

Microinsurance, Poverty & Vulnerability

Findings of the Baseline Survey

1. Introduction

Microinsurance refers to a relatively new level of risk management products that protect low-income people against specific hazards such as illness, death, loss of crop and livestock, fire or theft. Informal community based risk-sharing schemes usually do not permit households to mitigate such risks due to limited outreach and scope. The government, often constrained by meagre fiscal means, also has limitations in protecting the poor from relapse into further poverty by means of either a well-designed safety net programme or by instituting a functioning public health system. Against this backdrop, the Microinsurance Research Unit (MRU) at the Institute of Microfinance (InM) launched a longitudinal study entitled "Microinsurance, Poverty & Vulnerability in Bangladesh" in January 2009 in order to examine the current state of the microinsurance market in Bangladesh including its scope, product range, demand, and their design. Institutional aspects of research focussed on the regulatory framework and delivery modalities suitable for the emergence of an efficient microinsurance market. Given the absence of a dataset adequate for the design of insurance products, the research team decided to start building a new panel dataset over a 6-year period (2009-14), namely the project period, such that the majority of households would be interviewed every second year.

2. The Microinsurance Market in Bangladesh

- MFIs, mainly offer term loan insurance thus minimising lenders' risks with quicker claim settlement process and is fully written off against the insurance fund in the event of death of the insured borrower. High premium rates are evident in most cases which may be due to non-reliance on a relevant mortality table or absence of regulation in premium setting.
- Micro health insurance type products in Bangladesh offered, among other, by Grameen Kalyan (GrK), Sajida Foundation, Ganoshasthya Kendra (GsK), BRAC, and Dhaka Community Hospital typically exhibit a very high co-payment on the part of the insured (e.g., upwards of 50 to 70 %) for most services rendered. Where referrals to external facilities are permitted, the insurance plan only covers a pre-set cash claim *ex-post*, typically a minor part of the total cost of treatment.
- These features suggest that these are not 'insurance' *per se* since the bulk of the risk eventually remains with the insured.
- Commercial microinsurance services are mainly limited to (endowment) life coverage, featuring relatively high premium rates caused in part due to the high costs of intermediation facilitated by commissioned agents who lack access to the poor *en masse*. Lack of competition also results in high profit margin for the industry leaders.
- There are no commercial products offering health or hospitalisation insurance targeted at the poor.
- While INAFI has been implementing both term and endowment life policies, the premium structure appears rather steep indicating high costs of intermediation, though the source of the latter may well differ from those afflicting commercial providers.

KEY FINDINGS AT A GLANCE:

- There is no any effective microinsurance for the rural poor, nor there is any suitable pilot intervention at this time.
- The rural poor face a variety of shocks where health is the dominant category.
- Morbidity rate at the individual (i.e., not household) level is over 33%.
- Majority of ill (about 60%) receive health care from 'informal' providers.
- There are significant socioeconomic inequities in the utilization of formal health care.
- The financial burden for availing health care is BDT 4,686 per household annually.
- Drug is the major portion (about 60%) of this burden.
- One in seven households encounters catastrophic health payments (i.e., exceeding 10% of household expenditure).
- The effect of health care burden on the poverty level is over 3% annually, and that of catastrophic health payments is about 17% annually.
- There is a significant demand for well-designed and meaningful micro health insurance, where the mean willingness to pay comes within the range of the premium required to cover the total cost of risk (i.e., excluding administrative and operational support) so long as the provider is a non-profit hospital.

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3. Baseline Survey & Analysis

The empirical portion of the study is based on about 4,000 households living in 120 villages (70 from Grameen Kalyan's programme areas and 50 from control areas) of 7 districts (Manikganj, Gazipur, Tangail, Mymensingh, Dhaka, Comilla, Brahmanbaria) in Bangladesh. Besides designing a comprehensive questionnaire covering different shocks the households face, the survey explored at length on socioeconomic conditions, health care seeking behaviour, out-of-pocket payments and the 'willingness to pay' for micro health insurance (MHI) type services. In addition to the household survey, the project conducted a village survey covering physical, education and health infrastructure, literacy rate, macro shocks and the type of insurance products available in the community. These surveys were conducted between April and July, 2009.

