STUDIES ON HEALTH CARE EXPENDITURES AND INCLUSIVE HEALTH INSURANCE SYSTEMS FOR LOW-INCOME GROUPS IN INDIA

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LIST OF ABBREVIATIONS

ASHAs	Accredited Social Health Activists
BAIF	Bharatiya Agro Industries Foundation
BPL	Below poverty line
CBHI	Community-based Health Insurance
CGHS	Central Government Health Scheme
CHAT	Choosing Healthplans All Together
CHC	Community Health Centre
CI	Concentration index
CSR	Corporate Social Responsibility
EAG	Empowered Action Group
ECCP	Economic Cross-Culture Program
ESIS	Employee State Insurance Scheme
FY	Financial Year
GDP	Gross Domestic Products
GHPC	German Health Practice Collection
GIZ	Gesellschaft für Internationale Zusammenarbeit
GoI	Government of India
HH	Household
ICD	International Statistical Classification of Diseases
ILO	International Labour Organization
INR (Rs)	Indian Rupees
IRDA	Indian Insurance Regulatory Agency
LMP	Local Medical Practitioner
MFI	Micro finance institution
MHI	Micro health insurance
MI	Micro insurance
MIA	Micro Insurance Academy
NCD	Non-communicable diseases
n.d.	No date
NGO	Non-governmental organization
NHP	National Health Policy

NRHM	National Rural Health Mission
NUHM	National Urban Health Mission
OOP	Out-of-pocket
PHC	Primary Health Center
RR	Relative Risk Ratio
RSBY	Rashtriya Swasthya Bima Yojana (National Health Insurance Programme)
SC	Sub-Center
SES	Socioeconomic status
SHG	Self-Help Group
UP	Uttar Pradesh
USD	United States Dollar
WTP	Willingness to pay

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The first two studies presented in Chapter 2 and 3 are based on a case study using data from a common research project involving the Department of Cooperative Studies of the University of Cologne, under the supervision and coordination of Prof. Emeritus Dr. Hans Jürgen Rösner, the Institute of Health Policy and Management of the Erasmus University of Rotterdam, under the supervision of Prof. Frans Rutten, PhD, and the Micro Insurance Academy (MIA), a non-profit organization and research center based in New Delhi, directed by Dr. David Dror. The MIA is an internationally recognized leader in the field of micro insurance, by providing relevant implementation support, training, research, and advisory services for the development of international and local pro-poor micro insurance schemes, with the mission to bring insurance coverage to the world's poor. The project was funded through the EU-FP7 research grant HEALTH-F2-2009-223518 CBHI India on „Developing efficient and responsive community based micro health insurance in India“ for the years 2009-

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The three studies included in this thesis are currently in the publication process.

1 INTRODUCTION

In India, health care is still mostly financed through high out-of-pocket payments at the point of use. The consequences are a reduced access to care and high vulnerability (especially for low-income households), due to inadequate financial protection. Several studies show the impoverishing effects of health expenditures on poor households in India (Van Doorslaer et al., 2006; Vaishavi and Dash, 2009; Gosh, 2010). Despite the fast growing economy, the major part of the country suffers from a poor standard of health care infrastructure and from an unequal distribution of access to health care. The Indian public health spending is very low for a country where a big part of the population depends on public health services. Total health expenditures amount to 4.1% of GDP, of which only 33.1% are governmental funding, while the main part is represented by out-of-pocket expenditures (WHO, n.d.). The results are a weak and obsolete public health care infrastructure, poor quality of preventive care and poor health status, especially for low-income groups resident in rural areas.

In India, public spending on health care is divided between the central government and the single state governments. However, the Constitution (Part XI) assigns a predominant responsibility for the provision of “public health and sanitation, hospitals and dispensaries” to the single states. Public health care provision is mostly tax-financed and oriented toward universal health care. However, the financing of the public health system is very challenged, since more than 90 per cent of workforce and about 50 per cent of GDP are accounted for by the informal sector (GoI, 2012a). Furthermore, the financing of health care services is affected by a severe fiscal imbalance between the central government and the states, since the majority of tax-revenues (excluding sales tax) are collected at the central level. The Ministry of Health and Family Welfare administers the major transfer of tax revenues destined to

the health care sector. Despite this mechanism, inter-state disparities in the capacity to collect taxes result in an evident inequality in the quality of public health services provided at the state level, since the states affected by fiscal disabilities (mostly those with poor health indicators) are left with large shortages of funding (Rao and Singh, 2005). The inadequate level of public health provision, especially in poorer states, forces the population to make use of private health care providers, which is one of the main causes of the high out-of-pocket expenditures, together with the non-availability of basic drugs at public facilities.

After a very late first *National Health Policy* (NHP) in 1983, the Government of India (GoI) has initiated several national health programs having as main objectives the improvement of the health care infrastructure and extending access to health care to the disadvantaged groups. Recent programs are the *National Rural Health Mission* (NRHM) and the *National Urban Health Mission* (NUHM), aiming at providing accessible, affordable and quality health services for the rural and urban poor, especially in states where the attainment of health goals has been very poor.

The Indian Government has also implemented several health insurance schemes. The most recent one, the *Rashtriya Swasthya Bima Yojna* (RSBY), was launched in 2008 by the Ministry of Labor and Employment of the Government of India, after a critical review of the existing governmental health insurance schemes (e.g. the *Universal Health Insurance Scheme* or "one rupee per day"-scheme), which had not shown particular success. The RSBY is based on a standard business model but created for a social sector scheme, with governmental subsidies. RSBY offers, in collaboration with several state-run and private insurers, free[1] health insurance to below the poverty line (BPL)[2]

[1] Beneficiaries only need to pay Rs. 30/year as registration fee, while central and state governments pay the premium to the insurer, which is selected by each state government on the basis of a competitive bidding. Travel expenses up to Rs. 1,000 (€16)/year or a maximum of Rs. 100 (€1.60) per visit are also financed through the scheme.

households for the coverage of hospitalization costs up to Rs. 30,000. However, the scheme outreach is estimated to be relatively low (around 28% of the total BPL households as of 2011) and the governmental budget allocation is still too low to allow the expansion of the scheme (Dror & Vellakkal, 2012). Furthermore, recent studies report that, despite subsidization, insurers involved in the scheme are experiencing increasing loss ratios, mostly due to the growing number of competing insurance providers within the scheme, which pushes for lower premiums (Koven et al., 2013; Krishnaswamy & Ruchismita, 2011). The scheme, however, has a high potential to push for the improvement of the public health care infrastructure, through a healthy competition between private and public medical providers[3], as each hospital is paid by the scheme per beneficiary treated. Therefore, both public and private providers have the incentive to attract and provide treatment to large number of beneficiaries. Another positive effect is provided by the use of a RSBY smart card-system, which makes health services cashless for insured, facilitates the monitoring of use and costs of services (preventing abuse and hazards) and also allows for the first time to officially identify individuals from nomadic and mostly rural groups.

Further insurance schemes are offered for selected groups in India. Formal sector and state employees are covered by social health insurance schemes, respectively the *Employee State Insurance Scheme* (ESIS) and the *Central Government Health Scheme* (CGHS), which cover the most health care costs and offers unlimited access to medical services. The rural population and those working in the informal sector, instead, mostly rely on tax-financed public services (mostly concentrated in urban areas), which are for free or partly subsidized, or alternatively use very expensive private facilities (GoI, 2005a). A clear rich-poor division in the access to health care and in health care

[2] Target clients are identified through the official national BPL lists. This brings to the need of efficient compiling and continuous update of the BPL lists and of an attentive monitoring against fraud and corruption, which challenge the effectiveness and outreach of the scheme.
[3] RSBY-insured can get medical assistance from a range of medical providers (both private and public) selected by the government for the scheme.

financing mechanisms is identifiable in this scenario. Extending the RSBY scheme to the coverage of costs for outpatient care[4] and of the costs of drugs would give poor families greater relief, since these costs are reported to be more prevalent than the costs for inpatient care and to create a huge financial burden for poor HHs (Dror et al., 2008). Furthermore, it would also reduce hospitalization claims in the long term, since it would allow treating illnesses at an early stage, thus improving the financial sustainability of the RSBY scheme, too. However, despite very desirable, the extension of the RSBY scheme will not be without challenges. Mostly, the financial feasibility of such coverage is a critical issue, since it would push premiums much above the premiums currently charged by insurance companies for the RSBY scheme. The capability of the government of financing such an ambitious national insurance plan scheme remains very doubtable, given the current difficulties in funding the basic inpatient care coverage and in a country where more than 90 per cent of the population is employed in the informal sector and where the tax system is wracked by tax evasion and corruption. Furthermore, the monitoring of the new scheme would be much more difficult than for the hospitalization costs, given the huge amount of expected use of outpatient care and the difficulty in identifying moral hazards, as compared to the more evident critical health status connected to a hospitalization. Nevertheless, despite all challenges, the RSBY scheme represents the first very relevant (though ambitious) attempt of the Indian government to solve the problem of inequality in access to health care within the country. Two experts of the German Health Practice Collection (GHPC) qualify the RSBY scheme as a "good or promising practice", "primarily because of the staggering scale RSBY has achieved in a short period

[4] RSBY is experimenting the extension of coverage to outpatient care (including consultation fees and drugs), complementing the existing inpatient benefits. Pilot implementations are being conducted since 2011 in collaboration with the ILO and the ICICI Foundation for Inclusive Growth. GIZ has also supported these experiments as knowledge partner. Extending the scheme to the coverage of drugs costs could also lower the price and increase the availability of drugs in medical facilities, especially by supporting the distribution of (cheaper) generic drugs (GoI, n.d.).
Furthermore, since 2011 the RSBY national health insurance scheme has also been extended beyond BPL to unorganized sectors such as construction workers, domestic workers and street vendors (Sen, 2011).

of time and the innovative model India has chosen for its health insurance" and conclude that the RSBY model is "not necessarily better, but certainly a model to watch" (GIZ, 2011).

Another approach for remedying to the unequitable distribution of access to health care are the several micro health insurance (MHI) schemes that have been implemented all around the country. Micro insurance (MI) is defined as "a mechanism to protect poor people against risk (accident, illness, death in the family, natural disasters, etc.) in exchange for insurance premium payments tailored to their needs, income and level of risk" (ILO, n.d.). MI operates with the same risk pooling mechanism as conventional insurance, but benefits, premiums and distributional mechanisms are especially designed to meet poor people´s needs. The term "micro" denotes, on one side, the features of the products (less expensive but also less comprehensive than standard insurance products) but also, on the other side, the very defined target clients of such schemes, which are normally members of a specific community (or small cluster of communities) being offered a tailored insurance product (through a bottom-up approach) especially meeting the specific needs of that certain community. Micro health insurance (MHI), in particular, provides the financing for essential health care services to individuals and families who are unable to afford or excluded from formal health insurance schemes and/or are not protected by social insurance schemes in their home country. MHI is currently implemented through several different models and provided by a variety of different entities (government, private insurers, NGOs, etc.). MHI is also the most diffused and requested type of MI in the globe (Roth et al., 2007). A particularly poor-oriented scheme is the community-based health insurance (CBHI) scheme, which is spreading all around India. CBHI is defined as "any not-for-profit insurance scheme aimed primarily at the informal sector and formed on the basis of a collective pooling of health risks, and in which the members participate in its management" (Devadasan et al., 2006). Such schemes use a pure bottom-up implementation model that allows tailoring

insurance plans to low-income people´s priorities and financial capabilities, by involving the target clients in the development of the products and in the management and supervision of the scheme. Such schemes have shown to be effective for reaching equality (Dror et al., 2006), improving access to health care (Dror et al., 2005) and providing financial protection (Ranson, 2002; Dror et al., 2009) to low-income groups in India. However, the outreach and financial sustainability of such schemes is still challenged. The small pooling of resources of low-income clients and the homogeneous distribution of risks don´t allow a financially sustainable risk-sharing mechanism. Furthermore, the Indian government hasn´t yet taken any position concerning the legal recognition of such schemes, which are currently operating in a legal vacuum. Because not officially registered, CBHI schemes do not have to comply with insurers regulations, such as minimum capital requirements, but are not allowed to get re-insurance, which would allow to protect the scheme from systemic risks (like epidemics) and other high-cost risks.

