,159. Dhading (NPR 2,409) had a higher mean MPCC than Banke (NPR 1,911) (Fig. 21). In Dhading, the MPCC values for the majority of households (20%) fell between NPR 1,500-2,000, while for Banke most (24%) fell between NPR 1,000-1,500. An independent sample T-test (Table 53) on the monthly per capita consumption of households in the two districts revealed that there was a significant difference (p value = 0.00) in the mean values of MPCC for the two groups (Dhading and Banke).

Figure 21: Monthly per capita consumption (MPCC) by district
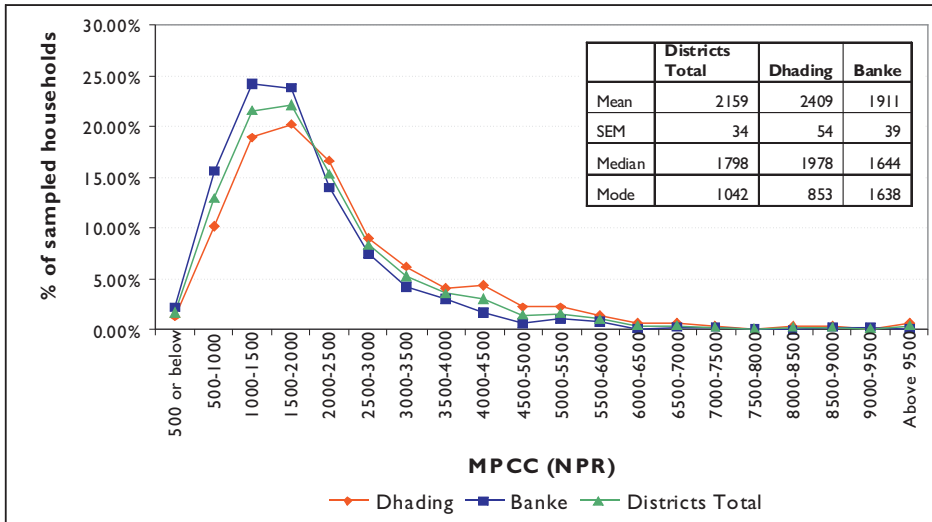
	Districts Total	Dhading	Banke
Mean	2159	2409	1911
SEM	34	54	39
Median	1798	1978	1644
Mode	1042	853	1638

"For the two districts combined, the mean MPCC for Quintile 1 was NPR 830 (SEM = NPR 11), and for Quintile 5 it was NPR 4,422 (SEM = NPR 93)"

For the two districts combined, the mean MPCC for Quintile 1 was NPR 830 (SEM = NPR 11), and for Quintile 5 it was NPR 4,422 (SEM = NPR 93) as seen in Fig. 22.

Figure 22: Mean MPCC across the population-Districts Total
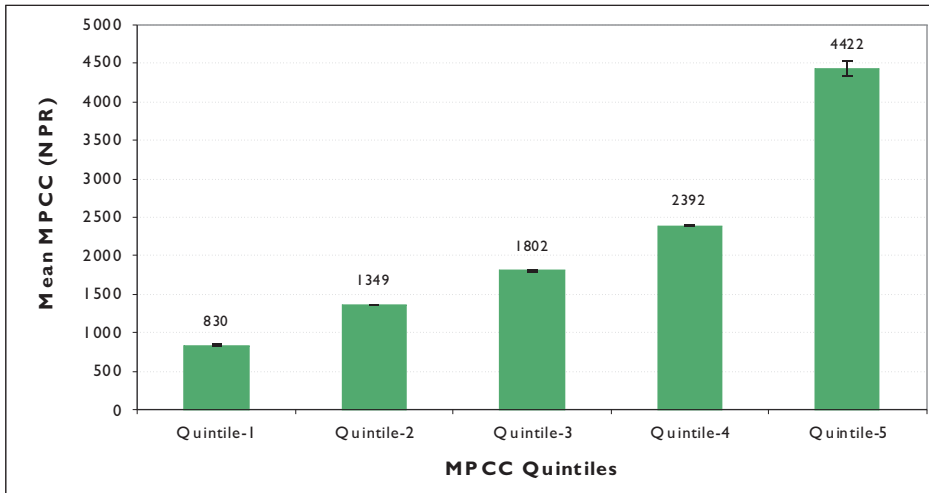
The mean MPCC was highest for households where the household head had an education level of Class 11-15 (SLC and above). Households where the household head was uneducated had a mean MPCC of NPR 1,716 (SEM = NPR 45) as compared with a mean MPCC of NPR 2,986 (SEM = NPR 116) among households where the household head was educated up to Class 11-15 (Fig. 23). A Chi-Square test on the education level of the household head across the districts showed that statistically there was a significant difference between the two districts (Dhading and Banke) in terms of the distribution of household heads in the different education level categories (p value = 0.00) (Table 56).

Figure 23: Mean MPCC by Education Level of the Household Head
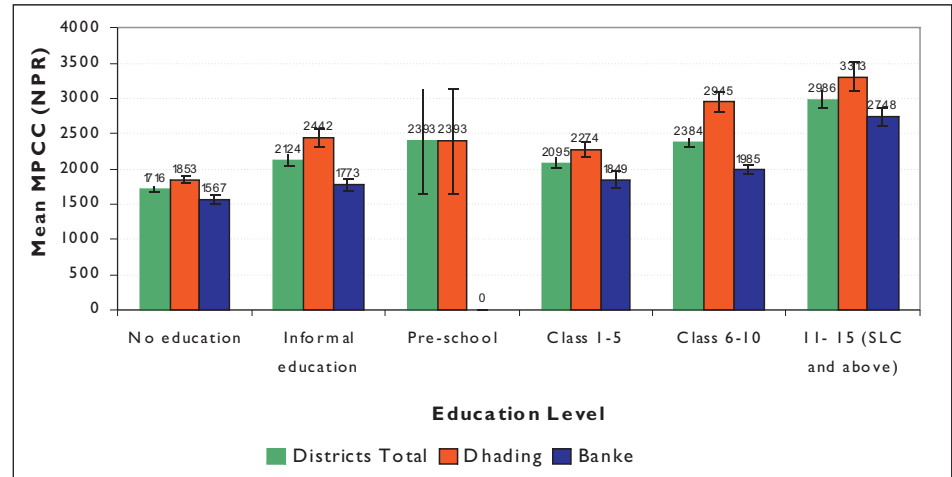
For the two districts combined, households where the household head was self-employed in business/trade (Mean = NPR 2,926, SEM = NPR 117), or had a regular salaried job (Mean = NPR 2,547, SEM = NPR 95) saw a higher mean MPCC when compared to households where the household head was engaged in other occupations (Fig. 24).

Figure 24: Mean MPCC by Activity Status of the Household Head
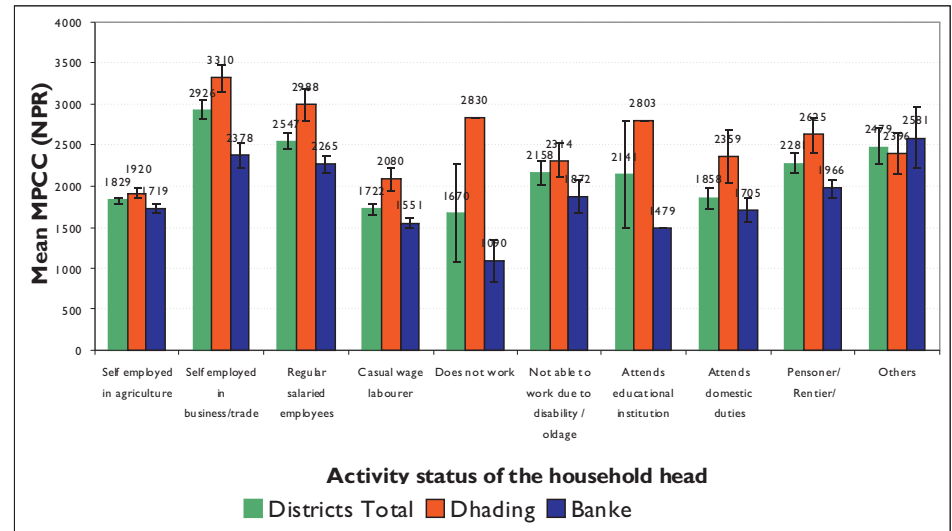
Upon comparing the mean Monthly Per Capita Consumption (MPCC) to the type of housing in which the population lived, it was observed that the mean MPCC was highest for those living in permanent houses (NPR 2,823, SEM = NPR 97), lower for those living in semi-permanent houses (NPR 2,426, SEM = NPR 69) and lowest for those living in temporary houses (NPR 1,791, SEM = NPR 35) (Fig. 25). The mean MPCC values for Dhading for all types of housing were higher than the corresponding Banke values.

Figure 25: Mean MPCC by Type of Housing
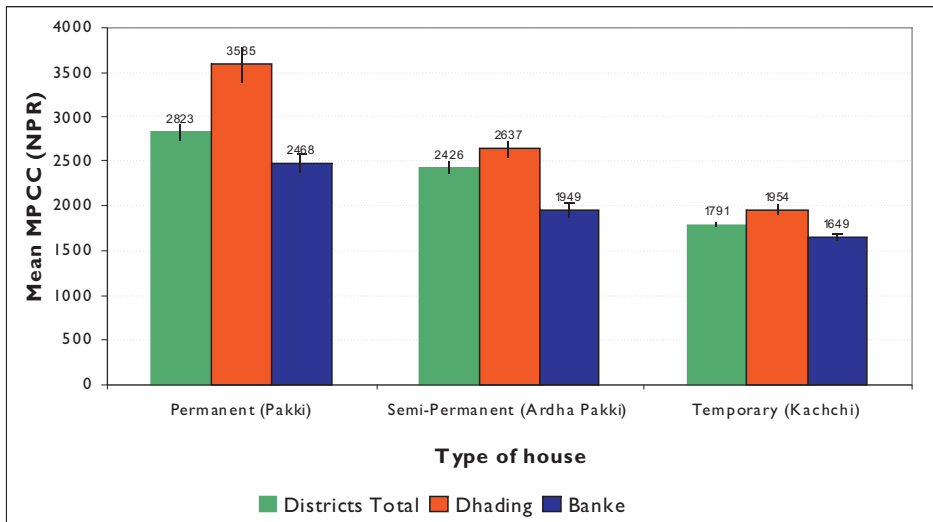
When questioned about their standard of living, for the two districts combined a large proportion of the sampled population responded that the family's total income (69%), food expenditure (71%) and health care (69%) were just adequate. Approximately 34% of Banke's population felt that the family's health care was less than adequate as compared with 22% in Dhading (Fig. 26).

Figure 26: Living standard satisfaction by district
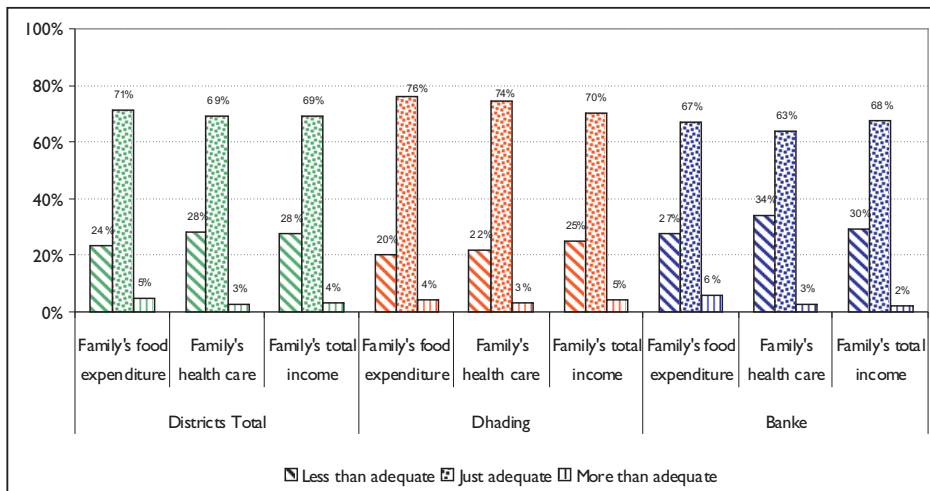
Approximately 18% of the sampled households in Banke and 8% households in Dhading had experienced during the last year at least a month when their food needs were not met (Fig. 27).

"When questioned about their standard of living, for the two districts combined a large proportion of the sampled population responded that the family's total income (69%), food expenditure (71%) and health care (69%) were just adequate."

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"Above the threshold limit of 15 years, females were more likely to become ill than their male counterparts in all age groups."

Figure 27: Percentage of households unable to meet food needs in any month during the previous year
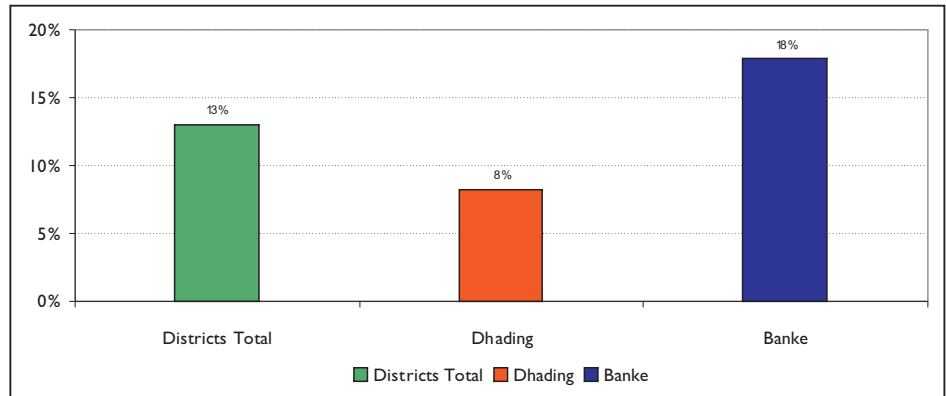
3.2.   Health profile of the population

A total of 1,348 illness episodes (542 in Dhading and 806 in Banke) were reported in the one-month period prior to the survey. The estimated monthly rate of illness was 10.27% in Dhading, 14.04% in Banke and 12.24% for the two districts combined (Fig. 28). The survey revealed that females were more prone to illness. In Dhading, 12.57% of the total female population fell ill in the one-month period, compared with 8% of the total male population. In Banke, illness rates among the male and female population were 11.50% and 16.70%, respectively, in the month prior to the survey. In the two districts combined, these rates were 14.70% in females and 9.84% in males. Both in Dhading and Banke the difference between illness rates in males and females were highly significant (p value = 0) as seen in Table 62.

Figure 28: Rate of illness within the month prior to the survey
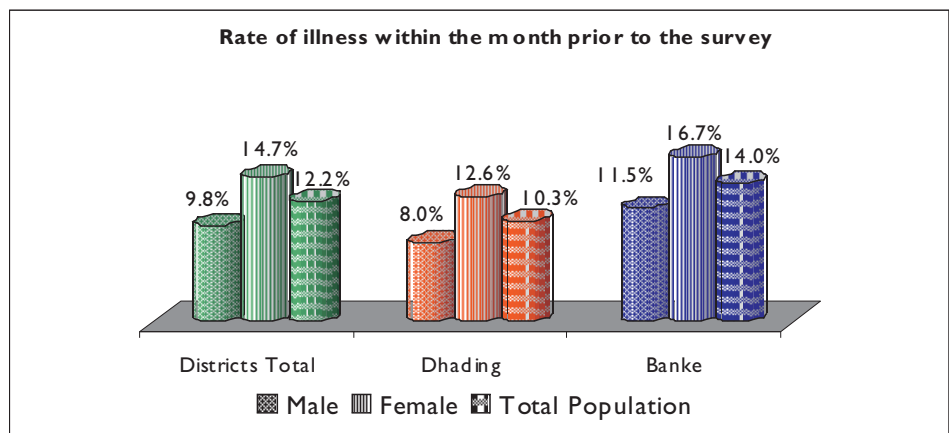
The gender-age analysis of all reported illnesses shows that males and females were equally prone to illness up to the age of 15 years. Above the threshold limit of 15 years, females were more likely to become ill than their male counterparts in all age groups. This trend was quite similar in both the Dhading and Banke districts (Figure 29).

Figure 29: Rate of illness episodes in different age groups according to gender (Dhading and Banke)
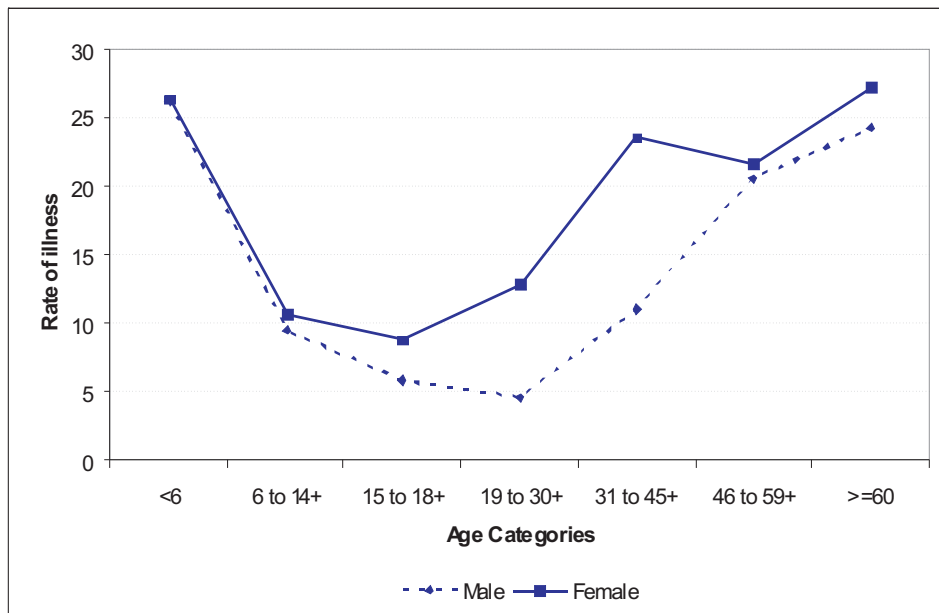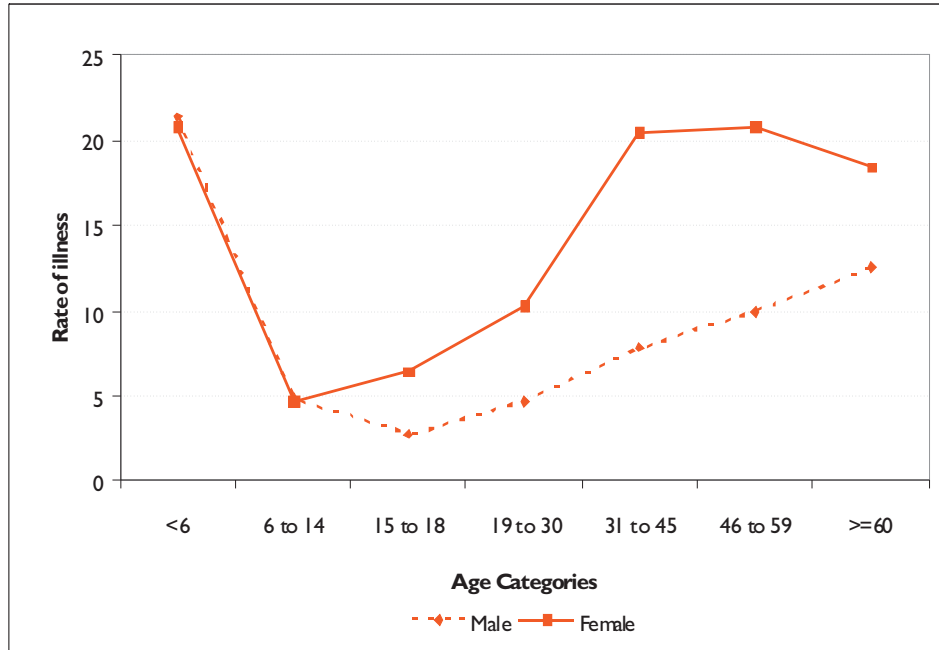
The respondents were asked to describe the kinds of symptoms they suffered from in the month prior to the survey. The question elicited a wide range of responses, from fever to diarrhea, chest infection to gynecological disorders, headache to backache and loss of hair to pimples. Symptoms of fever topped the list and accounted for more than 16% of the total episodes. Fever was followed by stomach pain, diarrhea, headache, pneumonia, gastritis, asthma, typhoid, cough and cold, jaundice, vomiting, diabetes, problems related to the uterus and neurological disorders. Multiple cases of chickenpox, measles, heart disease, arthritis, and cancer were also reported. In addition, there were accidents, wounds, cuts and dog bites resulting in fracture, severe bleeding and other associated problems.

"In the two districts combined, acute illnesses accounted for 72% of the cases, chronic illnesses 20%, accidents accounted for 3% of the episodes, and the remaining 5% were undefined."

3.2.1. *Types of Illness: Acute, Chronic, Accidents and Undefined*

With the help of medical experts, we classified the symptoms under four broad categories: acute, chronic, accidents and undefined. The classification was based on the gender and age of the sick persons and the treatment pattern followed by them. For example, the treatment of diabetes, cancer, heart problems, etc. for which people were advised to take medicines for the remainder of their lives were considered chronic. Bone pain occurring in younger people (below 40 years) was considered acute, whereas for older people (40 years and above) it was considered chronic. All types of wounds, cuts, and fractures were classified as accidents, and symptoms for which no conclusion could be drawn were labeled as undefined.

Based on the above classification, 74% of the total illness episodes in the Banke district were acute, 19% chronic, 2% accidents and 5% were undefined (Fig. 30). In the Dhading district 68% were acute cases, 21% chronic, 5% accidents and 6% of the cases were undefined. In the two districts combined, acute illnesses accounted for 72% of the cases, chronic illnesses 20%, accidents accounted for 3% of the episodes, and the remaining 5% were undefined.

Figure 30: Type of illness
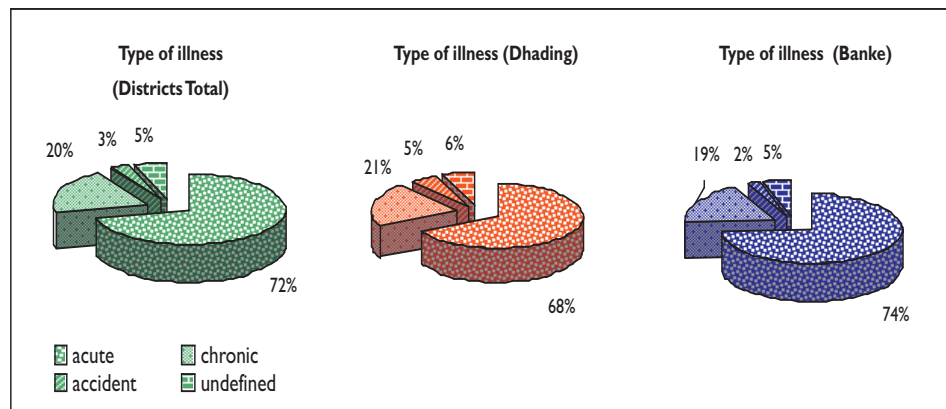
The survey reveals that the incidence of acute illness is much higher in children (below the age of 6) and in the older age group (age 31 and above). Around 20% of children below the age of 6 years (Fig. 31) in the Dhading district and around 25% in the Banke district suffered from acute symptoms. The proportion of male and female children suffering from acute symptoms did not vary considerably in either of the districts. In Dhading, 8% of the population belonging to the 31-45 age group, 7% of the population belonging to the 46-60 age group and 7% of the population over 60 years reported acute symptoms. In Banke, 11% of the 31- 45 age group of the population, 12% of the 46-60 age group of the population and 15% of the over 60 age group of the population suffered from acute symptoms. In both districts, the proportion of females in these three age groups suffering from acute illnesses was much higher than the proportion of males. The overall probability of suffering from an acute illness (Table 67 to 69) was calculated at 7% in Dhading (5.6% for male and 8.4% for female), 10.5% in Banke (8.4% for male and 12.7% for female) and 8.8% in the two districts combined (7% for male and 10.6% for female).

Figure 31: Incidence of acute illness episodes within each age group
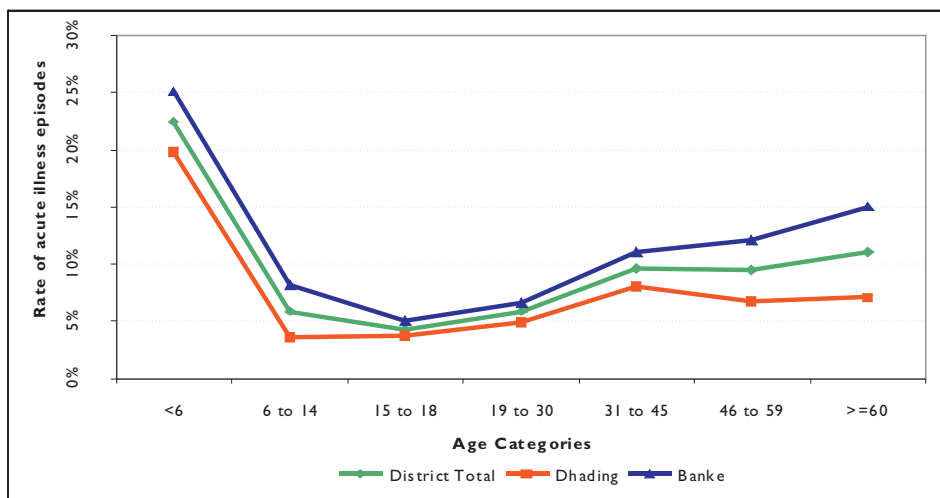
That women are more prone to illness was further highlighted by the fact that the rate of acute illnesses in the sampled population was also found to be higher for women in most of the age groups in both districts (Fig. 32). The highest rate of acute illness was found in the 0-6 age group, both in Dhading (about 20% each for males and females) and Banke (about 26% for males and 25% for females). Thereafter for almost all age groups it was observed that women were more prone to acute illness than men with the highest difference occurring in the 31-45 age category both for Dhading (4% in males vs. 12% in females) and Banke (6% in males vs. 16% in females). Based on this data, it was quite evident that the younger population, the elderly and women over the 6-14 age group are the groups most vulnerable to acute ailments.

Figure 32: Gender and age group difference in incidence of acute illness in the two districts
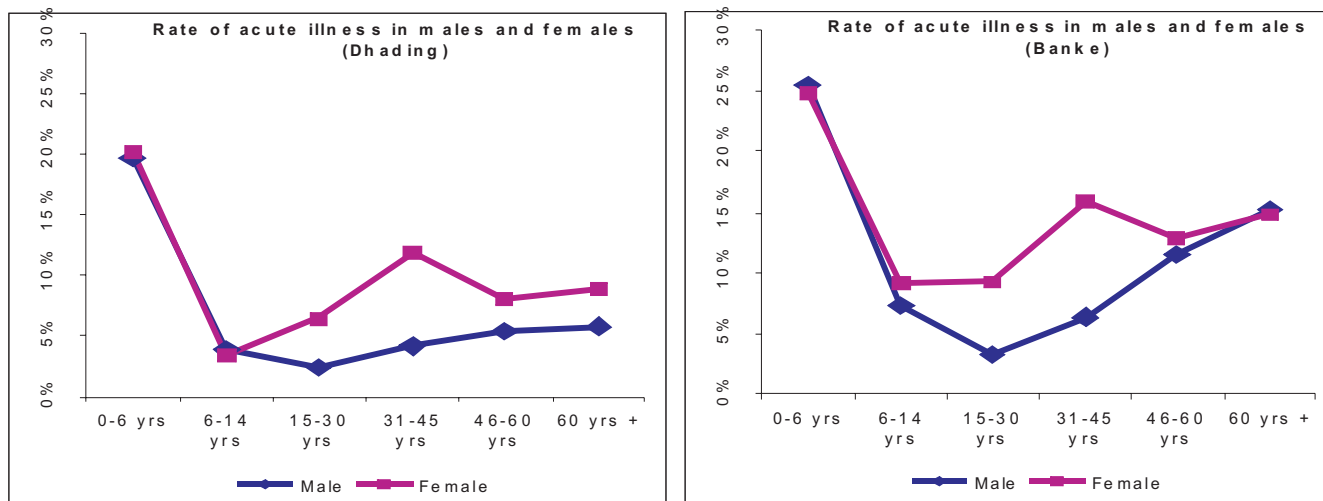
In terms of chronic illnesses, a different trend was observed when comparing acute illnesses, as shown in (Fig. 33).

Figure 33: Incidence of chronic illness episodes within each age group
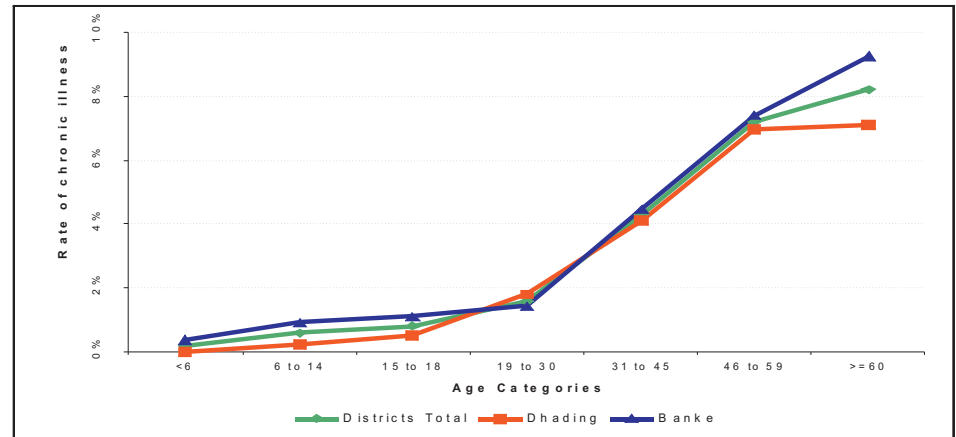
The highest prevalence of chronic illness was reported in the over 60 age group: 7% in Dhading and 9% in Banke, with a combined average for the two districts around 8% (Table 67 to 69). However, a substantial proportion of the population in the 31-45 and 46-60 age groups in both districts reported that they were suffering from chronic symptoms (Fig. 33 above). In Dhading, 4% of the population in the 31-45 age group and 7% of the population in the 46-60 age group suffered from chronic illnesses. The respective percentages for Banke were 4.5% and 7.4%. In Dhading, the proportion of females suffering from chronic illnesses was significantly higher in the last three age groups. However, these proportions do not vary considerably in Banke except for the over 60 age group. The overall probability of suffering from a chronic illness was 2.2% in Dhading (1.5% for males and 2.9% for females), 2.68% in Banke (2.5% for males and 2.8% for females) and 2.4% in the two districts combined (2% for males and 2.9% for females).

When the rates of chronic illness for males and females were examined across different age groups, it was again evident that females were more prone to chronic illnesses than males (Fig. 34). Although this message was clearer in Dhading than in Banke, with the former showing the largest difference between the rate of chronic illness for men (at about 3%) and for women (at around 12%) in the 46-60 age group. But in both districts an upward trend or prevalence was observed in the rate of chronic illness in the older age groups.

Figure 34: Gender and age group difference in incidence of chronic illness in the two districts
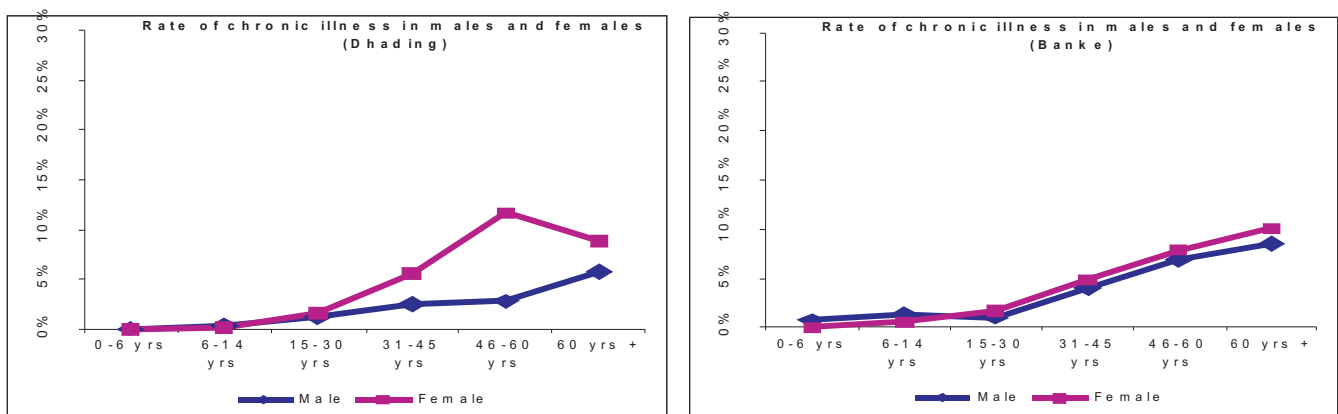
No particular trend or clustering was observed in reported accidents and undefined episodes. The three most accident-prone groups in Dhading were males and females in the under 6 age group and males in the 46-60 age group. In Banke, the most accident prone groups were males in the 15-18 age group, males in the 46-60 age group and females in the under 6 age group. The overall probability of an accident occurring within a one-month period was 0.52% in Dhading, 0.30% in Banke and 0.40% when the two districts are combined.

3.2.2. Length of illness

The length of illnesses varied widely in both districts. In Dhading, 23% of the illness episodes began more than 30 days ago and were still ongoing at the time of the survey; 16% of the episodes began more than 30 days ago and had ended by the time of the survey; 21% of the episodes began within 30 days and were still ongoing; and 40% of the episodes began within 30 days and had ended by the time of survey (Fig. 35). The corresponding figures for Banke were about 15%, 5%, 17% and 64% respectively. This shows that 61% of the reported illnesses in Dhading and 80% in Banke started within the 30 days prior to the date of the survey, which results in an estimated incidence of rates of illness of 6.32% for Dhading, 11.44% for Banke and 8.9% for the two districts combined.

Figure 35: Length of illness
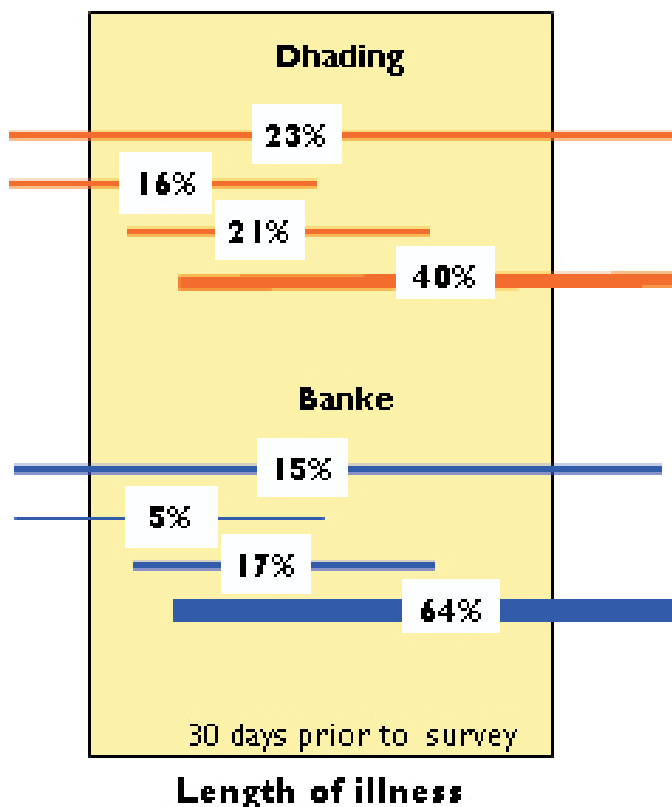
3.2.3. Labor lost due to illness

Illness not only generates a direct cost for a family, but also has many other implications, the most important of which is absence from work. The survey probed the number of days a person could not perform his/her normal duties because of illness. The responses ranged from 0 days to 365 days, with a mean of 8.8 days for Dhading, 6.6 days for Banke and 7.5 days for the two districts

combined, regardless of gender and age (Table 72). Actually, these figures are somewhat under-estimated because some respondents had not completely recovered at the time of the survey. An analysis of the economic profile of the reported sick persons showed that 42% of those who could not perform their normal duties because of illness were economically productive in Dhading, 38% in Banke and 40% in two districts combined together (Table 74). In Dhading, 41% of the male sick persons and 43% of the female sick persons and in Banke 49% of the male sick persons and 29% of the female sick persons belonged to economically productive group. 21% of the female sick persons in Dhading and 33% of the female sick persons in Banke were engaged in domestic work.

In Dhading females showed a higher mean of unproductive days due to illness: 10.1 days compared to 6.8 days for males, and the trend was consistent across all age groups (Figure 36 and Table 72). Banke displayed a reverse pattern, where the mean days of illness were 7.7 for males, compared to 5.8 for females, and males had a higher mean in almost all age groups. Although gender-wide distributions of mean days of illness showed opposite trends in the two districts, both of them had a distinctly increasing trend with respect to age. The mean days of illness in the over 60 age group were 18 days for Dhading and more than 10 days for Banke. These two means were the highest among the means of all age groups. In 16% of the cases (the two districts taken together) illness was not a deterrent factor for attending normal work.

Figure 36: Mean days of illness across different age categories according to gender
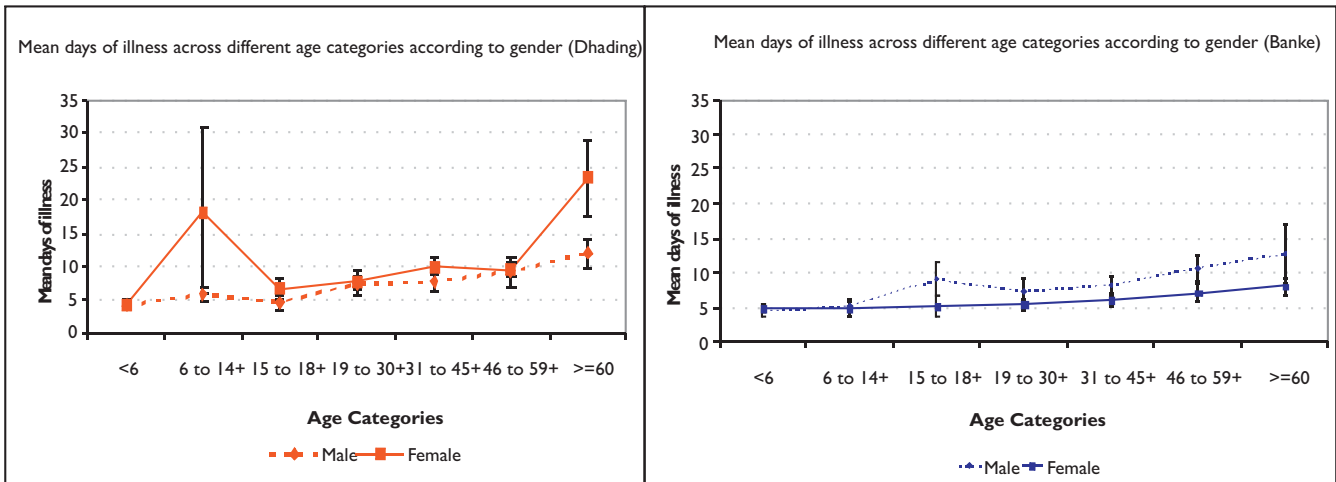
3.2.4. *Maternity*

The sampled population (the two districts combined) reported a total of 369 live births (174 in Dhading and 195 in Banke), 5 stillbirths (3 in Dhading and 2 in Banke), 9 miscarriages (5 in Dhading and 4 in Banke) and 3 (all in Dhading) induced abortions within the last two years (Table 75). Sixty-seven women (34 in Dhading and 33 in Banke) were reported to be currently pregnant. This meant that the estimated Birth Rate (CBR) was 16.6 for Dhading and 17.19 for Banke. On the other hand, the rate of 'non-productive' pregnancies (as a percentage of live births) was 6.32% for Dhading and 3.08% for Banke. Using the rate of 'non productive' pregnancies and the CBR, the estimated rate of currently pregnant women in the population was 69.4% for Dhading and 75.4% for Banke, which was higher than the actual number of currently pregnant women in the

population (49% for Dhading and 44% for Banke). Thus, a number of currently pregnant women were not identified in the sampled population during the survey.

Live Births

The mean number of prenatal checkups received by the population with live births in the past two years was reported to be around 3.5 checkups for Dhading and 3.6 checkups for Banke (Table 77). Among the live births that took place, 6% of deliveries in Dhading and 15% in Banke were Caesarean deliveries (Table 78). In only 11% of the Caesarean cases in Banke had the mother asked for a Caesarean delivery (Table 79).

It was also found that a majority of live births (61% for both Dhading and Banke) took place at home, followed by deliveries in a facility (39% for Dhading and 36% for Banke) (Table 80). This shows that institutional deliveries were low in these areas. When asked about the reason for having a home delivery, the responses from the HHs in Dhading and Banke differed (Table 81). Whereas in Dhading the majority (32%) of the HHs having a home delivery wanted to have the delivery in a facility but could not get there because it happened too quickly or there was no transport, in Banke the majority of such households (34%) said they had a home delivery because they trusted the person supervising the delivery. The next highest share of the same population in Dhading (19%) said they did so because "everyone does it," however, in Banke the next highest share (23%) said they did so because the delivery happened too quickly or because no transportation was available even though they wanted to go to a facility. Out of these home deliveries, 66% in Dhading and 37% in Banke had the delivery supervised by a family member or relative and 10% in Dhading and 35% in Banke had the delivery supervised by TBA/TTBA (Table 82).