(a) Socio-economic Profile

- The median household was very much living in poverty, with per capita daily consumption (both food and non-food) valued at BDT 57, as against the poverty line estimated by the cost of basic needs (CBN) approach of BDT 61 in the present dataset.
- The overall poverty rate in the sample is however rather high at 56%, which is not surprising since the focus was to capture the poor in this survey.
- The average per capita consumption however was higher at BDT 66, of which 60% was allocated to food.
- There was virtually no difference between the programme and control areas in these or in the demographic dimensions as captured in Table 1.

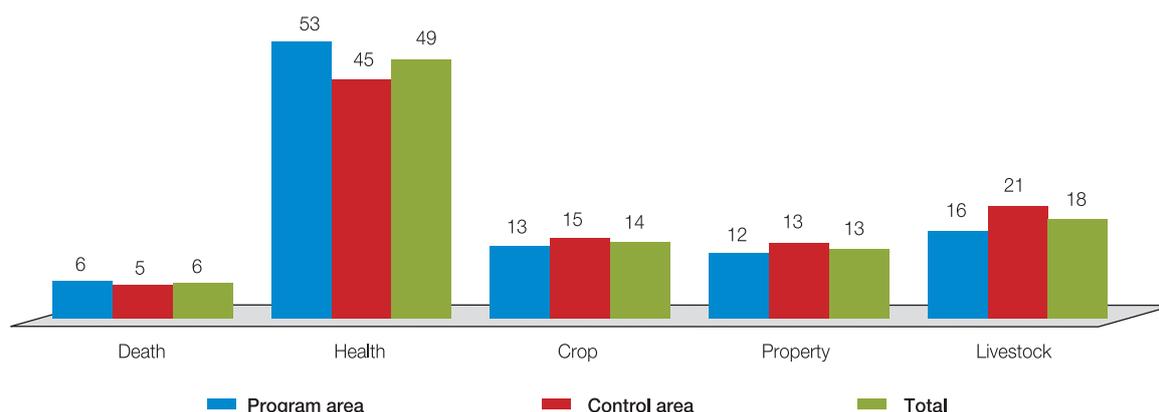
Table 1: Profile of Sampled Households (HHs)

Gender, Education & Age of HH head	
Male (%)	87.43
Female (%)	12.57
Avg. Education (in years)	3.20
Avg. age (in years)	46.16
Occupation of HH head (%)	
Agriculture	30
Day labour	16
Small business	14
Male-female ratio of HH	52:48
Age structure of HH (%)	
< 15 years	32.90
15 to 29	27.74
30 to 49	24.74
50 to 64	9.60
> 64 years	5.02
Actual HH size (in person)	4.45
Ratio of total members to earning members	3.39
HHs having electricity connection (%)	60.72
HHs drinking arsenic free water (%)	83.15

(b) Nature of Shocks Experienced Over the 2-year Period

- The prominent insurable shocks are health, death, crop, property and livestock (Figure 1).
- Health exigencies appear to be the single most common shock that respondents had to face. In fact, about 56% of all crises were related to death and health.

Figure 1: Nature of Shocks Facing by the Households During the Last Two Years (%)