Commercial insurers are also slowing entering the low-income insurance market and are currently the major global providers of MI products, showing a growing interest in this new market segment. The Insurance Regulatory and Development Authority (IRDA) promotes the role of commercial insurers for creating inclusive insurance services in India and has introduced “social and rural obligations”, which define the minimum amount of policies within their portfolio that insurers are expected to distribute to the rural and social sector. Given their capital reserves and the technical know-how, private insurers have the potential to reach massification of micro insurance products. The inexperience with this new market and the lack of insurance-relevant data on the new clients represent a big challenge for insurers starting MI activities. Some shortcomings can be overcome through the so-called “partner-agent” implementation model, which implies a collaboration of commercial insurers (partner) with local organizations (agent), mostly NGOs or micro finance institutions (MFIs). This model is also officially recognized and supported by

the IRDA. However, the low quality of the health infrastructure all around the country highly reduces the attractiveness of the insurance products.

The present thesis analyzes how ill-health affects developing communities in rural India and the way health insurance products can be developed and tailored to low-income individuals´ needs and limited financial possibilities. A community-based health insurance scheme implemented in three sites in two rural regions in northern India is used as case study for showing how bottom-up participatory methods can be applied in developing communities for the development of customized health insurance products, allowing even illiterate and inexperienced individuals to manifest their preferences for health insurance plans. This scheme is particularly developed around Self-Help Groups (SHGs), a well-established informal microcredit system involving women from developing communities. Around 70 per cent of the households involved in the scheme were affiliated to a SHG through at least one family member, while the remaining 30 percent is obtained as a random sample from the non-SHG population. Targeting SHGs offers the advantage of working with already established and consolidated structures within the communities. Furthermore, the IRDA favors the use of selected intermediaries, including SHGs, for the implementation of MI in India.

Next to community-based health insurance schemes, the role of commercial insurers in creating an inclusive insurance system for the low-income groups in India will be evaluated, given the growing relevance these actors are gaining within MI activities. Furthermore, the insurance authority promotes the role of the private sector for extending insurance services to the poor. In particular, the challenges for the effectiveness of MI implementation by private insurers will be identified and the efficiency of different distribution models analyzed (including a case study analysis), in order to understand the future prospects for the incorporation of low-income clients in the commercial insurance system.

The remainder of this thesis is organized as follows.

The second chapter entitled *„Economic consequences of ill-health for households in northern rural India"*[5] describes the relative importance of ill-health compared to other adverse events, the conduits through which ill-health affects household welfare and the coping strategies used to finance these expenses. Cross-sectional data are used from a survey conducted with 5241 households in Uttar Pradesh and Bihar in 2010 that includes a household shocks module and detailed information about health care use and spending. Results show that health related adverse events are the second most common adverse events (34%), after natural disasters (51%). Crop and livestock diseases and weddings affect each about 8% of households. Only a fourth of households report to have recovered from illness and/or death in the family (by the time of the survey). Most of the financial risk of ill health is related to health care expenditures, but indirect costs are not negligible. Close to half of health expenditures are made for chronic conditions. Households try to cope with health-related expenditures mostly by dissaving, borrowing and selling assets. Few households report having to reduce (food) consumption in response to ill-health. We conclude that ill-health events pose a substantial threat to household welfare in rural India. While most households seem to be able to smooth consumption in the short term, coping strategies like selling assets and borrowing from moneylenders are likely to have severe long-term consequences. As the use of health care appears to be related to high out-of-pocket spending, introducing health insurance may contribute significantly to

[5] This chapter is based on a joint work of the author of this thesis, Ellen Van de Poel (Erasmus University Rotterdam), Pradeep Panda (Micro Insurance Academy) and Frans Rutten (Erasmus University Rotterdam). The relative contribution of each co-author to this study is as follows: Pradeep Panda managed the data collection. I and Ellen Van de Poel conceptualized the study, conducted the analyses and wrote the text of the study. Pradeep Panda and Frans Rutten provided overall guidance, and critically reviewed the study.
The results of this study have been presented at the *Research Seminar of the Institute of Health Policy and Management* (Erasmus University of Rotterdam, The Netherlands, 2010), at the *8th World Congress on Health Economics* (Toronto, Canada, 2011), at the *Health System Reform in Asia Conference* (Hong Kong, 2011) and at the *Research Conference on Microinsurance* (Twente, The Netherlands, 2012).

alleviate financial hardship of families in rural India. However, since most of health-related costs in the communities appear to derive from chronic conditions, the sustainability of community-based health insurance schemes is very challenged, since it is necessary to ensure a sufficient degree of risk pooling, in order to be able to finance ill-conditions which requires continuous and long-term medical care within the community scheme.

The third chapter entitled *„Group health insurance choices in rural India"*[6] aims at offering knowledge of communities´ preferences for health insurance packages in rural India and to show how the development of health insurance products can be aligned with low-income communities´ expectations. We use data from individual and group choice sessions (collected in 2009-2010) organized within three random-control trials for implementing community-based health insurance in rural India. A revised version of the CHAT (Choosing Health plans All Together) decision tool was used to elicit individual and group preferences. CHAT is a game-like tool presenting different health insurance options within a limited budget and is used to facilitate group discussion. This tool allows even illiterate individuals, with no or little previous experience with insurance, to choose their preferred insurance plan (the tool will be explained in details in Chapter 3). The SHGs-members from the target communities were actively involved in the choice of the insurance packages that would be thereafter offered within the community-based health insurance program. In general, this study showed that members of the targeted developing communities possess the ability of thinking in terms of "value for money" and trading in terms of number of benefits, coverage and premium. As foreseeable in low-income settings, the price was an important factor influencing the choice of packages in all trials. Peer influence among

[6] The contents of this chapter are based on a study conceptualized by me in collaboration with the project members Ralf Radermacher (Micro Insurance Academy e.V.), Pradeep Panda (Micro Insurance Academy) and Christina May (Cologne University). The analysis and the writing of the study have been entirely conducted by me. I presented the results of this study at the *Research Conference on Microinsurance* (Twente, The Netherlands, 2012).

SHG members also played an important role in decisions (especially for less educated members), as well as solidarity with less-wealthy members. Possessing RSBY social insurance coverage, instead, was not found to influence the decision-making particularly, but this could depend on the fact that, at the time the CHAT sessions have been run, the RSBY scheme was still in the early stages of roll out in the regions targeted by the CBHI project. The CHAT process was positively received by the participants. Group sessions succeeded in stimulating discussions and deliberations. We also find some correlation between the level of responsiveness of the final community package (obtained from the choices made during the CHAT processes) to prospect clients´ perceived priorities (manifested mostly through the individual choices) and the willingness to enroll in the CBHI scheme.
The information gained through the CHAT sessions is relevant for the development of insurance schemes that are more aligned with low-income people´s needs and expectations in developing communities.

The fourth chapter is entitled *"Insurance for the poor in India: The role of private insurers in the low-income market"*[7] and analyzes the challenges and prospects for commercial MI practices in India, in particular focusing on micro health insurance products. This study aims at identifying the role private insurers play for the development of inclusive insurance services for the low-income segment of the population. In particular, the factors influencing insurers´ commitment toward MI will be analyzed, considering business ethical attitudes and the gains and risks for insurers entering the MI market. Findings show that the commitment of most of the insurers to MI is strictly connected to the need to comply with the rural and social sector obligations imposed by the insurance authority in India. Until recently, the selling of contracts to the social

[7] The contents of this chapter are based on a study entirely conceptualized and executed by myself.
I presented the results of this study at the *Regionalsitzung des Promotionskollegs Soziale Marktwirschaft - „Kulturelle Diversität und Ordnungspolitik" der Konrad-Adenauer-Stiftung e.V.* (University of Siegen, Germany, 2014).

and rural groups was done on a “just achieve targets” approach, showing little business interest for the low-income market. This is probably also connected to the incapability of writing MI on a profitable basis. The situation, however, is likely to change in the near future, since insurers are not looking anymore at the relationship between corporate success and social welfare as a zero sum game. The rural and social obligations have served to give impulse to insurers to extend their portfolio to the low-income market. Insurers have started to see a business case in MI and are more willing to invest in innovation. Instead, insurers´ commitment to CSR does not seem to be a solution for the creation of inclusive insurance services in India, since the majority of insurers keep linking CSR to philanthropic activities, thus distinguishing it from their core business activities. Among the different MI implementation models, the partner-agent model has the potential to both effectively serve the low-income clientele and to be the most cost-efficient model.

2 ECONOMIC CONSEQUENCES OF ILL-HEALTH FOR HOUSEHOLDS IN NORTHERN RURAL INDIA

2.1 Background

In India, as in many developing countries, the bulk of health care expenditures is financed through out-of-pocket payments (OOP) made at the point of use (World Bank, 2011). Especially in poorer states, including Uttar Pradesh and Bihar (two of the poorest rural states) there is an evident gap between the current public health spending and the amount necessary to offer adequate health services, putting in evidence a deep inter-state inequality in the quality of health care provided at the public level. The central government and several state governments have tried to remedy through several initiatives, as for example by developing own health insurance schemes. However, public spending for health remains very low all around the country.

In the absence of appropriate pre-financing mechanisms such as health insurance, households confronted with ill-health are exposed to catastrophic expenditures or decide to forego essential medical treatment altogether. Illness is found to be one of the main reasons for falling into poverty in India (Krishna, 2004; Van Doorslaer et al., 2006). Ill-health can have economic implications through multiple channels. Health care use involves both direct costs for doctor fees, tests and drugs, but also indirect costs, including transportation and foregone earnings for patients and their family members. While the latter costs are often not explicitly investigated, they have been shown to be not negligible (Ramaiah et al., 1998; Babu et al., 2002; McIntyre et al., 2006; Dror et al., 2008). Households without formal insurance often resort to alternative coping strategies, such as borrowing and selling assets, to finance health-related expenditures (Sauerborn et al., 1996; Pal, 2002; Peters et al., 2002; Flores et al., 2008; Binnendijk et al., 2011; Shahrawat et al., 2011). While health payments financed through these strategies are not at the expense of current consumption, they do entail long-term sacrifices.

While some papers have documented the degree of catastrophic spending and impoverishment related to ill-health (Van Doorslaer et al., 2006; Flores et al., 2008;

Shahrawat et al., 2011; Binnendijk et al., 2011) there is – to the best of our knowledge – no evidence on the relative importance of ill-health as compared to other adverse events[8] and very limited evidence on the conduits through which ill-health affects households' living standards in India (Dror et al., 2008; Binnendijk et al., 2011; Flores et al., 2008). This study adds to the existing literature by comparing health shocks with other adverse events in terms of prevalence, cost, severity and recovery in rural India. Furthermore, this study aims at shedding light on the way ill-health affects households´ welfare in the target communities, by identifying the types of health-related expenditures that place the largest economic burden on households and by analyzing the strategies households employ to finance these expenditures and their long term consequences. As most of the households´ economic risk deriving from ill-health appears to be related to OOP spending, authors make policy recommendations for alleviating economic hardship of families in rural India.

2.2 Methods

The data derive from a randomized controlled trial of Community-based Health Insurance (CBHI) in three sites in rural India, precisely Kanpur Dehat and Pratapgarh districts in Uttar Pradesh, and Vaishali district in Bihar.[9] The CBHI schemes are targeted at SHGs, which form a well-established informal micro-credit system throughout most of India (Reddy et al., 2005). A SHG typically consists of 12-15 women who pool resources and jointly decide on loans.[10] Baseline household data have been collected in 2010 for 5214 households (1751, 1541 and 1922 households in Kanpur Dehat, Pratapgarh and Vaishali respectively), representing 29880 individuals.[11] Data were collected from the entire population of households affiliated with SHGs (through at least one member), and from a random sample of the non-SHG population in each of the three sites. Sample weights have been constructed to adjust

[8] Tesliuc and Lindert (2002); Kenjiro (2005); Dercon and Hoddinott (2005); Heltberg and Lund (2009); Wagstaff and Lindelow (2013) provide evidence for other countries. Ill-health appears to be one (in some cases the most) prevalent and costly shock in the studied countries, respectively Guatemala, Cambodia, Ethiopia, Pakistan and Laos.