On the other hand, for those having institutional deliveries the reason given by the majority (61% both in Dhading and in Banke) for doing so was that they felt it was safer to have the delivery in the facility or had trust in the nurse/doctor at the facility (Table 83). This was followed by 37% (both in Dhading and in Banke) of the population having institutional deliveries because they had to go to a facility due to complications, even though initially they had wanted to deliver at home. In Dhading (58%) and Banke (52%) most of these institutional deliveries were in a government hospital, followed by a health post (15%) in Dhading and a private hospital/maternity home (39%) in Banke (Table 84). For both districts, the major reason for choosing the respective facility was that the household felt that it was the best facility (61% in Dhading and 48% in Banke). This reason was followed by 12% (in Dhading) who said they went there because everyone goes there and for Banke, 23% said that a medical practitioner referred them there (Table 85).

Postnatal checkups form an important part of maternal care, but it was found that for those who had live births in the last two years less than one postnatal checkup on average was done (in both districts) (Table 86). Most of these checkups took place at health posts (29% in Dhading and 26% in Banke) and soon after the delivery. The newborn baby in 10% of the live births in Dhading and 11% of the live births in Banke had to be hospitalized (Table 87 and Table 88).

" ......a majority of live births (61% for both Dhading and Banke) took place at home......"

<u>Stillbirths, Miscarriages and Abortions</u>

Out of the five reported stillbirths (for the last two years) in the sampled population, three were normal deliveries and two were Caesarean. Among the nine miscarriages in the same period within the population, two required hospitalization and all three induced abortions (all in Dhading) required hospitalization (Table 89-91).

3.2.5. Hospitalization

Within the last year, 437 hospitalization episodes were reported in the sampled population within the two districts. It was observed that the highest incidence of hospitalization was in the 60+ age group (close to 10% for both males and females) (Fig. 37). This was followed by the 46-60 age group, where the male population had a hospitalization incidence rate of 5.4% compared with 7% for the female group. It was also found that within the different age groups (for a number of the groups) there was a statistically significant difference between the hospitalization rates found within the male and female groups. For the entire population, it was also found that the rate of hospitalization for females (3.5%) was different (statistically significant at p value = 0.01) and higher than the rate of hospitalization for males (4.5%) (Table 92).

Figure 37: Incidence of hospitalizations (by gender) within the last year for different age groups (Districts Total)
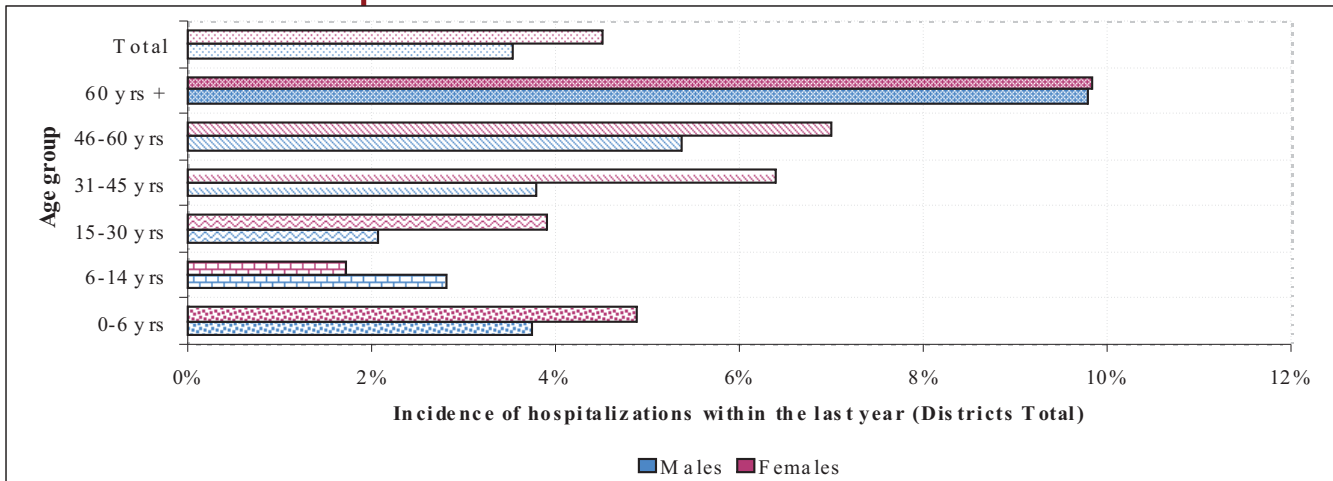
When the male and female hospitalization rates were broken down by district (Fig. 38), Dhading showed a more consistent upward trend of hospitalization rates, with females having higher values than males as age increased. For Dhading, the highest hospitalization rate was found in females in the 60+ age group (12.33%) compared with 9.95% of the males in the same age group. This was followed by the 46-60 age group with males having a hospitalization rate of 5.5% and females having a rate of 7.6%. In Banke, it was observed that the highest hospitalization rate was in the 60+ age group both for males (9.6%) and for females (7.69%). This was followed by the 46-60 age group for males (5.3%) and the 31-45 age group for females (7.65%) (Table 93).

The consistent message coming out here is that in the population (across districts and otherwise) the older age groups consistently had more

hospitalizations and that females seemed to have higher hospitalization rates than males.

Figure 38: Rate of hospitalization for both genders across age groups (Dhading and Banke):
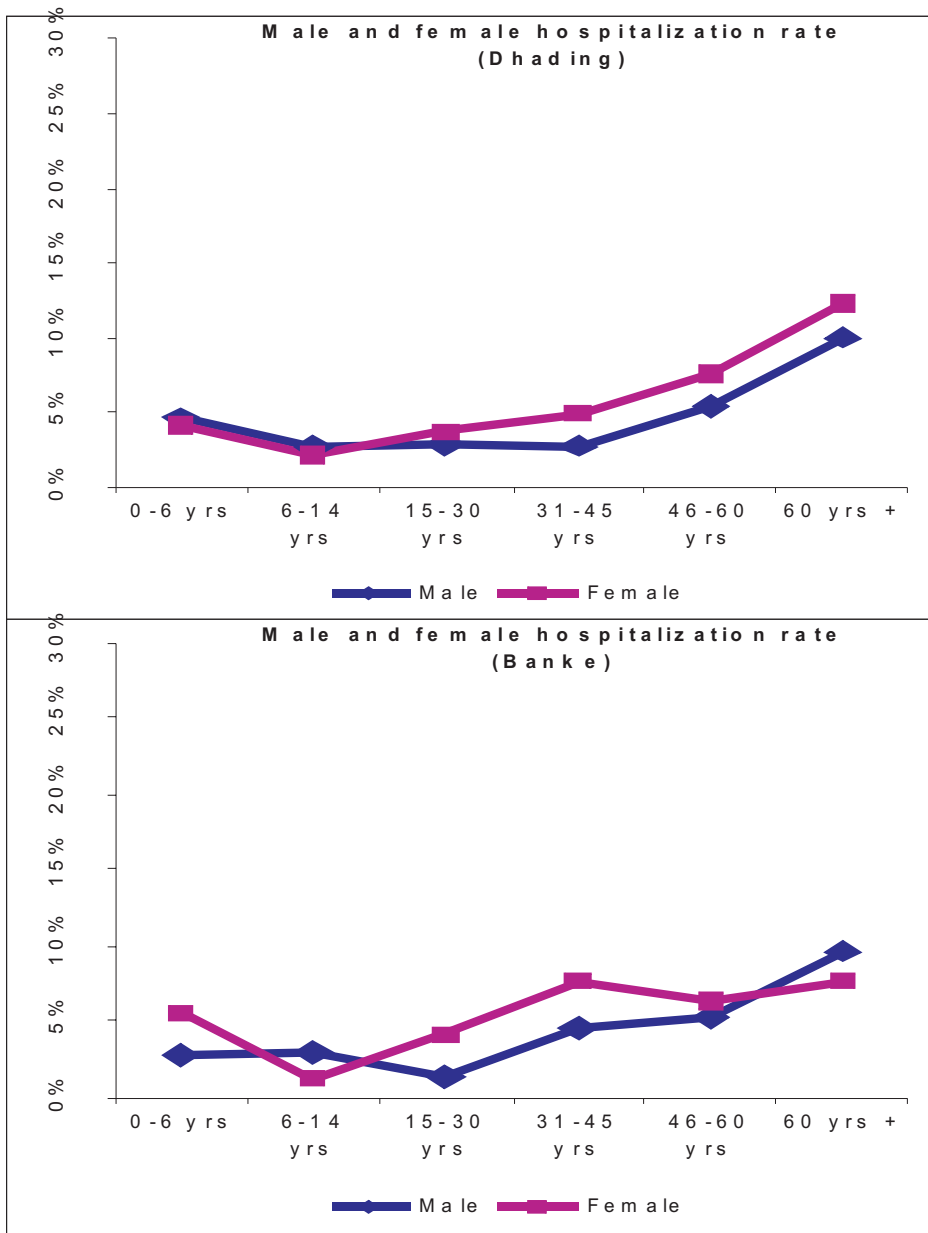
3.3.   Health seeking behavior

A number of factors can govern health seeking behavior within a population. An attempt was also made In the survey to understand the health seeking behavior of the sampled population.

Section one deals with our findings about the actual health seeking behavior of the sampled population (based on illness data within the last month), and the

subsequent section summarizes the sampled population's choice of health care when given various options.

3.3.1. Health seeking behavior as observed during illness within the last month

3.3.1.1. Preference for health care providers for the illness within the last month

The treatment seeking behavior of people was probed in detail in order to get an understanding of their preferences, motivation and determining factors. However, since the key objective of the survey was to assess the feasibility of introducing a community-managed, micro-health-insurance scheme in the two districts of Nepal, Dhading and Banke, which will cover only allopathic remedies, the probing was restricted to seeking information with regard to the allopathic medical system. Though it was understood that a number of people often take recourse to traditional healers and other medical systems (such as homeopathy and Ayurveda), the survey sought information only on the allopathic system of medicines. Allopathic practitioners are classified under three broad categories: government, RMPs and private qualified practitioners. When consultation is sought from a government run institution like sub-health posts, health posts, primary health centers or hospitals, it is classified under government.

Those doctors with a medical degree that is recognized in Nepal (MBBS and above) are classified as private qualified practitioners. There are primarily two types of medical practitioners in this category: general practitioners (or GPs) who treat all types of ailments and specialist practitioners (or SPs) who treat a particular disease (gynecologists, pediatricians, surgeons etc.). Those who do not have recognized medical degrees but are engaged in prescribing and dispensing allopathic drugs are classified under the category of rural medical practitioners or RMPs. Self-proclaimed doctors and counter salespersons of pharmacies belong to this category.

All three categories of health care providers play an important role in providing healthcare services to the people of the two districts. However, people in Dhading used the services of government providers more often, and they treated 37% of the illness episodes. The second most utilized providers were RMPs with 33% of the episodes treated by them, and private qualified doctors stood third with a 26% share (Fig. 39 and Table 94).

Figure 39: Type of Provider chosen for different types of illnesses
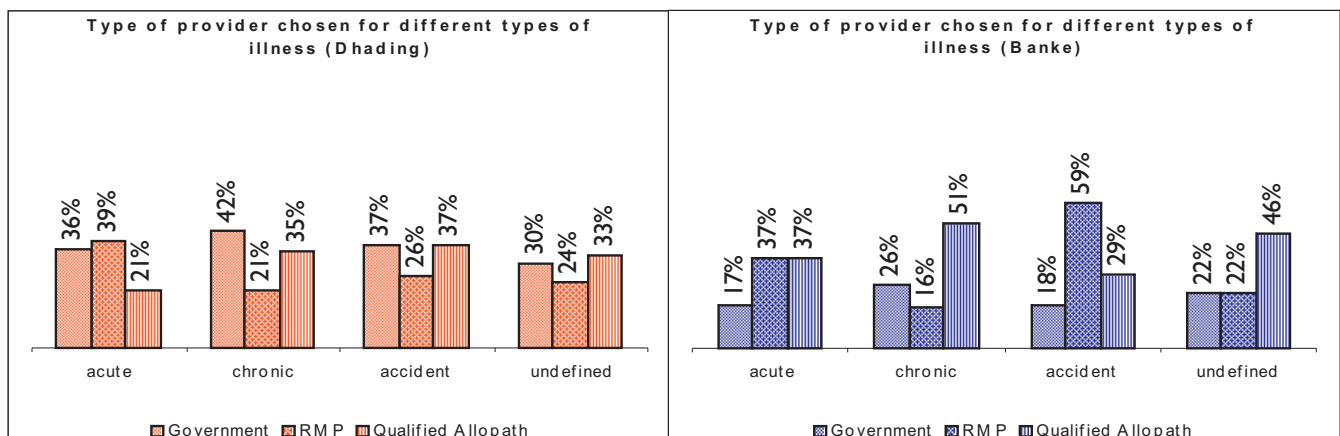
Utilization of services provided by private qualified doctors is particularly low in Dhading. This may be due to a lack of availability of such professionals in the neighborhood or because of their prohibitive consultation fees. Although Dhading is richer than Banke in terms of per-capita consumption, it has a difficult hilly terrain. The median value of consultation fees of private qualified physicians was NPR 300 per visit in Dhading and that of RMPs was NPR 200 per visit (Fig. 40).

Banke showed a reverse pattern when choosing health care providers. There the private qualified physicians held the maximum share with 40% of the illnesses treated by them. RMPs treated 33% of the illnesses and government institutions only 19%. The median value of consultation fees of private qualified physicians in Banke was NPR 500 per visit and that of RMPs was NPR 230 per visit.

Figure 40: Median Consultation Fee Per Visit
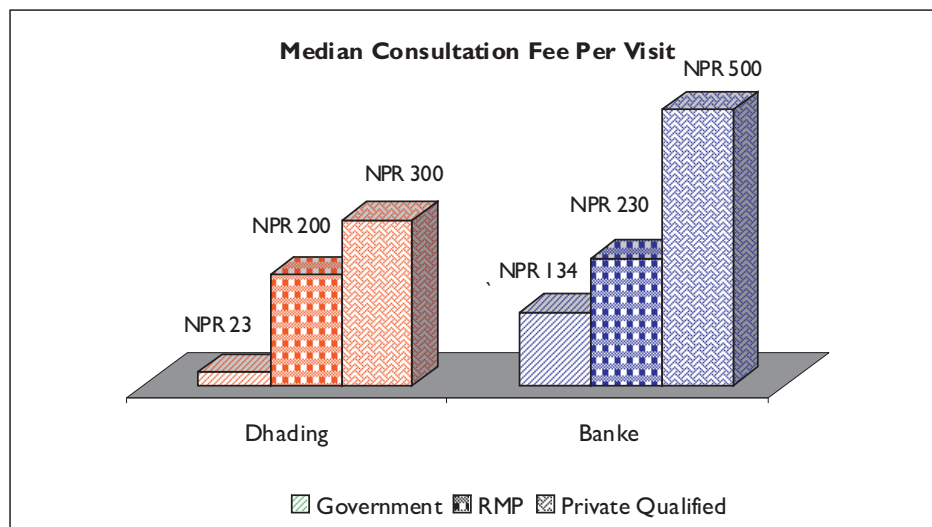
It is interesting to note that although the highest percentage of illnesses were treated by government institutions in Dhading and private qualified physicians in Banke, RMPs really came to assist in the hour of need. Most acute cases in Dhading were treated by RMPs (39%), followed by government institutions (36%) and private qualified physicians (21%). RMPs were the least utilized health care providers for other types of illnesses, that is, chronic, accidents and undefined illnesses in Dhading. In Banke, most accident cases (59%) were treated by RMPs; and RMPs and private qualified physicians treated an equal number of acute cases (37% each). RMPs were least utilized in the treatment of chronic illnesses in both districts. RMPs are also more easily accessible than general practitioners and specialists. In Dhading, the mean time to reach an RMP was 34 minutes, whereas it took more than 1.25 hour to reach a general practitioner or specialist (Table 95). In Banke, the average time taken to reach a health care provider was far less than in Dhading: 21 minutes to reach an RMP, 45 minutes to reach a general practitioner and 54 minutes to reach a specialist doctor.

In both districts people incurred some expenses when visiting government providers. Though the amount was quite small compared with the spending for

"…… although the highest percentage of illnesses were treated by government institutions in Dhading and private qualified physicians in Banke, RMPs really came to assist in the hour of need."

"In Banke, males in all age groups use the services of private qualified doctors more often than RMPs, whereas females in the younger age groups were more likely to be treated by an RMP than a private qualified doctor."

private qualified physicians and RMPs, this does raise some concerns since treatment at government institutions is absolutely free by government order.

A detailed analysis of the utilization of providers according to gender-age classifications showed some interesting results. In Dhading, although more people visited a government institution, males in the younger age groups were more likely to be treated by an RMP. When all age groups were combined, males were equally likely to be treated by a government institution (35.24%) and an RMP (35.71%), whereas government providers were visited by females in all age groups, with the exception of children below 6 years of age (Tables 96 to 98). Some socioeconomic factors may be responsible for the pattern, which requires further exploration. However, it is quite clear that illnesses in children (both males and females) are considered emergencies with people seeking treatment immediately without waiting for the government institutions to open. In Banke, males in all age groups use the services of private qualified doctors more often than RMPs, whereas females in the younger age groups were more likely to be treated by an RMP than a private qualified doctor. Government providers were least utilized in Banke by all gender-age combinations.

3.3.1.2. Treatment seeking behavior

In 11% of the cases of illness (the proportion was the same for Dhading and Banke), no treatment was sought from any allopathic providers. In 39% of this category of people (who did not seek any treatment but were sick in the month prior to the survey) in Dhading, family members thought that the illness was not serious enough to seek health care from external sources. In Banke this percentage was as high as 65% (Fig. 41).

Figure 41: Reasons for no treatment
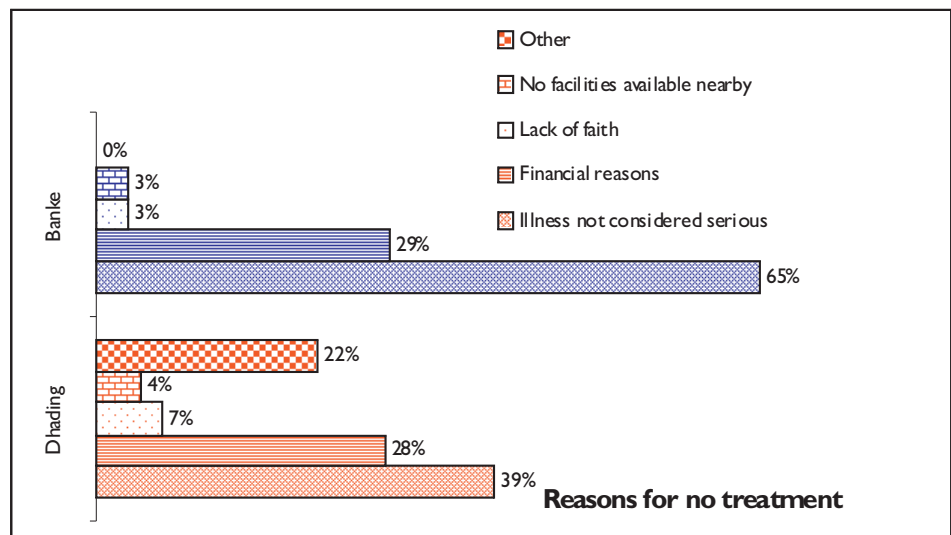
Financial constraints were the next reason cited in both districts (28% in Dhading and 29% in Banke). Few of them cited a lack of faith in the available health care providers and inaccessibility as the reasons for not seeking treatment. The gender-age distribution in all such cases did not show any particular discernible trend with respect to age, but in both districts more females than males fell into this category. In Dhading, 60% of those who did not

seek treatment were females. In Banke the proportion of females in this category was 58% (Table 101).

Compliance with doctors' advice is very high in both districts: 96% in Dhading and 98% in Banke. The compliance rate is very high even for chronic illnesses in which one has to take medicines throughout the year. However, whenever there was partial compliance or total noncompliance, the key reason was financial constraints (Table 102 and 103).

3.3.1.3. Mode of transport used to visit different types of health care providers

In both districts people mostly depend on public transportation or travel on foot to visit a health care provider. In Banke, among the population that went to a government facility, 28% of the patients used buses/public transportation, 27% went on foot, 22% used bicycles and another 14% used cycle rickshaws to reach it. Ambulances were used in only 3% of the cases (Fig. 42 and Table 105). Of the population that went to an RMP (in this case a Non-MBBS allopathic practitioner), 46% of the population went on foot, 31% went by bicycle, followed by 10% using buses/public transportation. As for those who went to a private qualified doctor, 35% had to use buses/public transportation, while 20% had to use a bicycle. This shows the proximity of the RMPs to the population, since most of those who went to these providers went either on foot or by bicycle compared with the other providers where most had to use buses/public transportation.

"Compliance with doctors' advice is very high in both districts: 96% in Dhading and 98% in Banke."

Figure 42: Mode of transport used to reach health care providers by provider type (Banke)
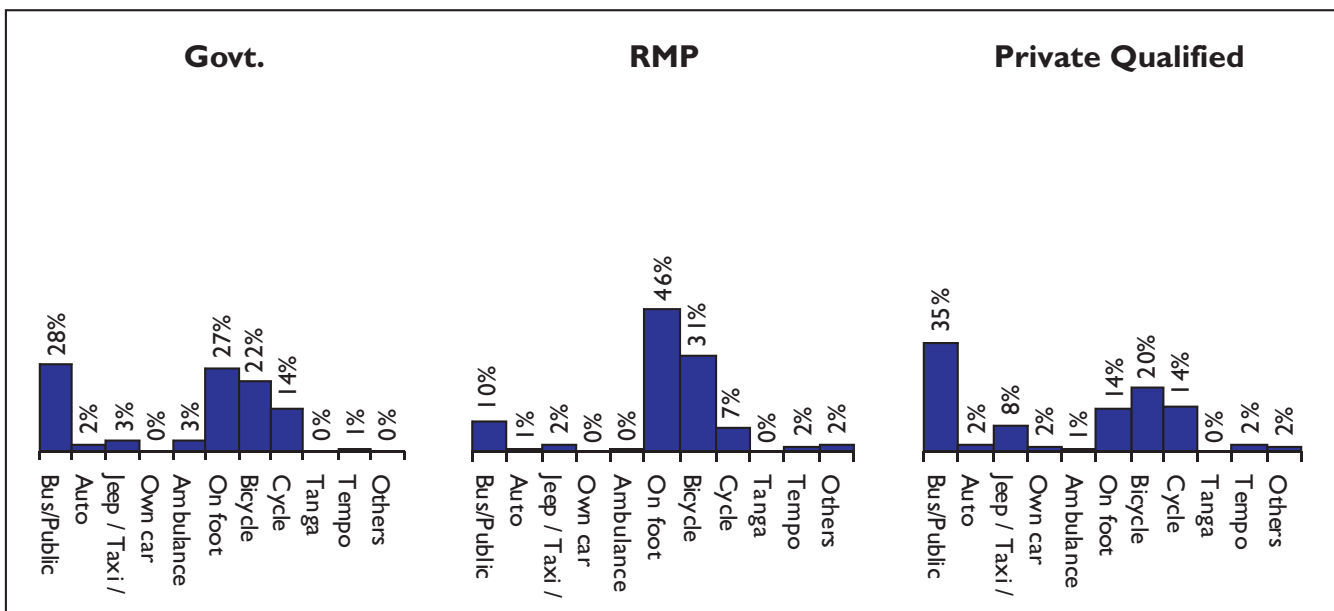
In Dhading, 62% of the patients who went to government providers used buses/public transportation, while 25% reached providers on foot. For those who went to an RMP, 51% arrived on foot and 44% on buses/public transportation. As for the patients who went to a private qualified doctor, 65% used buses/public transportation to reach providers and 25% arrived on foot (Fig. 43). This again highlights the proximity of RMPs to the population since most of the patients going to these providers went on foot, whereas in the case

of the other providers, most people had to use buses/public transportation.

Figure 43: Mode of transport used to reach health care providers by provider type (Dhading)
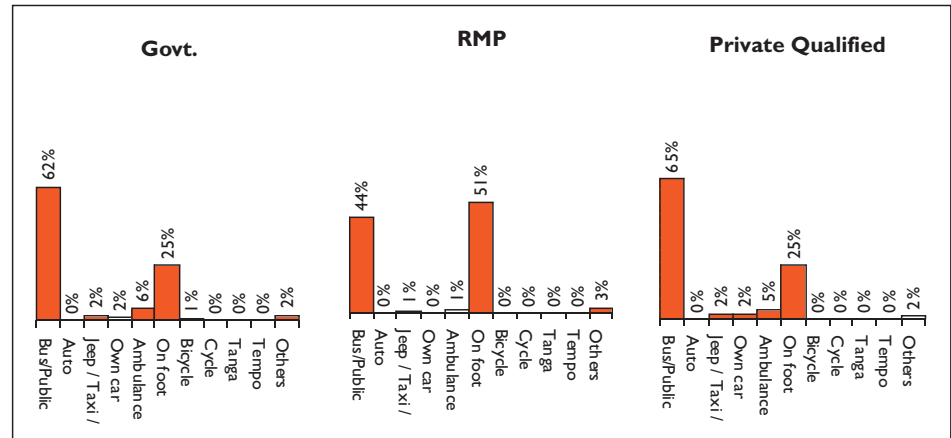
In terms of hospitalizations, the population more often resorted to buses/public transportation as a mode of transport to reach their respective providers. For the Banke patients who went to a private hospital for hospitalization, 29% used buses/public transportation, followed by 16% who used an ambulance. Of the patients who went to a public hospital, 42% used buses/public transportation followed by 19% who used an ambulance. Among those patients who went to a charitable hospital for hospitalization, 27% did so by using buses/public transportation, followed by 18% of the population who used an ambulance and an equal percentage who used a bicycle (Fig. 44 and Table 107).

Figure 44: Mode of transport used by patients to reach different types of hospitals: Banke
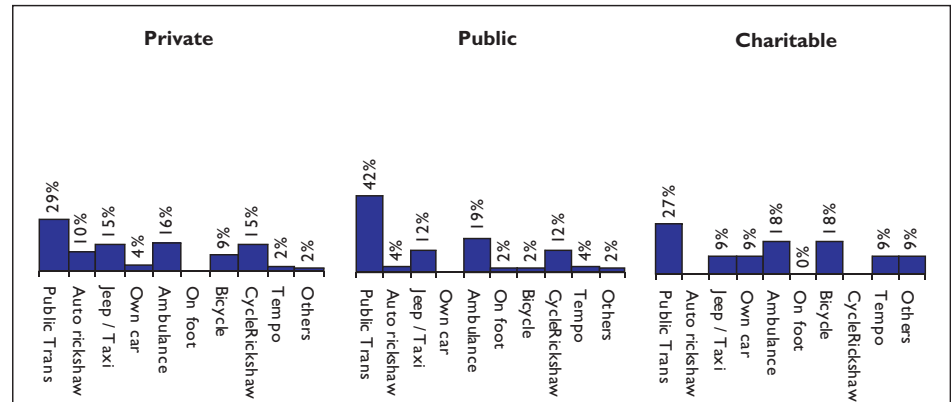
In terms of the hospitalizations in Dhading, patients who went to a private hospital, 64% used buses/public transportation as a mode of transport to reach the hospital. This was followed by 21% of the population who used an ambulance. On the other hand, of the population who went to a public hospital, the majority of them (61%) had to use buses/public transportation, followed by 26% who had to use an ambulance. There were a couple of cases where the patients were hospitalized in a charitable hospital, and used buses/public transportation to go there (Fig. 45).

Figure 45: Mode of transport used by patients to reach different types of hospitals: Dhading

"……both the mean and median transportation costs of hospitalization are much lower in Banke."
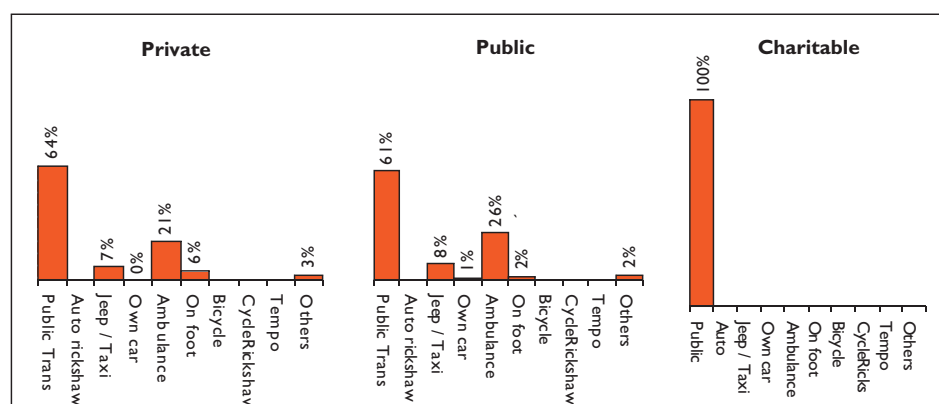
The most frequent means of transportation for hospitalization in both districts were buses and other public transportation. However, dependence on public transportation (motor vehicles) was much higher in Dhading (62%) than Banke (34%). Ambulances were used for 24% of hospitalizations in Dhading and 17% in Banke. Because of the hilly terrain of the Dhading district, there is hardly any mode of transportation other than motor vehicles. In the absence of motor vehicles, people have no other choices but to walk. Low-fare motor vehicles such as auto-rickshaws are also not suitable for the hilly roads of Dhading. The situation is slightly more advantageous for the people of Banke. There cycle rickshaws and bicycles were used to carry almost 20% of the hospitalized patients, another 7% were transported by low-fare motor vehicles like auto-rickshaws. The proportion of patients going on foot was relatively lower in Bankeless than 1% as compared with nearly 3% in Dhading (Table 108).

The survey revealed that the cost of transportation for the hospitalization of patients is quite high in both districts. The average cost of transportation by bus or other public transportation was NPR 295 in Dhading and NPR 733 in Banke. The average cost of a hired car (jeep/taxi) was NPR 2,773 in Dhading and NPR 1,058 in Banke and that of an ambulance was NPR 1,750 in Dhading and NPR 818 in Banke. However, these high average costs may be due to some long distances. The median cost of public transportation, hired car and ambulance was NPR 200, NPR 900 and NPR 1,600, respectively, in Dhading. The median cost for Banke was NPR 200, NPR 300 and NPR 625, respectively, (Table 109). It is evident that both the mean and median transportation costs of hospitalization are much lower in Banke.

3.3.2. Health service provider utilization trend when given choices
3.3.2.1. *Consultation*

The sampled households were asked about their first point of contact (practitioner) for seeking medical treatment (Fig. 46). In both districts the majority of the population said they would go to Non-MBBS (non-degree) allopathic practitioners (Dhading 36% and Banke 51%). Twenty-eight per cent of the Dhading population (the second highest share of the population) then said that traditional healers were their first point of contact for seeking medical treatment, followed by an ANM/nurse, AHW, MCHW, VHW or any other health worker (18% of the Dhading population). On the other hand, the second highest category of practitioner who was the first point of contact for the Banke

"The responses clearly revealed that accessibility to healthcare service providers is a cause for concern, since most of the population visited certain practitioners as their first point of contact for seeking treatment on the basis of their distance from them."

population was an MBBS (degree) doctor/specialist (28%), followed by traditional healers (9%) (Table 111).

Figure 46: First point of contact for medical treatment
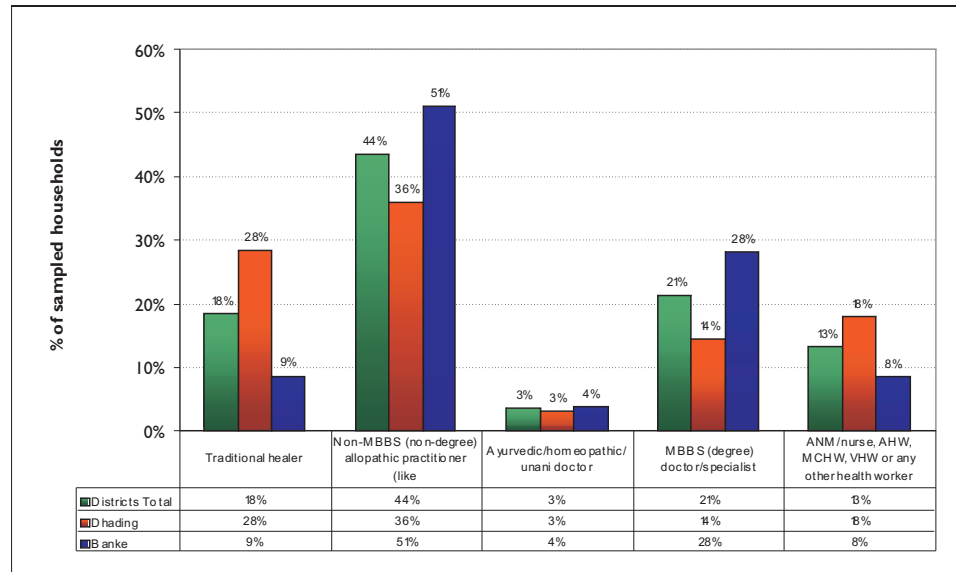
	Traditional healer	Non-MBBS (non-degree) allopathic practitioner (like	Ayurvedic/homeopathic/ unani doctor	MBBS (degree) doctor/specialist	ANM/nurse, AHW, MCHW, VHW or any other health worker
Districts Total	18%	44%	3%	21%	13%
Dhading	28%	36%	3%	14%	18%
Banke	9%	51%	4%	28%	8%

The responses clearly revealed that accessibility to healthcare service providers is a cause for concern, since most of the population visited certain practitioners as their first point of contact for seeking treatment on the basis of their distance from them. Sixty-two per cent of the population in Dhading and 63% of the population in Banke mentioned their respective practitioners as the first point of contact because they were the closest (Table 112). Only 17% of the population in Dhading and 19% of the population in Banke mentioned their respective practitioners because they felt that the practitioners were the best. Thereafter, 10% and 15% of the population in Dhading and Banke, respectively, mentioned their practitioners because they felt that the practitioners were the cheapest (Fig. 47).

Figure 47: Reason for choice of practitioner chosen as the first point of contact for seeking treatment
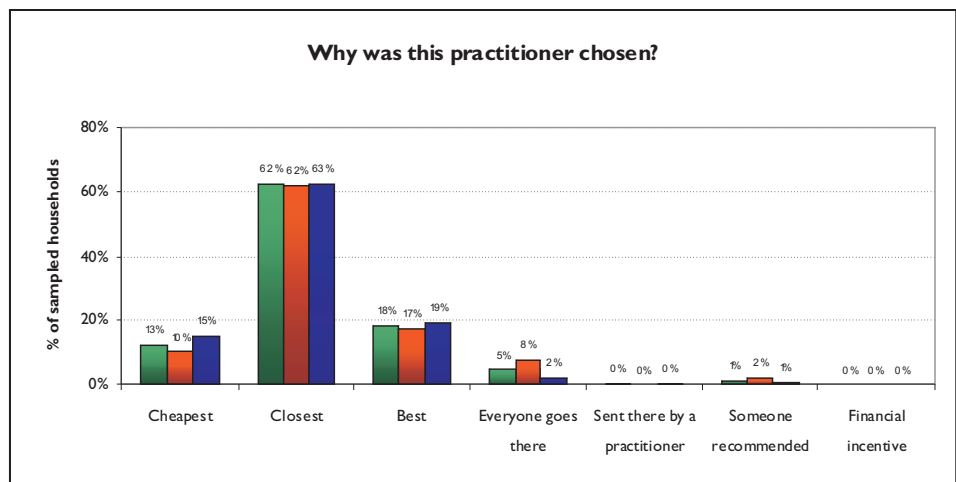
3.3.2.2. Pharmacies

The population was asked to name the type of pharmacy they would visit first to obtain medicines. The majority in both districts (91% Dhading and 89% Banke) said they would go to private pharmacies first to obtain medicines (Table 113). This was followed by a mere 9% of the population in Dhading and 10% in Banke who said they would go to a government pharmacy (Fig. 48).

Figure 48: Type of pharmacy visited first to obtain medicines

	Private	Government	Charitable
■ Districts Total	90%	10%	0%
■ Dhading	91%	9%	0%
■ Banke	89%	10%	0%
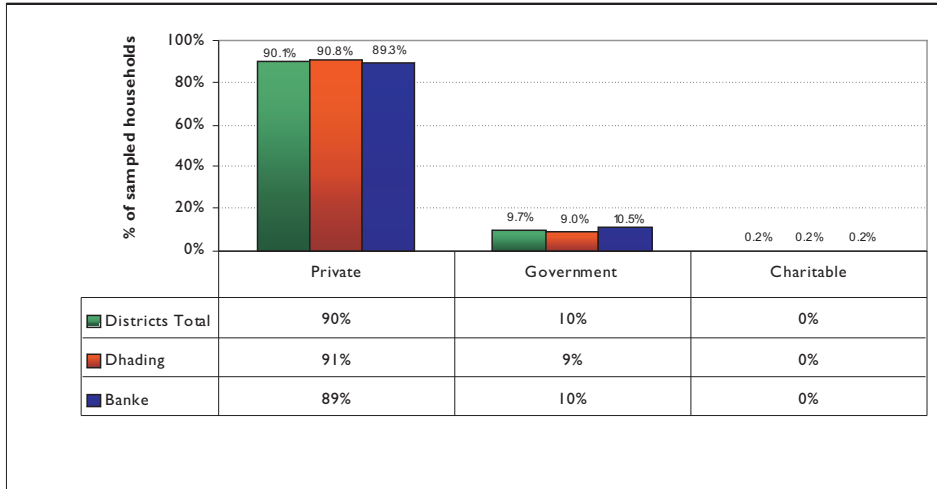
The reason for going to a particular pharmacy also highlights the fact that the distance of the healthcare service providers from the sampled population is a cause for concern. Approximately 80% of the population in Dhading and 72% of the population in Banke mentioned their respective type of pharmacy because it was the closest (Table 114). The order of the "reasons for choosing the pharmacy" was more or less the same in both districts (Fig. 49).

Figure 49: Why was this pharmacy chosen?
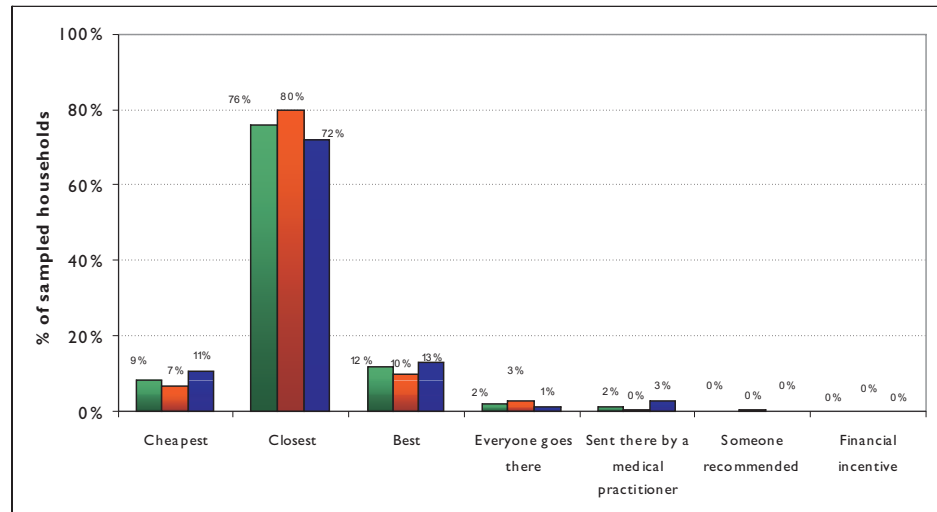
3.3.2.3. Hospitals

The population was later asked to name the most utilized hospital if an overnight hospitalization were required. In Dhading the majority (61%) went to government hospitals, followed by private hospitals which were visited by 39% of the Dhading population. Banke had the same order of utilization, with the

"…..the major reason for choosing a government hospital was that it was the cheapest; as for the private hospital, it was the best and closest."

majority (50%) of the population visiting government hospitals and 48% visiting private ones (Fig. 50).