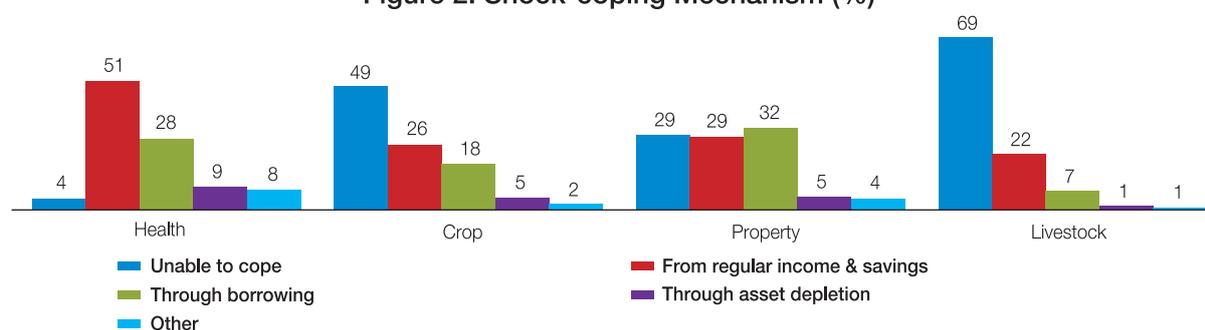


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(c) Shock-coping Mechanisms

- Poor households were primarily dependent on saving and current income and, to some extent, upon liquidation of assets and property (i.e., self-insurance) in order to overcome the burden of shocks (Figure 2).
- Most households were unable to cope with crop and livestock shocks.
- To the extent shocks were mitigated by depleting saving and other financial or real capital, these have significant implications on the household's earning ability in subsequent periods. There is palpable evidence that shocks, particularly health, may lead to poverty.

Figure 2: Shock-coping Mechanism (%)



(d) Pattern of Morbidity

- About 33% of the individuals suffered from some sort of illness over the 12-month period.
- At the household level, about 88% had at least one episode of illness over the preceding 12 months.
- The major disease symptoms were general cough and fever, stomach ache, diarrhoea, gastrointestinal disorders and typhoid.
- The prevalence rate of communicable diseases (CDs) and non-communicable diseases (NCDs) are about equal in the population.

(e) Health Care Seeking Behaviour

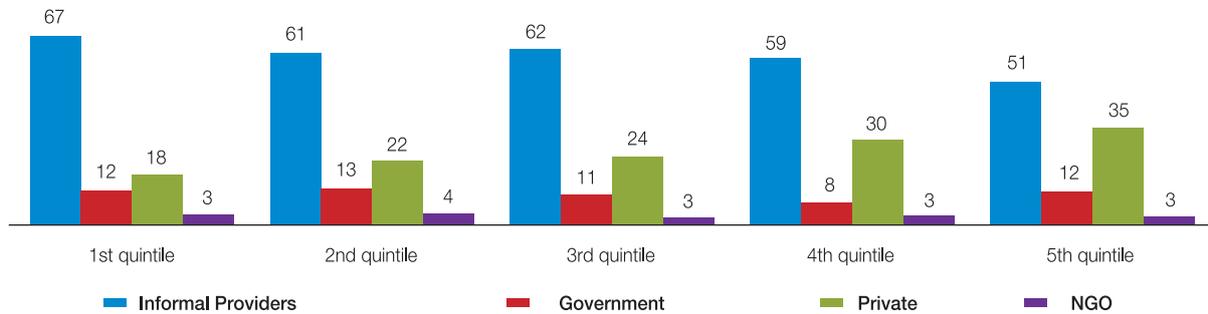
- Most of the ill (98%) sought some care but most (95%) however sought outpatient care.
- The overall utilisation rate of formal care is about 40% and private care is accessed by the majority (65%) despite substantial efforts by both government and NGOs to augment the capacity of rural health centres.
- The poor are more deprived of the utilisation of formal care vis-à-vis the non-poor (Figure 3). In particular, the utilisation of formal care is very low among children than other age groups irrespective of the level of income.

(f) Inequity in the Use of Care Seeking

- The rich enjoy substantially higher share of formal health care use than their share of needs (i.e., strong horizontal inequity in their favour).
- The level of utilisation of government and NGO care is similar between the poorest and the richest. Hence the existing inequity is mainly in the utilisation of private care.
- Income is the main contributor to this inequity.
- Horizontal inequities are larger for chronic illnesses and communicable diseases than acute illnesses and non-communicable diseases, respectively.