[9] More information on the project and the procedure of random sampling can be found in Doyle et al. (2011).

[10] Some SHGs grouped themselves into SHGs Federations, which are formal institutions (registered as societies) and show several benefits, such as strong political influence, development of economies of scale and access to greater capital (Wilson et al., 2006; Deshmukh et al., 2003).

[11] Bihar and Uttar Pradesh are amongst India's most populated, poorest and least urbanized states, and in so far as SHG households are typically poorer and less educated than the general population, our analysis focuses on a relatively marginalized population in rural India (Panda et al., 2013).

for the oversampling of SHG-related households. Ethical clearance was obtained from the ethics committee of the University of Cologne, Germany, before the start of the study.

The survey contains a retrospective household shocks module, which asks households about different kinds of "adverse events" that they have been confronted with in the year preceding the survey (natural disaster, storage/crop/livestock disease, job loss, drop in sale price of agricultural products, increase in agricultural input price, conflict, wedding, illness or death), how these affected them and how they coped with them. Notwithstanding that such retrospective tools can suffer from reporting bias, they provide useful information on the relevance and consequences of various threats to household welfare in the absence of panel data. However, such tools have not often been used in this context (Wagstaff et al., 2013). As some of the reported threats, such as weddings, obviously do not come unexpectedly, we prefer referring to adverse events as opposed to "shocks" in the remainder.

Since the baseline data were also used as input for the calculation of insurance premiums (for the CBHI scheme), they contain many details on ill-health conditions, health care seeking behavior, costs and financing of health care[12]. For each illness episode (or pregnancy) of each household member (30 days recall for outpatient care and 12 months recall for inpatient care), we know symptoms, volume, location and detailed costs of health care use and financing mechanisms. Annual hospitalization costs have been divided by 12 to be comparable to other monthly health expenditures. Health care spending can be categorized along two dimensions: (i) the type of care (outpatient for chronic/acute conditions, inpatient care and maternity care), and (ii) the type of expenditures (fees, additional costs for drugs and tests, indirect costs related to travel and food of the patient and accompanying persons and productivity loss of the patient and/or accompanying persons). It should be noted that chronic conditions in this context relate to conditions that are reported to have been ongoing for 30 days or more, and can therefore also include more acute conditions that are not appropriately treated and therefore persistent. Furthermore, costs of chronic diseases are likely to be underestimated, since we only possess in-depth cost information for

[12] Concerning the financing mechanisms, it must be noted that –unfortunately –the retrospective shocks tool and the health care survey section differ quite substantially in terms of the sequencing and alternative coping responses provided and, perhaps most importantly, the type of health events concerned (the shocks section includes deaths within the household among the health shocks).

the last visit, while 31% of respondents reported to have received medical help more than once during the last month.

We have also tried to investigate heterogeneity of results across the type of ill-health condition (communicable versus non-communicable), using a classification based on symptoms (obtained through the ICD10 codes developed by the World Health Organization (WHO, 2010).

Regarding household characteristics, we construct variables related to demographics (the proportion of elderly over 65 years old, of children under the age of 13 and of women between 13 and 49 years old), indicator variables for SHG membership, scheduled caste/tribe status, Hindu religion and location. We hypothesize that, next to economic characteristics, social characteristics, such as scheduled caste/tribe status and religion, are important cultural indicators in these contexts and can influence the way ill-health events are correlated with households´ economic status. Desai and Dubey (2011) show how caste affiliation determines households' economic situation, community participation and access to education and health care. Several other studies also refer to caste status and/or religion, next to welfare status, as factors influencing health care access and financing (Sugathan et al., 2001; Pal, 2002; Flores et al., 2008; Binnendijk et al., 2011).

Household socioeconomic status (SES) is measured using a principal component score, obtained from HHs´ assets ownership and dwelling characteristics (Filmer et al., 2001), which is used to divide the population in wealth thirds. We prefer this to household spending data, as it is less likely to be affected by ill-health and consumption of health care. As households reported to mostly sell agricultural items to finance health expenditures, we have excluded these items from the principal component analysis. Socioeconomic inequalities (in incidence of household shocks) are measured by a corrected concentration index (CI) for binary outcomes, as suggested by Erreygers (2009).[13] A CI is derived from a concentration curve which plots cumulative shares of the variable of interest 'y' against cumulative shares of the population ranked by socioeconomic status. The CI lies between -1 and +1, with

[13] Recently, Erreygers (2009) has shown that the standard concentration index, when applied to bounded indicators (such as binary variables) does not satisfy the mirror condition and suggested a correction.

greater values indicating greater SES inequality. Positive values indicate that "y" is more concentrated among the wealthier households and vice versa.

Probit models are used to investigate determinants of coping strategies and the choice of moneylender among those households that borrow in response to ill-health.

2.3 Results

2.3.1 Household shocks module

The communities in the three different sites appeared quite homogeneous concerning most of the socio-economic characteristics and the prevalence and distribution of ill-health events (Table 2.1). The majority of households were of Hindu religion and belonged to scheduled castes/tribes or other backward castes. Average per capita expenditures was higher in Kanpur Dehat, but a larger share of households fell in the upper wealth quintile in Pratapgarh. In the latter site, households appeared to suffer more from chronic illnesses, while acute illness episodes were more common in the former. Average self-reported household size varied from three in Vaishali to six in Kanpur Dehat. A household was usually composed of the head of the house (in the majority of cases the male adult member), his spouse, their children and the parents of the male component. Around 20% of households were headed by women, generally widows.

Table 2.2 shows descriptive statistics from the retrospective shock module. Health-related adverse events were the second most common adverse events (34%), after natural disasters (51%). Crop and livestock disease and weddings each affected about 8% of households; all other events were infrequent (and therefore not discussed hereafter).[14]

[14] To investigate the idiosyncrasy of events, linear regressions were estimated of the specific shock indicator on a set of village dummies. In general, all shocks appear quite idiosyncratic, with village effects never explaining more than 7% of the variation. Natural disasters are typically more concentrated within villages.

Table 2.1 - Summary statistics on the household level for the pooled sample and across sites.
Notes: Standard deviations between brackets for continuous outcomes.

Variables	Pooled sample	Pratapgarh	Kanpur Dehat	Vaishali
Number of households	5215	1542	1751	1922
Household size	4.21 (4.37)	4.52 (4.45)	6.03 (4.77)	3.31 (4.00)
Lower wealth third	0.33	0.31 (0.46)	0.36 (0.48)	0.32 (0.47)
Middle wealth third	0.33	0.28 (0.45)	0.35 (0.48)	0.29 (0.45)
Upper wealth third	0.33	0.41 (0.49)	0.29 (0.45)	0.38 (0.49)
Per capita expenditures (in INR)		1128 (665)	1793 (1653)	1205 (947)
Share of health spending on total HH spending	0.21	0.20	0.22	0.20
Number of chronic illnesses (in last 30 days)	0.92 (0.96)	1.29 (1.05)	0.76 (0.86)	0.76 (0.88)
Number of acute illness episodes (in last 30 days)	1.10 (1.06)	1.08 (1.11)	1.24 (1.12)	0.98 (0.95)
Number of hospitalizations (in last 12 months)	0.16 (0.42)	0.14 (0.38)	0.16 (0.43)	0.19 (0.44)
Number of pregnancies (in last 12 months)	0.17 (0.40)	0.15 (0.39)	0.18 (0.40)	0.18 (0.41)
Proportion of children	0.31 (0.23)	0.29 (0.21)	0.27 (0.22)	0.37 (0.23)
Proportion of elderly	0.04 (0.12)	0.04 (0.12)	0.04 (0.13)	0.03 (0.11)
Proportion of women at reproductive age	0.27 (0.16)	0.31 (0.17)	0.27 (0.16)	0.28 (0.16)
Caste of household head (1/0)				
Scheduled caste/tribe	0.33	0.39	0.31	0.31
Other backward caste	0.56	0.48	0.55	0.63
General caste	0.10	0.12	0.14	0.06
Religion of household head (1/0)				
Hindu	0.90	0.86	0.92	0.92
Muslim	0.10	0.14	0.08	0.07
Other	0.002	0.001	0.002	0.003
Affiliated to a Self-help Group (1/0)	0.7	0.8	0.6	0.7

Adverse health events were equally distributed across socioeconomic status (insignificant CI in Table 2.2), which is likely to be related to the rather little variation in SES in the sample. This is true for all other events, except for natural disasters that appeared more likely to hit better-off households. The pro-rich concentration of natural disasters might derive from the fact that households need to own sufficient land in order to be affected by a natural disaster. Crop/livestock diseases might be more related to the quality of inputs, and therefore less concentrated with high SES. The fourth and fifth columns of Table 2.2 show average and expected costs associated with different adverse events. Ill-health and/or deaths costed about 6 times household monthly food spending. Weddings appeared to be most costly[15], followed by natural disasters, but these switched rankings when considering their expected costs. Even if some discrepancies emerged in the ranking of the different adverse events when considering self-reported costs and severity, the latter confirms that health-related

[15] Bloch and Rao (2002) find that dowries amount to six times average incomes among pottery families in South Karnataka.

events were perceived as being less severe than weddings (58%) and natural disasters (53%). Only a fourth of households reported to have recovered from illness and/or death in the family (by the time of the survey). Slightly fewer households recovered from natural disasters (21%), and very few households were able to recover from weddings (12%).

Table 2.2 - Descriptive statistics of household shocks.
Notes: Probability of shock occurring, concentration index and standard error, average and expected cost (in multiples of household monthly food spending), perceived severity and recovery.

	Probability (proportion)	Concentration index	Standard error	Average cost	Expected cost	Perceived severe (proportion)	Recovered (proportion)
				multiples of monthly food expenditures			
Illness or death	0.338	0.003	0.022	5.79	1.955	0.367	0.246
Natural disaster	0.511	0.198	0.042	17.1	8.737	0.534	0.212
Crop, livestock disease	0.076	0.01	0.015	5.445	0.413	0.374	0.304
Job loss/no salary	0.023	-0.025	0.01	7.145	0.163	0.329	0.457
Fall in sale price	0.023	0.011	0.007	6.111	0.142	0.501	0.354
Rise input price	0.013	0.006	0.005	13.833	0.178	0.254	0.205
Conflict	0.013	0.009	0.004	5.167	0.065	0.253	0.084
Wedding	0.076	0.013	0.013	41.203	3.114	0.582	0.12

Generally, spending savings and working more hours were reported as the most relevant coping strategies, followed by borrowing money from a moneylender (Figure 2.1). Reducing food consumptions was only reported by a minority of households, suggesting that – at least in the short run – most households were able to smooth consumption.

Figure 2.1 - Distribution of the most dominant coping strategies for various adverse events.
Notes: Bars represent the proportion of households confronted with a specific shock that have used a specific coping strategy.