Figure 50: Type of hospital the sampled population would go to if overnight hospitalization were needed

	Private	Government	Charitable
■ Districts Total	44%	56%	1%
■ Dhading	39%	61%	0%
■ Banke	48%	50%	1%
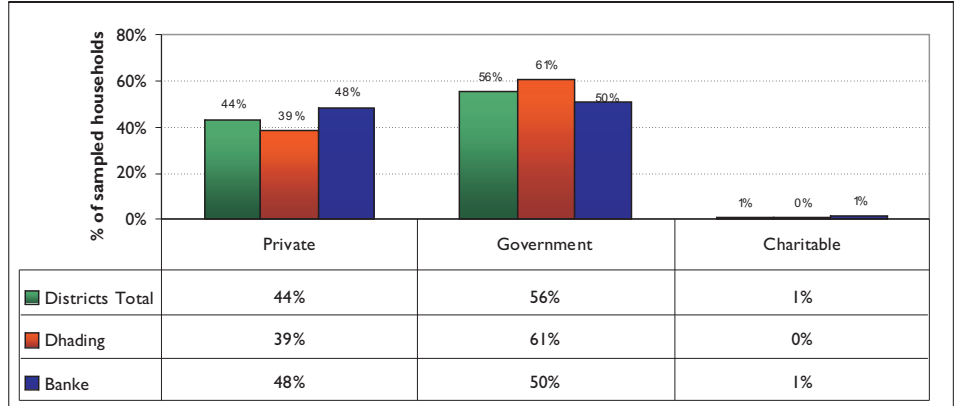
The reason for visiting the respective hospital types varied between the two districts (Fig. 51). The majority in Dhading (35%) visited a particular hospital type because it was the best, whereas the majority in Banke (36%) visited their type of hospital because it was the cheapest. Thereafter in Dhading, the next highest share of the population (32%) visited their hospital types because they were the cheapest, followed by 25% of the population who visited them because they were the closest. In Banke, on the other hand, two reasons (closest and best) for visiting the respective hospital types had the next highest share of the population (29% each).

Figure 51: Reason for choosing hospital
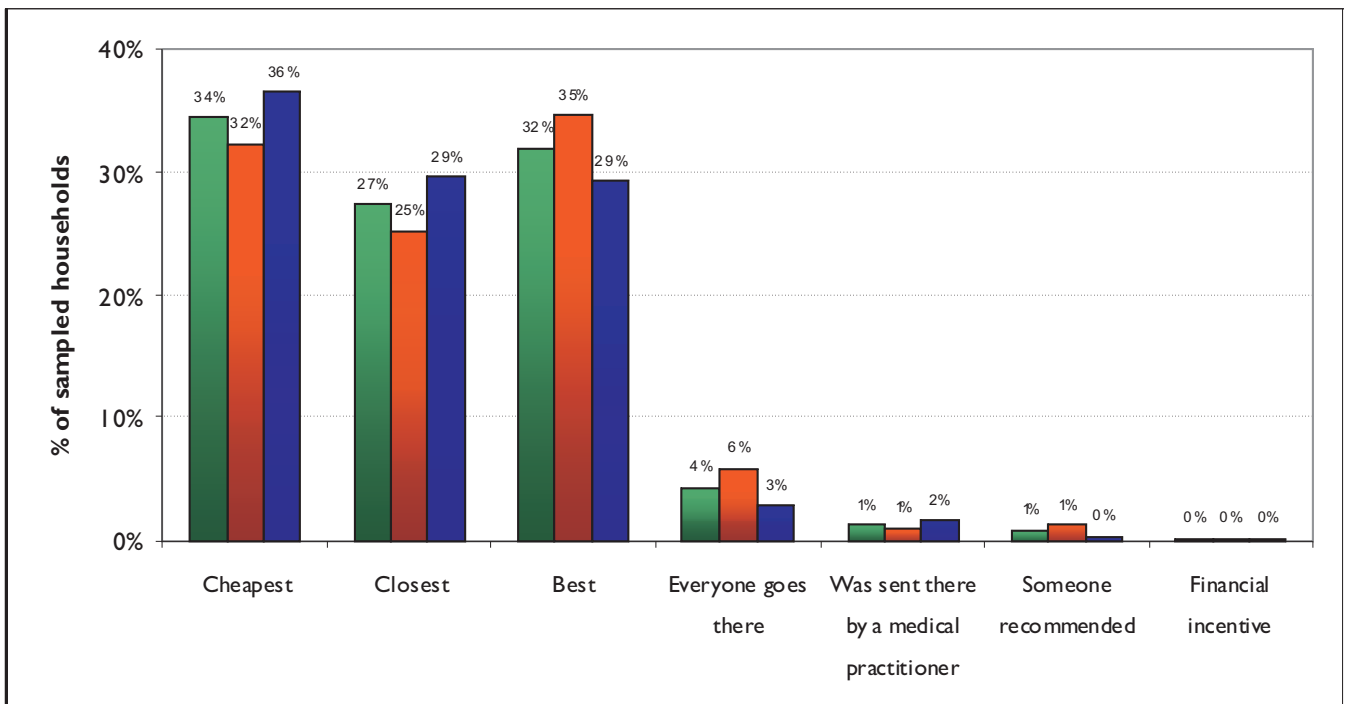
When the reason for choosing a respective hospital was further broken down to explore the reasons for private vs. government hospitals, it became clear that the major reason for choosing a government hospital was that it was the cheapest; as for the private hospital, it was the best and closest (Fig. 52 and 53).

Figure 52: Reason for choosing a private hospital for hospitalization
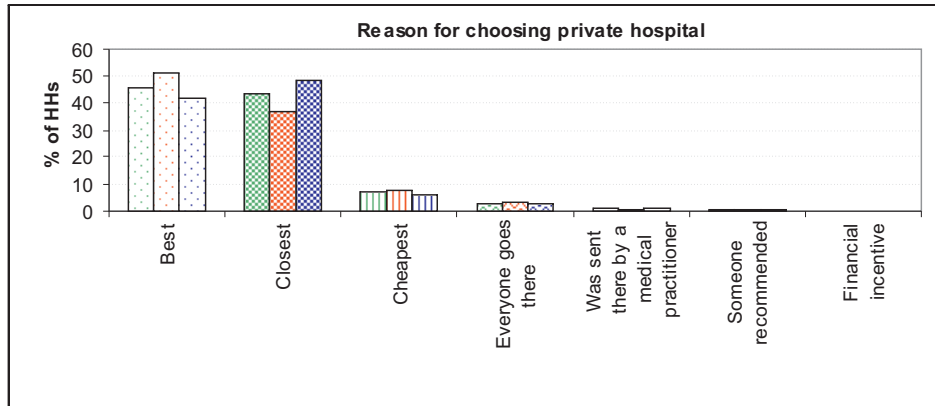
Figure 53: Reason for choosing government hospital for hospitalization
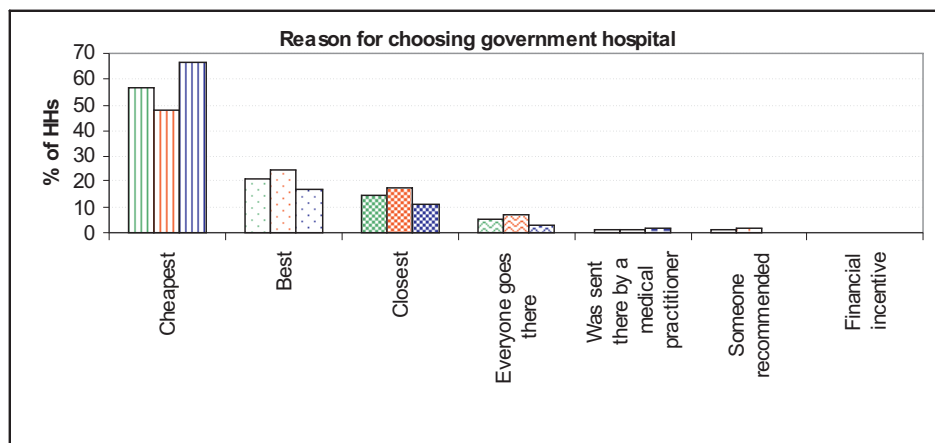
3.4. Health spending

3.4.1. Amounts of health spending

The sample found that 97% of the households reported having some form of healthcare expenditure within the last year. The self-estimated annual household expenditure on health care for the entire sample across the different quintiles showed relatively gradual growth, with the exception of the fifth quintile (mean expense was NPR 35,171) for which a steep increase was observed (Fig. 54). The same trend was also observed in the population for the two districts individually. The mean annual household expenditure on health care for the entire sample was found to be NPR 9,905; in Dhading it was NPR 10,540 and in Banke NPR 9,275 (Table 117). An independent sample T-test (Table 118) on the self-reported annual household expenditure on health care for the two districts revealed that there was no significant difference (p value = 0.145) between the two groups (households of Dhading and Banke).

Figure 54: Annual HH expenditure on health care across the population (Districts Total)
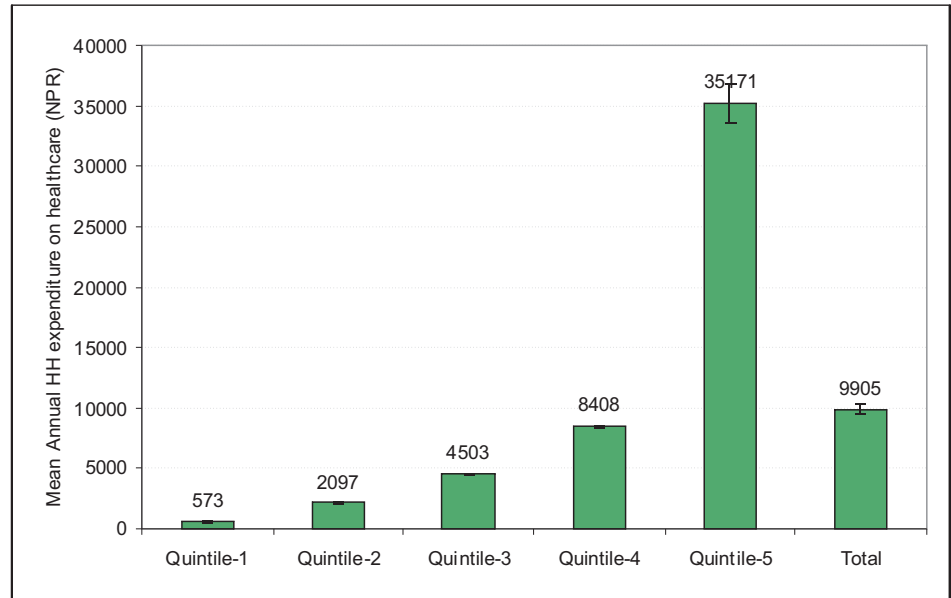
To bring healthcare expenditures more into the context of the financial status of the population, per-capita annual household healthcare expenses were compared with the per-capita annual consumption of the population. In the sampled population, we found that within the different annual per-capita consumption quintiles (the MPCC as a proxy for income), the per-capita annual healthcare expenditure as a share of the per-capita annual consumption varied from 6.58% in the first quintile to 7.98% in the fifth quintile. The mean annual per-capita consumption for the fifth quintile was NPR 53,068, of which the mean self-estimated annual per-capita health expenditure was NPR 4,236. By contrast, the mean annual per-capita consumption and the mean self-estimated annual per-capita health expenditure in the first quintile were NPR 9,965 and NPR 655, respectively, (Fig. 55). Health expenses as a share of total consumption for Dhading varied from 6.26% in the first quintile to 8.17% in the second quintile, whereas for Banke it varied from 6.24% in the third quintile to 9.14% in the fifth quintile (Table 120).

Figure 55: Consumption measured against self-estimated health expenditure (Districts Total)
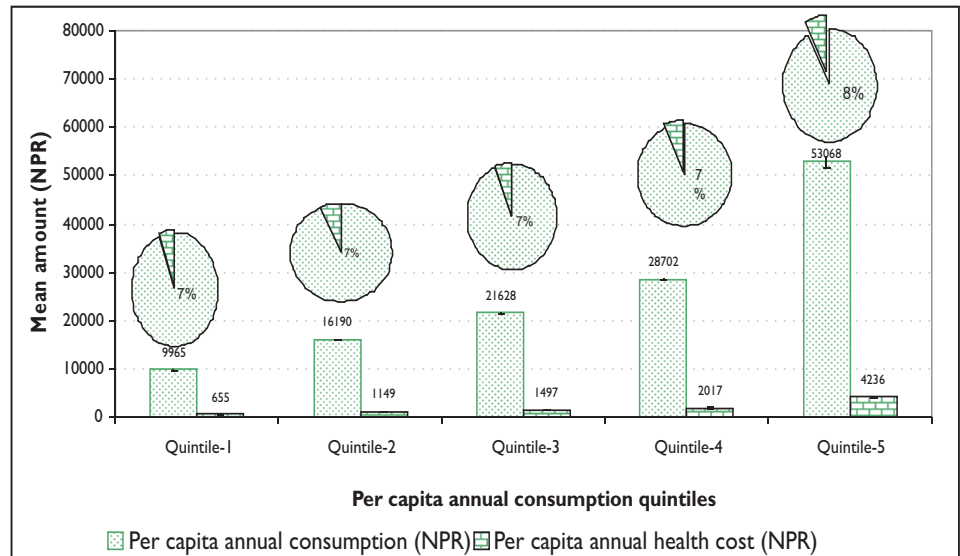
The relationship between Annual Per Capita Household Healthcare Expenditure and Annual Per Capita Household Consumption was also explored using the Pearson product-moment correlation coefficient (Table 121). It was found that there was a low positive correlation between the two variables (r = 0.221).

3.4.2. Illness Expenses

As mentioned in the health profile section, a total of 1,348 illness episodes (including chronic) were reported by the population within the month prior to the survey. Out of these illnesses it was found that 72% of the illness episodes were acute in nature and accounted for 57% of total medical expenses on illnesses. Chronic illnesses on the other hand accounted for 20% of the illness episodes and 31% of the total medical expense on illnesses (Fig. 56).

Figure 56: Share of illness episodes and share of costs for different illness categories (Districts Total)
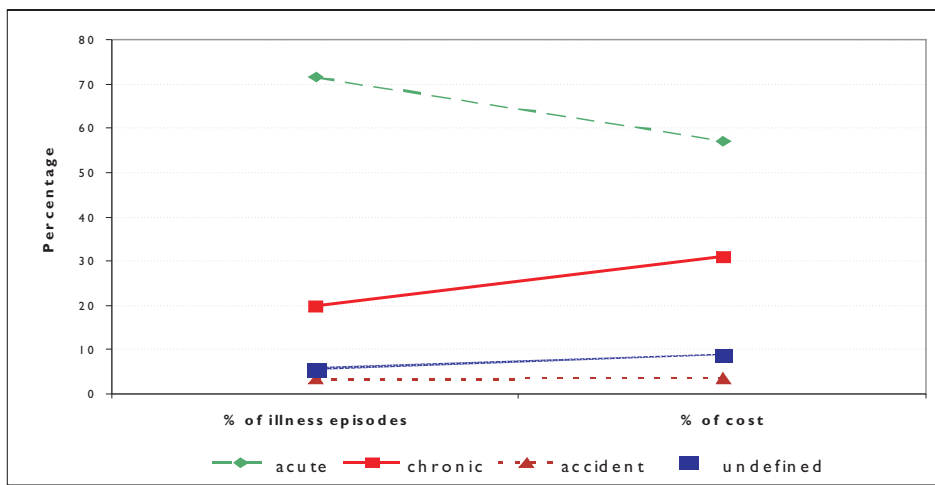
3.4.3. Hospitalization Expenses

Figure 57: Mean hospitalization costs for the different age groups (Districts Total)
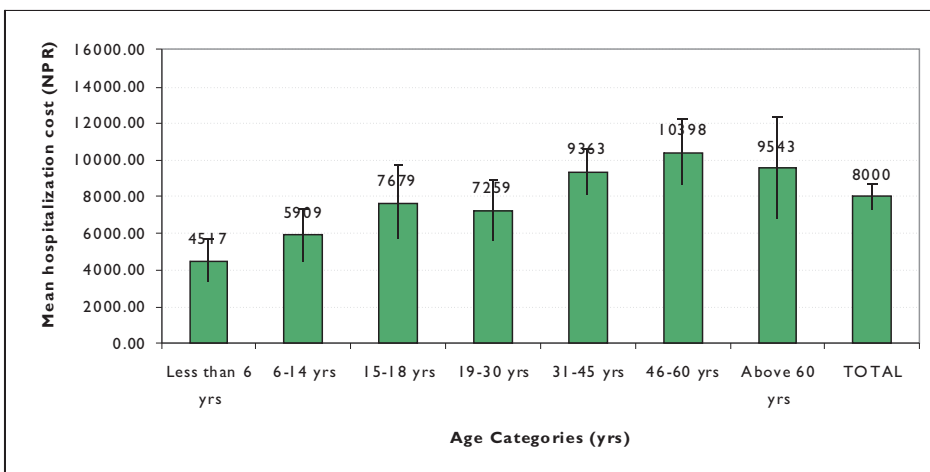
Among the healthcare costs, hospitalizations were generally the highest cost events. In the sampled population, 437 hospitalization episodes were reported in the year prior to the start of the survey. The mean hospitalization expense for the hospitalization episodes was found to be 8,000 (SEM = NPR 685), 8,783 (SEM = NPR 1,000) and 7,263 NPR (SEM = NPR 938) for both districts

combined, Dhading and Banke respectively. It was also evident that the 46-59 age group had the highest mean hospitalization expense (NPR 10,398, SEM = NPR 1,778) for the districts combined followed by the >=60 age group (Mean = NPR 9,543, SEM = NPR 2,728) (Fig. 57 above).

Figure 58: Mean hospitalization costs for the different age groups (Dhading)
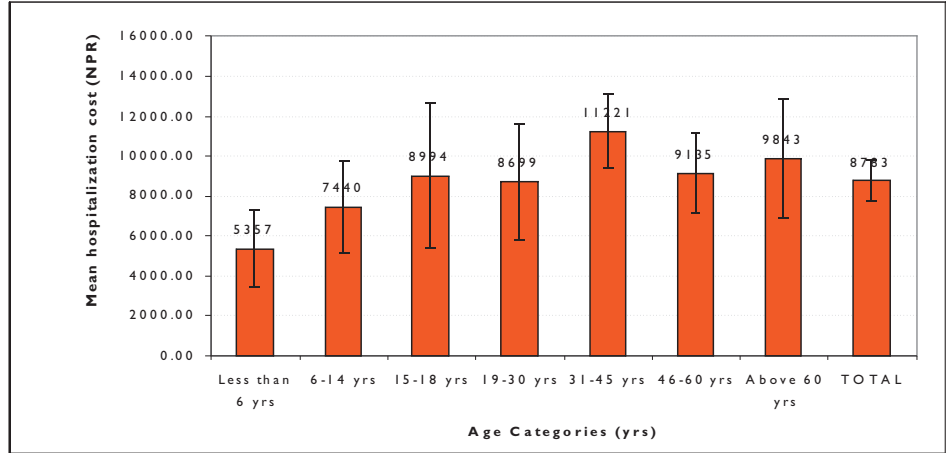
Dhading's high-hospitalization-cost age group differed from the total for the districts. The 31-45 age group was the highest hospitalization expense category (Mean = NPR 11,221, SEM = NPR 1,884) (Fig. 58). This category was followed by the >=60 age category, which had a mean hospitalization expense of NPR 9,843 (SEM = NPR 2,991). The next highest mean hospitalization expense age category was the 46-59+ age category with a mean value of NPR 9,135 (SEM = NPR 2,021).

The Banke dataset showed that the older working population was in the higher hospitalization expense categories. In Banke (Fig. 59), the 46-59 age category had the highest mean hospitalization expense of NPR 11,709 (SEM = NPR 2,978), followed by the over 60 age category (Mean = NPR 9,172, SEM = NPR 4,911) and then the 31-45 age category (Mean = NPR 8,360, SEM = NPR 1,608). The two districts were then compared in terms of hospitalization expenses using a T-test, and it was found that statistically there was no significant difference (p value = 0.153) between the two groups (households of Dhading and Banke) (Table 124).

Figure 59: Mean hospitalization costs for the different age groups (Banke)
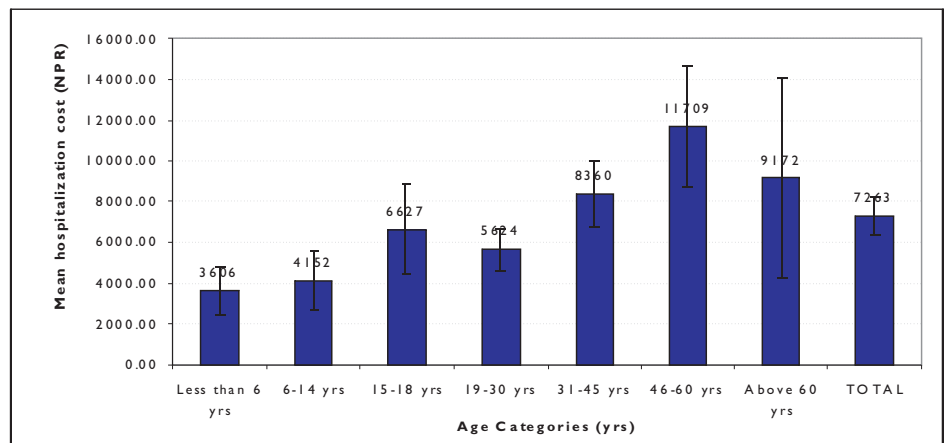
3.4.4. Maternal Care Expenses

Costs incurred during the prenatal care period

Costs associated with maternal care began with the expenses of prenatal checkups. It was observed that within the population the average cost of a prenatal checkup per pregnancy episode varied quite a bit, and high costs were reported even for some government facilities (Table 125). The average cost of prenatal checkups per pregnancy episode in Dhading varied from NPR 0 (at a PHCC, etc.) to approximately NPR 3,280 (at a private hospital/maternity home) (Table 126). In the government hospitals of Dhading, the average cost of prenatal checkups per pregnancy episode (except for current pregnancy cases) was reported to be above NPR 2,000. In Banke, the respective costs varied from NPR 0 (in an HP, etc.) to around NPR 1,426 (at a private hospital/maternity home). In the government hospitals of Banke, the respective cost on average was approximately NPR 826 (for live-birth cases).

The number of prenatal checkups [PNC] per pregnancy episodes varied and in current pregnancy cases, these checkups were not complete. Therefore, per PNC costs calculated from the reported dataset were examined, and it was observed that on average a PNC checkup cost NPR 245 in Dhading and NPR 116 in Banke (all types of facilities and all types of pregnancy episodes combined). When only private hospitals/maternity homes were examined, the same average cost was found to be approximately NPR 630 and NPR 358 in Dhading and Banke, respectively (all types of pregnancy episodes combined). At the same time, the average per PNC checkup cost for all facilities combined, except the private hospitals/maternity homes was found to be NPR 218 in Dhading and NPR 92 in Banke (all types of pregnancy episodes combined). For pregnancy episodes in Dhading that culminated in live births, the average cost of a PNC checkup at a government hospital (NPR 579) was almost equal to the average cost of a PNC checkup at a private hospital/maternity home (NPR 578) in Dhading, while the respective values for Banke were NPR 213 and NPR 354.

For the one case of miscarriage in Dhading, the hospitalization cost was reported as NPR 4,000, and for the three induced abortion cases in Dhading, the hospitalization on average cost approximately NPR 1,300 (Table 127 and 128).

Costs associated with delivery

It was found that on average the cost of a delivery (for pregnancy episodes that culminated in a live birth) in Dhading was approximately NPR 2,121 and in Banke approximately NPR 2,413 (for normal and Caesarean deliveries and place of delivery combined). When the cost of deliveries was further broken down according to the type of delivery, it was observed that the average cost of a normal delivery was NPR 1,833 in Dhading and NPR 1,495 in Banke; the average cost of a Caesarean delivery in the respective districts was NPR 6,960 and NPR 8,041 (all places of delivery combined and only in live birth cases). When delivery costs were broken down by the place of delivery for all live births, non-institutional deliveries cost approximately NPR 383 on average, and institutional ones cost NPR 4,513 on average (all normal and Caesarean deliveries combined). For institutional deliveries, the average cost (for live birth cases only) of a delivery (Caesarean and normal) at different facilities varied from NPR 914 (SHP) to NPR 9,750 (private hospital/maternity home) in Dhading and from NPR 925 (PHC) to NPR 6,117 (private hospital/maternity home) in Banke. When the delivery costs (only live births) were further

"……within the population the average cost of a prenatal checkup per pregnancy episode varied quite a bit, and high costs were reported even for some government facilities."

dissected into facility types and separated into normal and Caesarean deliveries, it was observed that the average normal delivery costs varied from NPR 914 (SHP) to NPR 13,000 in Dhading (private hospital/maternity home) and from NPR 900 (PHC) to NPR 4,175 in Banke (private hospital/maternity home). For Caesarean deliveries, the respective costs varied from NPR 3,000 (HP) to NPR 7,657 in Dhading (government hospital) and from NPR 900 (PHC) to NPR 10,813 in Banke (private hospital/maternity home) (Table 129).

On the other hand, for the few stillbirth cases, the average cost of a normal delivery was NPR 500 in Dhading and NPR 400 in Banke, compared with the average cost of Caesarean deliveries in Dhading at NPR 20,000 and Banke at NPR 10,000 (Table 130).

Costs incurred in the postnatal care period
The average cost for postnatal care checkup visits (only live birth cases) was reported to be NPR 117 in Dhading and NPR 97 in Banke. For the small percentage of live birth cases (10% in Dhading and 11% in Banke) in which a newborn baby had to be hospitalized after birth because of complications, the mean cost of hospitalization in Dhading was found to be NPR 4,650 and in Banke approximately NPR 2,982 (Table 131 and 132). As for stillbirths, it was observed that the average cost of PNC checkups per pregnancy episode in which Caesarean delivery was performed was approximately NPR 1,000 for Dhading and NPR 0 for Banke (Table 133).

3.5. Sources of spending

The consumption capacity of households did not provide a true picture of the actual purchasing power of the family, since some consumption may have been financed with loans or borrowings. Therefore, the source of financing for healthcare expenses was examined. It was observed that the majority of the population was unable to finance their total health expenses and in many instances had to resort to loans and selling items. In addition, in a majority of cases people had to use multiple sources of financing to finance their healthcare expenses.

3.5.1. Illnesses
Figure 60: Source of Financing for Illnesses (Districts Total)
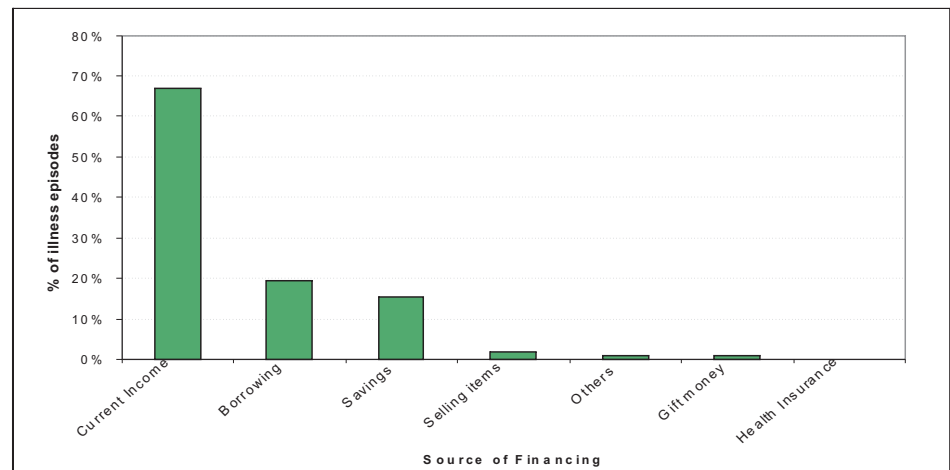
The source of financing was first examined in terms of the illness episodes that the sampled population had in the month prior to the survey (Fig. 60 above). Even for the reported illness episodes, which among healthcare expenses were generally expected to be high-frequency but low-cost events, in approximately 19% of the illness episodes, some form of borrowing was needed to finance the illness expense. In most illness episodes we also had found that multiple sources of financing had to be used to finance the illness episodes. In addition to this, in 67% of the episodes, current income was a source of financing for the illness episodes, which means that in 33% of the episodes current income was not used at all to finance the illness episode. One reason for this could be that the current income of the household was so low that even to finance an illness episode they had to directly look for another source of financing. For around 2% of the illness episodes, households also had to resort to selling some items to help finance it.

The source of borrowing was also broken down, in order to examine the providers of these loans (or borrowings). In approximately 3% of the borrowing illness episodes, borrowing was done from more than one source. It was observed that in 83% of the borrowing instances for illnesses, relatives/friends/neighbors were approached for loans. In 6% of these instances, financial institutions were approached and an NGO/relief agency and moneylenders were each approached in 5% of such instances (Fig. 61).

Figure 61: Source of borrowing for the different borrowing instances (Illnesses)-Districts Total
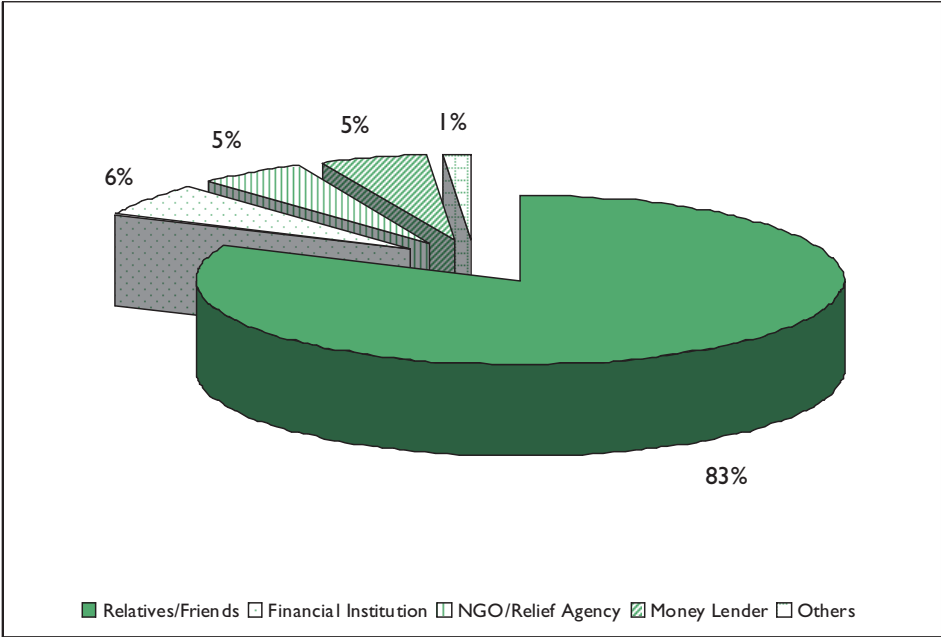
Borrowing was also examined across different illness types, and it was found that 19% of chronic illness episodes required borrowing, while 16% of acute and 23% of accident illness episodes required borrowing. For undefined illnesses (which could not be categorized from the collected information) borrowing was required in 27 percent of the cases to help finance the illness episode expenses (Fig. 62). A One Sample Chi-Square test was conducted (Table 137) on the illness categories in which borrowing was a source of financing, and it was found that statistically the groups (illness categories) differed (p value = 0.00).

> "In most illness episodes we also had found that multiple sources of financing had to be used to finance the illness episodes."

"….a significant part of the population could not afford the total hospitalization expense that occurred in their household and had to resort to borrowing (in 53% of the hospitalization episodes)."

Figure 62: Percentage of illness episodes (for different illness types) for which money was borrowed (Districts Total)
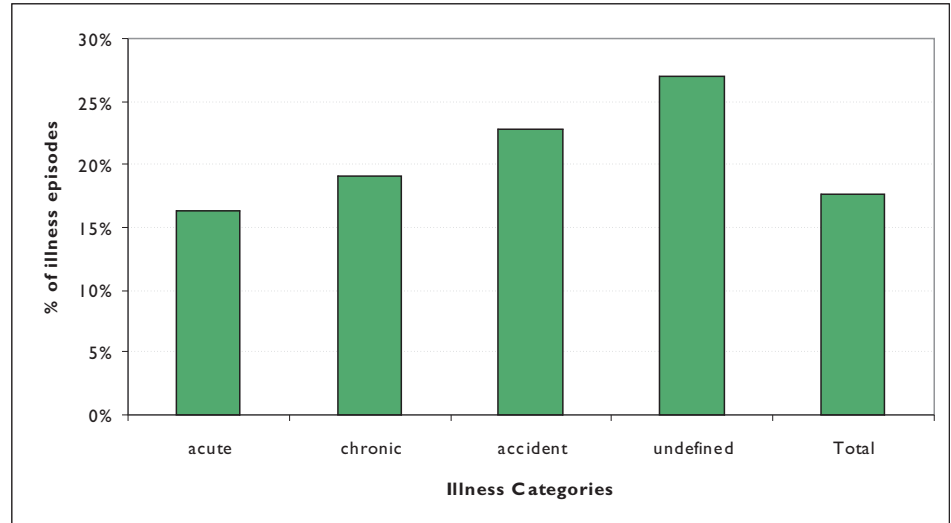
3.5.2. Hospitalizations

The source of financing for hospitalizations, which among healthcare expenses is expected to be a low-frequency but high-cost event, were also examined and it was found that the pattern of financing sources differed significantly from the financing sources for illnesses.

Figure 63: Source of Financing for Hospitalizations (Districts Total)
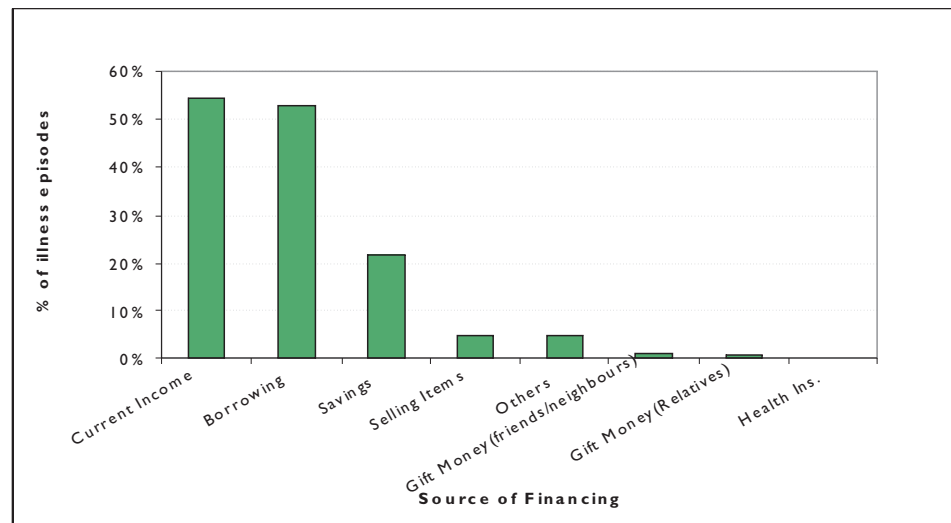
It was found that in only approximately 55% of cases was current income a source of financing, which means that in 45% of the cases, current income was not used at all to finance the hospitalization. Again, perhaps this was because the current household income was so low that they had to count on sources of financing other than their own in-hand current income. Here it also became clear that a significant part of the population could not afford the total hospitalization expense that occurred in their household and had to resort to borrowing (in 53% of the hospitalization episodes). Once again almost all

hospitalization episodes had multiple sources of financing. Also for approximately 5% of the reported hospitalization episodes, the household had to resort to selling items to help finance the hospitalization expenses (Fig. 63 above).

The source of borrowing for hospitalization episodes was further examined and, unlike illnesses, it was found that in a large share (around 94%) of the borrowing hospitalization episodes, multiple borrowing sources were used. It was found that just like with illness financing, relatives/friends/neighbors were approached in most cases (75% of the borrowing instances for hospitalization episodes) for loans to help finance the hospitalization expenses. This was followed by 9% each for instances of an NGO/relief agency or a financial institution (Fig. 64).

Figure 64: Source of borrowing for the different borrowing instances (Hospitalizations) - Districts Total
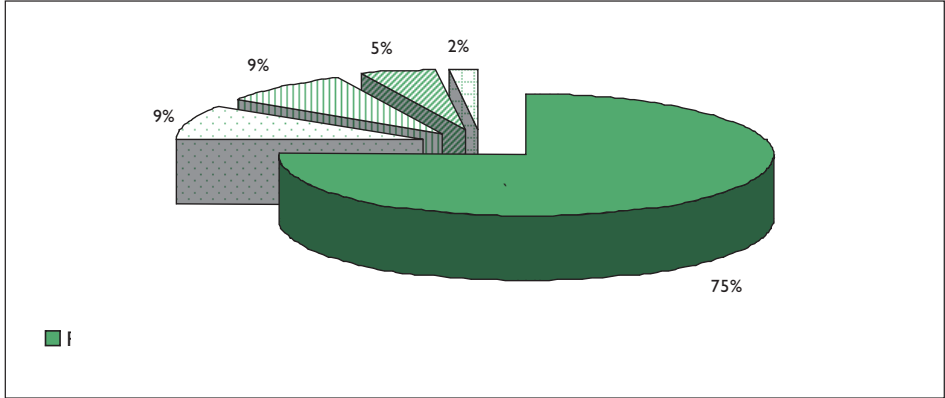
In addition, loans are probably more acceptable as the next alternative source of financing because as the expenses of hospitalization rose, more and more households resorted to loans. This trend can be seen in Fig. 65 below. For the two districts combined as hospitalization expenses rose, the percentage of hospitalization episodes in which borrowing was a source of financing also went up. Again, the same trend was observed in the two districts individually, although in each quintile Dhading showed higher values than Banke.

Figure 65: Share of cases for different hospitalization episodes having borrowing as a source of financing (Districts Total)

"…..a large share (around 94%) of the borrowing hospitalization episodes, multiple borrowing sources were used."
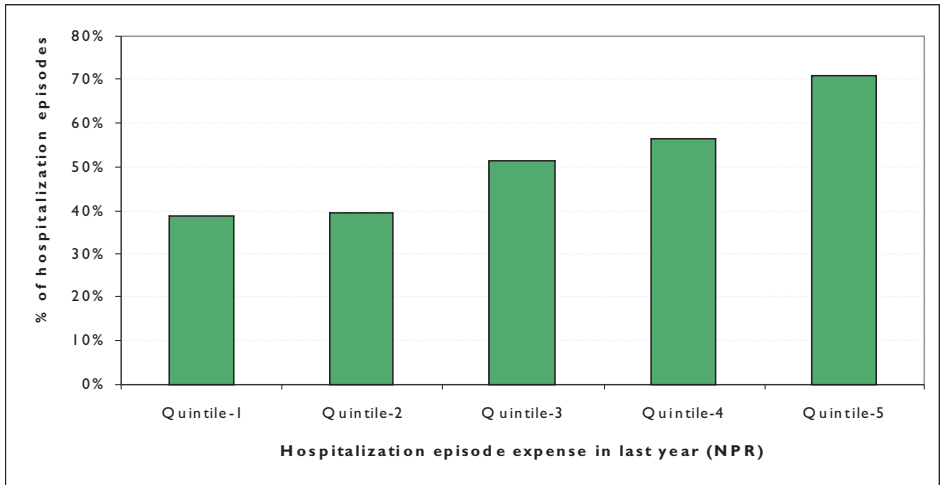
3.6. Borrowing (estimates of the cost of borrowing)

The reported amount borrowed in a number of cases (both for illnesses and hospitalizations) was found to be more than the actual health care expense that was incurred. This is quite possible, because many times borrowing is seen as a preparation for an uncertain amount of expense, which may be even more than the current financial resources of a household. The amount borrowed was therefore converted into the amount of the total health expense financed by the borrowed money.

The average amount borrowed and used to finance an illness episode for the entire population (by type of illness) was highest for undefined illnesses (Mean = NPR 696, SEM = NPR 218), followed by chronic illnesses (Mean = NPR 497, SEM = NPR 90). The average amount borrowed and used to finance all illness episodes combined was NPR 385 (SEM = NPR 37) (Fig. 66). A one way analysis of variation (ANOVA) test was conducted on the amounts that were borrowed for the different illness categories. It was found that statistically there was no significant difference (p value = 0.65) among the mean scores of the amount borrowed to pay for illness expenses of the different illness types (Table 142).

Figure 66: Mean cost of borrowing for an illness episode for the whole population (by illness type)-Districts Total
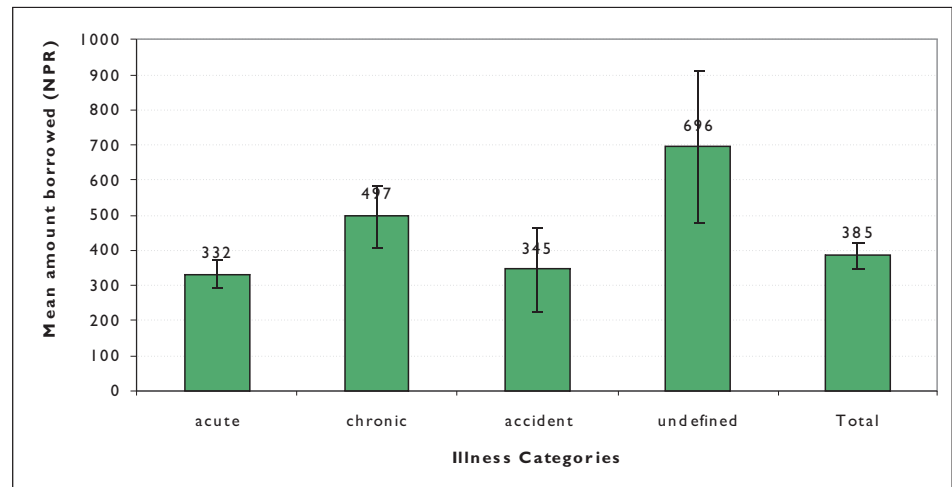
For hospitalizations it was observed that as the cost of the hospitalization episodes went up, the amount of borrowed money used to finance the hospitalization episode expense (including transportation and medicines bought outside the hospital) also went up. The average borrowed amount used to finance a hospitalization episode for the population as a whole in the last quintile was found to be NPR 20,997 (SEM = 3,079). On average, for the entire population combined (for the two districts combined), the average borrowed amount used to finance a hospitalization episode was NPR 6,676 (SEM = NPR 726) (Fig. 67). The corresponding average amount for the two districts individually was NPR 7,465 (SEM = 882 NPR) for Dhading and NPR 5,926 (SEM = NPR 1,142) for Banke. A similar trend was observed within the two districts in their respective quintiles, except that Dhading in all but the last quintiles had higher values than Banke. A T-test was conducted on the amounts borrowed for hospitalizations across the districts, and it was found that statistically there was

no significant difference (p value = 0.259) between the two districts (Table 144).