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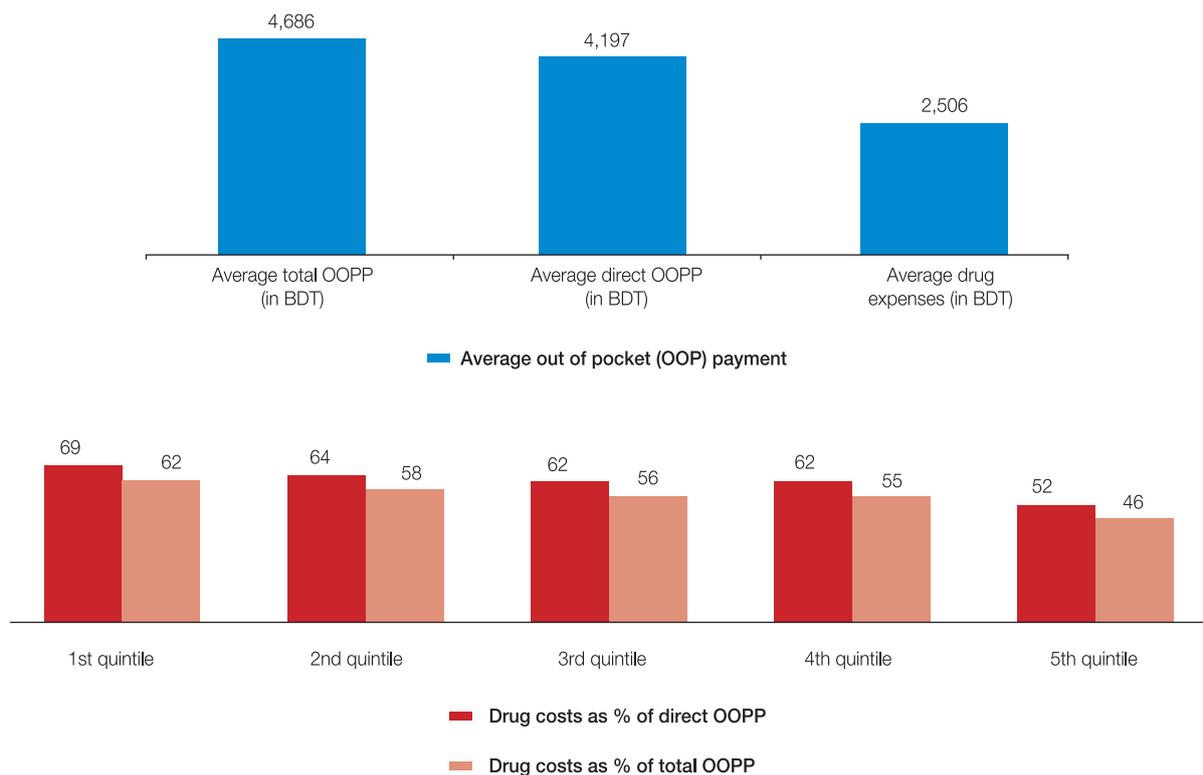
Figure 3: Type of Providers Sought by Expenditure Quintiles (%)



(g) Out of Pocket (OOP) Payments

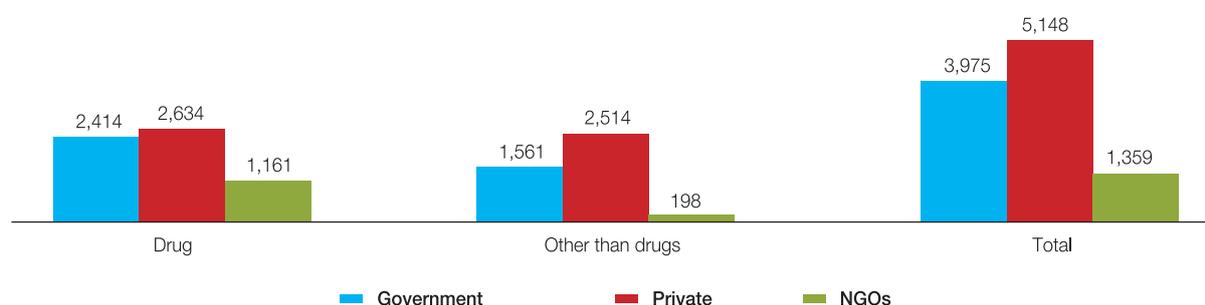
- *Total* OOP payments (which include charges for consultation, diagnostic tests, drugs, bed, surgical operations, transportation etc) per *affected* household during the 12 months preceding the survey stood at BDT 4,686. See Figure 4 (all three panels).
- *Direct* OOP payments (which exclude non-medical items) per *affected* household during the 12 months preceding the survey was only a little lower at BDT 4,197.
- Annual OOP component for drug per *affected* household came to BDT 2,506, implying that drug costs constitute the largest element accounting for about 60% of direct and about 53% of total OOP costs.
- Total OOP payments come to about 6% of total household consumption.
- Patients pay a substantial amount of money (just about 20% less than private facilities) to access health care from government facilities, which are officially supposed to cost a lot less, if not entirely free.