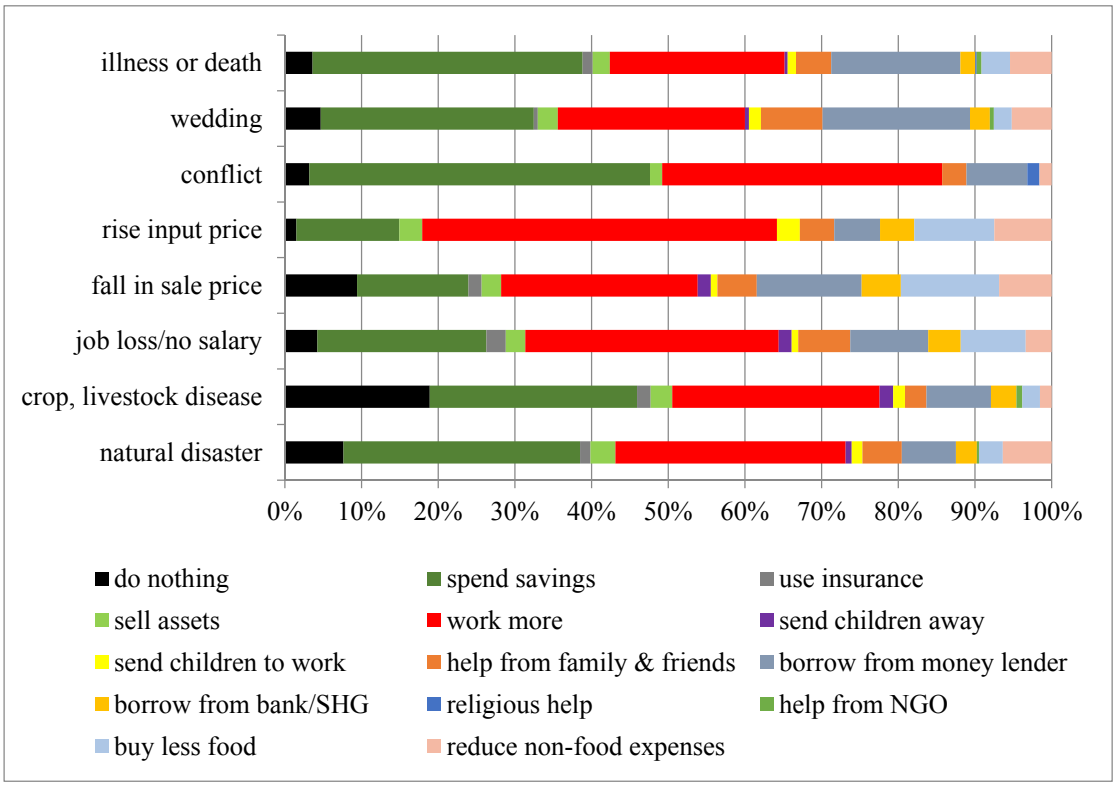


Table 2.3 provides some further insight into the determinants of the use of the different coping strategies by households hit by adverse events. Disease and/or death and weddings were more likely to lead households to borrow from a moneylender (marginal effects of 0.061 and 0.202 respectively) than natural disasters. Interestingly, the only threat that was more likely than natural disaster to lead to a reduction in food consumption was crop/livestock disease. Results also illustrated that especially poorer households were more likely to work more (7 percentage points), borrow from moneylenders (13 percentage points) and reduce food expenditures (6 percentage points) as compared to those in the upper wealth third.

Having described the relative importance of various adverse events threatening household welfare and the main coping strategies employed to deal with these events, the next section provides a more in-depth analysis of the various costs households have to deal with in case of ill-health.

Table 2.3 - Determinants of coping strategies for various household shocks (marginal effects from probit regression).
Notes: Data on shocks level. Coping strategies are not mutually exclusive. Results are only shown for coping strategies with a baseline probability higher than 0.05. Natural disasters are the omitted shocks category. Standard errors are adjusted for clustering of observations on household level. ***significant at 1%, ** significant at 5%, * significant at 10%.

	Do nothing	**Spend savings**	**Sell animals/land/ assets**	**Work more hours**	**Send children to work**	**Assistance from relatives**	**Borrow from money lender**	**Borrow from bank/SHG**	**Buy less food**	**Reduce non-food expenses**
Proportion elderly	0.06	0.08	0.012	-0.09	-0.028	-0.043	0.06	-0.049	-0.074	-0.033
Proportion children	-0.022	0.077	-0.039	-0.025	-0.064**	0.048	0.164**	-0.016	0.035	-0.009
Proportion reproductive age	-0.052	0.071	-0.006	0.198*	-0.028	0.08	0.06	-0.008	-0.053	-0.104
Scheduled caste/tribe	-0.013	-0.041	-0.003	-0.04	-0.003	0.001	0.026	0.015	-0.041	-0.028
Hindu	0.005	0.029	-0.002	0.021	-0.024	-0.045	0.027	0.036*	0.071	0.059
SHG	-0.013	-0.045*	0.002	-0.02	0.01	0.009	0.005	0.040**	-0.014	-0.003
Pratapgarh	0.092**	0.192**	-0.055**	-0.023	0.004	0.058*	-0.197**	-0.001	-0.108**	-0.133**
Vaishali	-0.128**	0.164**	-0.032*	-0.173**	-0.054**	-0.037	0.324**	-0.003	0.021	0.147**
Middle wealth third	0.045**	0.009	0.024	-0.057	0.001	-0.054**	-0.081**	0.025	-0.025	-0.015
Upper wealth third	0.021	0.105**	0.050**	-0.069*	-0.012	-0.034	-0.131**	0.049**	-0.057*	-0.034
Crop, livestock disease	0.111**	-0.113**	0.008	-0.07	0.018	-0.024	-0.03	-0.003	-0.145**	-0.02
Illness or death	**-0.026**	**-0.042**	**0.013**	**-0.049**	**0.014**	**0.028**	**0.061***	**-0.025***	**-0.014**	**0.025**
Job loss/no salary	-0.009	-0.189**	-0.004	-0.127	0.057	0.037	-0.046	0.096**	0.139*	-0.055
Fall in sale price	-0.015	-0.144*	-0.008	0.027	0.059	0.014	0.003	-0.005	0.233**	-0.243**
Rise input price	-0.034	-0.023	-0.009	0.087	-0.028*	-0.034	0.002	0.021	0.169	-0.232*
Conflict	-0.064**	0.275**	-0.050**	0.279**		-0.092**	-0.214**	-0.051**	0.295**	-0.230*
Wedding	-0.043*	-0.04	0.031	-0.03	0.039*	0.137**	0.202**	-0.005	-0.042	-0.077
Baseline probability	0.120	0.430	0.069	0.551	0.050	0.135	0.322	0.067	0.302	0.486
Observations	5426	5426	5426	5426	5364	5426	5426	5426	5426	5426

2.3.2 Household health care-related expenditures

2.3.2.1 Costs composition

Table 2.4 shows the prevalence and composition of the several types of monthly household health-related expenditures.

Among those households that have incurred health expenditures, spending on outpatient care for acute and chronic diseases was quite common (58% and 49% of households respectively), while spending on hospitalization and maternity care was more rare (15% and 12% households respectively). Note that these shares, presented in the first column, add up to 134%, which indicates that quite some households incurred more than one type of health expenditures. In particular, around 30% of households incurred health expenditures for outpatient care for both chronic and acute conditions.

Outpatient care for chronic and acute conditions each took up about 43% of total household health spending, while hospitalizations and maternity care represented about 9% and 5% of the health care budget respectively. Direct costs have been classified into ´medical fees´ and ´medicines and laboratory costs´, while indirect costs have been classified into ´transportation and food costs (for patient and caregiver)´ and `productivity losses (based on self-reported information) for the patient and caregiver´. The bulk of expenditures on care for chronic diseases (74%) were related to additional medical services, mostly drugs. Also for outpatient spending on acute conditions about half of the costs were related to drugs and tests, while only a third was spent on doctor fees. Concerning hospitalizations, the medical fees were much more important (67%), while medicines and test costs represented 13% of total costs. The shares of indirect costs (transportation and food, as well as the loss of productivity) were highest for maternity care (61% and 23% respectively), which is likely to be related to the relatively low user fees associated with maternity care (mostly for free in public facilities). The shares of non-medical costs were about 10% each for outpatient care and hospitalizations.

Table 2.4 - Distribution of households' health-related expenditures across the type of care

Notes: Composition of monthly average household health expenditures (in INR). We include interests that had to be paid on loans taken to finance health care related expenditures in the productivity losses. On average, these represent 8.5% of foregone earnings.

[a]among those households reporting any kind of health expenditures [b]share of total household health expenditures of the specific type of care [c]Using the 2010 exchange rate.

	Proportion of households[a]	Proportion of household health spending[a]	Direct costs[b]		Indirect costs[b]	
			Medical fees	Medicines and laboratory	Transportation and food costs for patient and caregiver	Productivity losses for patient and caregiver
Outpatient care for chronic diseases	49%	43.9%				
Average Proportion of total costs (%)			12%	74%	9%	5%
Average spending (INR)			118	1220	159	100
Average spending in (USD)[c]			(2.66)	(27.50)	(3.58)	(2.25)
Standard deviation			257	2825	630	435
Outpatient care for acute conditions	58%	42.7%				
Average Proportion of total costs (%)			33%	51%	9%	8%
Average spending (INR)			112	338	67	66
Average spending (in USD)[c]			(2.52)	(7.62)	(1.51)	(1.49)
Standard deviation			208	1404	275	237
Hospitalization	15%	8.8%				
Average Proportion of total costs (%)			67%	13%	12%	8%
Average spending (INR)			978	212	158	110
Average spending (in USD)[c]			(22.05)	(4.78)	(5.82)	(2.48)
Standard deviation			1208	559	320	229
Maternity care	12%	4.6%				
Average Proportion of total costs (%)			15%	2%	61%	23%
Average spending (INR)			56	2	96	42
Average spending (in USD)[c]			(1.26)	(0.05)	(2.16)	(0.95)
Standard deviation			198	9	179	137

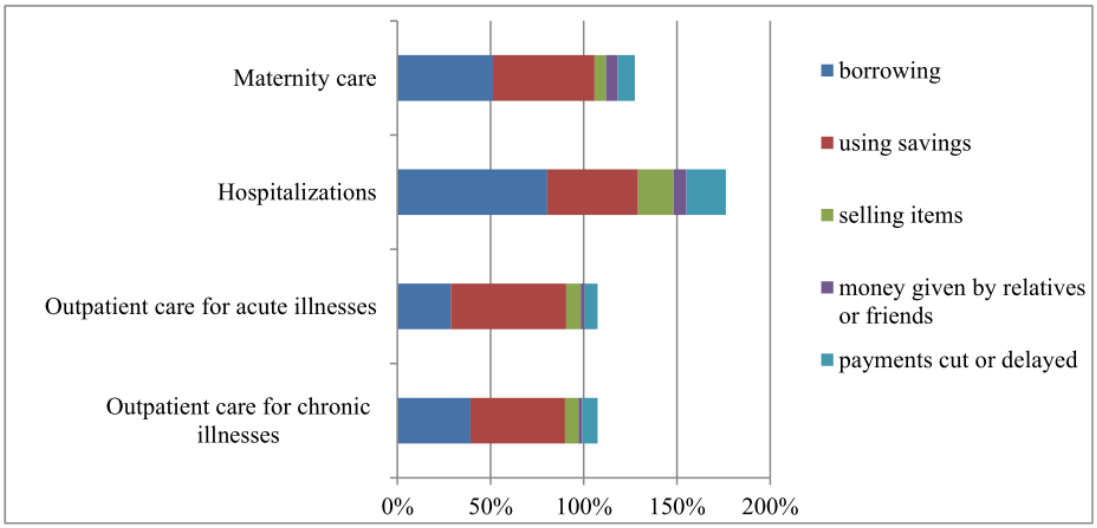
Loss of productivity represented a rather small proportion of the costs associated with outpatient care for chronic (5%) and acute (8%) conditions and for hospitalizations (8%).

We have also investigated heterogeneity of results across the types of ill-health conditions. Reported symptoms of both acute and chronic conditions were categorized into communicable and non-communicable diseases (NCDs) using ICD10 codes developed by the World Health Organization (WHO, 2010). Among the 63% of illness episodes which we were able to classify we found a higher prevalence of non-communicable diseases (85%) than communicable diseases (15%). Households´ average monthly costs related to non-communicable diseases (Rs. 1573) were higher than those related to communicable diseases (Rs. 1261). In particular, additional medical costs for NCDs were the largest cost component (Rs. 923 per household per month). These results might suggest a growing (economic) burden of NCDs in rural India.