Figure 67: Mean borrowed amount used to finance a hospitalization episode across different hospitalization expense categories (Districts Total)
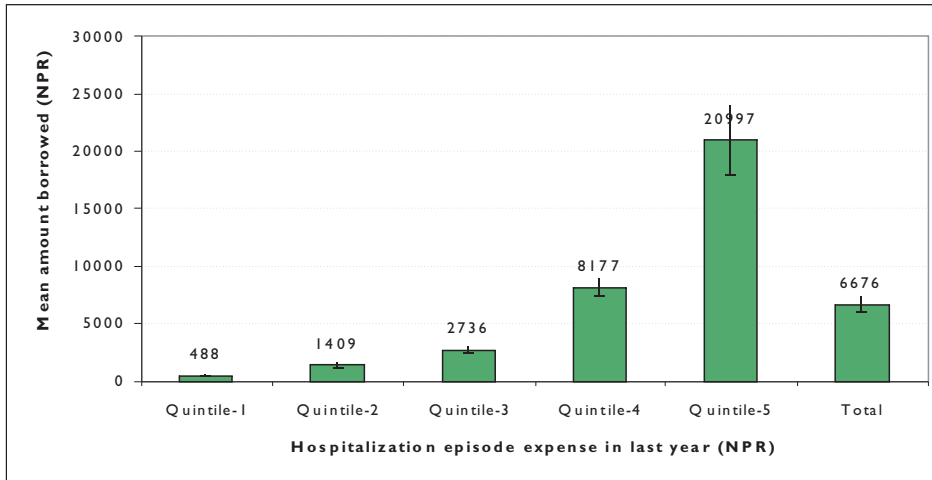
It was also observed that the share of the amount borrowed and used to finance hospitalizations for each quintile increased gradually as the hospitalization expense increased, but was highest for the fourth quintile (Fig. 68). Therefore, in the first quintile, the share of the mean amount borrowed per episode in relation to the average hospitalization episode expense (including transportation and medicines bought from outside the hospital) for the quintile was 35%. By contrast, the corresponding values for the fourth and fifth quintile were 54% and 50%, respectively.

Figure 68: Share of hospitalization expense which was borrowed (Districts Total)
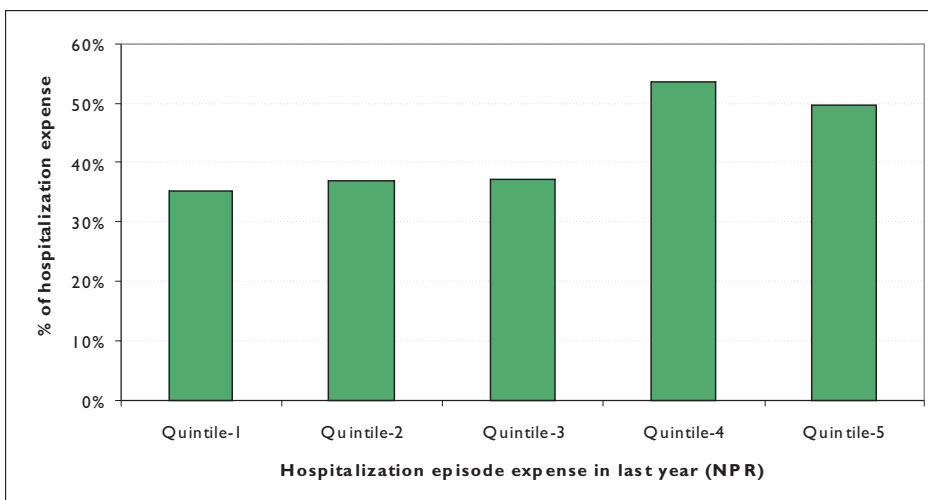
3.7. Insurance

As part of the survey, the sampled population received a brief explanation of the concept of health insurance and was then asked (through a "Bidding Game" starting at NPR 30) how much they would be willing to pay as premium per person per month, in order to cover part of their costs (up to a maximum

reimbursement of NPR 25,000 for the whole family per year) for hospitalizations, medicines, tests, consultations and maternity. The population was clearly told that the more they chose to pay the more they would receive in benefits.

3.7.1. Understanding of Insurance

The respondents were first given a brief explanation of how insurance can help them and how it works. Then the respondents' understanding of health insurance and their choice of the type of risk coverage package were assessed by a set of questions where respondents had to answer on a scale.

They were first asked the question: "Suppose you pay a premium for health insurance and if you have bills the insurance pays and if you do not have bills the insurance does not pay. What do you think of that?" The response received (based on a 3-point scale) showed that approximately 92% of the Dhading population and 82% of the Banke population were all right with this statement, while 3.7% of the Dhading and 14.2% of the Banke population were not all right with this statement (Fig. 69 and Table 146).

Figure 69: Is it all right to pay a health insurance premium knowing that the insurance only pays if there are bills and does not pay if there are no bills?
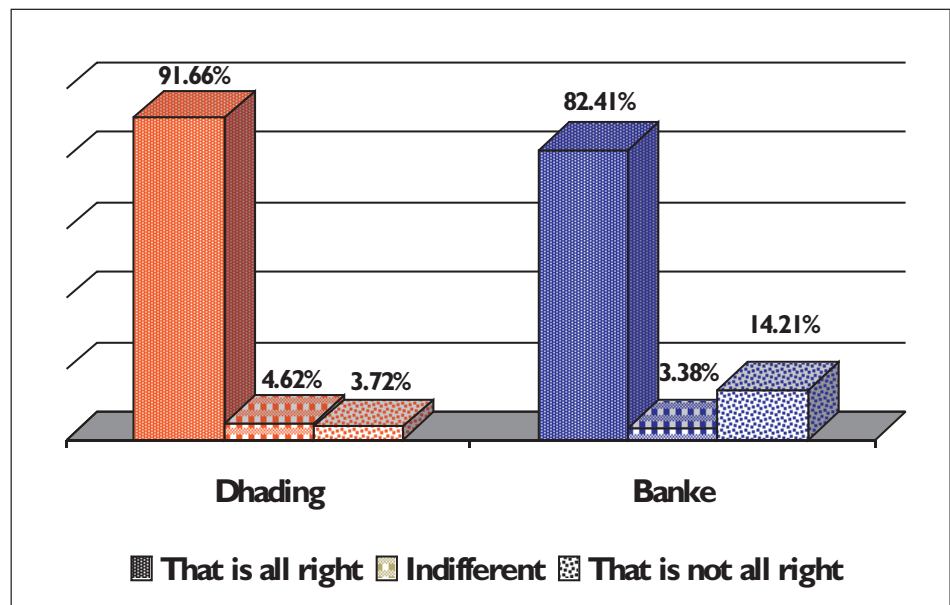
The population was then asked: "Suppose that your neighbor were sick and got money from the insurance to cover these bills and you were not sick so you did not get money although you both paid the premium. What do you think of that?" Here again the majority of the population (71.6% in Dhading and 67% in Banke) said that they were all right with this. On the other hand, 5.8% of the Dhading and 14.2% of the Banke population said that they were not all right with this, while 22.7% of the Dhading and 18.6% of the Banke population were indifferent to this statement (Fig. 70 and Table 147).

Figure 70: Is it all right that your neighbor was sick and got money from health insurance for his/her bills and you were not sick, so you did not get any money from the insurance?
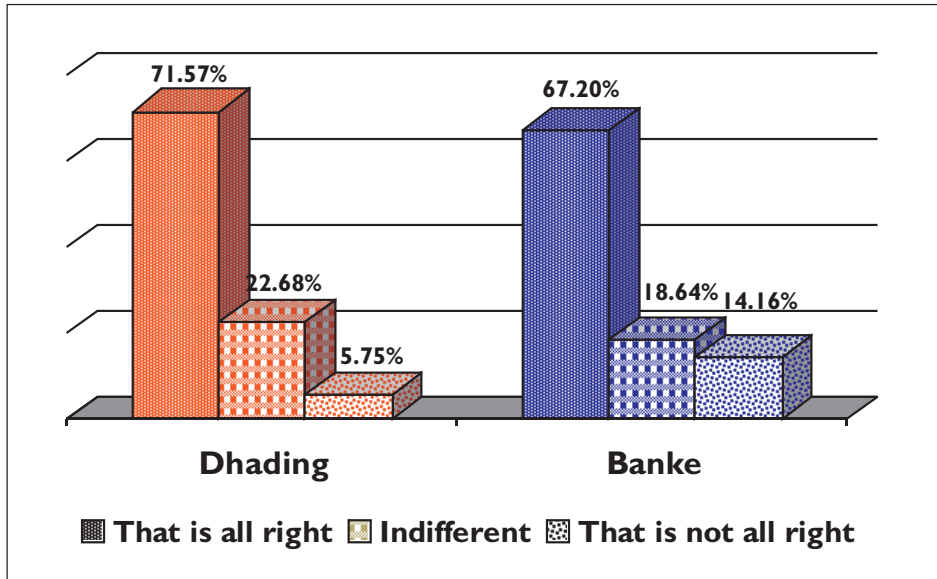
The population was also asked: *"Do you want health insurance even though it is possible that you may pay a premium and not get any money back because the healthcare costs you had were not covered by the insurance?"* In response to this, the positive responses from the population dropped in comparison to previous questions. Only 52.2% of the Dhading and 22.8% of the Banke population said they were all right with this statement. On the other hand, 30% of the Dhading and 66.3% of the Banke population said that they were not all right with this statement (Fig. 71 and Table 148).

Figure 71: It is possible that I may pay a premium but still not get any money from the health insurance because the healthcare costs I had were not covered by the insurance.
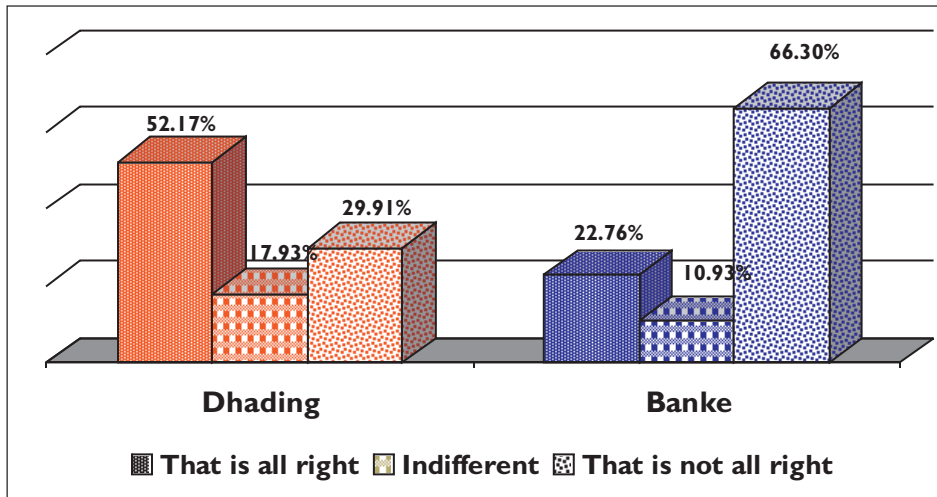
Based on the above three questions, it can be concluded that a considerable segment of the target population does not understand insurance, and would be unlikely to renew if they had no claims in the previous policy year. Therefore, it will be necessary to engage in insurance education while simultaneously implementing the insurance scheme in order to ensure sustainability.

Apart from the above, an attempt was also made to understand the preferences of the population in terms of the type of risk coverage. This was done by assessing their response to three statements and then asking them to choose which of the three statements they agreed with most. These three statements represent the three following rules:

1. The reimbursement rule: "Would you like insurance that covers some part of every bill, regardless of whether the bill is expensive or not? *For example: If the bill is Rs. 1,000 you get Rs. 500 back from the health insurance and if the bill is Rs. 10,000 you get Rs. 5,000 back and you have to pay Rs. 5,000 yourself. But your household can only get reimbursed a maximum amount of Rs. 25,000 per year.*"

2. The equity rule: "Would you like insurance that pays a small part of the bill when the bill is small and a big part of the bill when the bill is big? *For example: If the bill is Rs. 1,000 you get Rs. 200 back from the health insurance and you have to pay Rs. 800 yourself, but if the bill is Rs. 10,000 you get Rs. 8,000 back and you only have to pay Rs. 2,000 yourself. But your household can only get reimbursed a maximum amount of Rs. 25,000 per year.*"

3. The catastrophic coverage rule: "Would you like insurance that pays the full amount of very expensive bills and when a bill is small, you pay the full amount yourself? *For example: If the bill is Rs. 1,000 you do not get anything back and you have to pay the bill yourself. But if the bill is Rs. 10,000 you get Rs. 10,000 back from the insurance company and you don't have to pay anything. But your household can only get reimbursed a maximum amount of Rs. 25,000 per year.*"

The population was first asked for their response to these statements individually and then was asked to choose one of these statements. It was observed that 53.4% of the Dhading and 28.7% of the Banke population chose the reimbursement rule; 14.3% of the Dhading population and 15.6 of the Banke population chose the equity rule; and 32.2% of the Dhading and 55.7% of the Banke population chose the catastrophic coverage rule. It was thus clear that for the two districts the benefits package would have to cater to two different priorities (Fig. 72 and Table 149-152).

Figure 72: Type of risk coverage package preferred

☒ **Want Health Insurance to cover some part of every bill, regardless of bill being expensive or not**

☒ **Want Health Insurance to pay small part when bill is small and big part when bill is big**

☒ **Want Health Insurance to pay everything for very expensive bill and I pay small bills myself**
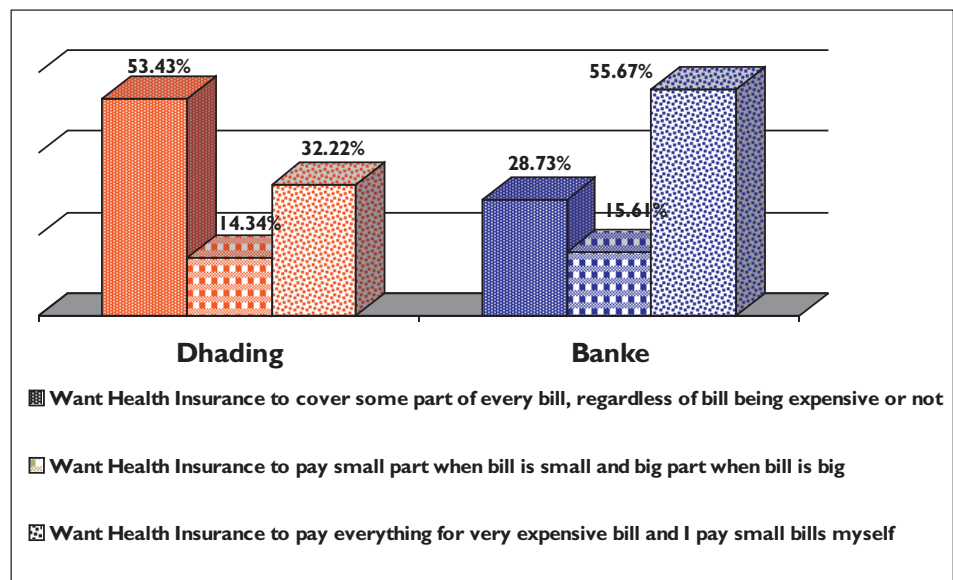
3.7.2. Willingness to pay for insurance

The willingness to pay for health insurance in the sampled population was NPR 11.20 (Fig. 73). The values for both districts were very similar, and tended fall as the premium amount increased (in percentage); note the steps, Figure 73. The values of WTP ranged from NPR 9.8 to NPR 12.5 for Dhading and Banke, respectively.

Figure 73: Population's Willingness to Pay for Health Insurance (Districts Total)

Mean=11.20 NPR
Median=10.00 NPR
SEM=0.20 NPR
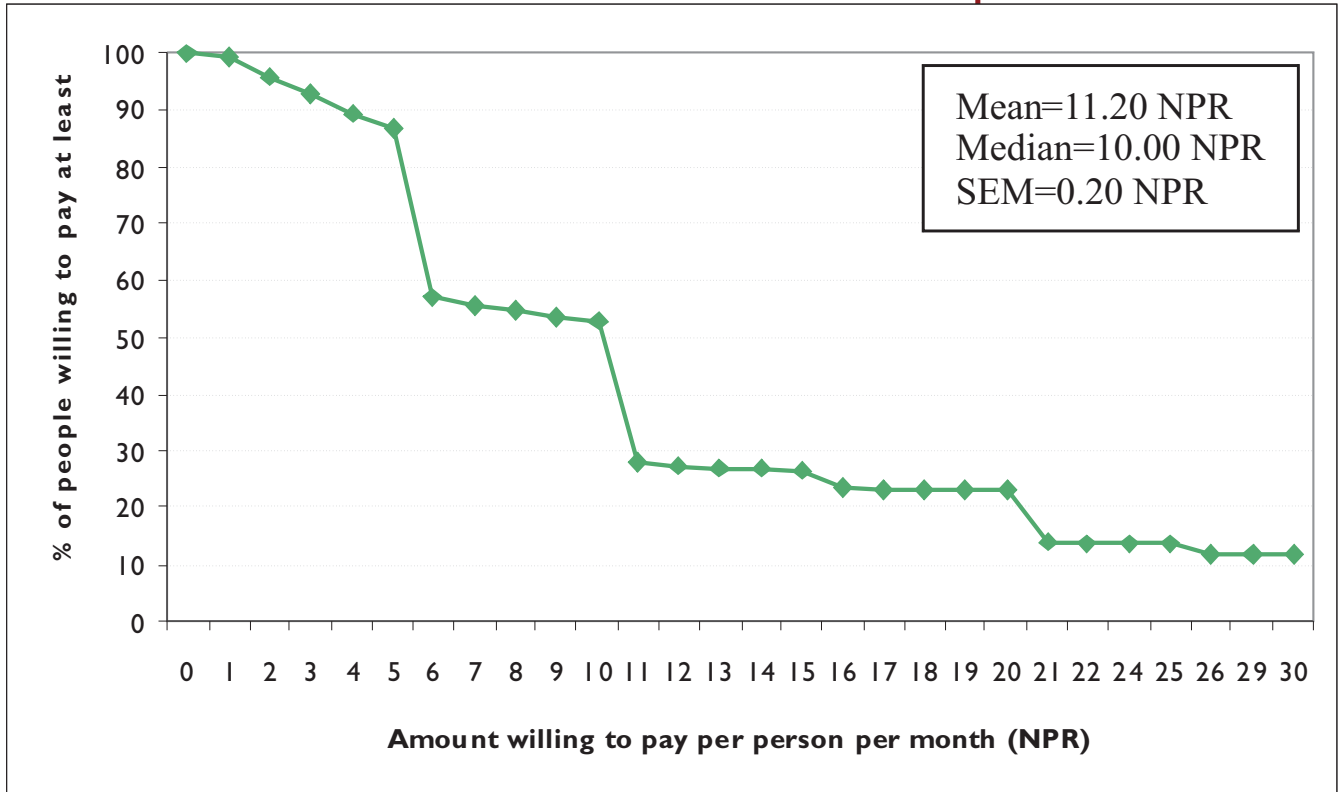
For the two districts combined, the population's willingness to pay for health insurance was observed in relation to the mean per capita consumption (MPCC) of households, and a downward trend was observed for the sampled population with an increasing share of monthly per capita consumption on health insurance premiums. A very similar trend was noted within the two districts, with Banke having slightly higher values (percentages of the sampled population) for corresponding willingness to pay as share of MPCC, than Dhading. Around 46% of the sampled households (both districts combined) were willing to spend at least 0.5% of their monthly per capita consumption on health insurance premiums per person per month (Fig. 74), compared with 36% in Dhading and 55.5% in Banke individually. In Banke, 9.5% was the highest share of MPCC that a household was willing to pay for health insurance premiums per person per month. However, in Dhading, the highest share of MPCC a household was willing to pay towards health insurance premiums per person per month was 5.62% (Table 154).

"…..the wealthier the population the less they were willing to pay for health insurance premiums."

Figure 74: Population's Willingness to Pay for Health Insurance in relation to MPCC (Districts Total)
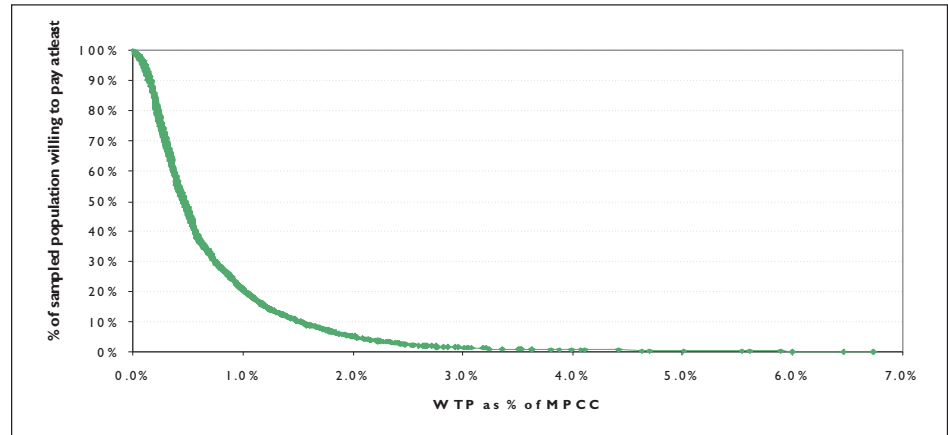
The population's willingness to pay for health insurance per person per month was also noted across different monthly per capita consumption groups. It was observed that the premium amount (per person per month) that the population was willing to pay increased as the consumption (MPCC) capacity of the population increased (Fig. 75). At the same time it was observed that the willingness to pay (represented as a share of the MPCC) fell with the increasing MPCC bands. Therefore, in the sample the financially better off population were willing to pay a higher premium for health insurance. At the same time, they were willing to part with a smaller share of their monthly consumption amount for health insurance premiums. Here again the two districts showed the same trend with Banke having slightly higher values than Dhading. In the lowest income quintile, it was observed that the mean willingness to pay was NPR 9, which was on average 1.2% of the mean MPCC of this group. The group willing to pay the highest amount (NPR 13) was found in the highest MPCC group, which on average were willing to pay 0.3% of their MPCC toward health insurance premiums per person per month.

Figure 75: Comparison of WTP in relation to MPCC across different MPCC Bands (Districts Total)
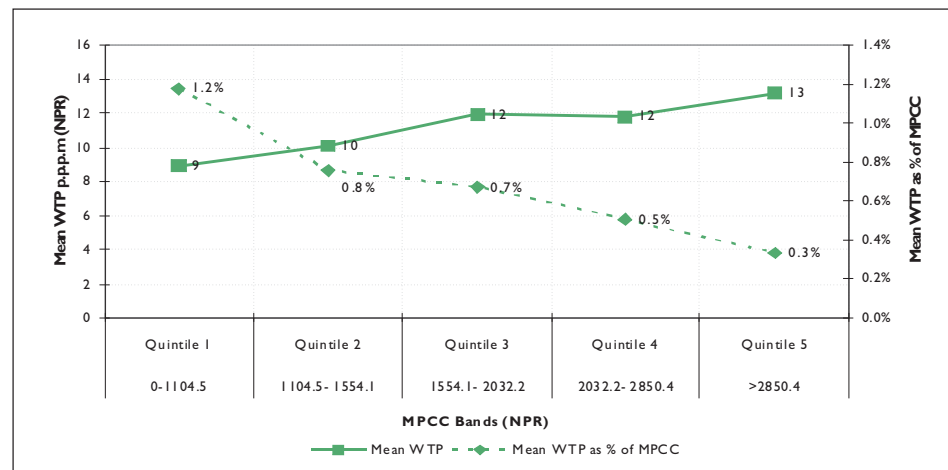
Health spending was then looked at as a percentage of MPCC in relation to the willingness to pay as a percentage of MPCC, to assess the gap that existed

between the population's willingness to pay a premium for insuring their health in relation to their actual health expenses (Fig. 76). It was clear that the gap between the WTP and health spending increased as the income quintile rose, with the highest gap seen in the fifth quintile (9.4%) and the lowest in the first quintile (5.4%). Therefore, the wealthier the population the less they were willing to pay for health insurance premiums.

Figure 76: Gap between the Willingness to Pay for HI and actual health spending (both as a percentage of the MPCC) Districts Total
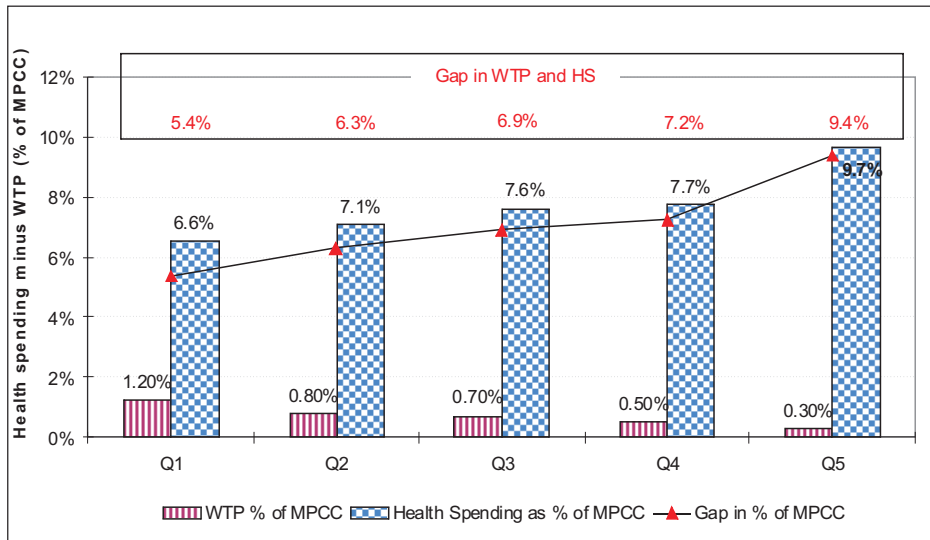
4.   Benefit Package Options

In order to design a benefits package for the two districts, a detailed analysis was performed on the sample data that was collected regarding the health expenditures and health-seeking behavior of the population. Premium calculations were performed for each of the benefits, that is, consultation, hospitalization, maternity, medicines, transportation, imaging and laboratory tests and loss of wages. As stated above, the prevailing consultation practice makes it impossible to calculate a separate premium for consultations and for prescribed medicines, because the data on incidence and unit cost cannot be separated. If the microinsurance scheme decided to limit consultation benefits only to qualified doctors that do not dispense medicines, it might be possible to reimburse such consultation fees. The premium calculated below focuses on the pure risk premium and neglects administrative costs.

4.1. Premium Calculation-Hospitalization (includes medicine provided during hospitalization)

The incidence of hospitalization in each district, and the average cost per hospitalization were calculated to estimate the premium per person for hospitalization expenses. For unrestricted benefits, the premium per person

per month was NPR 29.8 for hospitalization in Dhading, and NPR 23.9 in Banke (Table 6). The premium rate was also calculated after introducing a cap of NPR 3,000, NPR 4,000, NPR 5,000, NPR 8,000, NPR 10,000 and NPR 15,000 on annual hospitalization expenses for the two districts separately. These caps were selected to cover various proportions of hospitalization episodes. For Dhading, the premium per person per month for a hospitalization benefit with an annual cap of NPR 3,000 was estimated to be NPR 7.1 and the respective value for Banke was NPR 7.0.

Table 6: Premium Calculation- Hospitalization Benefit (excluding medicines bought outside hospital)

| District | Annual cap for hospitalization | Hospitalization Costs last year | | Incidence (p.p) | % of hospitalization episodes that lie below the cap | Premium | |
		Mean	Median			p.p.p.y	p.p.p.m
Dhading	No cap	NPR 8,783	3500	4.1%	NA	NPR 357.0	NPR 29.8
	Cap at NPR 3000	NPR 2,105		4.1%	48%	NPR 85.6	NPR 7.1
	Cap at NPR 4000	NPR 2,613		4.1%	55%	NPR 106.2	NPR 8.9
	Cap at NPR 5000	NPR 3,058		4.1%	60%	NPR 124.3	NPR 10.4
	Cap at NPR 8000	NPR 4,137		4.1%	70%	NPR 168.2	NPR 14.0
	Cap at NPR 10000	NPR 4,713		4.1%	76%	NPR 191.6	NPR 16.0
	Cap at NPR 15000	NPR 5,821		4.1%	83%	NPR 236.6	NPR 19.7
Banke	No cap	NPR 7,263	3000	3.9%	NA	NPR 286.8	NPR 23.9
	Cap at NPR 3000	NPR 2,118		3.9%	51%	NPR 83.6	NPR 7.0
	Cap at NPR 4000	NPR 2,596		3.9%	60%	NPR 102.5	NPR 8.5
	Cap at NPR 5000	NPR 2,997		3.9%	70%	NPR 118.3	NPR 9.9
	Cap at NPR 8000	NPR 3,792		3.9%	78%	NPR 149.7	NPR 12.5
	Cap at NPR 10000	NPR 4,216		3.9%	84%	NPR 166.5	NPR 13.9
	Cap at NPR 15000	NPR 4,943		3.9%	89%	NPR 195.2	NPR 16.3

4.2. Premium Calculation-Maternity

The incidence of live births (separately for normal and Caesarean deliveries), stillbirths, miscarriages and induced abortions in each district, and the average costs associated with prenatal care, postnatal care, delivery and maternity-related hospitalization expenses were calculated to estimate the premium per person for the maternity benefit. For unrestricted benefits, the premium per person per month for the maternity benefit was NPR 13.9 for Dhading, and NPR 9.13 for Banke (Table 7). The premium rate was also calculated after introducing a cap of NPR 3,000 and NPR 5,000 on the maternity benefit for the two districts separately. These caps were selected to cover various proportions of hospitalization episodes. For Dhading, the premium per person per month for a maternity benefit with an annual cap of NPR 3,000 was estimated to be NPR 3.8 and the respective value for Banke was NPR 3.7 (Table 8). The calculation for the no-cap maternity benefit for the two districts is provided below.

Table 7: Premium Calculation-Maternity benefit calculation (without cap) for Dhading and Banke

Parameters	Dhading			Banke		
		Subtotal	Percentage of cost		Subtotal	Percentage of cost
Population (assumed)	100000			100000		
Estimated Birthrate (CBR) (per 1000 population)	16.60			17.19		
Estimated number of birth	1660.31			1718.97		
Rate of "wasted" pregnancies (as % of live birth)	6.32%			3.08%		
Estimated number of pregnancies in a year	1765.27			1771.86		
Live Birth						
Live Birth Rate	94.05%			97.01%		
Number of live births	1660.31			1718.97		
Percentage of normal delivery	93.75%			85.49%		
Percentage of Caesarean delivery	6.25%			14.51%		
Number of normal deliveries	1556.54			1469.59		
Number of Caesarean deliveries	103.77			249.38		
Mean cost of a normal delivery	9366.75			5683.96		
Mean cost of a Caesarean delivery	16007.86			9608.08		
Total cost of normal delivery	14579686.01			8353066.03		
Total cost of Caesarean delivery	1661120.67			2396103.58		
Total cost of delivery (live birth)		16,240,806.68	97.63%		10749169.60	98.09%
Stillbirth						
Stillbirth rate	1.62%			1.00%		
Number of stillbirths	28.63			17.63		
Rate of normal delivery (stillbirths)	66.67%			60.00%		
Rate of Caesarean delivery (stillbirths)	33.33%			40.00%		
Number of normal delivery (stillbirths)	19.08			10.58		
Number of Caesarean delivery (stillbirths)	9.54			7.05		
Mean rate of normal delivery	775			400		
Mean rate of Caesarean delivery	23000			22000		
Total cost of normal delivery	14790.08			4231.31		
Total cost of Caesarean delivery	219465.65			155148.10		
Total cost of delivery (stillbirths)	234255.73	234,255.73	1.41%	159379.41	159379.41	1.45%
Rate of PNC (normal delivery/stillbirth)	0.00			0.00		
Rate of PNC (Caesarean delivery/still birth)				0.00		
Total cost of PNC (normal delivery/stillbirth)	0.00			0.00		
Total cost of PNC (Caesarean delivery/stillbirth)	0.00			0.00		
Total cost of PNC (stillbirth)	0.00	0.00	0.00%	0.00	0.00	0.00%
Miscarriage						
Miscarriage Rate	2.70%			1.99%		
Number of miscarriages	47.71			35.26		
Hospitalization percentage	20.00%			22.22%		
Hospitalization not required percentage	80.00%			77.78%		

Parameters	Dhading			Banke		
		Subtotal	Percentage of cost		Subtotal	Percentage of cost
Number of miscarriage for which hospitalization required	9.54			7.84		
Number of miscarriage for which hospitalization not required	38.17			27.43		
Cost per episode (hospitalization)	4,833.33			6,350.00		
Cost per episode (hospitalization not required)	2,000.00					
Total cost of all hospitalization episodes	46119.59			49757.09		
Total cost of all non-hospitalization episodes	76335.88			0.00		
Total cost of all miscarriage episodes	**122455.47**	**122455.47**	**0.74%**	**49757.09**	**49757.09**	**0.45%**
Induced Abortion						
Induced abortion rate	1.62%			0.00%		
Number of induced abortions	28.63			0.00		
Hospitalization percentage	100.00%			0%		
Hospitalization not required percentage	0.00%			100.00%		
Number of miscarriage for which hospitalization required	28.63			0.00		
Number of miscarriage for which hospitalization not required	0.00			0.00		
Cost per episode (hospitalization)	1300.00			1300.00		
Cost per episode (hospitalization not required)	0.00			0.00		
Total cost of all hospitalization episodes	37213.74			0.00		
Total cost of all non-hospitalization episodes	0.00			0.00		
Total cost of all induced abortion episodes	**37213.74**	**37213.74**	**0.22%**	**0.00**	**0**	
Total cost of all maternity episodes		**16,634,731.62**	**100.00%**		**10,958,306.10**	
Mean cost per pregnancy		**9,423.35**			**6,184.63**	
Premium per person per year		**166.35**			**109.58**	
Premium per person per month		**13.86**			**9.13**	

Table 8: Maternity benefit options

District	Cap Amount	Premium (p.p.p.m)
Dhading	No Cap	NPR 13.9
	NPR 3,000	NPR 3.8
	NPR 5,000	NPR 5.9
Banke	No cap	NPR 9.1
	NPR 3,000	NPR 3.7
	NPR 5,000	NPR 5.1

4.3. Premium Calculation-Transportation for Hospitalization

The premium for transportation expenses at the time of hospitalization was estimated using the average cost of transportation and the incidence of hospitalization for each district. The premium was NPR 2.3 for Dhading and NPR 1.8 for Banke (Table 9). The premiums were also estimated for transportation costs with a cap of NPR 250 and NPR 500.

Table 9: Premium Calculation-Transportation for hospitalization

	Cap	Transportation Cost		Incidence per person last year	% of expenditure on transportation that lie below the cap	Premium	
		Mean	Median			p.p.p.y	p.p.p.m
Dhading	No cap	NPR 673	NPR 300	4.1%	NA	NPR 27.3	**NPR 2.3**
	Cap at NPR 250	NPR 193		4.1%	46%	NPR 7.8	**NPR 0.7**
	Cap at NPR 500	NPR 293		4.1%	71%	NPR 11.9	**NPR 1.0**
Banke	No cap	NPR 558	NPR 150	3.9%	NA	NPR 22.0	**NPR 1.8**
	Cap at NPR 250	NPR 143		3.9%	61%	NPR 5.6	**NPR 0.5**
	Cap at NPR 500	NPR 229		3.9%	75%	NPR 9.0	**NPR 0.8**

4.4. Premium Calculation-Imaging and Laboratory Tests

The premium for imaging and laboratory test expenses was estimated using the incidence of undergoing imaging and lab tests at the time of illness. The premium was NPR 16.1 for Dhading and NPR 17.2 for Banke for unrestricted benefits (Table 10). The premiums were also estimated for imaging and lab test expenses with a cap of NPR 300 and NPR 500 per person per month. The estimated premium for these expenses with a cap of NPR 300 was NPR 4 for Dhading and NPR 5.6 for Banke.

Table 10: Premium Calculation- Imaging and Laboratory Tests

	Cap per person per month	Cost of Imaging and Lab tests for illnesses in the last month		Incidence per person last month	% of expenditure on medicines that lie below the cap	Premium p.p. as calculated over last month data
		Mean	Median			
Dhading	No cap	NPR 835	NPR 500	1.9%	NA	**NPR 16.1**
	Cap at NPR 300	NPR 207		1.9%	38%	**NPR 4.0**
	Cap at NPR 500	NPR 267		1.9%	55%	**NPR 5.1**
Banke	No cap	NPR 528	NPR 350	3.3%	NA	**NPR 17.2**
	Cap at NPR 300	NPR 171		3.3%	48%	**NPR 5.6**
	Cap at NPR 500	NPR 196		3.3%	67%	**NPR 6.4**

4.5. Premium Calculation-Wage-loss Benefit for Hospitalization

It was felt that a wage-loss compensation benefit was needed in order to compensate for wages that were lost due to hospitalization episodes, and to encourage beneficiaries to seek treatment at an early stage of their illness. This benefit was designed to compensate for loss of wages starting with the 3rd day of hospitalization and up to a maximum of 10 days of hospitalization.

The premiums were calculated keeping flat NPR 80 and NPR 40 amounts for both districts separately. With NPR 40 as a flat amount the premium per person per month was NPR 0.6 for Dhading and NPR 0.5 for Banke (Table 11).

Table 11: Premium Calculation-Wage loss benefit for hospitalization

District	Wage loss per day (flat amount)	Days to be compensated	Sampled population	Premium p.p.p.y	Premium p.p.p.m
Dhading	NPR 40	907	5240	NPR 6.92	**NPR 0.58**
	NPR 80	907	5240	NPR 13.85	**NPR 1.15**
Banke	NPR 40	899	5672	NPR 6.34	**NPR 0.53**
	NPR 80	899	5672	NPR 12.68	**NPR 1.06**

5. Sample Benefits Packages

Using the estimated premiums from the above sections, we designed a few sample benefits packages for the two districts that would cover all or some of the benefits (i.e. hospitalization expenses, maternity expenses, imaging and lab tests, transportation costs and wage-loss benefits) up to specified caps. The estimated premium for these packages ranges from NPR 10.9 to NPR 12.4 for Dhading and from NPR 10.7 to NPR 13.6 for Banke (Tables 12 to 14).

Table 12: Sample benefits package 1

Benefit	Premium per person per month (NPR)	
	Dhading	Banke
Hospitalization benefit (excluding medicines bought outside the hospital) with a cap of NPR 3000	7.1	7.0
Maternity benefit with a cap of NPR 3000	3.8	3.7
Total	10.9	10.7

Table 13: Sample benefits package 2

Benefit	Premium per person per month (NPR)	
	Dhading	Banke
Hospitalization benefit (excluding medicines bought outside the hospital) with a cap of NPR 3000	7.1	7.0
Wage loss benefit of flat NPR 40 per day	0.6	0.5
Transportation benefit with a cap of NPR 250	0.7	0.5
Imaging and lab test benefit with a cap of NPR 300	4.0	5.6
Total	12.4	13.6

Table 14: Sample benefits package 3

Benefit	Premium per person per month (NPR)	
	Dhading	**Banke**
Maternity benefit with a cap of NPR 3000	3.8	3.7
Imaging and lab test benefit with a cap of NPR 500	5.1	6.4
Wage loss benefit of flat NPR 80 per day	1.2	1.1
Transportation benefit with a cap of NPR 500	1.0	0.8
Total	11.1	12.0

6.   Risk Equalization

The data set confirmed that the very young and the elderly have a higher incidence of illness and therefore higher levels of healthcare 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 will be covered by the insurance. This policy results in a higher premium. With a view toward 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 to 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 the health care of infants and children, who suffer from acute illnesses more frequently. The costs spent on them now are lower, which may 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, rates of illnesses incidence 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 age 45 and over incurred the highest costs, partly because they were more likely to suffer from 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.

To illustrate the concept a risk equalization option for the hospitalization benefit in Dhading is provided below (Fig. 77).

"….if the premium of the female group or particular age group(s) (both male and female combined) were to be subsidized from an external source, then the premium for the whole community can be brought down."