Figure 4: Distribution of OOP Payments by Formal Providers per Episode (%)



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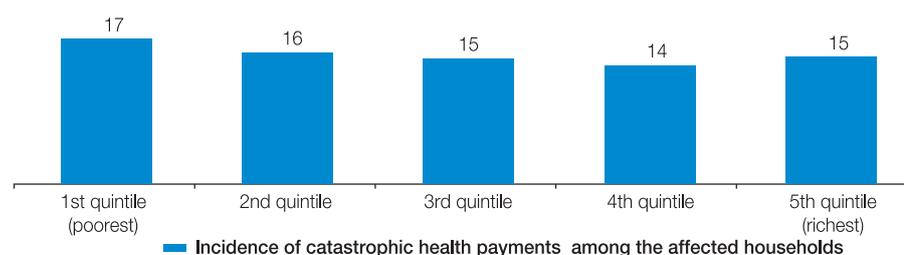
Figure 4: Distribution of OOP Payments by Formal Providers per Episode (cont.)



(h) Incidence of Catastrophic Health Expenditures

- About 15% (13%) of the affected (sampled) households incur catastrophic health expenses at the 10% threshold level (Figure 5), i.e., health costs using up 10% or more of household's overall expenditure (both food and non-food).

Figure 5: Catastrophic Health Expenditures (%)



(i) Sources of Financing Healthcare

- Insofar as the source of financing OPP is concerned, about 14% of the responses for all types of care indicate reliance on relatively expensive sources (borrowing and asset depletion).
- An even larger proportion (41%) of the responses relates to borrowing or selling assets particularly for financing the *catastrophic* events.
- A large proportion (33%) of the responses cited borrowing and/or asset disposition to finance the 'OOP charges for *inpatient care*'.

(j) Impact of OOP Payments on Poverty

- A significant effect (over 3%) of OOP payments on the poverty level of the households can be detected, while the incidence is much higher for inpatient or catastrophic health payments at about 11.6 and 17%, respectively (Table 2).

Table 2: Illness & Poverty

Category of illnesses	Poverty impact % (Headcount)
All episodes of illness	3.40
Catastrophic events	17.33
Acute illness	2.66
Chronic illness	4.65
Communicable diseases	0.95
Non-communicable diseases	4.61
In-patient cases	11.58
Out-patient cases	3.03

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(k) Demand for Prototype Micro Health Insurance in Rural Bangladesh

- The demand for an augmented version of GrK's existing health package was explored in order to assess its replicability on a wider scale. The augmentation involved basically doubling the level and scope of the benefits in exchange for double the old premium.¹
- The results show that overall willingness to join (WTJ) was 54% and, among the latter group, the average household willingness to pay (WTP) was BDT 406 ± 171, which was well below the expected cost of providing the services in question.
- One major concern with the original GrK package is that even after subscribing to the product, the card-holders made minimal use of the GrK services.
- These findings point to the need for designing a fresh MHI package that would offer a more meaningful coverage to the beneficiaries with a reasonable co-payment.