2.3.2.2 Coping with health expenditures

Having established the various costs associated with ill-health, we now want to investigate how households finance these costs in order to better understand the potential long-term consequences. Figure 2.2 shows the relative importance of different coping strategies for different types of care and reveals that, particularly for hospitalizations, households resort to a combination of multiple financing mechanisms. Remarkably, over 80% of households that have been confronted with a hospitalization in the past year have borrowed money to cope with these expenditures. Other types of health care expenditures were typically financed through savings and loans and to a lesser extent by selling assets and cutting/delaying payments. Those households that did sell assets mostly sold agricultural equipment and grain (58% of total cases), followed by household items (16%), livestock (11%) and jewelry (9%). Households that reported to cut back on spending mostly did this for food-related spending (68%).

Figure 2.2 - Relative importance of coping strategies for financing health-related expenditures by type of care.
Notes: Bars represent the proportion of households confronted with a specific type of health care use that have used a specific coping strategy. Note that households can employ more than one coping strategy.



Confirming earlier results, we find that cutting or delaying payments was only reported by a minority of households and most often in relation to hospitalizations (21.10%). Comparing average amounts obtained through each of the coping strategies revealed that selling assets on average contributed Rs. 1298, followed by borrowing and delaying payments (both Rs. 1064), receiving money (Rs. 962) and using savings (Rs. 533).

Table 2.5 explores the factors correlated with various financing mechanisms – much like in Table 2.3 but with data shaped on illness level rather than on shocks level. Households appeared more likely to need alternative financing sources for inpatient care, which is probably related to the fact that hospitalizations come quite unexpected and are generally more expensive. A hospitalization increased the probability of having to borrow by 0.36 percentage points, which is a dramatic effect, considering the baseline probability of 0.39. Hospitalizations were also more likely to lead to a reduction in consumption (marginal effect of 0.1). As expected, wealthier households were more likely to use savings and less likely to borrow money to finance health-related costs, while households affiliated to SHGs were slightly more likely to borrow money, probably due to their easier access to credit from the micro-credit network. The geographical indicators (Pratapgahr and Vaishali) remained very significant, even after controlling for all other covariates, indicating that there were indeed substantial differences in the ways people cope with health care expenditures across locations.

Households in Pratapgarh were, for example, more likely to rely on their savings and on the support of their relatives for covering health-related expenditures and less likely to borrow from moneylenders, sell assets or reduce food and non-food expenditures. This is likely to be related to their higher SES.

Table 2.5 - Determinants of coping strategies for various types of health care.
Notes: Marginal effects from probit regression. Data on illness level. Coping strategies are not mutually exclusive. Maternity care is the omitted health care use category. Standard errors are adjusted for clustering of observations on household level. ***significant at 1%, ** significant at 5%, * significant at 10%.

Variable	Borrowing	Spend savings	Selling items	Money from friends and relatives	Cutting back on spending or delaying payments
outpatient chronic	0.013	-0.001	0.005	-0.029**	0.030
ooutpatient acute	-0.166***	0.061*	-0.013	-0.022*	-0.013
inpatient	0.360***	-0.050	0.078***	0.012	0.100***
proportion elderly	-0.153	-0.002	-0.002	0.015	0.009
proportion children	-0.018	-0.007	-0.002	0.035	0.037
proportion reproductive age	0.068	0.010	-0.031	-0.023	0.045
scheduled caste/tribe	0.015	-0.035	-0.022	0.008	-0.006
hindu	-0.019	0.012	0.006	0.003	-0.000
SHG	0.038**	-0.020	0.000	-0.003	0.012
Pratapgarh	-0.129***	0.252***	-0.152***	-0.007	-0.092***
Vaishali	-0.013	0.118***	-0.179***	0.029***	0.021
middle wealth third	-0.056*	0.040	0.028	0.028**	-0.014
upper wealth third	-0.190***	0.123***	0.016	0.026**	-0.001
Baseline probability	0.39	0.59	0.09	0.03	0.09
Observations	8540	8540	8540	8540	8540

The welfare implications of borrowing to finance health expenditures depend to a large extent on the interest that has to be paid back, typically correlated with the type of lender. The average interest rate (on a monthly basis) among all loans taken is 3%.[16] Borrowing from moneylenders was at an average interest rate of 5% while SHGs only charged around 2% per month. In our data households mostly borrowed money from friends or neighbors (41%) and from moneylenders (26%).

Using probit models for the choice of lender (presented in Table 2.6), we also found that hospitalizations were more likely to push households to borrow from moneylenders (as compared to maternity and outpatient care). Households affiliated to SHGs were much more likely to use the SHG informal credit system to finance

[16] Households were asked "On every 100 rupees you borrowed, how many extra rupees do you pay back?".

health costs. However, the saved amount of a SHG was usually not so capacious to cover repeated or very high health expenditures, which is why many SHG members have, nonetheless, often needed to recur to other financial sources.

Table 2.6 - Determinants of HHs´ borrowing behavior.
Notes: Marginal effects from probit regressions on each of the main borrowing types. Data is at illness level. Regressions are only run on the sample of illnesses for which money was borrowed. Models account for clustering of observations on the household level and sample weights. Maternity care is the omitted health care use category. ***significant at 1%, ** significant at 5%, * significant at 10%.

Variable	Relatives	Friends, neighbours	SHGs	Money lender	Doctor or hospital
outpatient_chronic	-0.049*	0.002	0.012	0.045*	-0.006
outpatient_acute	-0.079***	0.095***	-0.016	-0.029	0.026*
inpatient	0.065**	-0.177***	0.006	0.124***	-0.122***
proportion elderly	-0.122	0.193	0.076	-0.113	-0.074
proportion children	0.029	-0.076	0.012	-0.017	0.037
proportion reproductive	0.040	-0.075	0.024	-0.065	0.091**
scheduled	-0.004	-0.043	-0.017*	0.032	0.025*
hindu	-0.034	0.035	0.016	-0.025	-0.027
SHG	-0.031	-0.047*	0.077***	0.038*	-0.009
Kanpur	0.141***	0.260***	0.025*	-0.302***	-0.055***
Allahabad	0.088***	0.291***	0.070***	-0.417***	-0.017
medium wealth third	-0.001	0.006	-0.009	-0.002	0.010
upper wealth third	0.018	0.027	0.005	-0.055*	0.018
Observations	3406	3406	3406	3406	3406
Baseline probability	0.18	0.41	0.06	0.26	0.05

2.3.2.3 Foregone care

Finally, it should be noted that our analysis has not considered those households that were not able to cover health expenditures and therefore decided to forego using health care. While foregoing health care saves health care costs in the short run, it can lead to very severe health and productivity/income losses in the long run (Sauerborn et al., 1996). In our data 18% of respondents reported to have foregone care (when needed) at least once in the 30 days preceding the survey. This is likely to be an underestimation, given that there may be a lot of unperceived need in this context. Most of the episodes of foregone care were related to chronic conditions (54%) and acute episodes of illness (34%). The main (reported) reasons for not seeking health care were the high costs of medical care (52.4%) and the inaccessible price of drugs and medical tests (35.9%).

2.4 Discussion

As compared to other countries in South East Asia, India's health care system is characterized by very high out-of-pocket payments, and consequently low financial protection and access to care (Van Doorslaer et al., 2006; Dror et al., 2008; Binnedijk et al., 2011). In this context, ill-health can pose severe economic threats to households, many of which already suffer from economic hardship.

This paper shows that ill-health is the second most common threat to households' welfare in rural Uttar Pradesh and Bihar, next to natural disasters, but while the latter are more likely to hit richer households, health related shocks are more equally distributed across socioeconomic status. The high prevalence of health shocks emerged in our study is in line with the results from other developing countries (Van Doorslaer et al., 2006; Flores et al., 2008; Vaishavi et al., 2009; Shahrawat et al., 2011; Binnendijk et al., 2011).

Households employ a wide variety of coping strategies, but only a quarter of them report to have been able to recover from the health-related expenditures. Interestingly, weddings are the most costly events for households, but these obviously do not come unexpected.

Our analysis also highlights the importance of expenditures on chronic conditions and non-communicable diseases (NCDs). Close to half of households' health expenditures are made for chronic conditions, and 74% of these are made on drugs. The 'chronic emergency' in the developing world is increasingly recognized, with NCDs expected to account for two-thirds of the disease burden in 2030 in middle-income countries (Nikolic et al., 2011) and to cause yearly economic losses in the magnitude of 4% of these countries' GDP (Bloom et al., 2012). Mahal et al. (2010) use Indian national data for the year 2004 and estimate that India´s GDP would have been 4-10% higher without the existence of NCDs. Our findings on households´ health expenditures are consistent with those of Dror et al. (2008), studying health care costs in five resource poor locations in rural India and finding a ratio of direct to indirect cost of illness of 67:30 (compared to our 66:34). The authors also confirm our findings concerning a high prevalence of costs for outpatient care, with acute illnesses representing 37.4% of total costs, followed by 32% for chronic illnesses, while hospitalizations represented only 11% of total costs.

Loss of productivity represents the smallest costs component for our target communities, indicating that households are able to secure household income when confronted with ill-health, at least in the short term. It should be noted that loss of productivity did not take into account the welfare losses of women not being able to perform domestic duties. Rugalema (1999) found that indirect costs related to women are higher than those for men within the same household. Furthermore, given the difficulties for respondents in estimating income losses (especially for agricultural production), it is possible that these are underestimated in our data.

Households use a variety of strategies to cope with health-related expenditures, especially in the case of hospitalizations. The most important coping strategies are using savings, selling assets and borrowing, all of which entail important long-term consequences for households' welfare. Selling productive assets represents one of the most corrosive coping strategy in developing countries, as it compromises the ability to generate income in the future (Sauerborn et al., 1996; Dercon et al., 2005). Moneylenders can offer seemingly attractive long-term financing with frequent payment of interest, leaving the borrowers unable to repay the principal amount borrowed.[17] Furthermore, the loan is often combined with mortgage on land or other properties. Our findings are similar to those obtained by Binnendijk et al. (2011) from rural communities in Orissa, India. Their study also reports a high prevalence of using savings and borrowing money (especially for coping with hospitalization costs) as coping strategies.

Few households report having to reduce (food) consumption in response to ill-health, suggesting that - at least in the short run - households are able to smooth consumption in the event of ill-health.

There are some limitations to our analysis. Most importantly, the cross-sectional nature of the data does not allow deriving any causal relations. Second, much of the analysis on shocks and coping strategies rely on self-reported data which might be prone to reporting bias. Third, since our data are collected within a rather specific

[17] We do not possess detailed information on the time needed by households to repay the loan. On average people report of repayments amounting to 7.6% of the amount borrowed. However, considering that the monthly interest rate amounted to 2 to 5% and that most of the people reported being able to make repayments only for "what they can, when they can" (65%) or by supply of labor (16%), we can assume that loans are not quickly paid back.

(and homogenous) population, there are some limits to the generalizability of our results.

2.5 Conclusions

This paper concludes that ill-health poses an important economic threat to relatively poor households in rural northern India and that, while households seem to be able to find ways to finance health-related costs in the short term, there are important long term implications for households' welfare. Furthermore, a substantial share of households forwent seeking health care, which has severe consequences on the productivity capacity and on the health capital of community members in the long term. The emerged importance of expenditures on chronic conditions suggests that 'health shocks' should not only be thought of in terms of acute unexpected illness episodes, but also in terms of the onset of a chronic disease which requires (expected) spending over a long period of time. Retrospective survey tools like the one presented in this paper might therefore not get complete information on the way ill-health threatens households economically.

As most of the economic risk from ill-health appears to be related to OOP spending, introducing health insurance, that pre-finances these expenditures and pools risks within the community, may contribute significantly to alleviate economic hardship for families in rural India. The importance of care for chronic diseases, however, represents a big challenge for the sustainability of community-based health insurance schemes, since it is necessary to ensure a sufficient degree of risk pooling.