Figure 77: Age group and Gender specific risk equalization option for hospitalization (Dhading)

Specific risk group premium and risk equalization (hospitalization) - Dhading

Equalization options:
- Gender
- Age

Legend:
- Premium specific risk group pppm (male)
- Premium specific risk group pppm (female)
- Average premium pppm (before equalization)
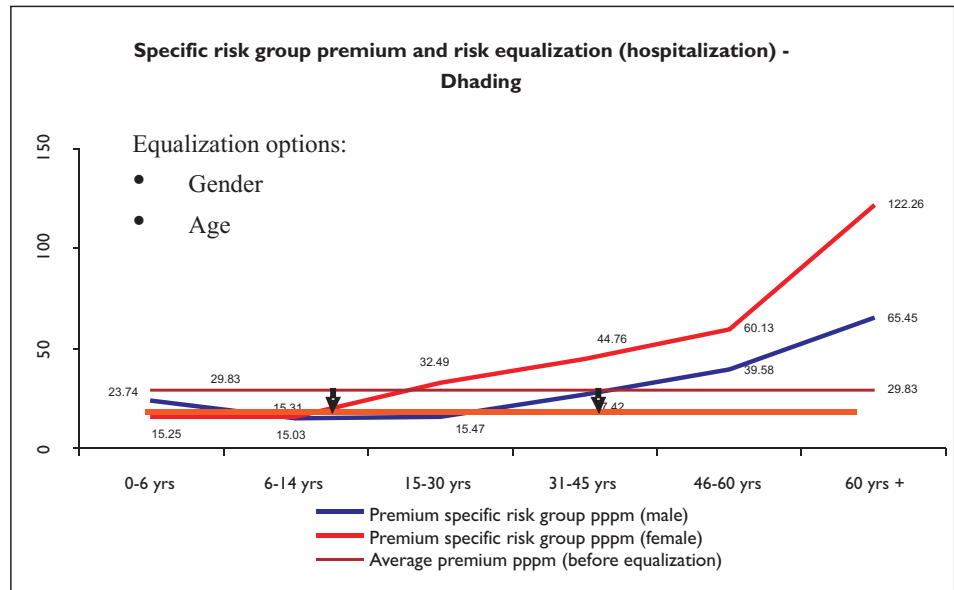
Age-group specific premiums for both genders were initially calculated, i.e., the amount required as a premium from each age group (for each respective gender) in order to insure the risk of only their age group and gender. It was observed that the premiums were higher for the higher age groups (due to high prevalence of hospitalization and higher costs for the older age groups) and that females had higher costs than males. Therefore, the annual uncapped benefit for hospitalization for the whole population combined was resulting in a NPR 29.83 premium per person per month. It has been clearly detailed here that the higher age-group premiums and the higher female age-group premiums will drive up the premium for the whole community. Therefore, if the premium of the female group or particular age group(s) (both male and female combined) were to be subsidized from an external source, then the premium for the whole community can be brought down.

Conclusion

Health insurance is a largely undeveloped area in Nepal. Health Insurance is considered a form of social protection for the poor, and its use as a tool in this regard is not yet visible in Nepal. Although there are government initiatives to provide some free healthcare services (for example, services at Health Posts such as OPD charges, inpatient charges, Caesarean section, normal deliveries, etc.), their outreach and efficiency are doubted. During the survey it was noted that the population incurred expenses even at government facilities for such services. But even if this policy were implemented efficiently, certain other healthcare costs (direct and indirect, e.g. for travel) will still occur, in addition to the costs incurred by the population in areas where the free government health services do not have an outreach. In a hilly district like Dhading, it was observed that the majority of the population would go to a Non-MBBS allopathic practitioner to seek treatment first mostly because they were the closest healthcare practitioners to them. Within the sampled population, it was also noted that **73%** said that they would go to private practitioners first to seek treatment. It is therefore necessary to also understand the current health seeking patterns of the population, in addition to other issues before

undertaking any health insurance initiatives going forward. This report has provided information with regard to starting up a Community Based Micro Health Insurance scheme for rural communities in Dhading and Banke districts of Nepal.

While painting the socioeconomic picture of the two districts, it was observed that the two districts have a large young population, with some differences in the breakdown of the male and female population. A number of households were found to have a member in the illness-prone groups (elderly-26% and Infants-43%). As a positive sign, education levels were also found to be higher in the younger. generation, which is also a factor affecting the quality of health of the household. In terms of earning capacity, Dhading came out as a wealthier district than Banke with a mean MPCC of NPR 2,394 vs. NPR 1,887 in Banke.

Looking at the health profile of the population, it was observed that the rate of illness (in the month prior to the survey) was higher for Dhading (14.04%) than for Banke (12.24%). And, it was observed that females were more prone to illness than males in both districts. Most illnesses reported in that month were acute illnesses (72%), and the prevalence of acute illness was found to be highest in infants (20%). The prevalence rates were also high for the elderly population, confirming the fact that the elderly and infants are two vulnerable groups in terms of health care. It was also noted that the two districts had different patterns of care seeking: the Banke population (65%) approached private providers much more than Dhading (39%). This suggests that in Banke there are probably more private providers available, because even though they are more expensive, the population approaches them. When asked about which provider they would go to when seeking care, most of the respondents chose Non-MBBS allopathic practitioners such as pharmacists, and the reason given for that choice was their close proximity to the population. Ninety-seven per cent of the households had some healthcare expenditure within the last year. Approximately 7% of the population's annual household consumption was reported to be the household spending on healthcare expenses, and it was commonly seen that multiple sources of financing were used with borrowing a prominent source. Even though households had such healthcare expenses, the willingness to pay for health insurance in the population was found to be NPR 11.20 per person per month, (for a package covering hospitalization (up to a maximum reimbursement of NPR 25,000 for the whole family per year), medicines, tests, consultations and maternity). It was also observed that as the MPCC increased, willingness to pay increased, but the willingness to pay as a share of MPCC decreased.

Annex I

Declaration of Understanding
National Microinsurance Program Design Workshop
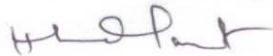
Kathmandu, 16 July 2008

We, a coalition of Nepalese MFIs, NGOs, Cooperatives, women's organizations, and support institutions active in Nepal, conducted a three day workshop and have concluded our firm commitment to launch and scale up community-based microinsurance following the mutual model. Our aim is to provide financial protection to resource poor communities through access to health, life, property, natural disaster, and other forms of insurance. We have agreed that the basis of operations would be not-for-profit, inclusive, and will target entire communities including vulnerable groups such as women, children and the elderly.
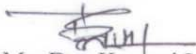
We agreed on a plan to roll out microinsurance units within an estimated market size of between 2 and 8 million people within 5 to 7 years, with further scaling thereafter. In support of this activity, we intend to create, with the support of Save the Children and the Micro Insurance Academy, a Nepalese Microinsurance Coalition that will be the hub for technical support, capacity building, IT support, and implementation of good practices throughout Nepal, including links to reinsurance providers.

We invite other like-minded groups/institutions to join our coalition. We would also like to invite government, donor and business organizations, including mainstream (re)insurance companies, to extend support in their respective domain of competence so that this coalition will operate in a sustainable manner within an enabled environment for the overarching benefit of low income people in Nepal.

Coalition member representatives:

Dr. Harihar Dev Pant
Nirdhan Utthan Bank Ltd.

Ms. Dev Kumari Lama
Buddha Women Savings and Credit
Cooperative Ltd., Siraha

Mr. Tej Hari Ghimire
Center for Microfinance (CMF)

Support Organizations:

Mr. Jay Banjade
Save the Children
Washington-Westport Office, USA
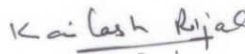
Dr. David Dror
Micro Insurance Academy, India
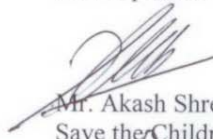
Mr. Batuk Shamsher Shrestha
Shrijana Community Development Center (SCDC), Siraha
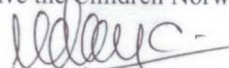
Mr. Keshar Bahadur Shrestha
Swabalamban Bikas Bank Ltd.

Mr. Kailash Rijal
Development Project Service Centre (DEPROSC Nepal)

Mr. Akash Shrestha
Save the Children Norway-Nepal

Mr. Udaya Chandra Manandhar
Save the Children US
Himalayan Country Office Nepal

Annex 2

Table 15: First point of contact for households when seeking healthcare treatment (Districts Total)

Provider Type	Districts Total	Dhading	Banke
Private	73% (N=2000)	69% (N=2000)	76% (N=2000)
Government	27% (N=2000)	30% (N=2000)	23% (N=2000)
Charitable	1% (N=2000)	0% (N=2000)	1% (N=2000)

Table 16: Relationship of respondent to household head (HH) (Districts Total)

	Relationship to HH	Frequency	Percent
Valid	Head	767	38.20
	Husband/Wife	1018	50.70
	Son/Daughter	97	4.83
	Grandchild	1	0.05
	Father/Mother	10	0.50
	Brother/Sister	2	0.10
	Son-in-law/Daughter–in-law	102	5.08
	Father-in-law/Mother-in-law	6	0.30
	Other Family Relative	1	0.05
	Total	2004	99.80
Missing	System	4	0.20
Total		2008	100.00

Table 17: Gender of the respondent (Districts Total)

	Gender	Frequency	Percent
Valid	Male	688	34.26
	Female	1316	65.54
	Total	2004	99.80
Missing	System	4	0.20
Total		2008	100.00

Table 18: Share of HHs where the respondent was an NGO member (under study) Districts Total

Respondent's membership status	Total no. of respondents who were members	HH membership status	Total no. of HHs which were members	% of respondents who themselves were NGO members
Yes	915	Member	1005	91.04

Table 19: Household size by district

Household Size	% of sampled population		
	Districts Total	Dhading	Banke
1	1%	1%	0%
2	4%	5%	3%
3	9%	11%	8%
4	23%	23%	22%
5	22%	19%	24%
6	17%	18%	15%
7	10%	11%	10%
8	6%	6%	5%
9	4%	3%	4%
10	3%	2%	4%
11	0%	1%	0%
12	1%	0%	1%
13	0%	0%	0%
14	0%	0%	0%
15	0%	0%	0%
16	0%	0%	0%
17	0%	0%	0%
18	0%	0%	0%
19	0%	0%	0%
25	0%	0%	0%
Total	100%	100%	100%

Table 20: Independent Samples Test (HH Size across districts)

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
No. of alive members in the HH	Equal variances assumed	6.154	.013	-3.950	2006	.000	-.387	.098	-.579	-.195
	Equal variances not assumed			-3.953	1946.888	.000	-.387	.098	-.579	-.195

Table 21: Chi-Square Tests (Age groups across districts for total population)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.385(a)	6	.008
Likelihood Ratio	17.391	6	.008
N of Valid Cases	10906		

Table 22: Chi-Square Tests (Age groups across districts for male population only)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.187(a)	6	.019
Likelihood Ratio	15.190	6	.019
N of Valid Cases	5480		

Table 23: Chi-Square Tests (Age groups across districts for female population only)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.884(a)	6	.065
Likelihood Ratio	11.886	6	.065
N of Valid Cases	5414		

Table 24: Age distribution of the sampled population by gender

Age Category	Districts Total		Dhading		Banke	
	Male	Female	Male	Female	Male	Female
0-14+	34%	34%	36%	35%	32%	34%
15 to 30+	33%	34%	32%	35%	35%	34%
31 to 45+	17%	18%	17%	17%	18%	18%
46 to 59+	8%	8%	8%	8%	8%	8%
>=60	7%	6%	7%	6%	6%	6%

Table 25: Chi-Square tests (Age groups across gender)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.632(a)	6	.266
Likelihood Ratio	7.638	6	.266
Linear-by-Linear Association	2.623	1	.105
N of Valid Cases	10894		

Figure 78: Age distribution of the sampled population by gender-Dhading
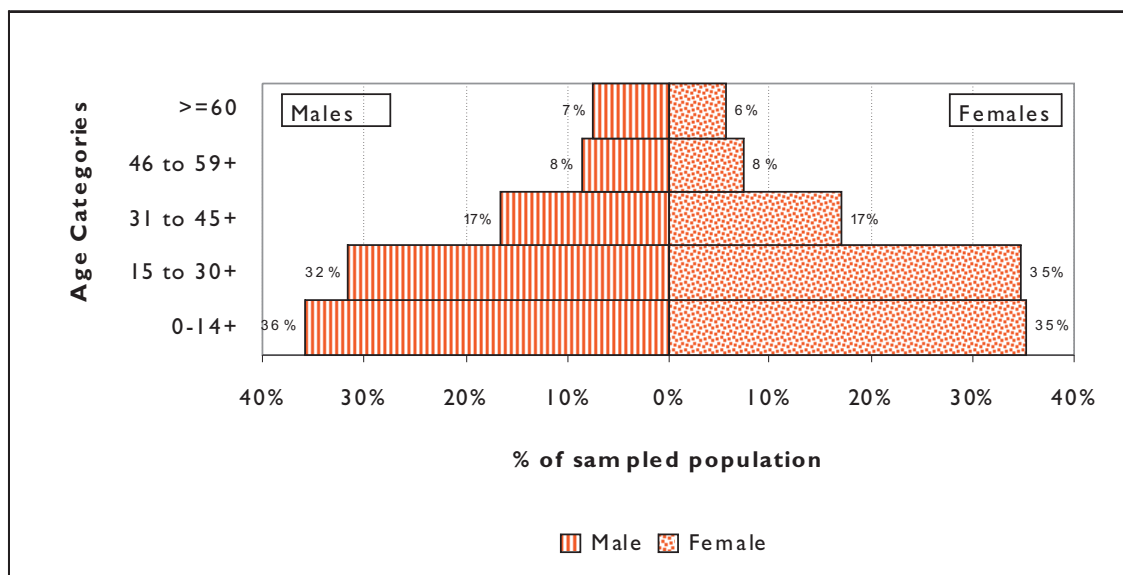
Figure 79: Age distribution of the sampled population by gender-Banke
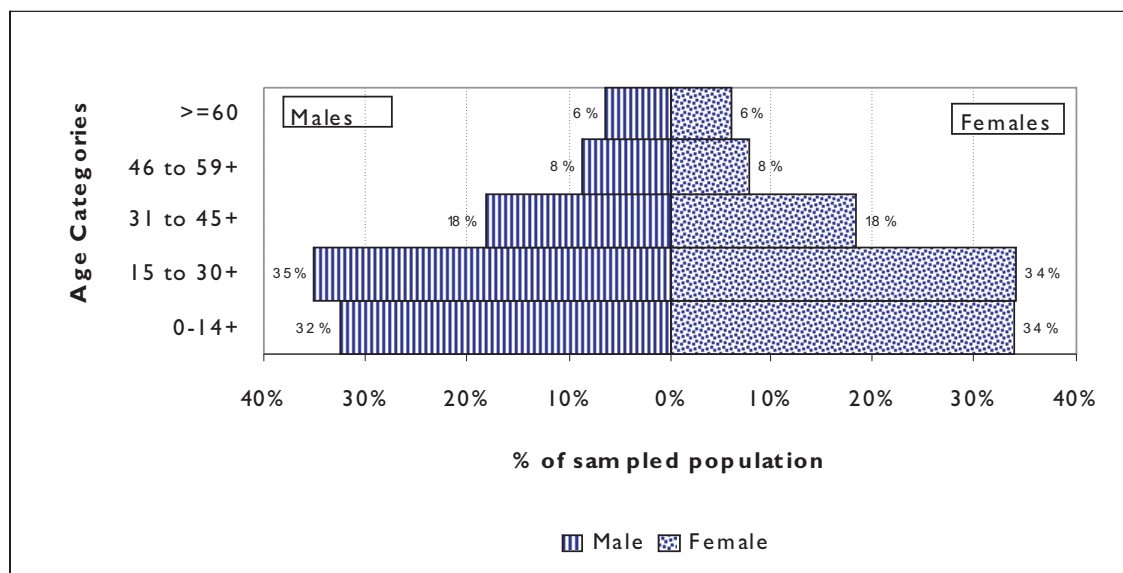
Table 26: Households with infants and elderly by district

Share of households with		Frequency			Percentage		
		Districts Total	**Dhading**	**Banke**	**Districts Total**	**Dhading**	**Banke**
HH with infants	1 infant	598	293	305	30%	29%	30%
	>1 infant	263	139	124	13%	14%	12%
HH with elderly	1 elderly	371	174	197	18%	17%	20%
	>1 elderly	155	81	74	8%	8%	7%
Total households		2008	1000	1008			

Table 27: Education profile by age and district

		Age Category						
		<6	6 to 14+	15 to 18+	19 to 30+	31 to 45+	46 to 59+	>=60
Districts Total	No education	75%	5%	4%	12%	32%	47%	71%
	Informal education	2%	1%	1%	7%	17%	20%	16%
	Preschool	18%	7%	0%	0%	0%	0%	0%
	1-5	5%	65%	13%	19%	17%	17%	7%
	6-10	0%	23%	67%	39%	24%	12%	5%
	11- 15 (SLC and above)	0%	0%	14%	24%	11%	5%	2%
	Total	100%	100%	100%	100%	100%	100%	100%
Dhading	No education	76%	4%	2%	11%	37%	50%	74%
	Informal education	2%	0%	2%	6%	17%	21%	16%
	Preschool	19%	6%	0%	0%	0%	0%	0%
	1-5	4%	69%	15%	24%	20%	17%	6%
	6-10	0%	20%	66%	36%	17%	8%	3%
	11- 15 (SLC and above)	0%	0%	15%	23%	9%	3%	1%
	Total	100%	100%	100%	100%	100%	100%	100%
Banke	No education	74%	6%	6%	13%	27%	43%	68%
	Informal education	2%	1%	1%	7%	16%	18%	16%
	Preschool	18%	8%	0%	0%	0%	0%	0%
	1-5	6%	60%	12%	15%	15%	16%	8%
	6-10	0%	25%	67%	41%	30%	16%	7%
	11- 15 (SLC and above)	0%	0%	13%	25%	12%	6%	2%
	Total	100%	100%	100%	100%	100%	100%	100%

Figure 80: Education profile of the sampled population-Dhading
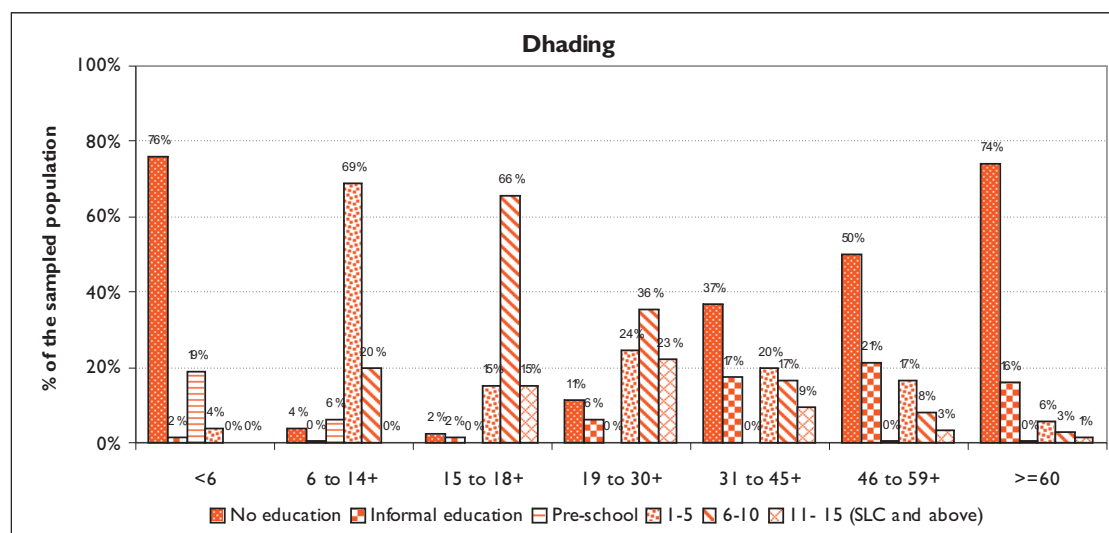
Figure 81: Education profile of the sampled population-Banke

Banke
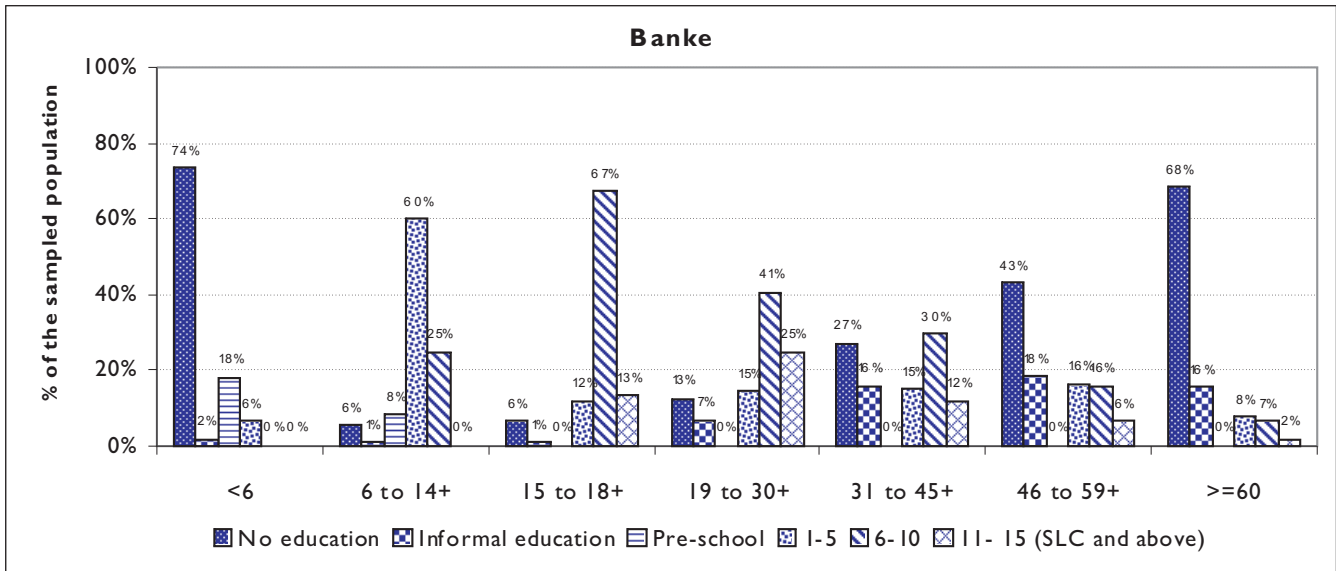
Table 28: Chi-Square test (Education level across districts)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**88.238(a)**	**6**	**.000**
Likelihood Ratio	**88.516**	**6**	**.000**
N of Valid Cases	**11016**		

Figure 82: Literacy level by gender of the sampled population
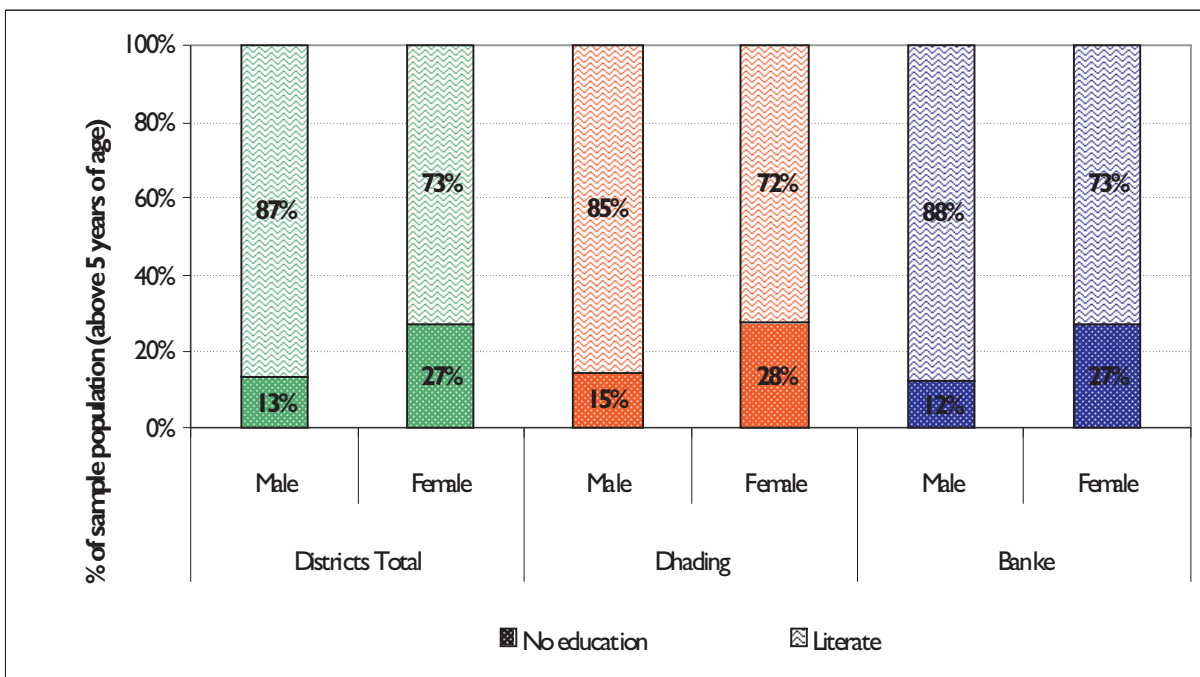
Table 29: Literacy level by gender and age of the sampled population

		6 to 14+		15 to 18+		19 to 30+		31 to 45+		46 to 59+		>=60		All Ages	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Dhading	No education	4%	4%	1%	4%	5%	18%	21%	52%	35%	68%	59%	93%	22%	33%
	Literate	96%	96%	99%	96%	95%	82%	79%	48%	65%	32%	41%	7%	78%	67%
Banke	No education	6%	6%	3%	10%	6%	19%	15%	39%	26%	62%	50%	88%	19%	32%
	Literate	94%	94%	97%	90%	94%	81%	85%	61%	74%	38%	50%	12%	81%	68%
Districts Total	No education	5%	5%	2%	7%	6%	18%	18%	45%	30%	65%	55%	90%	20%	32%
	Literate	95%	95%	98%	93%	94%	82%	82%	55%	70%	35%	45%	10%	80%	68%

Figure 83: Literacy level by gender and age of the sampled population-Dhading

Dhading
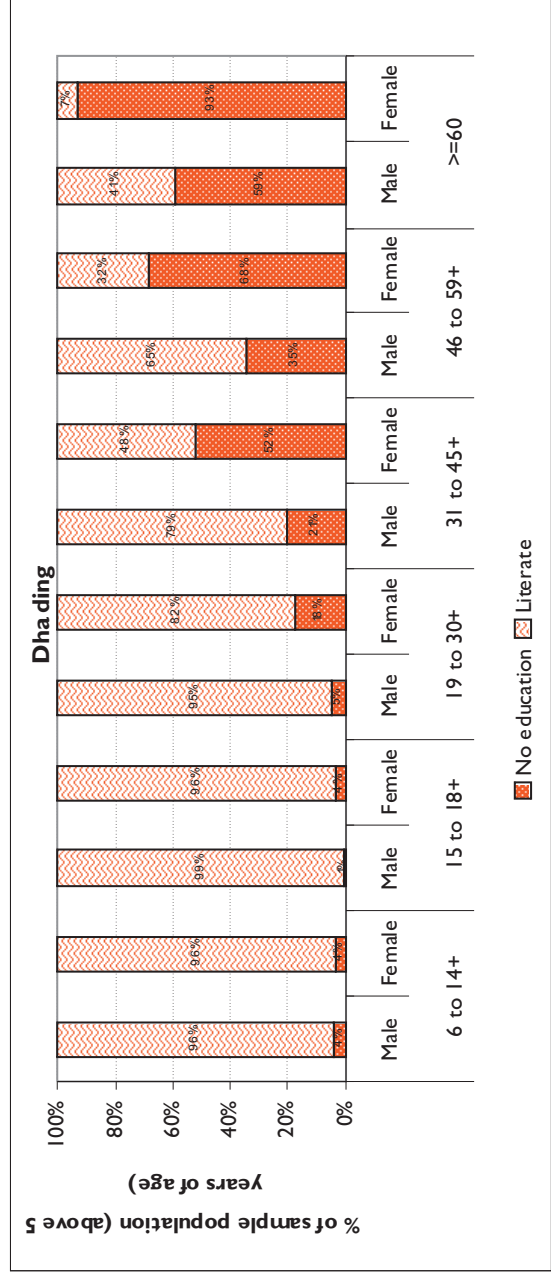
Figure 84: Literacy level by gender and age of the sampled population-Banke
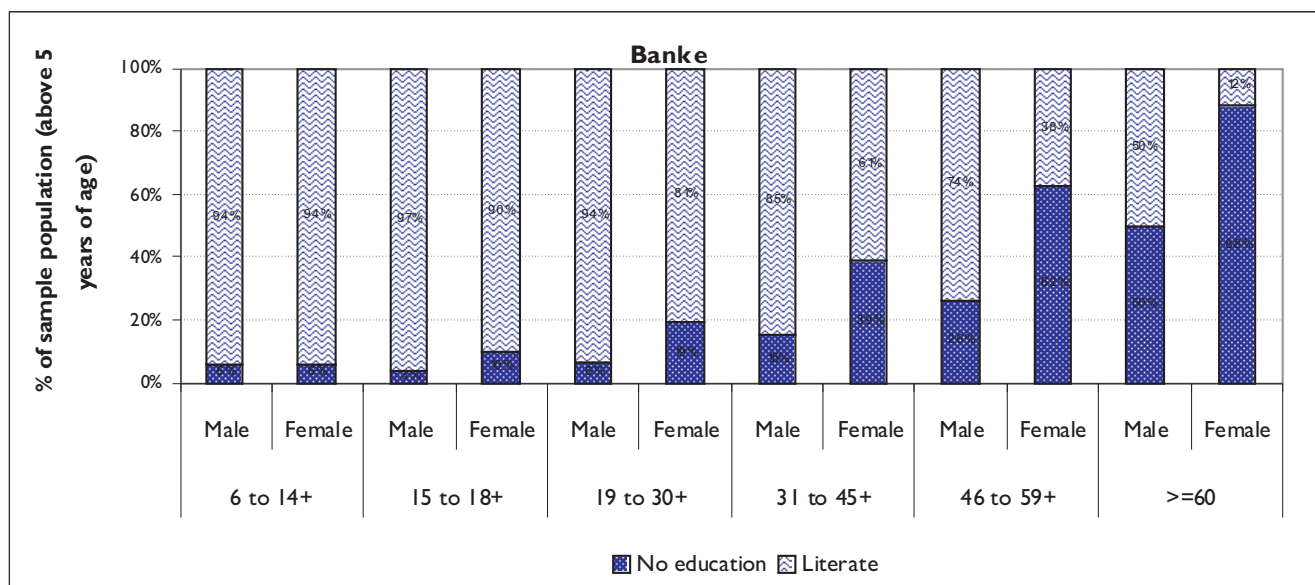
Table 30: Chi-Square test (Education level across gender)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	380.039(a)	6	.000
Likelihood Ratio	383.706	6	.000
Linear-by-Linear Association	167.570	1	.000
N of Valid Cases	11004		

Table 31: Education profile by gender of the sampled population

	Districts Total		Dhading		Banke	
	Male	**Female**	**Male**	**Female**	**Male**	**Female**
No education	20%	32%	22%	33%	19%	32%
Informal education	6%	9%	6%	9%	5%	10%
Preschool	4%	3%	4%	3%	4%	4%
1-5	27%	25%	31%	28%	24%	23%
6-10	31%	23%	26%	21%	35%	24%
11- 15 (SLC and above)	12%	7%	11%	6%	13%	7%
Total	100%	100%	100%	100%	100%	100%

Figure 85: Education profile by gender of the sampled population-Districts Total
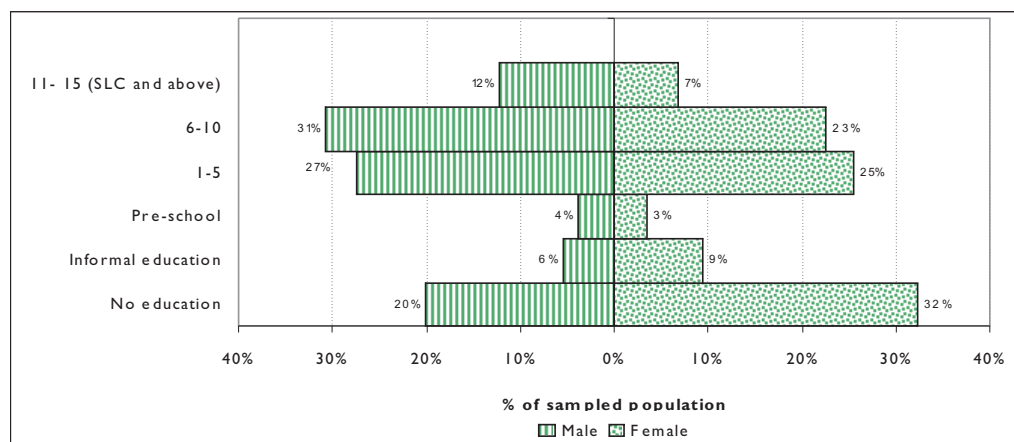
Figure 86: Education profile by gender of the sampled population-Dhading
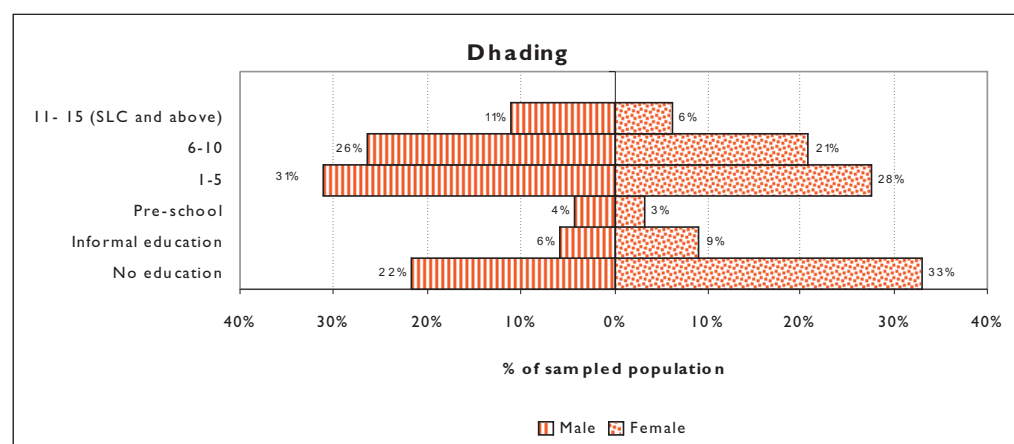
Figure 87: Education profile by gender of the sampled population-Banke
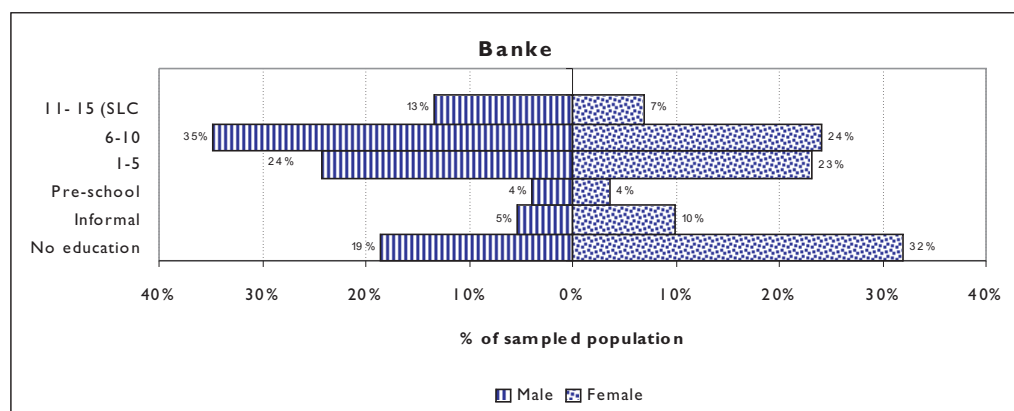
Table 32: Share of school-age population (6-18 years) currently attending school

	Those attending school as a % of school-age population (6-18 years)		
	Districts Total	Dhading	Banke
Total	88%	87%	88%
Male	89%	88%	89%
Female	86%	86%	86%

Table 33: Percentage of income earning members in the population

	% of income earning members in the sampled population
Districts Total	40%
Dhading	41%
Banke	39%

Table 34: Mean number of income earning members in the household for different monthly per capita consumption categories (Districts Total)

Quintile 1:0-1104.51	**N**	**Valid**	**399**
		Missing	**2**
	Mean		**2.41**
	Std. Error of Mean		**0.07**
Quintile 2: 1104.52-1554.11	**N**	**Valid**	**398**
		Missing	**3**
	Mean		**2.29**
	Std. Error of Mean		**0.06**
Quintile 3: 1554.12-2032.23	**N**	**Valid**	**401**
		Missing	**0**
	Mean		**2.16**
	Std. Error of Mean		**0.07**
Quintile 4: 2032.24-2850.36	**N**	**Valid**	**398**
		Missing	**3**
	Mean		**2.09**
	Std. Error of Mean		**0.06**
Quintile 5: above 2850.36	**N**	**Valid**	**399**
		Missing	**2**
	Mean		**1.90**
	Std. Error of Mean		**0.05**

Figure 88: Activity status by gender of the sampled population-Dhading

Dhading

Activity status	Male	Female
Self-employed in agriculture	21%	20%
Self-employed in business/trade	9%	9%
Regular salaried employee	10%	1%
Casual wage labourer	5%	1%
Does not work	1%	0%
Unable to work due to disability/old age	3%	4%
Attends educational institution	36%	37%
Child below school age	9%	9%
Attends domestic duties for the household	1%	18%
Pension remittance	3%	0%
Others	2%	0%

% of sampled population
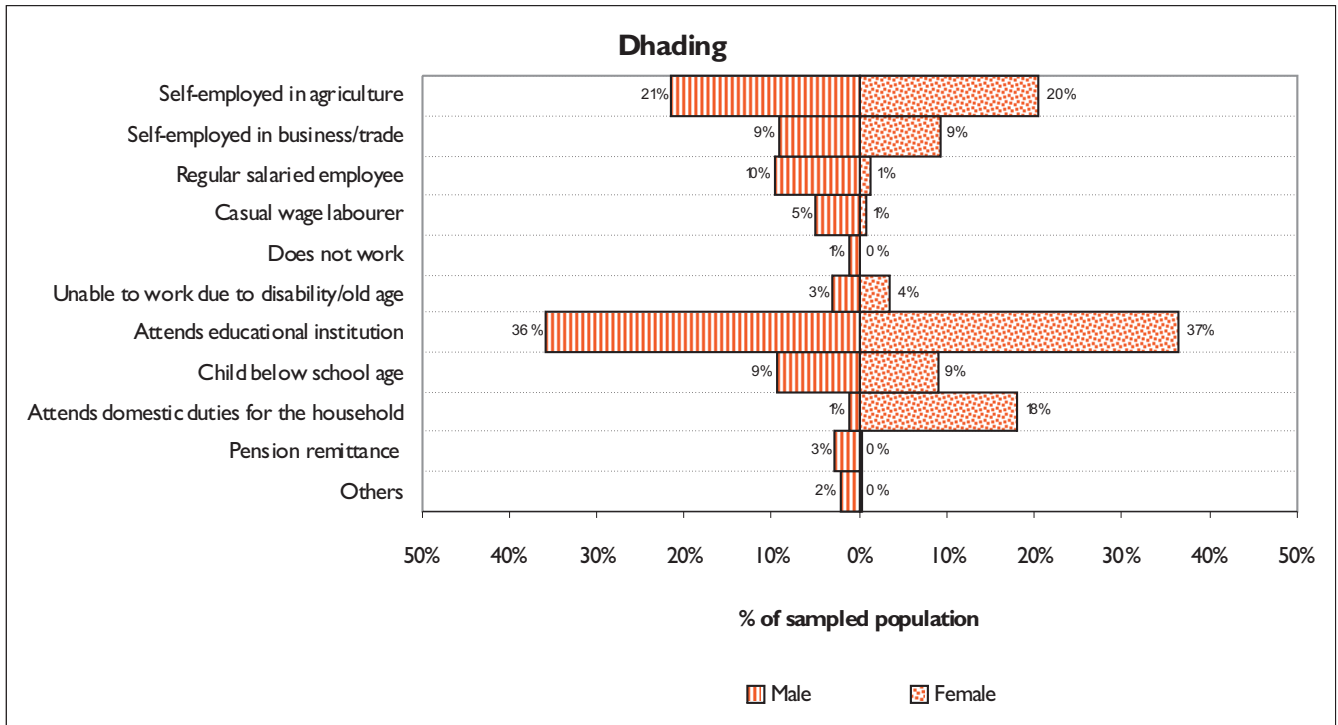
Figure 89: Activity status by gender of the sampled population-Banke

Banke

Activity status	Male	Female
Self-employed in agriculture	17%	16%
Self-employed in business/trade	7%	4%
Regular salaried employee	13%	2%
Casual wage labourer	10%	2%
Does not work	1%	0%
Unable to work due to disability/old age	1%	3%
Attends educational institution	36%	34%
Child below school age	8%	8%
Attends domestic duties for the household	2%	29%
Pension remittance	3%	1%
Others	2%	0%