Figure 6: Willingness to Join (WTJ) by Consumption Quintiles (%)

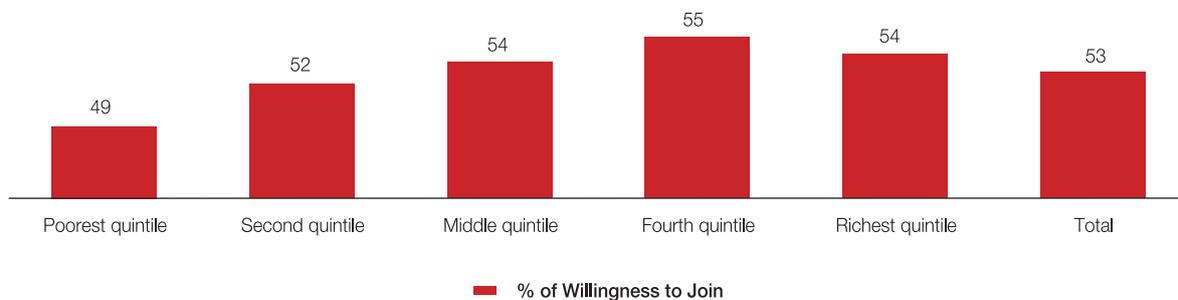


Figure 7: Willingness to Pay (WTP) by Consumption Quintiles (BDT)

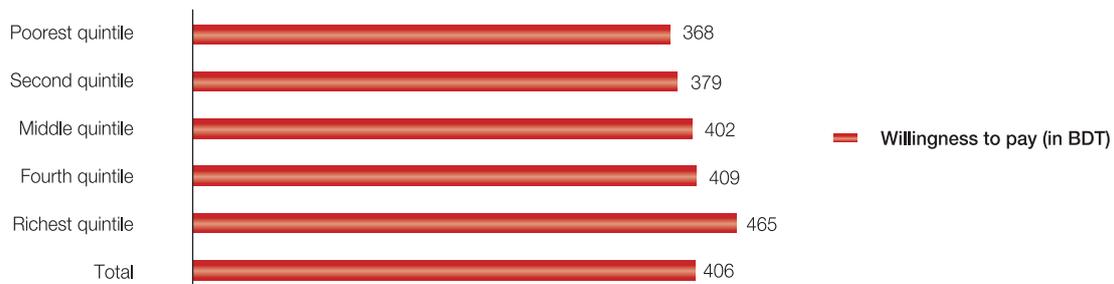
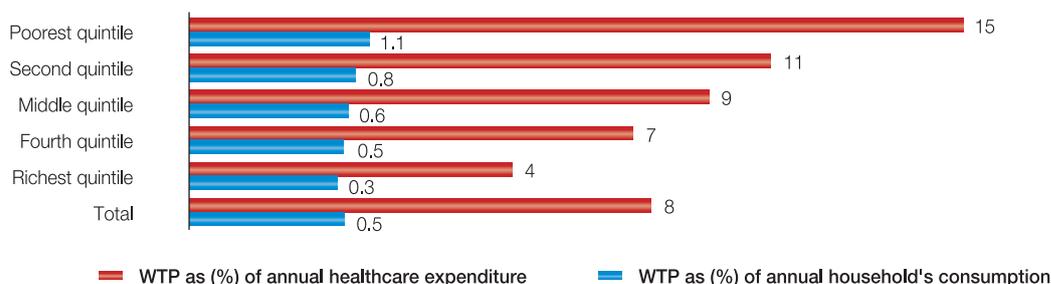


Figure 8: Willingness to Pay (WTP) as Share of Annual Healthcare Expenditure & Consumption (%)



¹ The original package was structured around a discount system, i.e., the card-holder was entitled to a series of discounts on drug price (10%), diagnostics and pathological test fees (25%), and at least nominally a cash claim of BDT 2,000 for hospitalisation in referral clinics/hospital (though the latter was rarely utilised). The augmented package doubled the discounts and raised the annual hospitalisation benefit 5-fold to BDT 10,000.