3 GROUP HEALTH INSURANCE CHOICES IN RURAL INDIA

3.1 Introduction

In India, we assist to an increasing awareness of the value of insurance as poverty reduction tool, which brought the Indian Insurance Regulatory Agency to define the Micro-Insurance Regulations (IRDA, 2005). Community-based micro insurance (CBHI) schemes have emerged to compensate to the still non-inclusive insurance market and to the missing outreach of national social insurance schemes in some poor communities around India. CBHI schemes aim at creating an inclusive insurance model that works at a grassroots level, by generating and distributing insurance products that are tailored to poor people´s needs and offered at a considerably smaller premium than normal insurance plans. Recent studies have shown the effectiveness of such schemes in reaching equality (Dror et al., 2006), improving access to health care (Dror et al., 2005) and providing financial protection (Ranson, 2002; Dror et al., 2009). The effectiveness of such a bottom-up approach is based on identifying the essential attributes for an affordable insurance package that fits people´s preferences and needs. Giving consumers greater voice in the benefit design and allowing them to identify their preferred health insurance package, within the constraints of their limited resources, could facilitate their inclusion in insurance schemes. Recent studies have shown that the responsiveness of health insurance to target clients´ priorities would increase the willingness to join the insurance scheme (Schone and Cooper, 2001; De Allegri et al., 2006) and that a "one size fits all" model would be inadequate for implementing health insurance in developing communities, since medical needs and availability of medical services differ across locations (Dror, 2007). A context-specific product is, thus, a key element for the effectiveness and success of community-based health insurance programs.

The almost totality of research on consumers´ preferences for health insurance plans has been based on data from rich countries (e.g. Biddle et al., 1998; Nganje et al., 2004; MacNeil et al., 2011). The current amount of research on low-income individuals´ preferences for health insurance benefits is very limited (Danis et al.,

2002; De Allegri et al., 2006; Danis et al., 2007; Dror et al., 2007; Onwujekwe et al., 2010).

The study presented in this chapter explores the process of decision-making for the choice of group health insurance products for individuals with low ability to pay and inexperience with insurance mechanisms. The aim of this study is to offer knowledge of Indian rural communities´ preferences in order to align the development of health insurance programs with communities´ expectations.

The reminder starts with a presentation of the data and methods used for this study, as well as the description of the local context. This is followed by the results from three different choice processes conducted in three sites in rural India and by an analysis of the determinants of individual and group insurance choices. Thereafter, I present an evaluation of the tool used to elicit preferences and some insights into the link between insurance preferences and CBHI enrolment. Finally, I discuss results and draw conclusions.

3.2 Data

The data used for this study have been kindly provided by the project partners of the EU-financed project "Developing efficient and responsive community based micro health insurance in India", aiming at implementing randomized controlled trials of CBHIs in three sites in northern rural India with relatively similar socio-economic profiles[18].

Extensive information on socio-economic characteristics, ill-health conditions, health care use and expenditures are derived from a household survey conducted in the three sites in 2010 and covering 5215 households, for a total of 29,880 individuals. Information was collected about inpatient care (12 months recalling period), outpatient care (30 days recalling period) for chronic diseases or acute episodes of illness, and maternity care. Spatial data have been used to offer insights into the distribution of health care facilities across the project regions. Preferences for health insurance plans are obtained from three choice processes conducted before the first year of implementation of the CBHI-scheme in the three project sites and involving a

[18] More information on the project can be found in Doyle et al. (2011).

total of 1501[19] individuals (all women belonging to a SHG). A revised version of the CHAT (Choosing Healthplans All Together) decision tool was used to elicit individual and group preferences. The CHAT sessions have been run after an insurance awareness campaign had been conducted in the targeted sites.

Further information about the reasons for the choice of the insurance packages and the satisfaction with the CHAT processes[20] has been gained using quantitative exit questionnaires on a sample of about 20% of CHAT participants. The responses from qualitative semi-structured interviews conducted by the qualitative research team on a sub-sample of CHAT participants and facilitators have been used for an in-depth understanding of the decision-making process and for gaining a further feedback on the CHAT tool. Data on CBHI enrolment for the first year of implementation of the scheme are then used to trace a path between the individual and group preferences elicited in the CHAT sessions and the willingness to enroll in the CBHI scheme.

3.3 Health care scenario and local context

The project sites are located in Uttar Pradesh (Pratapgarh and Kanpur Dehat districts) and in Bihar (Vaishali district). The project is locally coordinated by local NGOs (respectively BAIF in the Pratapgarh district, Shramik Bharti in the Kanpur Dehat district and NIDAN in the Vaishali district).

The public health care system in India is organized at different levels, from the national to the state, regional, district, sub-divisional (or *Taluka*), community (through Community Health Centers - CHCs), Primary Health Centers (PHCs), Sub-Centers (SCs) and village level. The system is coordinated by the Union Ministry of Health and Family Welfare (UMoHFW) at the national level, while at the state level the organization of the health system is regulated by the State Department of Health and Family Welfare of each single state (in conformity with the central government). At the state level, we do not find a uniform organization around the country. In some

[19] These individuals have been selected among the whole project target-population and will be offered the chance to join the community-based insurance scheme during the first year of implementation. For research purposes, the whole population will be step-wise integrated into the scheme, in order to guarantee the presence of a control group during all the years of implementation of the scheme.

[20] Respondents were asked whether the project staff was able to explain the different insurance choices presented on the CHAT board (from very bad to very good) and to list the most and least enjoyable activity and the most and least convincing activity within the project. Next to the CHAT, many other activities involved the targeted communities, including watching an ad-hoc produced movie and taking part in game-like exercises during the awareness campaign. Respondent also reported the reasons of their evaluation of the project activities.

states, including Uttar Pradesh and Bihar, there are regional, zonal or divisional set-ups between the state-level and the district-level organization of health services. The district-level organization represents a connection between the state level and the peripheral level in the attempt, on one side, to unify the control of health care programs within a district unit and, on the other side, to adapt the state organization of health care to local needs. The network of PHCs and SCs is the primary provider of health care services in rural areas. Within the *National Rural Health Mission* (NRHM) the village-based *Accredited Social Health Activists* (ASHAs) have been introduced in the health care provision system in rural areas. ASHAs have a fundamental role in filling the gap in health care provision between the health centers and the villages and are responsible for advising village populations about sanitation, hygiene, contraception and immunization, as well as for providing medical assistance for minor health problems.

Uttar Pradesh (UP) and Bihar are among the worst performing states of India in terms of health care provision and health indicators, largely due to inadequate health care services in rural areas. The main health challenges are a high level of infant, child and maternal mortality rates, which are among the highest in India, as well as the extremely high proportion of malnourished children younger than three years old (GoI, 2012b). The two states are listed among the nine particularly disadvantaged states in India, referred to, in GoI terminology, as Empowered Action Group (EAG). As two of the 18 states with the weakest health outcomes and infrastructure in India, UP and Bihar have been targeted for the NRHM, aiming at the catch up of lagging states with the more advanced states. The main objective is increasing public spending on health in order to improve health care provision in rural areas. However, governmental statistics report that as of 2012 both states still presented a relevant shortfall of health care facilities and medical staff, compared to the governmental requirements. In particular, it was reported a shortfall of sub-centers (33.9% in UP and 47.7% in Bihar), of PHCs (28.6% in UP and 39.6% in Bihar) and CHCs (60.7% in UP and 90.9% in Bihar) (GoI, 2012c). Studies show an astonishing use of private care for both outpatient and inpatient services in Uttar Pradesh and Bihar. Raza et al. (2013) show that in 90% of cases patients in rural areas seek care for acute illnesses by private providers, in 84% of the cases for chronic conditions and in 81% of hospitalization episodes. The authors also show that non-degree allopathic providers

account for a substantial proportion of private care (61% for acute cases and 35% for chronic illnesses).

In general, we find poor health care access in all of the three sites of implementation of the CBHI scheme. The majority of people first refer to persons with no formal medical training, such as local medical practitioners (LMPs), faith and traditional healers, when first seeking health care. Very few households reported holding any form of private health insurance. A more significant proportion of persons reported having at least one household member enrolled in the RSBY governmental scheme. This scheme, covering hospitalization costs only, was in the early stages of roll out at the time of survey and the figures are likely to be much higher now. RSBY enrolment is particularly high in the Vaishali district, possibly due to differing roll out patterns across the two states. Spatial data collected within the CBHI project report the presence of both public and private providers (including unqualified providers, traditional and spiritual healers) at all the three project sites. However, unqualified private providers have been found to be more prevalent than qualified medical practitioners. Concerning medical facilities, the Pratapgarh site is relatively better served than the other two sites, since all project villages are all in the vicinity (less than 10 Km) of CHCs and private medical facilities (nursing homes and clinics) are also present in the nearby Mahua town. Access to public and private medical facilities is, instead, relatively limited at the Kanpur Dehat site. A common finding in the three sites was the overburden at public facilities, where each CHC with the capacity of 10-20 beds was found to serve more than 100,000 people, against the delivery norms set by the government within the NRHM (GoI, 2005b). Furthermore, very few private facilities provided hospitalization services. Due to the low quality and limited capacity of the governmental medical centers, plenty of unqualified doctors (or "quacks") were found to work in several of the study area.

According to households' self-reported information on expenditure levels, Pratapgarh is the poorest of the three implementation sites (with average consumption expenditures per person per annum averaging at Rs. 16,233) and including the largest percentage of the population living below the absolute poverty line, defined as an income per person per day of $1.25. Regarding education, only around half of adults in the three sites have attended school, with on average 8 years of education, indicating high rates of drop out after only primary education. The majority of adult

men work in agriculture, either owning own land or working as laborer. A reasonable percentage is also working in small businesses, consisting of small roadside stalls, or undertaking small manufacturing / repair work. The majority of adult women work at home.

Monthly family spending on health corresponds on average to six times monthly food expenditures and only around one fourth of the population are able to recover from the financial catastrophe created by an ill-health event (as showed in the previous chapter). Despite hospitalization being the most costly health care service, costs for outpatient care for acute or chronic conditions are more frequent and represent the main health-related cost (on average 86% of monthly health expenditures). Medical fees represent the main part of health care expenditures, but costs for transportation and illness-related lost earnings are also not negligible. Figure 3.1 and Figure 3.2 present the distribution of health care-seeking events among age groups on the merged population in the three sites and differentiated by gender. Health care-seeking events are mostly distributed between the age 15 to 55 years old. We do not find notable differences in the level of distribution of episodes between male and female individuals.

Figure 3.1 - Distribution of health care-seeking episodes among age groups in the total population. Data from baseline household survey (pooled sample of the three sites).