% of sampled population

83
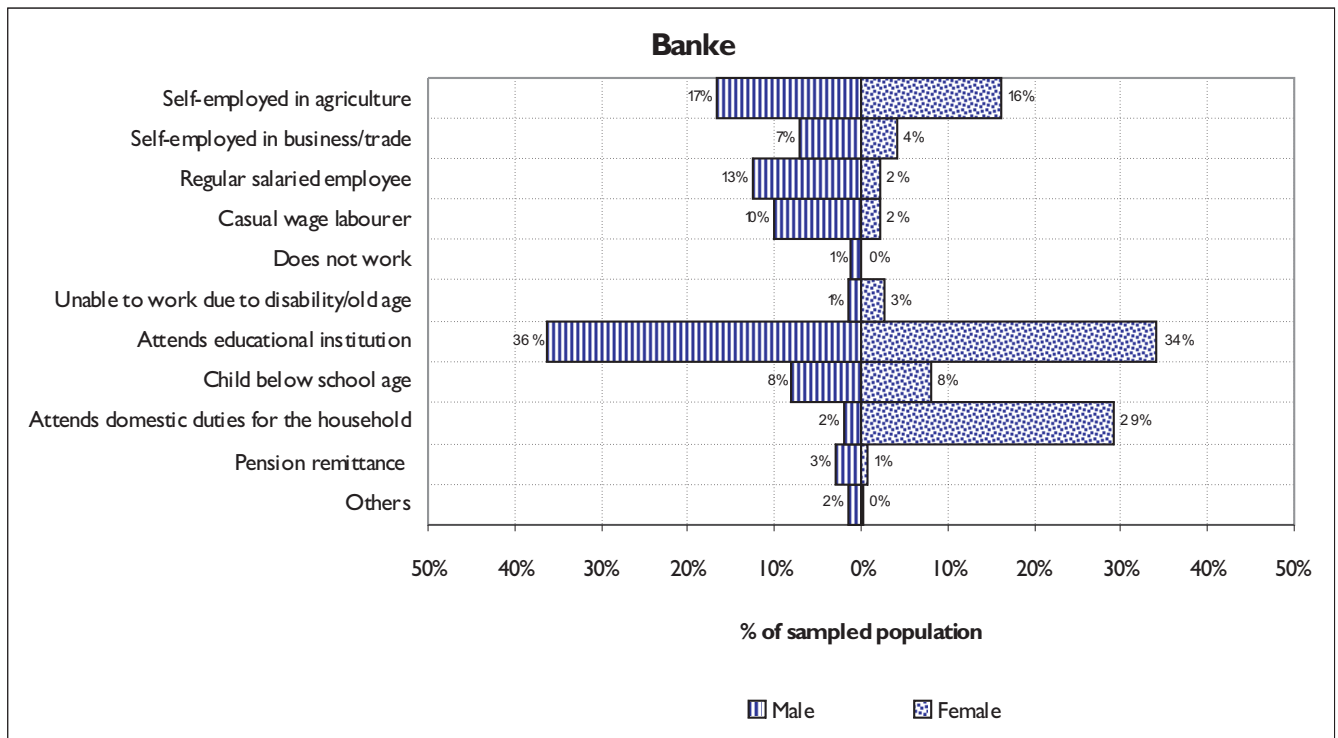
Table 35: Activity status by gender of the sampled population

District		Frequency			Valid Percent	
		Male	**Female**	**Total**	**Male**	**Female**
Dhading	Others	54	10	64	2%	0%
	Pension remittance	69	8	77	3%	0%
	Attends domestic duties for the household	29	472	501	1%	18%
	Child below school age	244	237	481	9%	9%
	Attends educational institution	929	958	1,887	36%	37%
	Unable to work due to disability/old age	74	92	166	3%	4%
	Does not work	27	3	30	1%	0%
	Casual wage laborer	127	21	148	5%	1%
	Regular salaried employee	249	36	285	10%	1%
	Self-employed in business/trade	240	239	479	9%	9%
	Self-employed in agriculture	556	535	1,091	21%	20%
	Total	2,598	2,611	5,209	100%	100%
Banke	Others	47	8	55	2%	0%
	Pension remittance	86	20	106	3%	1%
	Attends domestic duties for the household	56	815	871	2%	29%
	Child below school age	229	222	451	8%	8%
	Attends educational institution	1,040	953	1,993	36%	34%
	Unable to work due to disability/old age	43	75	118	1%	3%
	Does not work	31	5	36	1%	0%
	Casual wage laborer	289	63	352	10%	2%
	Regular salaried employee	364	62	426	13%	2%
	Self-employed in business/trade	206	111	317	7%	4%
	Self-employed in agriculture	481	451	932	17%	16%
	Total	2,872	2,785	5,657	100%	100%
Districts Total	Others	101	18	119	2%	0%
	Pension remittance	155	28	183	3%	1%
	Attends domestic duties for the household	85	1,287	1,372	2%	24%
	Child below school age	473	459	932	9%	9%
	Attends educational institution	1,969	1,911	3,880	36%	35%
	Unable to work due to disability/old age	117	167	284	2%	3%
	Does not work	58	8	66	1%	0%
	Casual wage laborer	416	84	500	8%	2%
	Regular salaried employee	613	98	711	11%	2%
	Self-employed in business/trade	446	350	796	8%	6%
	Self-employed in agriculture	1,037	986	2,023	19%	18%
	Total	5,470	5,396	10,866	100%	100%

Table 36: Chi-Square test (Activity Status across districts)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	257.145(a)	10	.000
Likelihood Ratio	260.945	10	.000
N of Valid Cases	10876		

Table 37: Profile of the economically active sampled population- Districts Total

Economic Activity	% of economically active sampled individuals
Self-employed in agriculture	37.4%
Domestic duties for the household	25.4%
Self-employed in business/trade	14.7%
Regular salaried employee	13.2%
Casual wage laborer	9.3%
	100.0%

Table 38: Education level of the economically active sampled population

		Self-employed in agriculture	Self-employed in business/trade	Regular salaried employee	Casual wage laborer	Domestic duties for the household
Dhading	No education	41%	18%	4%	30%	46%
	Informal education	17%	12%	3%	8%	14%
	Preschool	0%	0%	0%	0%	0%
	1-5	22%	24%	22%	42%	19%
	6-10	16%	32%	38%	17%	18%
	11- 15 (SLC and above)	4%	14%	32%	3%	3%
	Total	100%	100%	100%	100%	100%
Banke	No education	34%	13%	4%	35%	43%
	Informal education	18%	12%	4%	10%	14%
	Preschool	0%	0%	0%	0%	0%
	1-5	18%	17%	11%	19%	13%
	6-10	23%	41%	46%	34%	23%
	11- 15 (SLC and above)	6%	18%	35%	2%	6%
	Total	100%	100%	100%	100%	100%
Districts Total	No education	38%	16%	4%	33%	44%
	Informal education	18%	12%	3%	10%	14%
	Preschool	0%	0%	0%	0%	0%
	1-5	20%	21%	15%	26%	15%
	6-10	19%	36%	43%	29%	21%
	11- 15 (SLC and above)	5%	15%	34%	2%	5%
	Total	100%	100%	100%	100%	100%

Table 39: Chi-Square test (Education level of economically active population across districts)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	78.920(a)	5	.000
Likelihood Ratio	79.187	5	.000
N of Valid Cases	5405		

Table 40: Independent Sample T-test (Land size owned across the district)

	Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.		Lower	Upper
Equal variances assumed	26.175	.000	-2.612	2001	.009	-.25701	.09839		-.44998	-.06404
Equal variances not assumed			-2.622	1349.665	.009	-.25701	.09802		-.44929	-.06473

Table 41: Cumulative land holding of HHs and land size

Land Owned	Districts Total		Dhading		Banke	
	Cumulative % of HHs	Cumulative % of land	Cumulative % of HHs	Cumulative % of land	Cumulative % of HHs	Cumulative % of land
No land	16%	0%	15%	0%	17%	0%
<1 acre or no land	58%	16%	57%	19%	59%	13%
<5 acres or no land	97%	77%	98%	89%	95%	67%
<10 acres or no land	99%	90%	100%	100%	99%	82%
<54 acres or no land	100%	100%	100%	100%	100%	100%

Table 42: Independent Sample T-test (Land size owned across the district)

	Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.		Lower	Upper
Equal variances assumed	26.175	.000	-2.612	2001	.009	-.25701	.09839		-.44998	-.06404
Equal variances not assumed			-2.622	1349.665	.009	-.25701	.09802		-.44929	-.06473

Table 43: Type of house

	Districts Total	Dhading	Banke
Permanent (Pakki)	19.2%	12.3%	26.1%
Semi-Permanent (Ardha Pakki)	26.9%	37.4%	16.4%
Temporary (Kacchi)	53.9%	50.3%	57.5%
Total	100.0%	100.0%	100.0%

Table 44: Chi-Square test (House type across districts)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	137.134(a)	2	.000
Likelihood Ratio	140.476	2	.000
N of Valid Cases	2007		

Table 45: Assets owned by the sampled population

Asset Owned	Districts Total	Dhading	Banke
Fan	43%	26%	59%
Radio	74%	74%	74%
Sewing machine	10%	7%	12%
Television	46%	36%	56%
Bicycle	46%	12%	81%
Motor cycle	5%	5%	6%
Car	1%	2%	1%
Tractor	1%	0%	1%
Landline	16%	17%	16%
Mobile phone	58%	60%	57%
Computer	3%	3%	3%
Bank account	29%	27%	31%

Table 46: Ownership and use of ICT equipment by district

	Districts Total	Dhading	Banke
Own landline	16%	17%	16%
Use landline	82%	83%	81%
Own mobile	58%	60%	57%
Use mobile	80%	83%	78%
Own computer	3%	3%	3%
Use computer	24%	24%	24%

Table 47: Primary source of drinking water

Primary source of drinking water	Districts Total	Dhading	Banke
Piped Water Supply	55%	96%	14%
Covered Well/Hand Pump	44%	2%	85%
Others	1%	2%	1%
	100%	100%	100%

Table 48: Source of lighting

Source of lighting	Districts Total	Dhading	Banke
Electricity	81%	80%	82%
Kerosene/Oil/Gas	16%	16%	17%
Other	3%	4%	2%
	100%	100%	100%

Table 49: Source of cooking fuel by district

Source of cooking fuel	Districts Total	Dhading	Banke
Wood/Fire wood	81%	74%	88%
Cylinder Gas	11%	18%	4%
Bio-Gas	5%	4%	5%
Dung Other Water Source	3%	3%	2%
Other	1%	1%	1%
	100%	100%	100%

Table 50: Location of cooking area

Location of cooking area	Districts Total	Dhading	Banke
Cooking area is inside the house and it is separated from the living area by a wall	60%	43%	78%
Cooking area is inside the house and is not separated from the living area	26%	36%	15%
Cooking is done in the open/outside	14%	21%	7%
	100%	100%	100%

Table 51: Type of toilets

Type of toilet	Districts Total	Dhading	Banke
No toilet	39%	38%	39%
Household Flush (Connected to Septic Tank)	29%	29%	30%
Household Non-Flush	28%	27%	29%
Communal Latrine	2%	4%	0%
Household Flush (Connected to Municipal Sewer)	2%	3%	1%
	100%	100%	100%

Table 52: Mean Monthly Per Capita Consumption

DISTRIBUTION OF MPCC						
	Dhading		Banke		Districts Total	
MPCC (in NPR)	Count	Percentage	Count	Percentage	Count	Percentage
500 or below	13	1.30%	22	2.18%	35	1.75%
500-1000	102	10.22%	157	15.59%	259	12.92%
1000-1500	188	18.84%	244	24.23%	432	21.55%
1500-2000	202	20.24%	240	23.83%	442	22.04%
2000-2500	166	16.63%	141	14.00%	307	15.31%
2500-3000	90	9.02%	76	7.55%	166	8.28%
3000-3500	62	6.21%	43	4.27%	105	5.24%
3500-4000	41	4.11%	31	3.08%	72	3.59%
4000-4500	43	4.31%	17	1.69%	60	2.99%
4500-5000	23	2.30%	7	0.70%	30	1.50%
5000-5500	22	2.20%	10	0.99%	32	1.60%
5500-6000	14	1.40%	8	0.79%	22	1.10%
6000-6500	6	0.60%	1	0.10%	7	0.35%
6500-7000	6	0.60%	2	0.20%	8	0.40%
7000-7500	4	0.40%	2	0.20%	6	0.30%
7500-8000	1	0.10%	1	0.10%	2	0.10%
8000-8500	4	0.40%	0	0.00%	4	0.20%
8500-9000	4	0.40%	2	0.20%	6	0.30%
9000-9500	1	0.10%	2	0.20%	3	0.15%
Above 9500	6	0.60%	1	0.10%	7	0.35%
Total	998	100%	1007	100%	2005	100%

Table 53: Independent Samples Test (Monthly Per Capita Consumption across districts)

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Err. Diff.	95% Confidence Interval of the Difference		
									Lower	Upper	
Monthly per capita consumption	Equal variances assumed	45.7	.000	7.71	2003	.000	506.97	65.74	378.05	635.89	
	Equal variances not assumed			7.70	1803.74	.000	506.97	65.83	377.85	636.08	

Table 54: Monthly per capita consumption across the population (Districts Total)

MPCC Quintiles	Mean	SEM	Median	Valid N
Quintile-1	830.40	10.56	880.95	401
Quintile-2	1349.17	6.78	1353.33	401
Quintile-3	1802.31	6.63	1797.62	401
Quintile-4	2391.83	11.62	2362.22	401
Quintile-5	4422.34	92.60	3863.33	401
Districts Total	2159.21	33.57	1797.62	2005

Table 55: Mean MPCC for different education level of Household Head

Education status	Dhading			Banke			Districts Total		
	Mean	SEM	Valid N	Mean	SEM	Valid N	Mean	SEM	Valid N
No education	1852.52	63.75	296	1567.09	60.82	271	1716.10	44.55	567
Informal education	2442.10	132.69	148	1772.82	85.75	134	2124.07	82.98	282
Preschool	2392.55	736.02	3	.	.	0	2392.55	736.02	3
Class 1-5	2273.66	105.16	249	1848.75	112.60	181	2094.80	77.74	430
Class 6-10	2945.34	142.49	213	1984.81	60.76	300	2383.63	72.03	513
11- 15 (SLC and above)	3313.02	202.58	88	2747.91	131.39	121	2985.86	115.62	209
No response	2412.29	.	1	.	.	0	2412.29	.	1

Table 56: Chi-Square Test (HHH Education Level across districts)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	36.476(a)	6	.000
Likelihood Ratio	38.160	6	.000
N of Valid Cases	2005		

Table 57: Usual activity status of HHH against the Mean MPCC of the household

	MPCC vis-à-vis Occupation of the Household Head								
Usual activity status	Dhading			Banke			Districts Total		
	Mean	SEM	Valid N	Mean	SEM	Valid N	Mean	SEM	Valid N
Self employed in agriculture	1919.69	54.71	465	1718.62	51.68	383	1828.88	38.15	848
Self employed in business/trade	3309.76	162.49	206	2377.53	152.99	144	2926.22	116.95	350
Regular salaried employees	2987.94	188.01	110	2264.92	94.12	172	2546.95	95.29	282
Casual wage laborer	2080.36	138.57	75	1551.11	69.98	157	1722.20	67.02	232
Does not work	2830.00	.	1	1090.35	245.76	2	1670.23	596.99	3
Not able to work due to disability / old age	2313.97	201.59	53	1871.78	203.75	29	2157.59	149.96	82
Attends educational institution	2803.33	.	1	1478.57	.	1	2140.95	662.38	2
Attends domestic duties	2358.60	320.65	15	1705.22	139.88	49	1858.36	134.11	64
Pensioner/ Renter/	2624.56	218.64	44	1966.43	105.03	48	2281.19	122.32	92
Others	2396.35	253.80	26	2580.64	374.42	21	2478.70	216.29	47

Table 58: Mean MPCC for the different house types

	MPCC vis-à-vis Type of House								
Types of houses	Dhading			Banke			Districts Total		
	Mean	SEM	Valid N	Mean	SEM	Valid N	Mean	SEM	Valid N
Permanent (Pakki)	3584.94	195.54	122	2468.42	102.96	262	2823.15	97.32	384
Semi-Permanent (Ardha Pakki)	2636.87	89.92	374	1949.36	84.58	165	2426.41	68.87	539
Temporary (Kacchi)	1953.90	59.83	502	1648.95	37.81	579	1790.57	34.67	1081

Table 59: Living standard satisfaction by district

	Districts Total			Dhading			Banke		
	Family's food expenditure	Family's health care	Family's total income	Family's food expenditure	Family's health care	Family's total income	Family's food expenditure	Family's health care	Family's total income
Less than adequate	24%	28%	28%	20%	22%	25%	27%	34%	30%
Just adequate	71%	69%	69%	76%	74%	70%	67%	63%	68%
More than adequate	5%	3%	4%	4%	3%	5%	6%	3%	2%
	100%	100%	100%	100%	100%	100%	100%	100%	100%

Table 60: Percentage of households unable to meet food needs in any month during the last one year

	% of sample households
Districts Total	13%
Dhading	8%
Banke	18%

Table 61: Rate of illness within the month prior to the survey (percentage)

	Male	Female	Total
Districts Total	**9.84** (N=5547)	**14.70** (N=5457)	**12.24** (N=11016)
Dhading	**8.00** (N=2626)	**12.57** (N=2642)	**10.27** (N=5275)
Banke	**11.50** (N=2921)	**16.70** (N=2815)	**14.04** (N=5741)

Table 62: Statistical testing to show that females are more prone to illness than males

STATISTICAL TESTING : FEMALE ARE MORE PRONE TO ILLNESS THAN MALES									
	Male			Female			Value of the test statistic	p value	Conclusion
	p_1	q_1	$p_1 q_1/n_1$	p_2	q_2	$p_2 q_2/n_2$			
Districts Total	0.1	0.9	0.000016	0.15	0.85	0.000011	-9.27583	0	Significant
Dhading	0.08	0.92	0.000028	0.13	0.87	0.000021	-6.53781	0	Significant
Banke	0.12	0.88	0.000035	0.17	0.83	0.000024	-6.75677	0	Significant

Table 63: Age-gender breakdown of illness episodes (percentage)

Age group	Total Districts		Dhading		Banke	
	Male	Female	Male	Female	Male	Female
<6	23.73	23.56	21.38	20.83	26.22	26.32
6 to 14+	7.20	7.73	4.91	4.72	9.46	10.64
15 to 18+	4.40	7.49	2.77	6.43	5.80	8.75
19 to 30+	4.60	11.63	4.73	10.26	4.49	12.83
31 to 45+	9.56	22.09	7.85	20.45	10.98	23.53
46 to 59+	15.52	21.26	10.00	20.81	20.49	21.66
>=60	18.21	23.17	12.57	18.49	24.29	27.22

Table 64: Number of illness episodes in different categories (Dhading)

Number of illness episodes in different categories : Dhading

Age-group	acute			chronic			accident			undefined			Total Population Size		
	Male	Female	Male-Female combined	Male	Female	Male-Female combined	Male	Female	Male-Female combined	Male	Female	Male-Female combined	Male	Female	Male-Female combined
<6	60	58	118	0	0	0	3	3	6	2	0	2	304	289	593
6 to 14+	24	22	46	2	1	3	3	5	8	2	2	4	632	635	1267
15 to 18+	4	17	21	1	2	3	1	1	2	1	0	1	253	311	564
19 to 30+	16	42	58	8	13	21	1	3	4	2	4	6	571	604	1175
31 to 45+	18	53	71	11	25	36	3	0	3	2	13	15	433	445	878
46 to 59+	12	16	28	6	23	29	2	1	3	2	1	3	220	197	417
>=60	11	13	24	11	13	24	0	1	1	2	0	2	191	146	337
TOTAL	145	221	366	39	77	116	13	14	27	13	20	33	2604	2627	5231

Table 65: Number of illness episodes in different categories (Banke)

Number of illness episodes in different categories : Banke

Age-group	acute			chronic			accident			undefined			Total Population Size		
	Male	Female	Male-Female combined	Male	Female	Male-Female combined	Male	Female	Male-Female combined	Male	Female	Male-Female combined	Male	Female	Male-Female combined
<6	73	71	144	2	0	2	0	2	2	0	2	2	287	285	572
6 to 14+	47	60	107	8	4	12	3	2	5	3	4	7	645	658	1303
15 to 18+	10	18	28	3	3	6	3	1	4	1	1	2	293	263	556
19 to 30+	23	70	93	7	13	20	2	1	3	0	4	4	712	686	1398
31 to 45+	33	81	114	21	25	46	0	1	1	3	13	16	519	510	1029
46 to 59+	28	28	56	17	17	34	2	0	2	3	2	5	243	217	460
>=60	27	25	52	15	17	32	0	0	0	1	4	5	177	169	346
TOTAL	241	353	594	73	79	152	10	7	17	11	30	41	2876	2788	5664

Table 66: Number of Illness episodes in different categories (Total Districts)

Number of illness episodes in different categories : Total Districts

| | | | | Number of illness episodes | | | | | | | | | | | Total Population Size | | |
| Age-group | acute | | | chronic | | | accident | | | undefined | | | | | | | |
	Male	Female	Male-Female combined	Male	Female	Male-Female combined	Male	Female	Male-Female combined	Male	Female	Male-Female combined			Male	Female	Male-Female combined
<6	133	129	262	2	0	2	3	5	8	2	2	4			591	574	1165
6 to 14+	71	82	153	10	5	15	6	7	13	5	6	11			1277	1293	2570
15 to 18+	14	35	49	4	5	9	4	2	6	2	1	3			546	574	1120
19 to 30+	39	112	151	15	26	41	3	4	7	2	8	10			1283	1290	2573
31 to 45+	51	134	185	32	50	82	3	1	4	5	26	31			952	955	1907
46 to 59+	40	44	84	23	40	63	4	1	5	5	3	8			463	414	877
>=60	38	38	76	26	30	56	0	1	1	3	4	7			368	315	683
TOTAL	**386**	**574**	**960**	**112**	**156**	**268**	**23**	**21**	**44**	**24**	**50**	**74**			**5480**	**5415**	**10895**

Table 67: Proportion of population reported in different illness categories (Dhading)

Number of illness episodes

| Age-group | Acute | | | chronic | | | Accident | | | undefined | | |
	Male	Female	Male-Female combined	Male	Female	Male-Female combined	Male	Female	Male-Female combined	Male	Female	Male-Female combined
<6	19.74%	20.07%	19.90%	0.00%	0.00%	0.00%	0.99%	1.04%	1.01%	0.66%	0.00%	0.34%
6 to 14+	3.80%	3.46%	3.63%	0.32%	0.16%	0.24%	0.47%	0.79%	0.63%	0.32%	0.31%	0.32%
15 to 18+	1.58%	5.47%	3.72%	0.40%	0.64%	0.53%	0.40%	0.32%	0.35%	0.40%	0.00%	0.18%
19 to 30+	2.80%	6.95%	4.94%	1.40%	2.15%	1.79%	0.18%	0.50%	0.34%	0.35%	0.66%	0.51%
31 to 45+	4.16%	11.91%	8.09%	2.54%	5.62%	4.10%	0.69%	0.00%	0.34%	0.46%	2.92%	1.71%
46 to 59+	5.45%	8.12%	6.71%	2.73%	11.68%	6.95%	0.91%	0.51%	0.72%	0.91%	0.51%	0.72%
>=60	5.76%	8.90%	7.12%	5.76%	8.90%	7.12%	0.00%	0.68%	0.30%	1.05%	0.00%	0.59%
TOTAL	**5.57%**	**8.41%**	**7.00%**	**1.50%**	**2.93%**	**2.22%**	**0.50%**	**0.53%**	**0.52%**	**0.50%**	**0.76%**	**0.63%**

Table 68: Proportion of population reported in different illness categories (Banke)

Proportion of population reported in different illness episodes : Banke

Age-group	Number of illness episodes											
	Acute			chronic			Accident			undefined		
	Male	Female	Male-Female combined	Male	Female	Male-Female combined	Male	Female	Male-Female combined	Male	Female	Male-Female combined
<6	25.44%	24.91%	25.17%	0.70%	0.00%	0.35%	0.00%	0.70%	0.35%	0.00%	0.70%	0.35%
6 to 14+	7.29%	9.12%	8.21%	1.24%	0.61%	0.92%	0.47%	0.30%	0.38%	0.47%	0.61%	0.54%
15 to 18+	3.41%	6.84%	5.04%	1.02%	1.14%	1.08%	1.02%	0.38%	0.72%	0.34%	0.38%	0.36%
19 to 30+	3.23%	10.20%	6.65%	0.98%	1.90%	1.43%	0.28%	0.15%	0.21%	0.00%	0.58%	0.29%
31 to 45+	6.36%	15.88%	11.08%	4.05%	4.90%	4.47%	0.00%	0.20%	0.10%	0.58%	2.55%	1.55%
46 to 59+	11.52%	12.90%	12.17%	7.00%	7.83%	7.39%	0.82%	0.00%	0.43%	1.23%	0.92%	1.09%
>=60	15.25%	14.79%	15.03%	8.47%	10.06%	9.25%	0.00%	0.00%	0.00%	0.56%	2.37%	1.45%
TOTAL	8.38%	12.66%	10.49%	2.54%	2.83%	2.68%	0.35%	0.25%	0.30%	0.38%	1.08%	0.72%

Table 69: Proportion of population reported in different illness categories (Total Districts)

Proportion of population reported in different illness categories : Total Districts

Age-group	Number of illness episodes											
	Acute			chronic			Accident			undefined		
	Male	Female	Male-Female combined	Male	Female	Male-Female combined	Male	Female	Male-Female combined	Male	Female	Male-Female combined
<6	22.50%	22.47%	22.49%	0.34%	0.00%	0.17%	0.51%	0.87%	0.69%	0.34%	0.35%	0.34%
6 to 14+	5.56%	6.34%	5.95%	0.78%	0.39%	0.58%	0.47%	0.54%	0.51%	0.39%	0.46%	0.43%
15 to 18+	2.56%	6.10%	4.38%	0.73%	0.87%	0.80%	0.73%	0.35%	0.54%	0.37%	0.17%	0.27%
19 to 30+	3.04%	8.68%	5.87%	1.17%	2.02%	1.59%	0.23%	0.31%	0.27%	0.16%	0.62%	0.39%
31 to 45+	5.36%	14.03%	9.70%	3.36%	5.24%	4.30%	0.32%	0.10%	0.21%	0.53%	2.72%	1.63%
46 to 59+	8.64%	10.63%	9.58%	4.97%	9.66%	7.18%	0.86%	0.24%	0.57%	1.08%	0.72%	0.91%
>=60	10.33%	12.06%	11.13%	7.07%	9.52%	8.20%	0.00%	0.32%	0.15%	0.82%	1.27%	1.02%
TOTAL	7.04%	10.60%	8.81%	2.04%	2.88%	2.46%	0.42%	0.39%	0.40%	0.44%	0.92%	0.68%

Table 70: Length of illness

Length of illness

	Counts					Percentages				
	acute	chronic	accident	undefined	All together	acute	chronic	accident	undefined	All together
Total Districts										
Started more than 30 days ago and is continuing	82	129	9	21	241	8.54%	48.13%	20.45%	29.17%	17.93%
Started more than 30 days ago and has ended	98	17	6	5	126	10.21%	6.34%	13.64%	6.94%	9.38%
Started within last 30 days and is continuing	154	65	14	14	247	16.04%	24.25%	31.82%	19.44%	18.38%
Started within last 30 days and has ended	626	57	15	32	730	65.21%	21.27%	34.09%	44.44%	54.32%
Total	**960**	**268**	**44**	**72**	**1344**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**
Dhading										
Started more than 30 days ago and is continuing	40	66	6	12	124	10.96%	56.90%	22.22%	37.50%	22.96%
Started more than 30 days ago and has ended	64	13	5	4	86	17.53%	11.21%	18.52%	12.50%	15.93%
Started within last 30 days and is continuing	71	26	9	8	114	19.45%	22.41%	33.33%	25.00%	21.11%
Started within last 30 days and has ended	190	11	7	8	216	52.05%	9.48%	25.93%	25.00%	40.00%
Total	**365**	**116**	**27**	**32**	**540**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**
Banke										
Started more than 30 days ago and is continuing	42	63	3	9	117	7.06%	41.45%	17.65%	22.50%	14.55%
Started more than 30 days ago and has ended	34	4	1	1	40	5.71%	2.63%	5.88%	2.50%	4.98%
Started within last 30 days and is continuing	83	39	5	6	133	13.95%	25.66%	29.41%	15.00%	16.54%
Started within last 30 days and has ended	436	46	8	24	514	73.28%	30.26%	47.06%	60.00%	63.93%
Total	**595**	**152**	**17**	**40**	**804**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Table 71: Occupational profile of people who lost productive days due to illness (Count)

Occupation type	Dhading			Banke			Districts Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Self employed in agriculture	37	78	115	86	81	167	123	159	282
Self employed in business/trade	17	38	55	17	16	33	34	54	88
Regular salaried employee	8	3	11	18	4	22	26	7	33
Casual wage laborer	6	2	8	20	10	30	26	12	38
Total - Economically Active	68	121	189	141	111	252	209	232	441
Does not work right now but seeking employment	3	1	4	3	0	3	6	1	7
Not able to work due to disability/old age	12	15	27	6	15	21	18	30	48
Attends educational institute	42	46	88	72	67	139	114	113	227
Preschool children	36	34	70	55	57	112	91	91	182
Attends domestic duties for household	2	59	61	5	125	130	7	184	191
Renter, pensioner, remittance recipients etc.	0	0	0	5	2	7	5	2	7
Others	3	3	6	1	1	2	4	4	8
Total	166	279	445	288	378	666	454	657	1111

Table 72: Mean number of unproductive days (unable to perform normal duties)

MEAN DAYS OF ILLNESS (UNABLE TO PERFORM NORMAL DUTY)									
Age Group	Districts Total			Dhading			Banke		
	Male	Female	Combined	Male	Female	Combined	Male	Female	Combined
<6	4.30 (N=138)	4.59 (N=132)	4.44 (N=270)	4.06 (N=64)	4.24 (N=59)	4.15 (N=123)	4.50 (N=74)	4.86 (N=73)	4.68 (N=147)
6 to 14+	5.45 (N=92)	8.84 (N=98)	7.19 (N=190)	5.87 (N=31)	18.38 (N=29)	11.92 (N=60)	5.23 (N=61)	4.83 (N=69)	5.02 (N=130)
15 to 18+	7.75 (N=24)	5.79 (N=43)	6.49 (N=67)	4.57 (N=7)	6.60 (N=20)	6.07 (N=27)	9.06 (N=17)	5.09 (N=23)	6.78 (N=40)
19 to 30+	7.42 (N=57)	6.37 (N=150)	6.66 (N=207)	7.56 (N=25)	7.66 (N=62)	7.63 (N=87)	7.31 (N=32)	5.47 (N=88)	5.96 (N=120)
31 to 45+	8.05 (N=91)	7.76 (N=210)	7.85 (N=301)	7.74 (N=34)	10.02 (N=90)	9.40 (N=124)	8.25 (N=57)	6.06 (N=120)	6.76 (N=177)
46 to 59+	10.25 (N=72)	8.24 (N=88)	9.14 (N=160)	9.14 (N=22)	9.56 (N=41)	9.41 (N=63)	10.74 (N=50)	7.09 (N=47)	8.97 (N=97)
>=60	12.43 (N=67)	13.68 (N=73)	13.09 (N=140)	12.00 (N=24)	23.30 (N=27)	17.98 (N=51)	12.67 (N=43)	8.04 (N=46)	10.28 (N=89)
All age groups combined	7.41 (N=542)	7.59 (N=795)	7.52 (N=1337)	6.84 (N=207)	10.10 (N=328)	8.84 (N=535)	7.77 (N=335)	5.82 (N=467)	6.63 (N=802)

Table 73: Mean number of unproductive days (unable to perform normal duties)

MEAN DAYS OF ILLNESS (UNABLE TO PERFORM NORMAL DUTIES) ALONG WITH MEDIAN AND STANDARD ERROR OF MEAN (SEM)												
Age group	Dhading						Banke					
	Male			Female			Male			Female		
	Mean	Median	SEM	Mean	Median	SEM	Mean	Median	SEM	Mean	Median	SEM
<6	4.06	3.00	0.45	4.25	3.00	0.53	4.50	3.00	0.63	4.86	4.00	0.58
6 to 14+	5.87	5.00	1.18	18.38	4.00	12.43	5.23	3.00	0.73	4.83	3.00	1.23
15 to 18+	4.57	4.00	1.17	6.60	4.50	1.74	9.06	5.00	2.49	5.09	3.00	1.53
19 to 30+	7.56	4.00	1.91	7.66	5.00	0.95	7.31	3.50	1.96	5.47	3.00	0.72
31 to 45+	7.74	4.00	1.60	10.02	6.00	1.34	8.25	5.00	1.16	6.06	4.00	0.73
46 to 59+	9.14	5.00	2.22	9.56	9.00	1.15	10.74	6.00	1.81	7.09	4.00	1.40
>=60	12.00	8.50	2.21	23.30	15.00	5.80	12.67	5.00	4.23	8.04	5.00	1.23

Table 74: Occupational profile of people who lost productive days due to illness (Percentages)

Occupation type	Dhading			Banke			Districts Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Self employed in agriculture	22.29%	27.96%	25.84%	29.86%	21.43%	25.08%	27.09%	24.20%	25.38%
Self employed in business/trade	10.24%	13.62%	12.36%	5.90%	4.23%	4.95%	7.49%	8.22%	7.92%
Regular salaried employee	4.82%	1.08%	2.47%	6.25%	1.06%	3.30%	5.73%	1.07%	2.97%
Casual wage laborer	3.61%	0.72%	1.80%	6.94%	2.65%	4.50%	5.73%	1.83%	3.42%
Total - Economically Active	**40.96%**	**43.37%**	**42.47%**	**48.96%**	**29.37%**	**37.84%**	**46.04%**	**35.31%**	**39.69%**
Does not work right now but seeking employment	1.81%	0.36%	0.90%	1.04%	0.00%	0.45%	1.32%	0.15%	0.63%
Not able to work due to disability/old age	7.23%	5.38%	6.07%	2.08%	3.97%	3.15%	3.96%	4.57%	4.32%
Attends educational institute	25.30%	16.49%	19.78%	25.00%	17.72%	20.87%	25.11%	17.20%	20.43%
Preschool children	21.69%	12.19%	15.73%	19.10%	15.08%	16.82%	20.04%	13.85%	16.38%
Attends domestic duties for household	**1.20%**	**21.15%**	**13.71%**	**1.74%**	**33.07%**	**19.52%**	**1.54%**	**28.01%**	**17.19%**
Renter, pensioner, remittance recipients etc.	0.00%	0.00%	0.00%	1.74%	0.53%	1.05%	1.10%	0.30%	0.63%
Others	1.81%	1.08%	1.35%	0.35%	0.26%	0.30%	0.88%	0.61%	0.72%
Total	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Table 75: Description of pregnancies (absolute numbers) in the last two years

S.No.	Description of Pregnancies	Dhading	Banke	Total districts
1	Currently Pregnant	34	33	67
2	Live Birth	174	195	369
3	Stillbirth	3	2	5
4	Miscarriage	5	4	9
5	Induced abortion	3	0	3
6	Total pregnancy related incidence reported	219	234	453
7	Sampled population	5240	5672	10912
8	**Estimated Birth Rate (CBR) (per 1000 population)**	**16.6**	**17.19**	**16.91**
9	Total pregnancy outcome reported (2+3+4+5)	185	201	386
	Number of "wasted" pregnancy	11	6	17
	Rate of "wasted" pregnancy (as % of live birth)	**6.32%**	**3.08%**	**4.61%**
	Estimated Pregnancy Rate from CBR and rate of wasted pregnancy	69.375	75.375	144.75
	Currently pregnant women as a % estimated number of pregnant women	49%	44%	46%

Table 76: Proportion of different pregnancy outcomes

Pregnancy outcomes	Dhading	Banke	Total districts
Live Birth	94.05%	97.01%	95.60%
Still birth	1.62%	1.00%	1.30%
Miscarriage	2.70%	1.99%	2.33%
Induced abortion	1.62%	0.00%	0.78%
Total pregnancy related incidence reported	100%	100%	100%

Table 77: Average number of prenatal checkups

Description of Pregnancies	Dhading					
	Mean	Median	Minimum	Maximum	SEM	Counts
Live Birth	3.52	3.00	0.00	12.00	0.18	174
Stillbirth	5.00	4.00	4.00	7.00	1.00	3
Miscarriage	2.00	1.50	0.00	5.00	1.22	5
Combined	**3.51**	.				
Description of Pregnancies	Banke					
	Mean	Median	Minimum	Maximum	SEM	Counts
Live Birth	3.57	4.00	0.00	10.00	0.13	195
Stillbirth	1.50	1.50	1.00	2.00	0.50	2
Miscarriage	1.50	1.50	0.00	3.00	0.65	4
Combined	**3.51**					
Description of Pregnancies	Total districts					
	Mean	Median	Minimum	Maximum	SEM	Counts
Live Birth	3.55	4.00	0.00	12.00	0.11	369
Stillbirth	3.60	4.00	1.00	7.00	1.03	5
Miscarriage	1.75	1.50	0.00	5.00	0.65	9
Combined	**3.51**					**383**

Table 78: (For live birth) Proportion of normal and Caesarean delivery

Type of delivery	Dhading		Banke	
	Count	Percentage	Count	Percentage
Normal	150	94%	165	85%
Caesarean	10	6%	28	15%
Total	**160**	**100%**	**193**	**100%**

Table 79: (For live birth) Reasons for Caesarean delivery

Reasons	Dhading		Banke	
	Count	Percentage	Count	Percentage
Doctors' recommendation	9	100%	25	89%
Mother's request	0	0%	3	11%
Total	**9**	**100%**	**28**	**100%**

Table 80: (For live birth) Place of birth

Place of Birth	Dhading		Banke	
	Count	Percentage	Count	Percentage
At home	106	60.92%	117	60.62%
At parents' home	1	0.57%	1	0.52%
In a facility	67	38.51%	70	36.27%
Other	0	0.00%	5	2.59%
Total	**174**	**100.00%**	**193**	**100.00%**

Table 81: For live deliveries, reason for having delivery at home

Reasons for home delivery				
Reasons	Dhading		Banke	
	Count	Percentage	Count	Percentage
Cheaper	11	10.28%	17	14.78%
Hospital too far	8	7.48%	17	14.78%
Trust in the person who supervised	19	17.76%	39	33.91%
Everyone does it	20	18.69%	12	10.43%
Prefer home environment	15	14.02%	4	3.48%
Wanted a facility, but delivery was very quick	34	31.78%	26	22.61%
Total	**107**	**100.00%**	**115**	**100.00%**

Table 82: For live deliveries, who supervised the home delivery?

Who supervised delivery?				
Person supervised	Dhading		Banke	
	Count	Percentage	Count	Percentage
Family member or relative	71	66.36%	42	36.52%
Neighbors	9	8.41%	17	14.78%
TBA / TTBA	11	10.28%	40	34.78%
MCHW / VHW	5	4.67%	6	5.22%
HA / SAHW / AHW	1	0.93%	4	3.48%
ANM / Nurse / Doctor	4	3.74%	4	3.48%
No one	6	5.61%	2	1.74%
Total	**107**	**100.00%**	**115**	**100.00%**

Table 83: For live births, reason for having institutional delivery

Reasons for delivering in a facility				
Reasons	Dhading		Banke	
	Count	Percentage	Count	Percentage
Safer, trust nurse, doctor	41	61.19%	43	61.43%
Everyone does it	1	1.49%	1	1.43%
Wanted home, but due to complications	25	37.31%	26	37.14%
Total	**67**	**100.00%**	**70**	**100.00%**

Table 84: For live births, type of facility used for institutional delivery

Types of facilities for institutional delivery				
Reasons	Dhading		Banke	
	Count	Percentage	Count	Percentage
SHP	7	10.45%	0	0.00%
HP	10	14.93%	2	2.82%
PHC	6	8.96%	4	5.63%
Government hospital	39	58.21%	37	52.11%
Private hospital / Maternity home	4	5.97%	28	39.44%
Other	1	1.49%	0	0.00%
Total	**67**	**100.00%**	**71**	**100.00%**

Table 85: For live births, the reason for choosing a particular facility for having the institutional delivery

Reasons for choosing the particular facility for institutional delivery				
Reasons	Dhading		Banke	
	Count	Percentage	Count	Percentage
Cheapest	3	4.48%	10	14.08%
Closest	5	7.46%	6	8.45%
Best	41	61.19%	34	47.89%
Everyone goes there	8	11.94%	4	5.63%
Referred there by a medical practitioner	7	10.45%	16	22.54%
Requirement for the health insurance	2	2.99%	1	1.41%
Financial incentive	1	1.49%	0	0.00%
Total	**67**	**100.00%**	**71**	**100.00%**

Table 86: PNC for live births

Number of PNC (live birth)					
Districts	Mean	Median	Minimum	Maximum	SEM
Dhading	0.43	0.00	0.00	10.00	0.10
Banke	0.89	0.00	0.00	10.00	0.14
Total districts	**0.68**	**0.00**	**0.00**	**10.00**	**0.09**

Table 87: Facility where PNC was provided

Places of PNC						
Place of PNC	Dhading		Banke		Total districts	
	Count	Percent	Count	Percent	Count	Percent
SHP	8	19.51%	7	10.29%	15	13.76%
HP	12	29.27%	18	26.47%	30	27.52%
PHCC	2	4.88%	7	10.29%	9	8.26%
Government Hospital	5	12.20%	12	17.65%	17	15.60%
Mobile Clinic	1	2.44%	4	5.88%	5	4.59%
Ayurveda clinic	2	4.88%	0	0.00%	2	1.83%
Pharmacy / clinic	0	0.00%	1	1.47%	1	0.92%
Private Hospital / Maternity Home	5	12.20%	13	19.12%	18	16.51%
Health Workers' home	0	0.00%	2	2.94%	2	1.83%
ANM Visited home	0	0.00%	2	2.94%	2	1.83%
Others	6	14.63%	2	2.94%	8	7.34%
Total	**41**	**100.00%**	**68**	**100.00%**	**109**	**100.00%**

Table 88: Hospitalization of newborns of live births

	Hospitalization of newborn babies					
	Dhading		Banke		Total districts	
	Count	Percent	Count	Percent	Count	Percent
Yes	16	9.82%	21	11.17%	37	10.54%
No	147	90.18%	167	88.83%	314	89.46%
Total	**163**	**100.00%**	**188**	**100.00%**	**351**	**100.00%**

Table 89: Type of delivery for stillbirths

Proportion of Caesarean and normal delivery (Caesarean)						
Type of delivery	Dhading		Banke		Total districts	
	Count	Percent	Count	Percent	Count	Percent
Normal	2	66.67%	1	50.00%	3	60.00%
Caesarean	1	33.33%	1	50.00%	2	40.00%
Total	**3**	**100.00%**	**2**	**100.00%**	**5**	**100.00%**

Table 90: For miscarriages requiring hospitalization or not

Proportion of hospitalization (miscarriage)						
Type of delivery	Dhading		Banke		Total districts	
	Count	Percent	Count	Percent	Count	Percent
No Hospitalization	4	80.00%	3	75.00%	7	77.78%
Hospitalization	1	20.00%	1	25.00%	2	22.22%
Total	**5**	**100.00%**	**4**	**100.00%**	**9**	**100.00%**

Table 91: Hospitalizations required for induced abortions

Proportion of hospitalization (induced abortion)						
Type of delivery	Dhading		Banke		Total districts	
	Count	Percent	Count	Percent	Count	Percent
No Hospitalization		0.00%			0	0.00%
Hospitalization	3	100.00%			3	100.00%
Total	**3**	**100.00%**			**3**	**100.00%**

Table 92: Hospitalization incidence rate across age groups

Age group	Males	Females
0-6 yrs	3.73%	4.89%
6-14 yrs	2.82%	1.70%
15-30 yrs	2.08%	3.92%
31-45 yrs	3.78%	6.39%
46-60 yrs	5.39%	7.00%
60 yrs +	9.78%	9.84%
Total	3.52%	4.51%

Table 93: Hospitalization rate for both genders across age groups for Dhading and Banke.