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4. Health Care Facility Survey

In this survey we have purposively chosen 9 districts (Tangail, Mymensingh, Sirajganj, Gaibandha, Nawabganj, Chuadanga, Patuakhali, Sunamganj, Brahmanbaria) from seven divisions which cover different geographical locations including 'char', 'haor', coastal and border areas of Bangladesh. We randomly chose two upazilas from each of these districts and two unions from each such upazila and thus, ended up with 18 upazilas and 36 unions situated in the 9 districts.

(a) Ownership Pattern & Placement of the Hospital Providing Inpatient Services

The striking observation was the lack of in-patient facilities (i.e., suitable for basic surgeries) in most unions.

Table 3: Health Infrastructure

Ownership Pattern	Placement of the Hospital			
	District	Upazila	Union	Total
Government	8	18	0	26
Private	17	16	4	37
NGO	1	0	0	1
Total	26	34	4	64

(b) Major Findings

Government Facilities

- A serious lack of physicians, drugs and other professionals is observed in upazila level hospitals (known as Upazila Health Complexes, UZHCs), which typically provide outpatient care.²
- UZHCs are generally unable to provide even the basic diagnostic and pathological facilities or offer the follow-up treatment modalities.
- There is high variability in both the quality and quantity of service (e.g., actual working hours per week etc.) across different union sub-centres.
- The government hospitals mainly provide non-surgical treatments (even the district ones).
- Moreover, in upazilas that lack adequate private hospitals, the UHCs function with medical staff far below the sanctioned strength as doctors find it more lucrative to serve in the nearby district hospitals on lien for lack of adequate business in the original UHC posting.

Private Facilities

- Absence of private entrepreneurs at the union level is presumably due to the lack of sufficient demand.
- These mainly serve the relatively well-off, and when the poor have to seek such treatment, the expenses tend to push them further into poverty.
- Mainly focus on the provision of selected surgical treatments in order to secure a greater profit margin.
- Private hospitals flourish more in the semi-urban plain lands than the remote areas of *char*, *haor* or coastal regions of Bangladesh.

² In view of frequent references to 'universal health coverage' (UHC) in the document, where the latter acronym is internationally recognised, we have used UZHC to describe the principal treatment centres at the upazila level.

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5. Conclusion

- The first phase of the microinsurance study reveals that the poor end up spending a very large share of their resources on health care, though this high spending does not buy them quality care. In doing so about 15% of them incur catastrophic health expenses (at the 10% threshold).
- The NGO-led health intervention and similar community programmes do not appear to meet the critical requirements of health insurance; instead these are mainly subsidised care. Analysis reveals not only the low propensity to join these types of 'insurance' programmes if given a choice, and once signed up, they do not even use the provider's facility most of the time.
- The WTP study also discovers support behind the above stance on the disillusionment with the subsidized type of care not only on the part of existing beneficiaries but also for those who have not yet enrolled.
- Another significant finding is the low utilisation rate of formal healthcare (about 40%). The most deprived groups are the poor and the children in terms of use of formal care. On the other hand, the rich are privileged with access to more formal care in comparison to their actual need.
- Thus the study points to the viability of a well-designed provision of quality professional care offered via microinsurance whereby achieving a suitable extent of risk-pooling would permit bringing the costs of care down to an affordable level and would ensure an equitable health care delivery system, the very notion of universal health coverage.

6. Way Forward: Pilot Experimentation

As part of the second phase of this research which began in January 2011, among other, an attempt is being made to design some prototype micro *health* insurance products in the above light and pilot these in selected rural areas in order to learn valuable lessons from experimentation and thus further innovate upon the product design. Resources permitting additional products such as livestock, endowment life and agricultural insurance will be experimented with. Among other, experimentation is expected to yield new insights in a number of areas including the following.

- What types of micro health schemes are appropriate for different segments of the population situated in various locations (including char, haor, coastal and geographically challenging regions)?
- What are the effective modalities (e.g., partner-agent or mutual, or variations thereof) of implementing micro health insurance?
- Do the successful pilot health interventions change the health seeking behaviour and thus improve the health status of poor households?
- Can the successful pilot health interventions reduce the poverty level of participating households?
- Are there viable micro health insurance packages that are implementable throughout rural Bangladesh (regardless of the health infrastructure obtaining locally)?