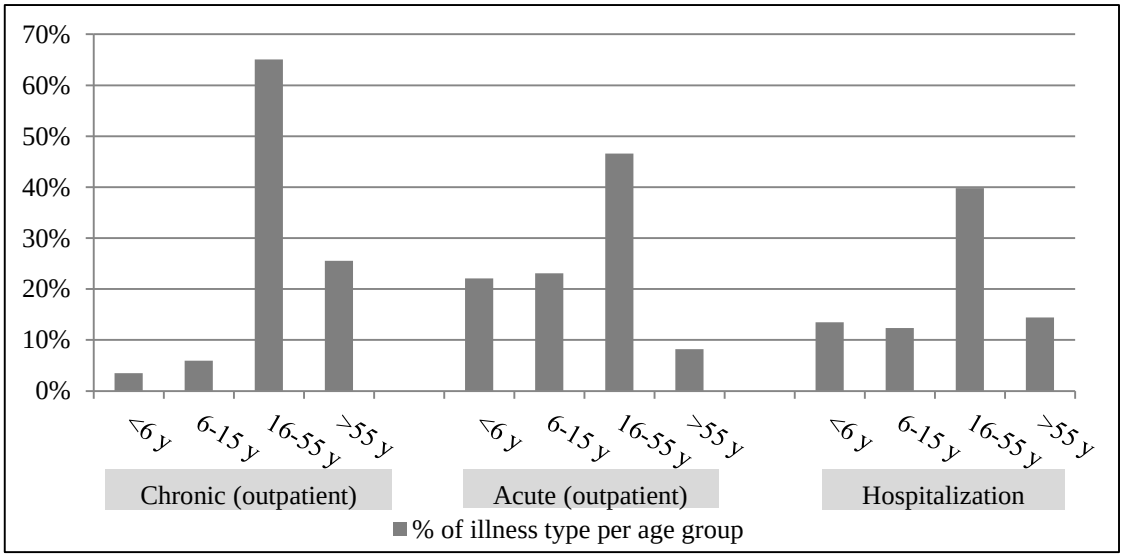
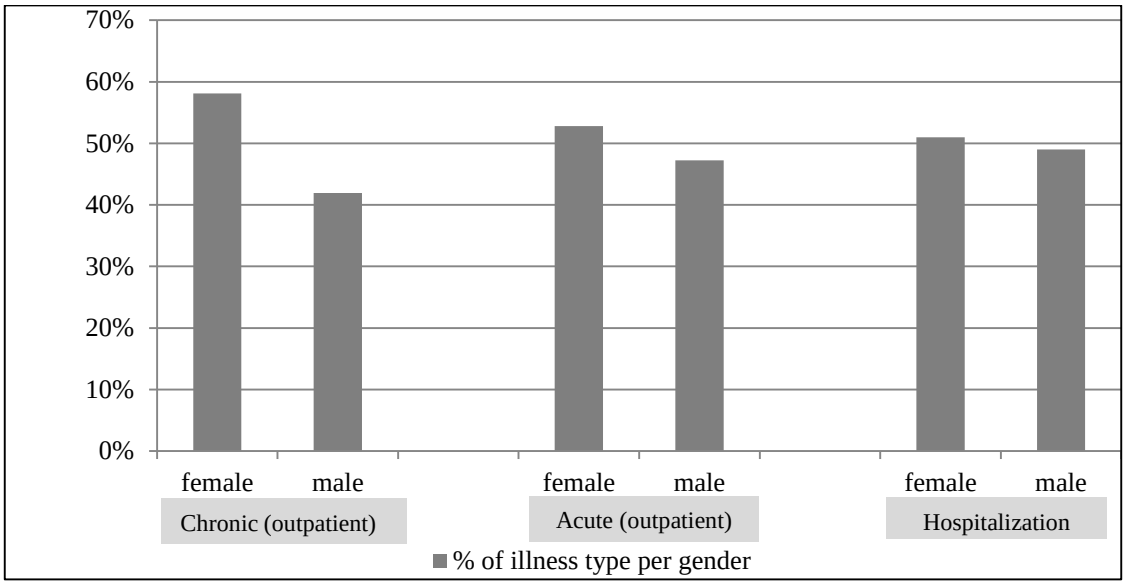


Figure 3.2 - Distribution of health care-seeking episodes among female and male individuals. Data from baseline household survey (pooled sample of the three sites).



3.4 Study design and methodology

The low financial possibilities of developing communities make it necessary for them to rationalize and prioritize. Understanding people´s preferences is, thus, necessary for an effective health insurance implementation, tailored to people´s needs and priorities. Setting people´s priorities has been the objective of a large amount of empirical research, by using methods which investigate the relevant parameters people take into account when confronted with scarce resources and with the need of prioritizing, for example in regard to health care provision (Hope et al., 1998; Singer et al., 2001; Sabik & Lie, 2008). Making health services more "person-centered" has been enhanced by a relevant amount of research (Bridges et al., 2007). Instead, still a limited amount of studies analyze people´s preferences for health insurance, most of them limited to the description of the choosing behavior between pre-packaged products in developed countries. Even more limited is the amount of information available on developing communities´ preferences. Regarding India, in particular, very few studies investigate low-income people´s preferences (e.g. Danis et al., 2007; Dror et al., 2007).

Discrete choice methods are commonly used to establish people´s preferences. Within discrete choice analysis, respondents are presented with a number of alternatives and asked to express their preference. Each alternative is described by a number of

attributes or characteristics, among which the monetary value. Thus, when individuals make their choice, they implicitly make trade-offs between the monetary value and the other attributes among the alternatives in the choice set.

Within the CBHI project "Developing efficient and responsive community based micro health insurance in India", (mostly) illiterate and innumerate persons in rural India were involved in the choice of a health insurance package for the own community by using a discrete choice method. For this aim, a revised version of the CHAT (Choosing Healthplans All Together) decision tool (described in details in the following section) was used. Furthermore, the use of local facilitators, who know the local language and customs, and the use of visual aids enabled also illiterate individuals to participate. Community participation in defining the insurance package has shown to be a strength for the success of CBHI programs (Bennet et al., 1998). Furthermore, studies show that involving prospective clients, even with low-income and no experience with insurance, in the packages design does not compromise the judiciousness of rationing choices (Dror et al., 2006). Most importantly, we can also assume that the derived health insurance plan will respond to clients´ priorities and, thus, increment the willingness to join the insurance scheme (Danis et al., 2007; De Allegri et al., 2006).

3.4.1 The CHAT tool and the package design

The CHAT tool is a game-like exercise facilitating group discussion and presenting different health insurance options within a limited budget (Goold et al., 2005; Danis et al., 2002). The tool was first developed by a research team of the National Institute of Health in the USA and was then readapted and applied to the Indian scenario for the EU-India Economic Cross-Culture Program (ECCP) project "Strengthening Micro Health Insurance Units for the Poor in India" in 2005-2006, involving the MIA and several partners.

The design and process of the CHAT tool have gone through several stages since its inception. In its inception, the CHAT board was in a circular form (Danis et al., 2007)[21]. Individual benefits were offered and each benefit was categorized as small, medium and high insurance coverage. The name and value of the benefits were written below each benefit in local language. The community was choosing its

[21] See Figure 3.3 in Appendix.

preferred benefits and coverage by sticking corresponding colored stickers on the preferred options on the board. However, it was realized that it was very difficult for respondents (especially for the less educated ones) having to choose both between the benefits options and among the multiple coverage alternatives for each benefit option. A new version of the CHAT board with single choice benefits was then developed by the MIA. Through several surveys conducted by the MIA in different project areas, it emerged that people's ability to pay and the frequency and type of health problems were quite homogeneous within a particular community (MIA, n.d. a). Thus, the needs for health insurance benefits and the amount of premium people are able to pay can be considered to be very similar for most of the households within a certain community. Offering a combination of the most required benefits with different caps and within the limit of people´s ability to pay seemed to be the most adequate solution. The final version of the CHAT board includes different packages (where the benefits and caps of each package are predetermined and the total price already calculated) presented on a board as columns of a rectangular chart. Respondents only need to use one sticker for the choice of the preferred package. The advantage of this tool is its simplicity of presentation, which incorporates complicated actuarial calculations into simple visual options. The benefit options and their costs are finalized on the basis of local needs, frequency of illness and the health care facilities available. This revised version of the CHAT tool was used to elicit the people´s preferences presented in this study.

Within the CBHI project the benefit package options have been designed at the so called "benefit options workshop" (one in each site), an interactive exercise involving the project staff and people from the to-be-insured population in each implementing site (MIA, n.d.b). Using information obtained from a baseline survey (frequency of illnesses and costs, health seeking behavior and reasons), simple graphical presentations were used for a structured discussion. Members of the community were given an easy-to-understand overview of the incidence and cost of several ill-episodes reported in the survey (differentiating by gender, age and visited provider) and presenting the importance of additional costs, such as drugs, tests and transportation. Rather than using (possibly flawed) survey-based willingness to pay (WTP) data to set a priori premium levels, the packages are designed in a group setting in which an Excel-based calculator[22] is used. Any combination of caps, exclusions and coverage

[22] Figure 3.7 in Appendix presents a spreadsheet of the calculator.

types can be entered into a simple front-end spreadsheet. The premium[23] necessary to sustain this package is automatically calculated and immediately displayed. Participants are free to adjust caps, exclusions and coverage areas as they wish. All adjustments are automatically priced by the calculator, so that participants can immediately see, and learn to understand, how the premium moves up or down as benefits are adjusted. At the end of the workshops participants agreed on the packages to be offered in the CHAT board. A limitation in the design of the package is the fact that (for practical reasons) only representatives of each community were involved in the design of the packages at the workshops. Therefore, there is the possibility that some representatives might have forward-spaced personal interests over community interests. This could be detected during the exit-survey and when observing enrolment rates.

The participants of the CHAT exercises are women residents in the selected sites and belonging to pre-existing SHGs. They have been presented with a range of health insurance packages and asked to choose the favorite one for the own family and for the SHG they belong to. The decision-making process within the CHAT eliciting method (Figure 3.8 in Appendix) consists of two rounds (CHAT1 and CHAT2), including one individual and two group sessions, conducted in each site using the corresponding CHAT board developed during the benefit options workshop. During the individual session (CHAT1), participants are asked to choose benefit packages that meet their and their families´ needs, while in the group sessions participants are led to group discussions that should result in a SHG agreement for the choice of the benefit package meeting the needs of the whole group. During the decision exercise, project facilitators randomly assign to the participants health events cards illustrating examples of illness episodes. These examples are used to explain the effects of the different benefit choices relatively to these events, to make sure that the participants fully understood the CHAT options. CHAT1 includes one individual and one group session taking place on the same day. Afterwards, participants are given a CHAT board to be taken home. From this point, they are given two weeks time to discuss the different alternatives with their family. After that, CHAT2 takes place and SHG

[23] The pure risk premium (per person per year) is calculated using the basic formula:

*Pure risk premium =(average expenditures per episode) * (incidence rate)*

assuming a Poisson distribution of incidence and truncating frequency-distributions of expenditures for including thresholds and caps in the insurance coverage.

members are asked to take part in a second group session[24], where the SHG has the opportunity to choose a group insurance package for the second time. The package finally offered to the community is then identified as the package chosen by the majority of SHGs in each site. This way, three final packages will result at the end, each offered in the relative site.

3.4.2 Data analysis approach

The preferences elicited in the three sites during the CHAT sessions are modelled using multinomial logistic regression[25], estimated using Stata11 statistical software. In order to control for household characteristics which could possibly influence the decision process, variables related to demographics (the number of household members, the proportion of elderly over 65 years old, of children under the age of 13 and of women at reproductive age - between 12 and 49 years old), indicator variables for scheduled caste status (capturing the social and economic position of the household in the community) and for the measure of women´s autonomy[26] within the household have been constructed. Household socioeconomic status (SES) has been measured in terms of monthly non-health expenditures per family member. Further information is captured by variables indicating respectively the proportion of health expenditures (per family member) on total expenditures, the ability to finance past health expenditures[27] and whether the household had foregone seeking health care in the past for financial reasons[28]. Household´s health morbidity is captured by the monthly average number of outpatient visits, of hospitalizations, pregnancies and the presence of chronically-ill individuals in the households[29]. Furthermore, I control for

[24] In the following, choices elicited during this second group session (CHAT2) will be referred to as "final group choices", since these choices will determine the final community package.

[25] Multinomial logit methods are very commonly used in health economic research and as discrete choice modelling for the choice of health insurance plans. This method is based on the restrictive assumption of individuals´ homogeneous tastes for the common attributes of the alternatives included in the choice set. The Hausman-McFadden test has been used to test this assumption. Furthermore, the homogeneous SES and health insurance needs in the three sites would also support this assumption.

[26] This is obtained using a principal component score from analysis of variables representing the decision power of women inside the household regarding: the use of earnings, buying food, the purchase of major goods, selling household items, children education, health care, family planning and whether women need permission from male members to work outside the home, to go to the local market, to the local health center, to relatives or to the next village. The use of this variable is meant to assess the relevance of women´s decision power in the choice of the health insurance package.

[27] For this scope a dummy variable has been constructed based on retrospective self-reported information.

[28] Using a dummy variable based on self-reported information concerning past episodes of foregone health care.

[29] This is measured by a dummy variable.

RSBY social insurance enrolment (which is relevant to assess whether the RSBY distracts the interest for the CBHI insurance plans including hospitalization coverage). Finally, given the low average literacy rate of the participants, it is relevant to control for peer in-group influence on the choice of the insurance plan within each self-help group. For this scope, two variables have been created that assert, respectively, the correspondence between each individual´s choice and the choice of the eldest member of the group (since eldest members´ opinion is very respected in the communities) and between each individual´s choice and the choice of the most educated member of the group (which is usually the one in charge of administrative responsibility within the group and thus very respected). In order to assess the effect of the group process on preferences, the Wilkoxon signed-ranks test is used to test whether the number of benefits included in the group choices differs significantly from the number of benefits included in the individual choices. The qualitative information obtained during the semi-structured interviews and coded by the qualitative research team using Nvivo8 tool (in order to identify the recurring paths in the choice process) have been compared with the findings from the quantitative analysis (mix-methods approach) in order to enhance and validate the results.