Age groups	Dhading		Banke	
	Male	Female	Male	Female
0-6 yrs	4.61%	4.17%	2.80%	5.61%
6-14 yrs	2.69%	2.20%	2.95%	1.22%
15-30 yrs	2.91%	3.72%	1.39%	4.11%
31-45 yrs	2.77%	4.94%	4.62%	7.65%
46-60 yrs	5.45%	7.61%	5.33%	6.45%
60 yrs +	9.95%	12.33%	9.60%	7.69%

Table 94: Types of providers visited by the sick persons

Provider type	counts					percentages				
	Category of illnesses				Total	Category of illnesses				Total
	acute	chronic	accident	undefined		acute	chronic	accident	undefined	
Total districts										
Government	232	88	13	19	352	24.12%	32.84%	29.55%	25.68%	26.11%
RMP	359	49	17	17	442	37.32%	18.28%	38.64%	22.97%	32.79%
Private qualified	296	118	15	30	459	30.77%	44.03%	34.09%	40.54%	34.05%
Total episodes	**962**	**268**	**44**	**74**	**1348**					
Dhading										
Government	130	49	10	10	199	35.52%	42.24%	37.04%	30.30%	36.72%
RMP	141	24	7	8	180	38.52%	20.69%	25.93%	24.24%	33.21%
Private qualified	77	41	10	11	139	21.04%	35.34%	37.04%	33.33%	25.65%
Total episodes	**366**	**116**	**27**	**33**	**542**					
Banke										
Government	102	39	3	9	153	17.11%	25.66%	17.65%	21.95%	18.98%
RMP	218	25	10	9	262	36.58%	16.45%	58.82%	21.95%	32.51%
Private qualified	219	77	5	19	320	36.74%	50.66%	29.41%	46.34%	39.70%
Total episodes	**596**	**152**	**17**	**41**	**806**					

Table 95: Mean time to reach a provider (in minutes)

Time to reach a provider	Dhading	Banke
RMP	34	21
GP	76	45
Specialist	79	54

Table 96: Types of providers visited by the sick persons (gender-age breakdown-Total Districts)

Sex	Age-group	Provider Type			Total illness episodes	Provider Type		
		Government	RMP	Private Qualified		Government	RMP	Private Qualified
Male	<6	25	54	49	140	17.86%	38.57%	35.00%
	6 to 14+	20	33	31	92	21.74%	35.87%	33.70%
	15 to 18+	5	11	8	24	20.83%	45.83%	33.33%
	19 to 30+	12	16	29	59	20.34%	27.12%	49.15%
	31 to 45+	25	26	31	91	27.47%	28.57%	34.07%
	46 to 59+	23	20	25	72	31.94%	27.78%	34.72%
	>=60	23	18	23	67	34.33%	26.87%	34.33%
	Total-Male	**133**	**178**	**196**	**545**	**24.40%**	**32.66%**	**35.96%**
Female	<6	30	67	36	135	22.22%	49.63%	26.67%
	6 to 14+	27	32	32	100	27.00%	32.00%	32.00%
	15 to 18+	16	12	9	43	37.21%	27.91%	20.93%
	19 to 30+	41	39	60	150	27.33%	26.00%	40.00%
	31 to 45+	55	65	75	211	26.07%	30.81%	35.55%
	46 to 59+	26	24	30	88	29.55%	27.27%	34.09%
	>=60	24	24	20	73	32.88%	32.88%	27.40%
	Total-Female	**219**	**263**	**262**	**800**	**27.38%**	**32.88%**	**32.75%**
Total-District		**352**	**441**	**458**	**1345**	**26.17%**	**32.79%**	**34.05%**

Table 97: Types of providers visited by the sick persons (gender-age breakdown-Dhading)

| Sex | Age-group | Provider Type | | | Total illness episodes | Provider Type | | |
		Government	RMP	Private Qualified		Government	RMP	Private Qualified
Male	<6	19	29	14	65	29.23%	44.62%	21.54%
	6 to 14+	12	12	5	31	38.71%	38.71%	16.13%
	15 to 18+		4	2	7	0.00%	57.14%	28.57%
	19 to 30+	7	8	13	27	25.93%	29.63%	48.15%
	31 to 45+	12	11	10	34	35.29%	32.35%	29.41%
	46 to 59+	12	5	1	22	54.55%	22.73%	4.55%
	>=60	12	6	5	24	50.00%	25.00%	20.83%
	Total-Male	74	75	50	210	35.24%	35.71%	23.81%
Female	<6	21	30	13	60	35.00%	50.00%	21.67%
	6 to 14+	11	9	12	30	36.67%	30.00%	40.00%
	15 to 18+	8	5	3	20	40.00%	25.00%	15.00%
	19 to 30+	23	15	15	62	37.10%	24.19%	24.19%
	31 to 45+	34	24	25	91	37.36%	26.37%	27.47%
	46 to 59+	16	12	16	41	39.02%	29.27%	39.02%
	>=60	12	10	5	27	44.44%	37.04%	18.52%
	Total-Female	125	105	89	331	37.76%	31.72%	26.89%
Total-District		199	180	139	541	36.78%	33.27%	25.69%

Table 98: Types of providers visited by the sick persons (gender-age breakdown-Banke)

| Sex | Age-group | Provider Type | | | Total illness episodes | Provider Type | | |
		Government	RMP	Private Qualified		Government	RMP	Private Qualified
Male	<6	6	25	35	75	8.00%	33.33%	46.67%
	6 to 14+	8	21	26	61	13.11%	34.43%	42.62%
	15 to 18+	5	7	6	17	29.41%	41.18%	35.29%
	19 to 30+	5	8	16	32	15.63%	25.00%	50.00%
	31 to 45+	13	15	21	57	22.81%	26.32%	36.84%
	46 to 59+	11	15	24	50	22.00%	30.00%	48.00%
	>=60	11	12	18	43	25.58%	27.91%	41.86%
	Total-Male	59	103	146	335	17.61%	30.75%	43.58%
Female	<6	9	37	23	75	12.00%	49.33%	30.67%
	6 to 14+	16	23	20	70	22.86%	32.86%	28.57%
	15 to 18+	8	7	6	23	34.78%	30.43%	26.09%
	19 to 30+	18	24	45	88	20.45%	27.27%	51.14%
	31 to 45+	21	41	50	120	17.50%	34.17%	41.67%
	46 to 59+	10	12	14	47	21.28%	25.53%	29.79%
	>=60	12	14	15	46	26.09%	30.43%	32.61%
	Total-Female	94	158	173	469	20.04%	33.69%	36.89%
Total-District		153	261	319	804	19.03%	32.46%	39.68%

Table 99: Reasons for not seeking any treatment

| Reasons | Counts | | | Percentages | | |
	Dhading	Banke	Total districts	Dhading	Banke	Total districts
Ailment not considered serious	18	43	61	39.13%	65.15%	54.46%
Financial reasons	13	19	32	28.26%	28.79%	28.57%
Lack of faith	3	2	5	6.52%	3.03%	4.46%
No facilities available nearby	2	2	4	4.35%	3.03%	3.57%
others	10	0	10	21.74%	0.00%	8.93%
Total	46	66	112	100.00%	100.00%	100.00%

Table 100: Gender age distribution of those did not seek treatment (Counts)

Age group	Dhading			Banke			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<6	4	3	7	8	6	14	12	9	21
6 to 14+	3	1	4	6	10	16	9	11	20
15 to 18+	2	5	7	0	3	3	2	8	10
19 to 30+	1	9	10	3	5	8	4	14	18
31 to 45+	5	10	15	6	6	12	11	16	27
46 to 59+	2	0	2	4	8	12	6	8	14
>=60	2	0	2	4	4	8	6	4	10
Total	**19**	**28**	**47**	**31**	**42**	**73**	**50**	**70**	**120**

Table 101: Gender age distribution of those who did not seek treatment (Percentages)

Age group	Dhading			Banke			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<6	21%	11%	15%	26%	14%	19%	24%	13%	18%
6 to 14+	16%	4%	9%	19%	24%	22%	18%	16%	17%
15 to 18+	11%	18%	15%	0%	7%	4%	4%	11%	8%
19 to 30+	5%	32%	21%	10%	12%	11%	8%	20%	15%
31 to 45+	26%	36%	32%	19%	14%	16%	22%	23%	23%
46 to 59+	11%	0%	4%	13%	19%	16%	12%	11%	12%
>=60	11%	0%	4%	13%	10%	11%	12%	6%	8%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Male: Female Ratio	40%	60%	100%	42%	58%	100%	42%	58%	100%

Table 102: Compliance with the advice of health care providers

Compliance Rate	Count			Percentage		
	Dhading	Banke	Total districts	Dhading	Banke	Total districts
Fully	355	559	914	96%	98%	97%
Only partly	14	13	27	4%	2%	3%
Not at all	0	1	1	0%	0%	0%
Total	**369**	**573**	**942**	**100%**	**100%**	**100%**

Table 103: Medicine compliance in chronic illnesses

Compliance Rate	Count			Percentage		
	Dhading	Banke	Total districts	Dhading	Banke	Total districts
Always	101	130	231	93%	94%	93%
Most of the time	5	4	9	5%	3%	4%
Seldom	3	5	8	3%	4%	3%
Total	**109**	**139**	**248**	**100%**	**100%**	**100%**

Table 104: Mode of transport to reach health care providers (all types)

Mode of transport	Counts			Percentages		
	Dhading	Banke	Total Districts	Dhading	Banke	Total Districts
Bus/Public Transportation	242	167	409	55%	24%	36%
On foot	154	194	348	35%	28%	31%
Bicycle	1	169	170	0%	25%	15%
Cycle Rickshaw	0	81	81	0%	12%	7%
Jeep / Taxi / Car	8	34	42	2%	5%	4%
Ambulance	17	7	24	4%	1%	2%
Others	9	10	19	2%	1%	2%
Own car	6	5	11	1%	1%	1%
Tempo	0	11	11	0%	2%	1%
Auto rickshaw	0	10	10	0%	1%	1%
Tanga	0	1	1	0%	0%	0%
Total	**437**	**688**	**1125**	**100%**	**100%**	**100%**

Table 105: Mode of transport to different types of service providers

Mode of transport	Counts						Percentages					
	Government		RMP		Private Qualified		Government		RMP		Private Qualified	
	Dhading	Banke	Dhading	Banke	Dhading	Banke	Dhading	Banke	Dhading	Banke	Dhading	Banke
Bus/Public Transportation	113	41	68	24	86	107	62%	28%	44%	10%	65%	35%
Auto rickshaw	0	3	0	2	0	7	0%	2%	0%	1%	0%	2%
Jeep / Taxi / Car	4	5	1	5	3	25	2%	3%	1%	2%	2%	8%
Own car	3	0			3	5	2%	0%	0%	0%	2%	2%
Ambulance	10	4	2	1	6	2	6%	3%	1%	0%	5%	1%
On foot	46	40	78	113	33	43	25%	27%	51%	46%	25%	14%
Bicycle	1	33	0	76	0	63	1%	22%	0%	31%	0%	20%
Cycle Rickshaw	0	21	0	18	0	44	0%	14%	0%	7%	0%	14%
Tanga					0	1	0%	0%	0%	0%	0%	0%
Tempo	0	1	0	4	0	6	0%	1%	0%	2%	0%	2%
Others	4	0	4	5	2	5	2%	0%	3%	2%	2%	2%
Total	**181**	**148**	**153**	**248**	**133**	**308**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Table 106: Mode of transport used to carry patients to different types of hospitals (counts)

Mode of transport	Dhading				Banke			
	Private	Government	Charitable	Total	Private	Government	Charitable	Total
Bus/Public Transportation	46	81	2	129	37	35	3	75
Auto rickshaw	0	0	0	0	13	3	0	16
Jeep / Taxi / Car	5	11	0	16	19	10	1	30
Own car	0	1	0	1	5	0	1	6
Ambulance	15	35	0	50	20	16	2	38
On foot	4	2	0	6	0	2	0	2
Bicycle	0	0	0	0	11	2	2	15
Cycle Rickshaw	0	0	0	0	19	10	0	29
Tempo	0	0	0	0	3	3	1	7
Others	2	3	0	5	2	2	1	5
Total	**72**	**133**	**2**	**207**	**129**	**83**	**11**	**223**

Table 107: Mode of transport used to carry the patients to different types of hospitals (percentages)

Mode of transport	Dhading				Banke			
	Private	Government	Charitable	Total	Private	Government	Charitable	Total
Public Trans	63.89%	60.90%	100.00%	62.32%	28.68%	42.17%	27.27%	33.63%
Auto rickshaw					10.08%	3.61%		7.17%
Jeep / Taxi	6.94%	8.27%		7.73%	14.73%	12.05%	9.09%	13.45%
Own car	0.00%	0.75%		0.48%	3.88%		9.09%	2.69%
Ambulance	20.83%	26.32%		24.15%	15.50%	19.28%	18.18%	17.04%
On foot	5.56%	1.50%		2.90%		2.41%	0.00%	0.90%
Bicycle					8.53%	2.41%	18.18%	6.73%
Cycle Rickshaw					14.73%	12.05%		13.00%
Tempo					2.33%	3.61%	9.09%	3.14%
Others	2.78%	2.26%		2.42%	1.55%	2.41%	9.09%	2.24%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Table 108: Mode of transport used during hospitalization

MODE OF TRANSPORT USED FOR HOSPITALIZATION						
Mode of transport	Counts			Percentages		
	Dhading	Banke	Districts Total	Dhading	Banke	Districts Total
Bus/Public Transportation	129	75	204	62.32%	33.63%	47.44%
Auto rickshaw		16	16	0.00%	7.17%	3.72%
Jeep / Taxi / Car	16	30	46	7.73%	13.45%	10.70%
Own car	1	6	7	0.48%	2.69%	1.63%
Ambulance	50	38	88	24.15%	17.04%	20.47%
On foot	6	2	8	2.90%	0.90%	1.86%
Bicycle		15	15	0.00%	6.73%	3.49%
Cycle Rickshaw		29	29	0.00%	13.00%	6.74%
Tempo		7	7	0.00%	3.14%	1.63%
Others	5	5	10	2.42%	2.24%	2.33%
TOTAL	**207**	**223**	**430**	**100.00%**	**100.00%**	**100.00%**

Table 109: Transportation cost during hospitalization

Mode of transport	Dhading			Banke			Total districts		
	Mean	Median	SEM	Mean	Median	SEM	Mean	Median	SEM
TRANSPORT COST FOR HOSPITALIZATION									
Bus/Public Transportation	295.24	200.00	30.91	733.18	200.00	137.19	456.25	200.00	55.89
Auto rickshaw				116.88	100.00	13.71	116.88	100.00	13.71
Jeep / Taxi / Car	2773.44	900.00	1826.01	1058.00	300.00	354.27	1654.67	425.00	673.92
Own car		50.00	0.00	8.33	0.00	8.33	7.14	0.00	7.14
Ambulance	1750.32	1600.00	173.12	818.55	625.00	157.57	1347.97	1000.00	128.84
On foot									
Bicycle									
Cycle Rickshaw				59.83	50.00	7.92	59.83	50.00	7.92
Tempo				218.57	200.00	61.04	218.57	200.00	61.04
Others	424.00	0.00	394.68	300.00	0.00	184.39	362.00	0.00	206.40

Table 110: Median consultation fee per visit

Provider	Dhading	Banke
Government	NPR 23.00	NPR 134.00
RMP	NPR 200.00	NPR 230.00
Private Qualified	NPR 300.00	NPR 500.00

Table 111: Population's choice of practitioner as the first point for seeking treatment

Type of Medical Practitioner	Districts Total	Dhading	Banke
Traditional healer	18%	28%	9%
Non-MBBS (non-degree) allopathic practitioner (like Pharmacists/RMP...)	44%	36%	51%
Ayurvedic/Homeopathic/Unani doctor	3%	3%	4%
MBBS (degree) doctor/specialist	21%	14%	28%
ANM/nurse, AHW, MCHW, VHW or any other health worker	13%	18%	8%

Table 112: Population's reason for choosing respective medical practitioner as the first point for seeking treatment

Reason for choosing Medical practitioner	Districts Total	Dhading	Banke
Cheapest	13%	10%	15%
Closest	62%	62%	63%
Best	18%	17%	19%
Everyone goes there	5%	8%	2%
Sent there by a practitioner	0%	0%	0%
Someone recommended	1%	2%	1%
Financial incentive	0%	0%	0%
Total	100%	100%	100%

Table 113: Population's choice of pharmacy visited first, to obtain medicines

Pharmacy Type	Districts Total	Dhading	Banke
Private	90%	91%	89%
Government	10%	9%	10%
Charitable	0%	0%	0%

Table 114: Population's reason for choosing respective pharmacy type

Reason for choosing pharmacy type	Districts Total	Dhading	Banke
Cheapest	9%	7%	11%
Closest	76%	80%	72%
Best	12%	10%	13%
Everyone goes there	2%	3%	1%
Sent there by a medical practitioner	2%	0%	3%
Someone recommended	0%	0%	0%
Financial incentive	0%	0%	0%

Table 115: Population's choice of hospitalization if an overnight hospitalization is required

Hospital Type	Districts Total	Dhading	Banke
Private	44%	39%	48%
Government	56%	61%	50%
Charitable	1%	0%	1%

Table 116: Population's reason for choosing respective hospital type

Reason for choosing Hospital type	Districts Total	Dhading	Banke
Cheapest	34%	32%	36%
Closest	27%	25%	29%
Best	32%	35%	29%
Everyone goes there	4%	6%	3%
Was sent there by a medical practitioner	1%	1%	2%
Someone recommended	1%	1%	0%
Financial incentive	0%	0%	0%

Table 117:Annual HH health expense (in last one year) across quintiles

Districts	Annual HH health expense (in last year) categories	Statistic		Values
	Quintile 1: 0-1000	N	Valid	425
		Mean		573.11
		Std. Error of Mean		17.32
		Median		550
	Quintile 2: 1001-3000	N	Valid	476
		Mean		2097.27
		Std. Error of Mean		28.06
		Median		2000
	Quintile 3: 3001-5000	N	Valid	316
		Mean		4502.53
		Std. Error of Mean		33.15
		Median		5000
Districts Total	Quintile 4: 5001-12000	N	Valid	389
		Mean		8388.25
		Std. Error of Mean		98.06
		Median		8000
	Quintile 5: 12001 above	N	Valid	395
		Mean		35170.79
		Std. Error of Mean		1657.69
		Median		25000
	Total Population	N	Valid	2001
		Mean		9905.13
		Std. Error of Mean		435.14
		Median		4000
Dhading	Quintile 1: 0-1000	N	Valid	198
		Mean		551.77
		Std. Error of Mean		27.05
		Median		500
	Quintile 2: 1001-3000	N	Valid	237
		Mean		2141.98
		Std. Error of Mean		40.07
		Median		2000
	Quintile 3: 3001-5000	N	Valid	160
		Mean		4544.06
		Std. Error of Mean		46.12
		Median		5000

Districts	Annual HH health expense (in last year) categories	Statistic		Values
Dhading	Quintile 4: 5001-12000	N	Valid	183
		Mean		8413.66
		Std. Error of Mean		149.39
		Median		8000
	Quintile 5: 12001 above	N	Valid	218
		Mean		34935.61
		Std. Error of Mean		2018.00
		Median		28000
	Total Population	N	Valid	996
		Mean		10541.78
		Std. Error of Mean		608.00
		Median		4500
Banke	Quintile 1: 0-1000	N	Valid	227
		Mean		591.72
		Std. Error of Mean		22.23
		Median		600
	Quintile 2: 1001-3000	N	Valid	239
		Mean		2052.93
		Std. Error of Mean		39.17
		Median		2000
	Quintile 3: 3001-5000	N	Valid	156
		Mean		4459.94
		Std. Error of Mean		47.57
		Median		4500

Districts	Annual HH health expense (in last year) categories	Statistic		Values
Banke	Quintile 4: 5001-12000	N	Valid	206
		Mean		8365.68
		Std. Error of Mean		129.46
		Median		8000
	Quintile 5: 12001 above	N	Valid	177
		Mean		35460.46
		Std. Error of Mean		2746.51
		Median		22000
	Total Population	N	Valid	1005
		Mean		9274.18
		Std. Error of Mean		622.18
		Median		4000

Table 118: Independent Samples Test (Self Estimated Annual Household Health Expenditure across districts)

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Err. Diff.	95% Confidence Interval of the Difference		
									Lower	Upper	
Self Estimation of HH health expenditure during last year	Equal variances assumed	3.26	.071	1.46	1999	.145	1267.6	870.037	-438.68	2973.872	
	Equal variances not assumed			1.46	1998.31	.145	1267.6	869.929	-438.46	2973.660	

Table 119: Estimate of HH health expenditure (NPR) during last year

DHADING						
	Mean	SEM	Median	Minimum	Maximum	Valid N
Quintile-1	608.06452	27.600975	600	0	1200	217
Quintile-2	2224.5413	38.814941	2000	1300	3000	218
Quintile-3	4828.75	54.79225	5000	3450	6000	200
Quintile-4	10306.198	199.0872	10000	6300	15000	188
Quintile-5	39824.5	2354.7625	30000	15275	250000	176
Total	10539.867	606.17872	4800	0	250000	999
BANKE						
	Mean	SEM	Median	Minimum	Maximum	Valid N
Quintile-1	591.71806	22.233933	600	0	1000	227
Quintile-2	1805.0532	30.471463	2000	1050	2500	188
Quintile-3	4092.029	57.486588	4000	2600	5000	207
Quintile-4	7971.9574	114.40354	8000	5500	10700	184
Quintile-5	32601.005	2479.3463	20000	11000	260000	201
Total	9275.4341	620.94327	4000	0	260000	1007
DISTRICTS TOTAL						
	Mean	SEM	Median	Minimum	Maximum	Valid N
Quintile-1	573.10588	17.320676	550	0	1000	425
Quintile-2	2097.2689	28.060279	2000	1050	3000	476
Quintile-3	4502.5316	33.149429	5000	3100	5000	316
Quintile-4	8407.501	97.190984	8000	5500	12000	394
Quintile-5	35170.795	1657.6891	25000	12300	260000	395
Total	9905.1293	434.05112	4000	0	260000	2006

Table 120: Comparison of self estimated per capita annual health expenditure with the annual per capita consumption

Dhading

Per capita annual consumption category quintiles	Per capita annual consumption				Per capita annual health cost				Percentage of health cost as percentage of consumption
	Mean	SEM	Median	Valid N	Mean	SEM	Median	Valid N	
Quintile-1	10851.33	198.74	11375.12	200	678.76	65.17	333.33	200	6.26%
Quintile-2	17788.72	127.59	17909.52	200	1452.70	139.21	707.14	200	8.17%
Quintile-3	23853.25	134.61	23796.00	200	1698.63	145.33	887.50	200	7.12%
Quintile-4	32279.84	251.26	31561.71	200	2504.20	246.21	1250.00	200	7.76%
Quintile-5	60092.37	1754.38	52948.33	198	4118.52	419.25	1666.67	198	6.85%
Dhading Total	**28910.74**	**646.11**	**23731.00**	**998**	**2086.50**	**111.67**	**875.00**	**998**	**7.22%**

Banke

Per capita annual consumption category quintiles	Per capita annual consumption				Per capita annual health cost				Percentage of health cost as percentage of consumption
	Mean	SEM	Median	Valid N	Mean	SEM	Median	Valid N	
Quintile-1	9326.87	166.13	9983.04	201	639.28	53.91	366.67	201	6.85%
Quintile-2	14890.16	106.83	14916.00	201	941.10	77.37	600.00	201	6.32%
Quintile-3	19840.00	99.09	19723.33	201	1237.68	108.88	714.29	201	6.24%
Quintile-4	25568.53	149.98	25198.00	201	1745.05	158.12	1000.00	201	6.83%
Quintile-5	44841.85	1257.02	38610.00	203	4097.51	507.45	1750.00	203	9.14%
Banke Total	**22937.07**	**464.56**	**19731.67**	**1007**	**1736.82**	**117.34**	**675.00**	**1007**	**7.57%**

Districts Total

Per capita annual consumption category quintiles	Per capita annual consumption (NPR)				Per capita annual health cost (NPR)				Percentage of health cost as percentage of consumption
	Mean	SEM	Median	Valid N	Mean	SEM	Median	Valid N	
Quintile-1	9964.78	126.76	10571.43	401	655.27	41.99	333.33	401	6.58%
Quintile-2	16190.03	81.38	16240.00	401	1149.06	75.68	600.00	401	7.10%
Quintile-3	21627.67	79.57	21571.43	401	1496.98	91.51	833.33	401	6.92%
Quintile-4	28701.92	139.50	28346.67	401	2017.13	129.18	1000.00	401	7.03%
Quintile-5	53068.08	1111.15	46360.00	401	4235.93	335.85	1666.67	401	7.98%
Districts Total	**25910.50**	**402.79**	**21571.43**	**2005**	**1910.87**	**81.09**	**777.78**	**2005**	**7.37%**

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Table 121: Pearson product moment correlation coefficient for annual household health expenditure and annual household consumption

		Estimated Annual HH Health Exp Per Capita	Annual per capita cons
Estimated Annual HH Health Exp Per Capita	Pearson Correlation	1	.221(**)
	Sig. (2-tailed)		.000
	N	2006	2005
Annual per capita cons	Pearson Correlation	.221(**)	1
	Sig. (2-tailed)	.000	
	N	2005	2005

*** Correlation is significant at the 0.01 level (2-tailed).*

Table 122: Share of illnesses against share of cost for different illness types

Category of illnesses	Mean cost per episode of particular category	SEM (Mean cost per episode)	Total cost of all episodes of particular category	Percentage of total cost spent for particular category of illness	Total number of cases	Percentage of cases in particular category
DHADING						
acute	1213.33	121.63	444080	57.55%	366	67.53%
chronic	2078.02	219.84	241050	31.24%	116	21.40%
accident	1656.11	370.51	44715	5.79%	27	4.98%
undefined	1266.15	278.49	41783	5.41%	33	6.09%
Total			**771628**	**100%**	**542**	**100%**
BANKE						
acute	1075.32	80.86	640893	56.57%	596	73.95%
chronic	2278.61	330.83	346348	30.57%	152	18.86%
accident	1175.59	420.67	19985	1.76%	17	2.11%
undefined	3066.78	1069.56	125738	11.10%	41	5.09%
Total			**1132964**	**100%**	**806**	**100%**
DISTRICTS TOTAL						
acute	1127.83	68.20	1084973	56.97%	962	71.36%
chronic	2191.78	210.13	587398	30.84%	268	19.88%
accident	1470.45	278.66	64700	3.40%	44	3.26%
undefined	2263.80	611.09	167521	8.80%	74	5.49%
Total			**1904592**	**100%**	**1348**	**100%**

Table 123: Mean cost of hospitalization for different age groups

Age group	Dhading					
	Mean	SEM	Median	Minimum	Maximum	Valid N
Less than 6 yrs	5357.31	1915.94	2200.00	0.00	50000.00	26
6-14 yrs	7440.32	2325.70	3000.00	0.00	60000.00	31
15-18 yrs	8993.50	3622.63	5000.00	150.00	45000.00	12
19-30 yrs	8699.40	2948.19	3000.00	0.00	120000.00	42
31-45 yrs	11220.59	1883.71	7500.00	0.00	45000.00	34
46-60 yrs	9135.19	2021.40	4700.00	0.00	35000.00	27
Above 60 yrs	9843.24	2990.62	3500.00	0.00	100000.00	37
TOTAL	**8782.71**	**1000.18**	**3500.00**	**0.00**	**120000.00**	**209**

Age group	Banke					
	Mean	SEM	Median	Minimum	Maximum	Valid N
Less than 6 yrs	3606.25	1190.21	1000.00	200.00	24000.00	24
6-14 yrs	4151.85	1465.65	2000.00	150.00	40000.00	27
15-18 yrs	6626.67	2207.58	2500.00	100.00	25000.00	15
19-30 yrs	5624.32	1094.50	4000.00	0.00	31000.00	37
31-45 yrs	8360.32	1608.24	4000.00	0.00	65000.00	63
46-60 yrs	11708.85	2976.59	4500.00	5.00	50000.00	26
Above 60 yrs	9171.67	4910.73	4000.00	150.00	150000.00	30
TOTAL	**7263.20**	**937.68**	**3000.00**	**0.00**	**150000.00**	**222**

Age group	Districts Total					
	Mean	SEM	Median	Minimum	Maximum	Valid N
Less than 6 yrs	4516.80	1143.98	1500.00	0.00	50000.00	50
6-14 yrs	5909.48	1422.99	2400.00	0.00	60000.00	58
15-18 yrs	7678.59	1994.67	4000.00	100.00	45000.00	27
19-30 yrs	7259.18	1648.67	3000.00	0.00	120000.00	79
31-45 yrs	9362.89	1237.68	5000.00	0.00	65000.00	97
46-60 yrs	10397.74	1778.27	4700.00	0.00	50000.00	53
Above 60 yrs	9542.54	2727.69	4000.00	0.00	150000.00	67
TOTAL	**8000.04**	**684.66**	**3160.00**	**0.00**	**150000.00**	**431**

Table 124: Independent T-test (Hospitalization cost across districts)

		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.		Lower	Upper
Total cost paid to hospital for the hospitalization	Equal variances assumed	3.935	.048	1.467	431	.143	3883.634	2647.667		-1320.310	9087.579
	Equal variances not assumed			1.434	264.754	.153	3883.634	2708.035		-1448.392	9215.660

Table 125: Cost of prenatal checkup per episode (of pregnancy)

Description of pregnancies	Place of prenatal checkup	Dhading					Banke				
		Mean	Median	Minimum	Maximum	SEM	Mean	Median	Minimum	Maximum	SEM
Currently Pregnant	SHP	171.67	0.00	0.00	830.00	135.66	75.00	0.00	0.00	300.00	75.00
	HP	176.25	0.00	0.00	1000.00	127.59	83.33	0.00	0.00	1500.00	83.33
	PHCC	0.00	0.00	0.00	0.00	0.00	650.00	650.00	300.00	1000.00	350.00
	Government Hospital	800.00	800.00	400.00	1200.00	230.94	350.00	350.00	350.00	350.00	.
	Mobile clinic						15.00	15.00	0.00	30.00	15.00
	Pharmacy / Clinic	200.00	200.00	100.00	300.00	100.00	1000.00	1000.00	1000.00	1000.00	.
	Private Hospital/Maternity Home	3280.00	4000.00	300.00	6000.00	1202.25	1033.33	300.00	300.00	2500.00	733.33
	Charitable / NGO	500.00	500.00	500.00	500.00						
Live birth	SHP	150.59	0.00	0.00	3000.00	104.92	60.53	0.00	0.00	1000.00	52.78
	HP	198.49	1.00	0.00	5000.00	76.00	111.28	0.00	0.00	2500.00	42.21
	PHCC	2055.56	1000.00	0.00	10000.00	1075.11	35.42	0.00	0.00	300.00	25.43
	Government Hospital	2676.67	2500.00	0.00	10000.00	527.07	826.40	450.00	0.00	5000.00	238.62
	Mobile clinic						12.50	0.00	0.00	100.00	12.50
	Pharmacy / Clinic	203.75	112.50	90.00	500.00	99.02	1025.00	800.00	500.00	2000.00	342.48
	Private Hospital/Maternity Home	2773.33	2400.00	50.00	6500.00	599.74	1425.76	1000.00	150.00	6000.00	252.27
	Health Workers' Home						0.00	0.00	0.00	0.00	.
	Charitable / NGO						1000.00	1000.00	1000.00	1000.00	.
	ANM visited at home						100.00	100.00	0.00	200.00	100.00
Still birth	HP	50.00	50.00	50.00	50.00						
	PHCC	500.00	500.00	500.00	500.00						
	Government Hospital	2000.00	2000.00	2000.00	2000.00						
Miscarriage	SHP	0.00	0.00	0.00	0.00						
	HP	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
	Government Hospital	2500.00	2500.00	1000.00	4000.00	1500.00					
	Mobile clinic						0.00	0.00	0.00	0.00	
	Pharmacy / Clinic						0.00	0.00	0.00	0.00	

Table 126: Cost of prenatal checkup per checkup (of pregnancy)Cost per PNC checkup

Description of Pregnancies	Place of prenatal care	Dhading			Banke		
		Number of PNC	Total Cost	Mean cost / checkup	Number of PNC	Sum	Mean cost / checkup
Currently pregnant	SHP	15	1030	68.67	13	300	23.08
	HP	18	1410	78.33	53	1500	28.30
	PHCC	9	0	0.00	8	1300	162.50
	Government Hospital	5	2400	480.00	3	350	116.67
	Mobile clinic				2	30	15.00
	Pharmacy / Clinic	2	400	200.00	2	1000	500.00
	Private Hospital / Maternity Home	20	16400	820.00	7	3100	442.86
	Charitable / NGO	1	500	500.00			
	Others	2	0	0.00			
	All facilities combined	**72**	**22140**	**307.50**	**88**	**7580**	**86.14**
Live birth	SHP	103	4367	42.40	69	1150	16.67
	HP	276	13894	50.34	299	9570	32.01
	PHCC	38	18500	486.84	54	425	7.87
	Government Hospital	111	64240	578.74	97	20660	212.99
	Mobile clinic				23	100	4.35
	Pharmacy / Clinic	13	815	62.69	13	4100	315.38
	Private Hospital / Maternity Home	72	41600	577.78	133	47050	353.76
	Health Workers' Home				1	0	0.00
	Charitable / NGO				3	1000	333.33
	ANM visited at home				4	200	50.00
	All facilities combined	**613**	**143416**	**233.96**	**696**	**84255**	**121.06**
Still birth	HP	4	50	12.50			
	PHCC	4	500	125.00			
	Government Hospital	7	2000	285.71	3	0	0.00
	All facilities combined	**15**	**2550**	**170.00**	**3**	**0**	**0.00**
Miscarriage	SHP						
	HP				2	0	0.00
	Government Hospital	8	5000	625.00			
	Mobile clinic				3	0	0.00
	Pharmacy / Clinic				1	0	0.00
	All facilities combined	**8**	**5000**	**625.00**	**6**	**0**	**0.00**
All pregnancies combined	**All facilities combined**	**1416**	**346212**	**244.50**	**1586**	**183670**	**115.81**
	Only private hospital/maternity home	**92**	**58000**	**630.43**	**140**	**50150**	**358.21**
	All other than private	**1324**	**288212**	**217.68**	**1446**	**133520**	**92.34**

Table 127: Cost of hospitalization for miscarriage

Cost of treatment (miscarriage)							
	Mean	Median	Minimum	Maximum	SEM	Sum	Count
Dhading							
No Hospitalization	.	.	.	.	.	.	4
Hospitalization	4000	4000	4000	4000	.	4000	1
Dhading Average	**4000**	**4000**	**4000**	**4000**	**.**	**4000**	**1**
Banke	.	.	.	.	.	.	3
No Hospitalization	.	.	.	.	.	.	1
Hospitalization							
Banke Average							
Two Districts together	**4000**	**4000**	**4000**	**4000**	**.**	**4000**	**1**

Table 128: Cost of hospitalization for induced abortions

Cost of treatment (induced abortion)							
	Mean	Median	Minimum	Maximum	SEM	Sum	Count
Dhading							
No Hospitalization							
Hospitalization	1300	1500	400	2000	472.5816	3900	3
Dhading Average	**1300**	**1500**	**400**	**2000**	**472.5816**	**3900**	**3**
Banke							
No Hospitalization							
Hospitalization							
Banke Average							
Two Districts together	**1300**	**1500**	**400**	**2000**	**472.5816**	**3900**	**3**

Table 129: Cost of delivery for live births

Cost of Delivery										
	Dhading					Banke				
	Mean	Median	Minimum	Maximum	SEM	Mean	Median	Minimum	Maximum	SEM
Cost of Delivery (all types/ all places of delivery)										
	2121	500	0	25000	329	2413	1000	0	20000	286
Type of delivery (Normal vs. Caesarean, all places of delivery combined)										
Normal	1833	350	0	25000	313	1495	1000	0	15000	157
Caesarean	6960	3350	700	22000	2482	8041	6000	0	20000	1409
Delivery at different places										
At home	383	0	0	3500	72	844	500	0	5000	93
At parents' home	0	0	0	0	.	0	0	0	0	.
In a facility	4513	2000	0	25000	675	4463	2500	0	20000	609
Other	.	.	.	.	.	9900	6000	2500	20000	3776
When delivery takes place in a facility										
SHP	914	1000	150	1200	136	.	.	.	.	.
HP	2040	2000	700	3500	288	1050	1050	600	1500	450
PHC	3250	1250	0	15000	2380	925	950	500	1300	165
Government hospital	5521	3700	0	22000	886	3756	2200	0	20000	733
Private hospital / Maternity home	9750	6500	1000	25000	5437	6117	4000	500	20000	1109
Other	1800	1800	1800	1800	.	.	.	.	.	.
Normal delivery in different facilities										
SHP	914	1000	150	1200	136	.	.	.	.	.
HP	1933	2000	700	3500	299	1050	1050	600	1500	450
PHC	3250	1250	0	15000	2380	900	900	500	1300	400
Government hospital	5643	5000	0	15000	841	2720	2100	150	8000	458
Private hospital / Maternity home	13000	13000	1000	25000	12000	4175	2750	1000	15000	842
Other	1800	1800	1800	1800	.	.	.	.	.	.
Caesarean delivery at different places										
HP	3000	3000	3000	3000	.	.	.	.	.	.
PHC	.	.	.	.	.	900	900	900	900	.
Government hospital	7657	3700	700	22000	3486	5669	2500	0	20000	1835
Private hospital / Maternity home	6500	6500	3000	10000	3500	10813	8500	500	20000	

Table 130: Cost of delivery for stillbirths

Cost of delivery (still birth)							
	Mean	Median	Minimum	Maximum	SEM	Sum	Count
Dhading							
Normal	500	500	0	1,000	500	1,000	2
Caesarean	20,000	20,000	20,000	20,000	.	20,000	1
Dhading Average	7,000	1,000	0	20,000	6,506	21,000	3
Banke							
Normal	400	400	400	400	.	400	1
Caesarean	10,000	10,000	10,000	10,000	.	10,000	1
Banke Average	5,200	5,200	400	10,000	4,800	10,400	2
Two Districts together	6,280	1,000	0	20,000	3,899	31,400	5

Table 131: Cost of postnatal checkups per episode for live births

Cost of postnatal care / per episode (of pregnancy)					
Districts	Mean	Median	Minimum	Maximum	SEM
Dhading	117.35	0.00	0.00	4000.00	41.78
Banke	97.40	0.00	0.00	2500.00	25.87
Total districts	**106.63**	**0.00**	**0.00**	**4000.00**	**23.78**

Table 132: Cost of hospitalization of newborn baby after birth due to complications

Cost of post hospitalization of newborn baby					
Dhading	Mean	Median	Minimum	Maximum	SEM
Dhading	4650.00	1500.00	0.00	14700.00	1213.43
Banke	2981.90	1000.00	70.00	20000.00	981.22
Total districts	3703.24	1500.00	0.00	20000.00	766.72

Table 133: Cost of PNC for still births

Cost of PNC (still birth)							
	Mean	Median	Minimum	Maximum	SEM	Sum	Count
Dhading							
Normal	0	0	0	0	0	0	2
Caesarean	1,000	1,000	1,000	1,000	.	1,000	1
Dhading Average	**333**	**0**	**0**	**1,000**	**333**	**1,000**	**3**
Banke							
Normal	0	0	0	0	.	0	1
Caesarean	0	0	0	0	.	0	1
Banke Average	**0**	**0**	**0**	**0**	**0**	**0**	**2**
Two Districts together	**200**	**0**	**0**	**1,000**	**200**	**1,000**	**5**

Table 134: Source of financing for illness episodes (Districts total)

Means of financing	Dhading		Banke		Districts total	
	Count	Percentage	Count	Percentage	Count	Percentage
Current Income	332	61.25%	573	71.09%	905	67.14%
Borrowing	119	21.96%	142	17.62%	261	19.36%
Savings	99	18.27%	108	13.40%	207	15.36%
Selling items	13	2.40%	13	1.61%	26	1.93%
Others	4	0.74%	9	1.12%	13	0.96%
Gift money	5	0.92%	3	0.37%	8	0.59%
Health Insurance	0	0.00%	0	0.00%	0	0.00%
Total cases of illnesses	**542**		**806**		**1348**	

* Percentages will not add up to 100 as this was a multiple answer question

Table 135: Source of borrowing for different borrowing instances (Illnesses) - Districts total

Source of borrowing	No. of borrowing instances where at least the corresponding source was used
Relatives/Friends	219
NGO/Relief Agency	14
Money Lender	14
Financial Institution	17
Others	4

Table 136: % of illness episodes where money was borrowed (by illness type) - Districts Total

Category of illness	Dhading			Banke			Districts total		
	Number of cases where borrowing took place	Number of illness cases	Percentage of cases where borrowing took place	Number of cases where borrowing took place	Number of illness cases	Percentage of cases where borrowing took place	Number of cases where borrowing took place	Number of illness cases	Percentage of cases where borrowing took place
acute	65	366	18%	92	596	15%	157	962	16%
chronic	27	116	23%	24	152	16%	51	268	19%
accident	8	27	30%	2	17	12%	10	44	23%
undefined	11	33	33%	9	41	22%	20	74	27%
Total	**111**	**542**	**20%**	**127**	**806**	**16%**	**238**	**1348**	**18%**

Table 137: One Sample Chi-Square test (Illness types for which borrowing was a source of financing)

	3.4A type of illness: acute, chronic, accident or undefined
Chi-Square(a)	205.375
df	3
Asymp. Sig.	.000

Table 138: Source of financing for hospitalization episodes (Districts total)

Source of financing	% of episodes where at least the corresponding source was used
Current Income	54.46%
Borrowing	52.86%
Savings	21.74%
Selling Items	4.58%
Others	4.58%
Gift Money(friends/neighbors)	0.92%
Gift Money(Relatives)	0.69%
Health Ins.	0.00%

Table 139: Source of borrowing for different borrowing instances (Hospitalizations) - Districts Total

Source of borrowing	No. of borrowing instances where at least the corresponding source was used
Relatives/Friends	185
NGO/Relief Agency	23
Money Lender	12
Financial Institution	21
Others	5

Table 140: Share of hospitalizations having borrowing as a source of financing (Districts Total)

Total hospitalization expense (Hospital, outside medicine, transport together) quintile	Dhading			Banke			Districts total		
	Number of cases where borrowing took place	Number of hospitalization cases	Percentage of cases where borrowing took place	Number of cases where borrowing took place	Number of hospitalization cases	Percentage of cases where borrowing took place	Number of cases where borrowing took place	Number of hospitalization cases	Percentage of cases where borrowing took place
Quintile-1	20	43	47%	14	45	31%	34	88	39%
Quintile-2	20	42	48%	14	44	32%	34	86	40%
Quintile-3	23	42	55%	22	46	48%	45	88	51%
Quintile-4	31	42	74%	17	43	40%	48	85	56%
Quintile-5	32	42	76%	29	44	66%	61	86	71%
Total	126	211	60%	96	222	43%	222	433	51%

Table 141: Mean cost of borrowing for illness episodes (by illness type) (Districts Total)

Category of illness	Mean	SEM	Median	Minimum	Maximum	Valid N
DHADING						
acute	466.98	85.16	0	0	15000	366
chronic	576.44	146.61	0	0	11000	116
accident	505.93	189.59	0	0	4100	27
undefined	570.45	243.42	0	0	7350	33
Total	**498.65**	**67.72**	**0**	**0**	**15000**	**542**
BANKE						
acute	249.72	41.01	0	0	10000	596
chronic	436.09	113.32	0	0	10705	152
accident	88.24	64.10	0	0	1000	17
undefined	796.34	343.52	0	0	10000	41
Total	**309.27**	**41.19**	**0**	**0**	**10705**	**806**
DISTRICTS TOTAL						
acute	332.38	41.29	0	0	15000	962
chronic	496.84	90.24	0	0	11000	268
accident	344.55	122.02	0	0	4100	44
undefined	695.61	218.13	0	0	10000	74
Total	**385.41**	**36.79**	**0.00**	**0.00**	**15000.00**	**1348.00**

Table 142: One Way Analysis of Variation (ANOVA) test on amounts borrowed for different illness types

Difference	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	15149998.046	3	5049999.349	.548	.650
Within Groups	2376094016.290	258	9209666.730		
Total	2391244014.336	261			

Table 143: Mean borrowed amount used for financing a hospitalization episode (including transportation and medicines bought from outside hospital) across hospitalization expense categories

Quintiles	Mean	SEM	Median	Minimum	Maximum	Valid N
DHADING						
Quintile-1	598.07	116.13	0	0	2240	43
Quintile-2	1791.43	326.16	0	0	5170	42
Quintile-3	3728.13	638.37	2250	0	12456.25	42
Quintile-4	10916.10	1212.78	13600	0	21500	42
Quintile-5	20810.71	3374.38	16000	0	100000	42
Total	**7465.09**	**881.75**	**1700**	**0**	**100000**	**213**
BANKE						
Quintile-1	475.33	114.77	0	0	2305	45
Quintile-2	951.82	232.76	0	0	4800	44
Quintile-3	2530.76	428.86	0	0	8100	46
Quintile-4	4007.44	845.74	0	0	15060	43
Quintile-5	22167.05	5064.16	20000	0	200000	44
Total	**5925.69**	**1141.72**	**0**	**0**	**200000**	**224**
DISTRICTS TOTAL						
Quintile-1	488.47	77.21	0	0	2240	87
Quintile-2	1408.74	196.73	0	0	5000	87
Quintile-3	2735.58	352.34	0	0	10000	86
Quintile-4	8177.04	804.61	10000	0	20700	87
Quintile-5	20996.51	3079.06	18500	0	200000	86
Total	**6676.02**	**726.20**	**500**	**0**	**200000**	**437**

Table 144: Independent Sample T-test (Amount borrowed for hospitalization across districts)

		Levene's Test for Equality of Variances		t-test for Equality of Means							
										95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.		Lower	Upper
Lesser of the borrowing and total illness episode expense	Equal variances assumed	.486	.486	1.130	260	.259	422.84	374.07328		-313.76	1159.44
	Equal variances not assumed			1.138	257.44	.256	422.84	371.56705		-308.86	1154.53

Table 145: Share of hospitalization episode expenses (including transportation and medicines bought from outside hospital) which were borrowed

Total hospitalization expense (Hospital, outside medicine, transport together) quintile	DHADING			BANKE			DISTRICTS TOTAL		
	Mean cost per episode	Mean amount borrowed per episode	Borrowed amount as percentage of mean cost	Mean cost per episode	Mean amount borrowed per episode	Borrowed amount as percentage of mean cost	Mean cost per episode	Mean amount borrowed per episode	Borrowed amount as percentage of mean cost
Quintile-1	1422.40	598.07	42%	1375.91	475.33	35%	1388.15	488.47	35%
Quintile-2	3937.05	1791.43	46%	3746.14	951.82	25%	3818.81	1408.74	37%
Quintile-3	8657.32	3728.13	43%	6733.51	2530.76	38%	7341.77	2735.58	37%
Quintile-4	17841.49	10916.10	61%	12702.72	4007.44	32%	15269.26	8177.04	54%
Quintile-5	42786.10	20810.71	49%	41577.27	22167.05	53%	42276.35	20996.51	50%
Total	**14864.86**	**7465.09**	**50%**	**13117.59**	**5925.69**	**45%**	**13969.03**	**6676.02**	**48%**

Table 146: Is it all right to pay a health insurance premium knowing that the health insurance only pays if there are bills and does not pay if there are no bills?

It is all right to pay a health Insurance premium knowing that the health Insurance only pays if there are bills and does not pay if there are no bills?	Response	Dhading			Banke			Dhading			Banke		
		Non-member	member	Total	Non-member	member	Total	Non-member	member	Total	Non-member	member	Total
		Count	Count	Count	Count	Count	Count	%	%	%	%	%	%
	That is all right	444	468	912	403	426	829	90.06%	93.23%	91.66%	80.76%	84.02%	82.41%
	Indifferent	32	14	46	22	12	34	6.49%	2.79%	4.62%	4.41%	2.37%	3.38%
	That is not all right	17	20	37	74	69	143	3.45%	3.98%	3.72%	14.83%	13.61%	14.21%
	Total	**493**	**502**	**995**	**499**	**507**	**1006**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Table 147: Is it all right that your neighbor was sick and got money from the health insurance for his/her bills and you were not sick and so you did not get any money from the insurance?

Is it all right that your neighbor was sick and got money from health Insurance for his/her bills and you were not sick and so you did not get any money from the insurance?		Dhading			Banke			Dhading			Banke		
	Response	Non-member	member	Total	Non-member	member	Total	Non-member	member	Total	Non-member	member	Total
		Count	Count	Count	Count	Count	Count	%	%	%	%	%	%
	That is all right	336	374	710	323	351	674	68.43%	74.65%	71.57%	64.73%	69.64%	67.20%
	Indifferent	125	100	225	93	94	187	25.46%	19.96%	22.68%	18.64%	18.65%	18.64%
	That is not all right	30	27	57	83	59	142	6.11%	5.39%	5.75%	16.63%	11.71%	14.16%
	Total	**491**	**501**	**992**	**499**	**504**	**1003**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Table 148: It is possible that I may pay a premium but still not get any money from the health insurance because the healthcare costs I had were not covered by the insurance.

It is possible that I may pay a premium but still not get any money from the health insurance because the health care costs I had were not covered by the insurance.		Dhading			Banke			Dhading			Banke		
	Response	Non-member	member	Total	Non-member	member	Total	Non-member	member	Total	Non-member	member	Total
		Count	Count	Count	Count	Count	Count	%	%	%	%	%	%
	Agree	244	274	518	120	109	229	49.59%	54.69%	52.17%	24.05%	21.50%	22.76%
	Indifferent	102	76	178	58	52	110	20.73%	15.17%	17.93%	11.62%	10.26%	10.93%
	Disagree	146	151	297	321	346	667	29.67%	30.14%	29.91%	64.33%	68.24%	66.30%
	Total	**492**	**501**	**993**	**499**	**507**	**1006**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Table 149: Reimbursement rule preference

Want Health Insurance to cover some part of every bill, regardless of bill being expensive or not		Dhading (Count)			Banke (Count)			Dhading (%)			Banke (%)		
	Response	Non-member	member	Total	Non-member	member	Total	Non-member	member	Total	Non-member	member	Total
		Count	Count	Count	Count	Count	Count	%	%	%	%	%	%
	Agree	418	438	856	337	365	702	84.79%	87.25%	86.03%	67.54%	71.99%	69.78%
	Indifferent	60	43	103	80	59	139	12.17%	8.57%	10.35%	16.03%	11.64%	13.82%
	Disagree	15	21	36	82	83	165	3.04%	4.18%	3.62%	16.43%	16.37%	16.40%
	Total	493	502	995	499	507	1006	100%	100%	100%	100%	100%	100%

Table 150: Equity rule preference

Want Health Insurance to pay small part when bill is small and big part when bill is big		Dhading (Count)			Banke (Count)			Dhading (%)			Banke (%)		
	Response	Non-member	member	Total	Non-member	member	Total	Non-member	member	Total	Non-member	member	Total
		Count	Count	Count	Count	Count	Count	%	%	%	%	%	%
	Agree	337	349	686	295	323	618	68.50%	69.52%	69.01%	59.12%	63.71%	61.43%
	Indifferent	105	76	181	118	116	234	21.34%	15.14%	18.21%	23.65%	22.88%	23.26%
	Disagree	50	77	127	86	68	154	10.16%	15.34%	12.78%	17.23%	13.41%	15.31%
	Total	492	502	994	499	507	1006	100%	100%	100%	100%	100%	100%

Table 151: Catastrophic coverage rule preference

Want Health Insurance to pay full amount of very expensive bills and I pay small bill myself / Response	Dhading Non-member Count	Dhading member Count	Dhading Total Count	Banke Non-member Count	Banke member Count	Banke Total Count	Dhading Non-member %	Dhading member %	Dhading Total %	Banke Non-member %	Banke member %	Banke Total %
Agree	375	393	768	384	409	793	76.37%	78.29%	77.34%	76.95%	80.67%	78.83%
Indifferent	67	52	119	38	24	62	13.65%	10.36%	11.98%	7.62%	4.73%	6.16%
Disagree	49	57	106	77	74	151	9.98%	11.35%	10.67%	15.43%	14.60%	15.01%
Total	491	502	993	499	507	1006	100%	100%	100%	100%	100%	100%

Table 152: Type of risk coverage package preferred

Most important statement / Response	Dhading Non-member Count	Dhading member Count	Dhading Total Count	Banke Non-member Count	Banke member Count	Banke Total Count	Dhading Non-member %	Dhading member %	Dhading Total %	Banke Non-member %	Banke member %	Banke Total %
Want Health Insurance to cover some part of every bill, regardless of bill being expensive or not	271	258	529	141	148	289	55.53%	51.39%	53.43%	28.26%	29.19%	28.73%
Want Health Insurance to pay small part when bill is small and big part when bill is big	70	72	142	78	79	157	14.34%	14.34%	14.34%	15.63%	15.58%	15.61%
Want Health Insurance to pay full amount of very expensive bill and I pay small bill myself	147	172	319	280	280	560	30.12%	34.26%	32.22%	56.11%	55.23%	55.67%
Total	488	502	990	499	507	1006	100%	100%	100%	100%	100%	100%

Table 153: Population's Willingness to Pay for HI per person per month (Benefits include: reimbursement of cost for hospitalization, medicines, tests, consultations and maternity, up to a maximum reimbursement of 25000 NPR for the whole family per year)

District	Amount willing to pay (NPR)	Frequency	Valid Percent	% of population willing to pay at least the corresponding amount
	0	13	0.65	100.00
	1	67	3.34	99.35
	2	61	3.05	96.01
	3	70	3.49	92.96
	4	59	2.95	89.47
	5	591	29.51	86.52
	6	30	1.50	57.01
	7	19	0.95	55.52
	8	20	1.00	54.57
	9	15	0.75	53.57
	10	497	24.81	52.82
	11	13	0.65	28.01
	12	7	0.35	27.36
	13	3	0.15	27.01
Districts Total	14	3	0.15	26.86
	15	63	3.15	26.71
	16	5	0.25	23.56
	17	1	0.05	23.32
	18	1	0.05	23.27
	19	3	0.15	23.22
	20	183	9.14	23.07
	21	6	0.30	13.93
	22	1	0.05	13.63
	24	1	0.05	13.58
	25	35	1.75	13.53
	26	1	0.05	11.78
	29	1	0.05	11.73
	30	234	11.68	11.68
	Total	2003		

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District	Amount willing to pay (NPR)	Frequency	Valid Percent	% of population willing to pay at least the corresponding amount
Dhading	0	9	0.90	100.00
	1	47	4.71	99.10
	2	33	3.31	94.38
	3	33	3.31	91.07
	4	24	2.41	87.76
	5	331	33.20	85.36
	6	13	1.30	52.16
	7	11	1.10	50.85
	8	9	0.90	49.75
	9	10	1.00	48.85
	10	265	26.58	47.84
	11	7	0.70	21.26
	12	3	0.30	20.56
	14	2	0.20	20.26
	15	28	2.81	20.06
	16	3	0.30	17.25
	18	1	0.10	16.95
	19	3	0.30	16.85
	20	70	7.02	16.55
	21	4	0.40	9.53
	24	1	0.10	9.13
	25	10	1.00	9.03
	30	80	8.02	8.02
	Total	997		

District	Amount willing to pay (NPR)	Frequency	Valid Percent	% of population willing to pay at least the corresponding amount
Banke	0	4	0.40	100.00
	1	20	1.99	99.60
	2	28	2.78	97.61
	3	37	3.67	94.83
	4	35	3.48	91.15
	5	260	25.82	87.67
	6	17	1.69	61.83
	7	8	0.79	60.14
	8	11	1.09	59.34
	9	5	0.50	58.25
	10	232	23.04	57.75
	11	6	0.60	34.69
	12	4	0.40	34.10
	13	3	0.30	33.70
	14	1	0.10	33.40
	15	35	3.48	33.30
	16	2	0.20	29.82
	17	1	0.10	29.62
	20	113	11.22	29.52
	21	2	0.20	18.29
	22	1	0.10	18.09
	25	25	2.48	17.99
	26	1	0.10	15.51
	29	1	0.10	15.41
	30	154	15.29	15.31
	Total	1006		

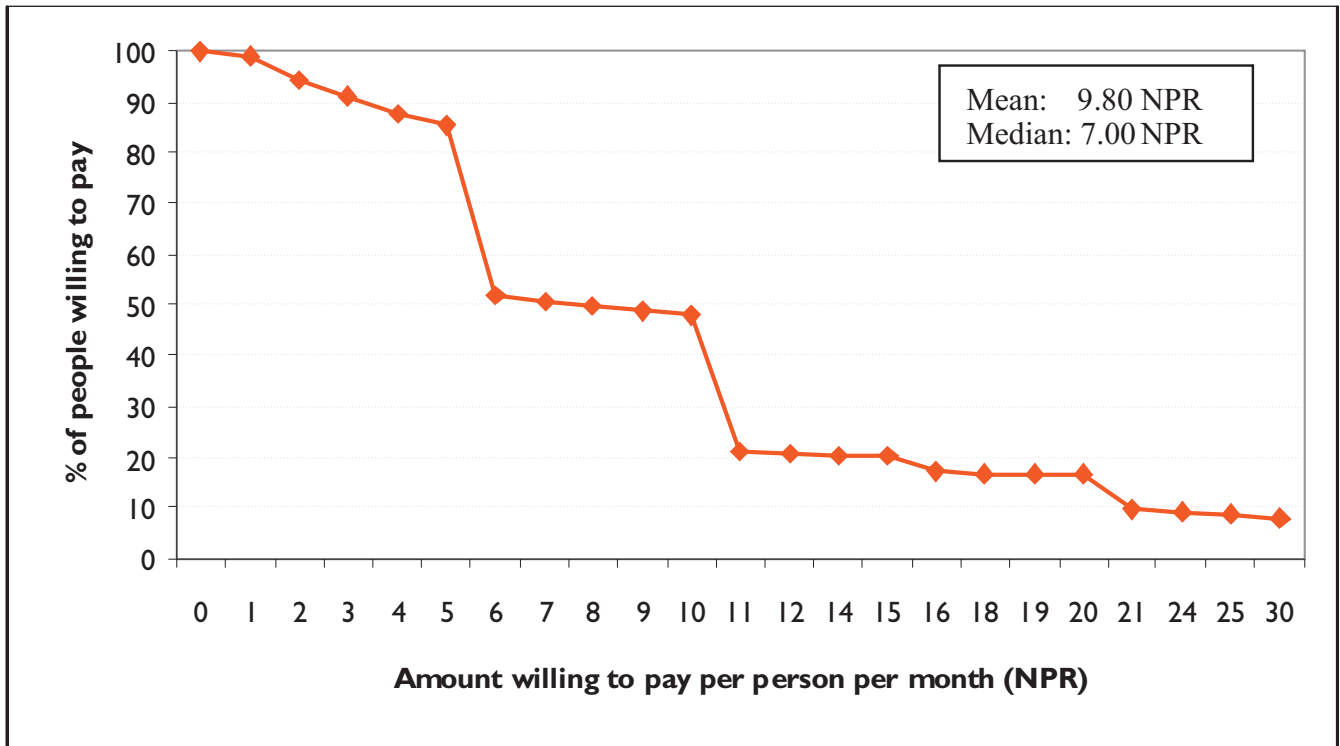Figure 90: Population's Willingness to Pay for Health Insurance (Dhading)

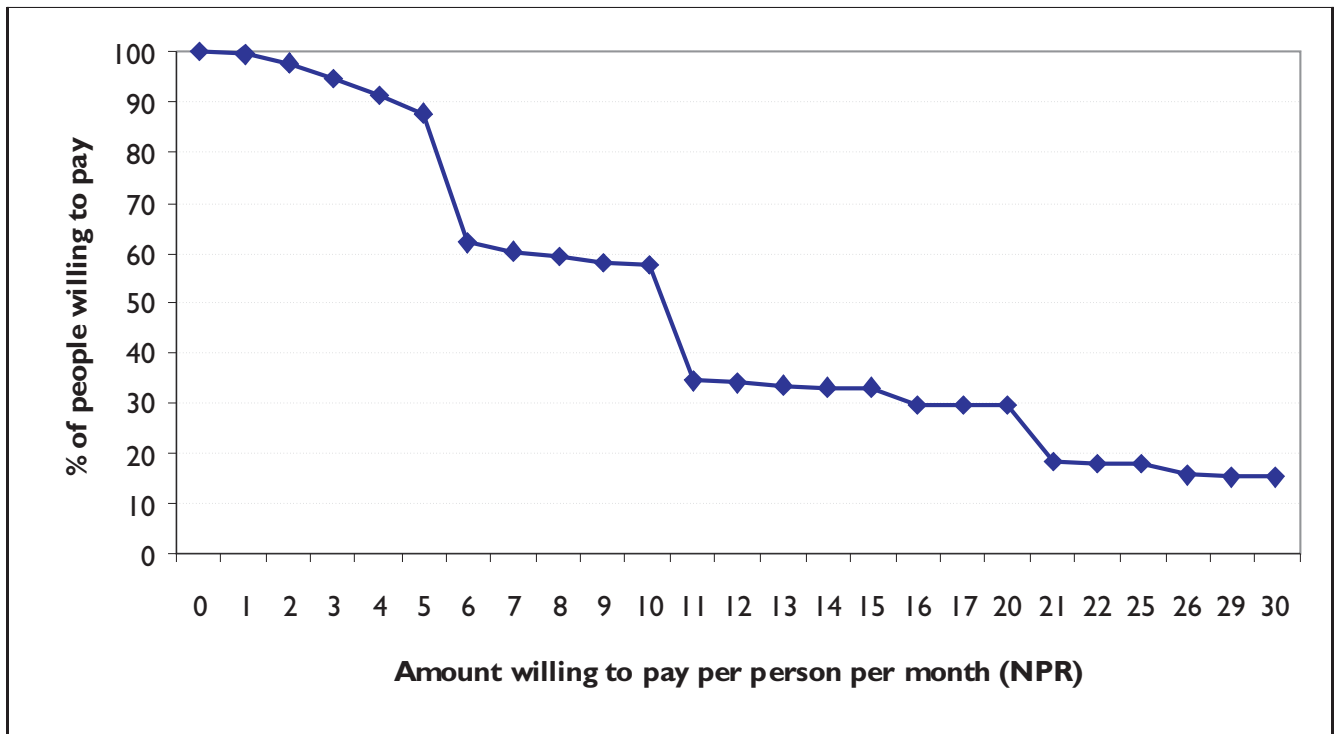Figure 91: Population's Willingness to Pay for Health Insurance (Banke)

Table 154: Population's Willingness to Pay for HI as share of MPCC

District	WTP as share of MPCC	Frequency	Valid Percent	% of population
Districts Total	0.00%	13	0.65	100.00
	0.50%	1	0.05	46.01
	1.00%	1	0.05	20.56
	1.51%	1	0.05	10.13
	2.01%	1	0.05	5.19
	2.53%	1	0.05	2.35
	3.01%	1	0.05	1.45
	3.52%	1	0.05	0.95
	4.08%	1	0.05	0.60
	4.62%	1	0.05	0.45
	5.01%	1	0.05	0.35
	5.54%	1	0.05	0.30
	6.00%	1	0.05	0.15
	6.46%	1	0.05	0.10
	9.50%	1	0.05	
Dhading	0.00%	9	0.90	100.00
	0.50%	1	0.10	36.31
	1.00%	1	0.10	13.24
	1.51%	1	0.10	5.12
	2.01%	1	0.10	1.91
	2.42%	1	0.10	0.70
	3.04%	1	0.10	0.30
	3.63%	1	0.10	0.10
	5.62%	1	0.10	

District	WTP as share of MPCC	Frequency	Valid Percent	% of population
Banke	0.00%	4	0.40	100.00
	0.50%	1	0.10	55.51
	1.00%	1	0.10	27.71
	1.52%	1	0.10	15.00
	2.01%	1	0.10	8.34
	2.53%	1	0.10	3.97
	3.01%	1	0.10	2.48
	3.52%	1	0.10	1.69
	4.08%	1	0.10	1.09
	4.62%	1	0.10	0.79
	5.01%	1	0.10	0.60
	6.00%	1	0.10	0.30
	6.46%	1	0.10	0.20
	9.50%	1	0.10	

Figure 92: Population's Willingness to Pay for Health Insurance in relation to MPCC (Dhading)
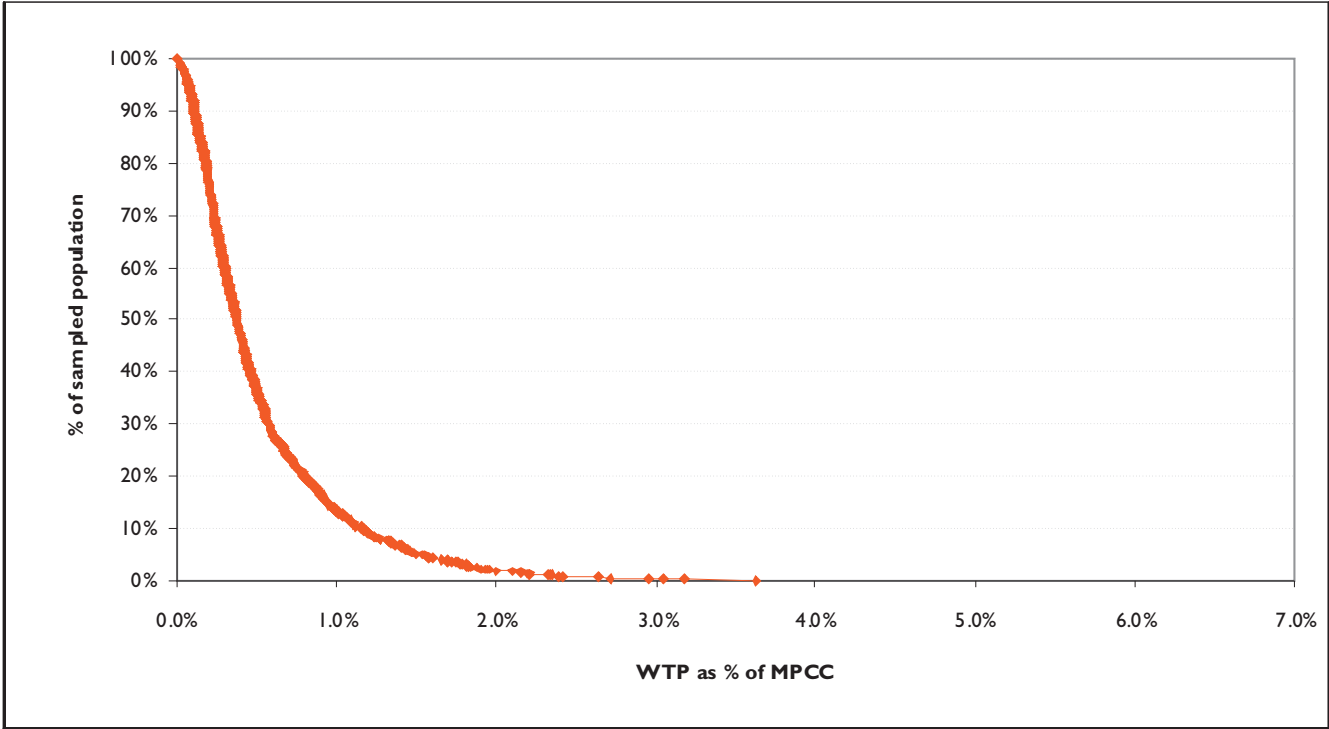

Figure 93: Population's Willingness to Pay for Health Insurance against MPCC (Banke)
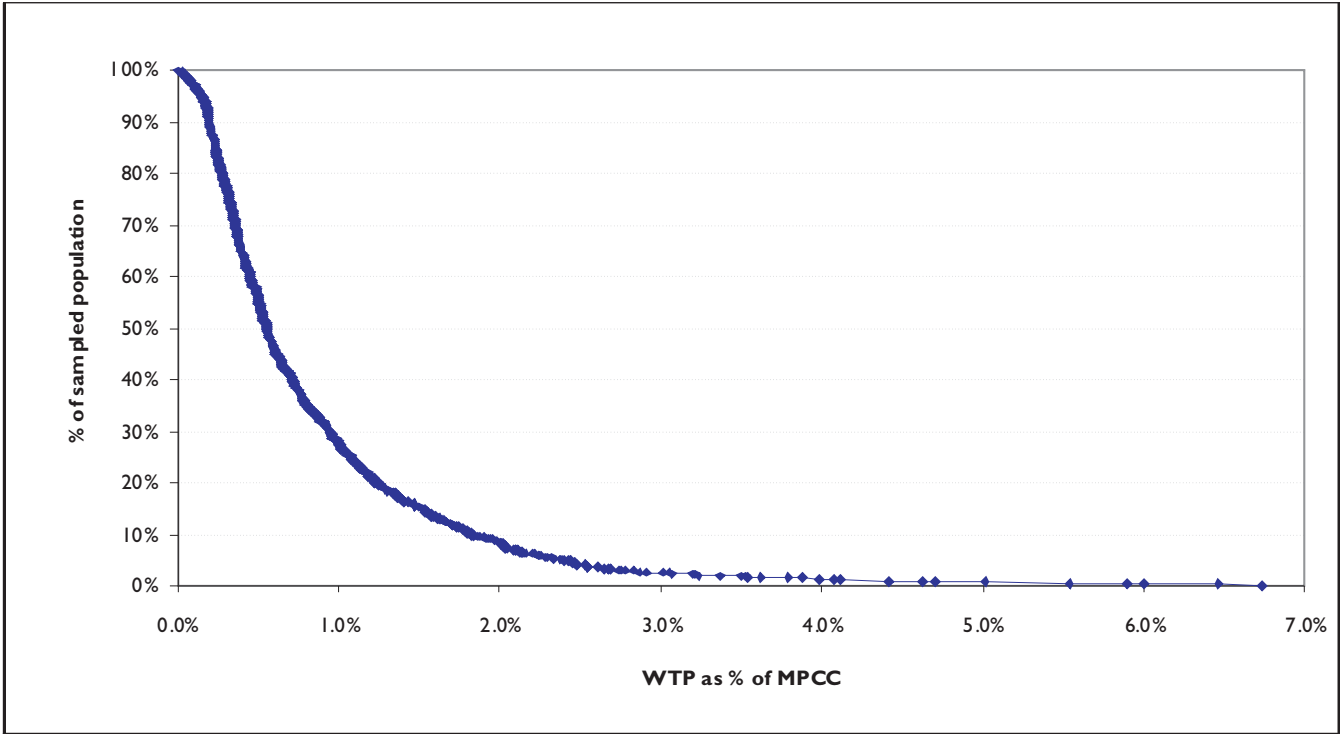
Table 155: Mean Willingness to Pay in relation to mean willingness to pay as share of MPCC across MPCC in the population

Districts	Quintile Range for MPCC (NPR)	Quintile	Mean WTP (NPR)	Mean WTP as % of MPCC
Districts Total	0-1104.5	Quintile 1	8.93	1.18%
	1104.5- 1554.1	Quintile 2	10.08	0.76%
	1554.1- 2032.2	Quintile 3	11.93	0.67%
	2032.2- 2850.4	Quintile 4	11.81	0.50%
	>2850.4	Quintile 5	13.16	0.33%
Dhading	0-1104.5	Quintile 1	6.92	0.90%
	1104.5- 1554.1	Quintile 2	8.13	0.62%
	1554.1- 2032.2	Quintile 3	10.31	0.58%
	2032.2- 2850.4	Quintile 4	10.25	0.44%
	>2850.4	Quintile 5	11.94	0.29%
Banke	0-1104.5	Quintile 1	10.27	1.37%
	1104.5- 1554.1	Quintile 2	11.55	0.86%
	1554.1- 2032.2	Quintile 3	13.25	0.74%
	2032.2- 2850.4	Quintile 4	13.80	0.58%
	>2850.4	Quintile 5	15.42	0.40%

Figure 94: Comparison of WTP in relation to MPCC across different MPCC Bands (Dhading)
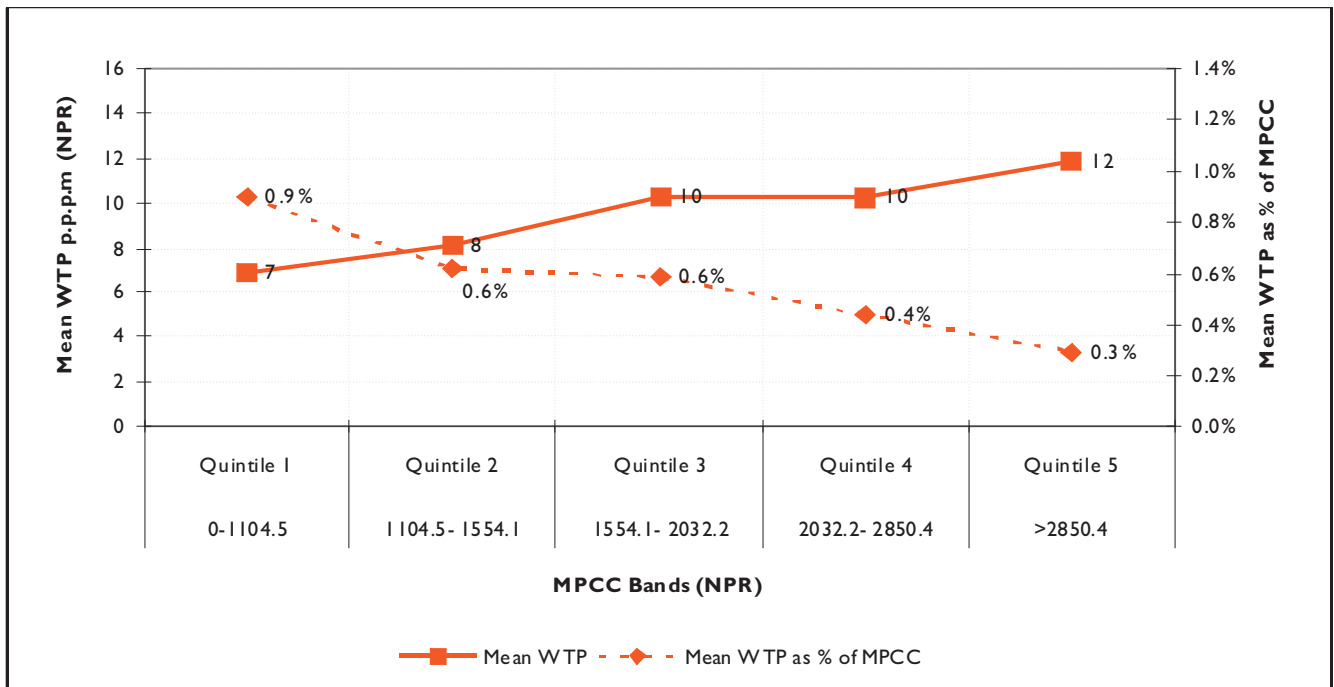
Figure 95: Comparison of WTP in relation to MPCC across different MPCC Bands (Banke)
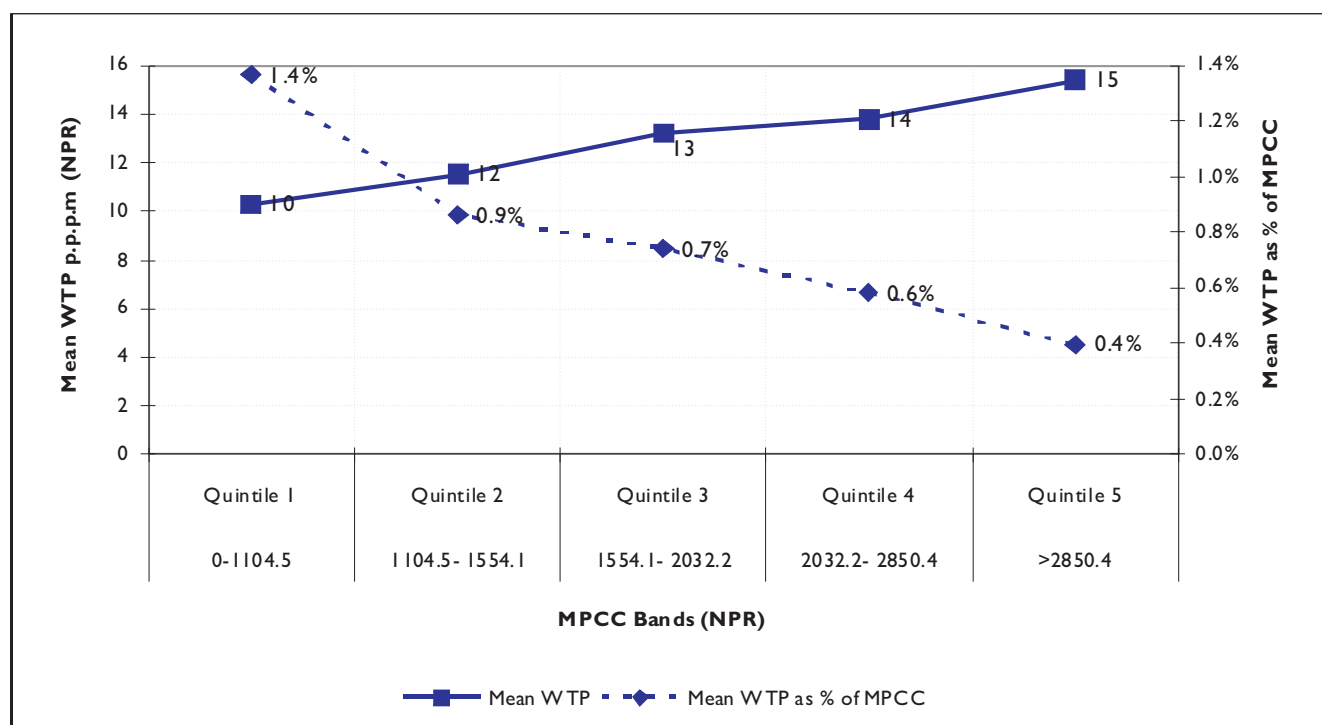

Table 156: Premium Calculation- Public and Private Hospitalization together (includes cost of medicines bought from a pharmacy outside the hospital)

	Annual cap for hospitalization	Hospitalization costs per episode last year		Incidence (p.p)	% of hospitalization episodes that lie below the cap	Premium	
		Mean	Median			p.p.p.y	p.p.p.m
Dhading	No cap	NPR 14,255	NPR 8,200	4.1%	NA	NPR 585	**NPR 48.7**
	Cap at NPR 3000	NPR 2,588		4.1%	27%	NPR 105	**NPR 8.8**
	Cap at NPR 5000	NPR 3,941		4.1%	42%	NPR 160	**NPR 13.3**
	Cap at NPR 8000	NPR 5,565		4.1%	49%	NPR 226	**NPR 18.8**
	Cap at NPR 10000	NPR 6,536		4.1%	56%	NPR 265	**NPR 22.1**
	Cap at NPR 15000	NPR 8,541		4.1%	66%	NPR 347	**NPR 28.9**
Banke	No cap	NPR 11,775	NPR 6,000	3.9%	NA	NPR 464	**NPR 38.7**
	Cap at NPR 3000	NPR 2,580		3.9%	29%	NPR 102	**NPR 8.5**
	Cap at NPR 5000	NPR 3,880		3.9%	46%	NPR 153	**NPR 12.7**
	Cap at NPR 8000	NPR 5,289		3.9%	59%	NPR 208	**NPR 17.4**
	Cap at NPR 10000	NPR 6,046		3.9%	67%	NPR 238	**NPR 19.9**
	Cap at NPR 15000	NPR 7,439		3.9%	79%	NPR 293	**NPR 24.4**

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