3.5 Results

This section will first present the outcomes of the CHAT sessions in each project site. Afterwards, the results from the regression models are showed and discussed, in order to gain insights into the communities´ preferences for health insurance plans and the factors influencing the choice process. Findings from the quantitative exit-questionnaires and from the qualitative semi-structured interviews are then integrated and compared to the results of the quantitative models.

The three trials offer different insights into the decision-making process, since the options offered are different in each site. In the first trial (Pratapgarh district), individuals are asked to choose among packages that differ in price, type of benefits and coverage caps, but all within a relatively low range of prices, compared to the packages offered in the other two trials. This trial will help us understand how individuals traded in terms of number of benefits, coverage and premium, when the price difference is relatively small.

In the second trial (Kanpur Dehat district), instead, individuals are asked to choose among packages including exactly the same type of benefits. Differences in price derive from the different coverage caps of the benefits. The CHAT outcomes with such a spectrum of alternative choices will help understanding how individuals weight between "quality" and price of each package[30]. Since all packages are very similar (only the coverage caps differ), we expect that the price will play an important role in the decision, especially for less wealthy participants. Looking at the group choices will help understanding how solidarity with memebrs with lower ability to pay could influence group choices.

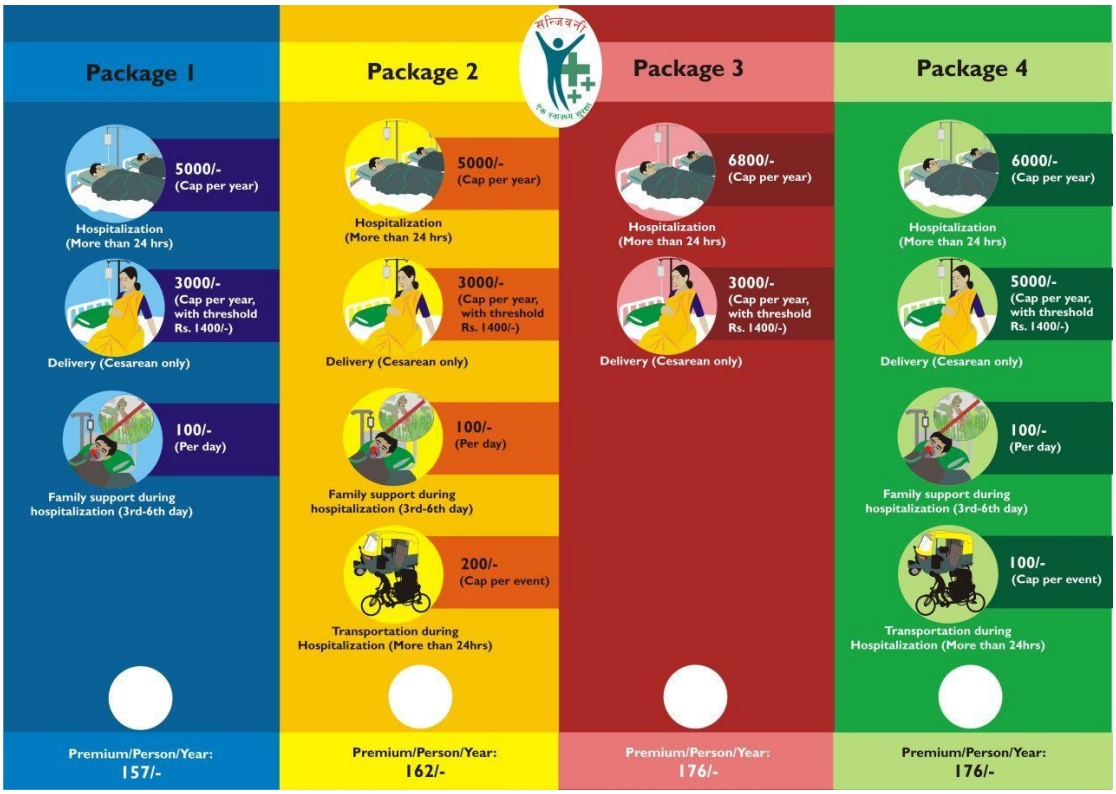
In the third trial (Vaishali district) a completely new set of packages is offered in the CHAT sessions. Next to pure health insurance packages, packages including a combination of life and health insurance benefits were offered. Given the relatively higher price of these combo-packages, it is foreseeable that most of the participants will concentrate their choice on cheaper packages. This experiment can show the level of solidarity within group members (since only wealthier individuals can afford the most inclusive packages) and how individuals deal with a wider range of offers, when products differ in price, type of benefits, level of coverage and also type of insurance.

3.5.1 First trial – Pratapgarh district

The packages: In the first trial (Pratapgarh district) four different packages have been offered, including different combination and number of benefits, with different caps and for different prices (Figure 3.4). Benefits included in the packages ranged from hospitalization costs to cesarean delivery, family support and transportation during hospitalization. In this trial, packages do not include coverage of outpatient care costs and are therefore relatively cheaper, compared to the packages offered in the other two trials. The exclusion of outpatient care from the benefits is due to a missing agreement with local medical practitioners regarding the cost of outpatient visits for insured individuals. The benefit has been excluded during the benefit options workshop, since it would have otherwise increased the price of the packages notably.

[30] A higher insurance coverage is considered to be more valuable than a lower insurance coverage in terms of protection from risks. It will be observed whether individuals choose following the value-for-money principle (more protection for a higher price) or only decide according to the price of the packages.

Figure 3.4 - CHAT board at Pratapgarh district (English version)



The package choices: Table 3.1 presents the results from the CHAT sessions. During the individual session, we observe a concentration of choices for package 4 (71%), the most expensive and inclusive one. As second choice, the majority selected package 2 (48%), including the same number of benefits as package 4 but with lower caps and for a lower premium. In the group choices participants showed again a net preference for package 4 as first choice (91% of SHGs chose it in CHAT1 and 100% of SHGs chose it in CHAT2) and for package 2 as second choice. We can therefore affirm that "value for money" (more risk protection for a higher price) has been the preferred strategy of the majority of participants. The relatively low price of the packages offered in this trial has permitted to choose packages that are more inclusive.

Table 3.1 - Description of packages and choices in the first trial (Pratapgarh district).

	Package1 (blue)	Package2 (yellow)	Package3 (red)	Package4 (green)
Premium (INR)	157	162	176	176
Number of benefits	3	4	2	4
Sum covered (INR)	8100	8300	9800	11200
(Premium/Sum covered)	1.94%	1.95%	1.80%	1.57%
CHAT1-individual choice				
Frequency 1st choice (%)	8.36	12.01	8.62	71.02
Frequency 2nd choice (%)	12.53	47.52	22.45	17.49
CHAT1-group choice				
Frequency 1st choice (%)	2.16	7.06	-	90.78
Frequency 2nd choice (%)	2.35	82.16	6.27	9.22
CHAT2-group choice				
Frequency 1st choice (%)	-	-	-	100
Frequency 2nd choice (%)	-	97.65	2.35	-

Determinants of individual choices: The results from multinomial regression (Table 3.2)[31] report some correlation between some HH characteristics and/or health care use and the insurance choices. Using package 4 as reference category, we find that households with a higher number of chronically ill members are less likely to choose package 1 (the cheapest and less inclusive) over package 4. This is probably due to the higher risk exposure of chronically ill individuals. However, a higher proportion of children in the household and a higher frequency of hospitalizations and pregnancies seem to improve the likelihood of choosing package 2. Households reporting a better ability to self-finance health expenditures are also more likely to select package 2, probably depending on their perceived lower risk exposure. A higher frequency of hospitalizations within the HH members seems to increase the likelihood of choosing package 3. A correlation between the choices of the eldest members of the group and the other group members is observed relatively to the choice of package 4 (also chosen as community package). We find that possessing RSBY health insurance has no significant effect on choices. Insights from the exit questionnaires and from the qualitative interviews will be use to get more insights into the individual decision-making process during the CHAT sessions.

[31] The Table presents the Relative Risk Ratios (RR). A RR < 1 means that the controlled variable is negatively influencing the probability of selecting a certain package over the package used as reference. A RR > 1 means that the controlled variable is positively influencing the probability of selecting a certain package over the package used as reference.

Table 3.2 - Relative Risk Ratios from multinomial logistic regression on the package choices for the first trial.
****significant at 1%, ** significant at 5%, * significant at 10%.*

Variable	Package1	Package2	Package3	Package4
non-health expenditures per-family member	0.999	0.999	1.000	
years of education	0.920	1.008	1.056	
number HH members	1.027	0.985	1.080	
proportion of children in the HH	1.107	12.307**	10.644	
proportion of elderly in the HH	7.678	0.023	13.288	Base
proportion of women in reproductive age in the HH	4.064	1.240	3.544	Outcome
scheduled HH	0.516	1.160	1.220	
women autonomy inside HH	0.928	0.987	1.003	
same choice eldest SHG member (yes/no)	1.015	0.153*	0.107*	
same choice most educated SHG member (yes/no)	0.315	1.034	0.014**	
proportion of health exp on tot expenditures	6.007	0.724	2.085	
HH average number pregnancies	0.044	41.477**	8.280	
HH average number outpatient visits	1.220	0.691	1.271	
HH average number hospitalizations	0.066	85.554***	92.526***	
chronic ill individuals in the HH (yes/no)	0.264**	1.489	0.783	
HH could afford to finance health care mostly-completely (yes/no)	1.051	1.560**	0.895	
HH has foregone seeking health care (yes/no)	1.755	0.679	1.434	
RSBY-insured (yes/no)	0.881	1.471	3.479	

Preference transitivity between individual and group choices: While individual choices were partially distributed on the four packages, during the group sessions preferences were gradually aligned and more people were willing to choose more expensive and more inclusive packages. This shift of preference could indicate that group sessions have stimulated discussions and deliberations. Finally, during the final group session (CHAT2) all SHGs chose the same group package (package 4), which is also the final community package. Thus, the community package captures the totality of final group preferences. This gives hope concerning people´s willingness to enroll in the CBHI scheme. Using Wilcoxon signed-ranks test, we find that, in general, the number of benefits included in the package chosen for the group significantly exceeds the number of benefits included in the package chosen for the own household. This preference transitivity can be interpreted as a willingness to align individual and group interests, since individuals were willing to shift their preferences after consulting the other group members and considering other members´ needs.

Reported reasons for the choices: Around 20% of CHAT participants have been asked to report the reasons[32] for their choice. After CHAT1 most of respondents (63%) choosing package 4 reported having been influenced by SHG members (leader or most educated ones) or by other women from the village for the choice of the individual package; 30% reported wanting to buy the best package with the most benefits. The main part of individuals choosing other packages were also influenced by other women´s choices or have chosen the package they thought to be the best. Only few reported that the price was the main issue in choosing the package, probably because packages are all relatively less expensive, compared to the other trials. After the final group session (CHAT2), 75% of respondents reported to have been influenced by other SHG members in choosing the group package. However, this might also mean that discussion has stimulated reflection and change of opinions. Fifty Percent of individuals choosing the cheapest package reported that the price was the main influencing factor, followed by peer influence in the group. The qualitative semi-structured interviews show that, in general, individuals weighted both cost and benefits when making choices. In fact, package 4 (the most preferred one) contains the same benefits of package 2 but a higher coverage cap for a little difference in price. From the reported information, it emerges that the premium was not the fundamental factor influencing the choice, since all packages were quite affordable and prices differences between packages not huge. It also emerged that the opinion of most educated SHG members was listened to by other less educated women. However, the facilitator of the CHAT session (belonging to the project staff) reported that this was not widely observable and that, instead, each one´s opinion was taken into account for the group choice. In general, interviewed women expressed satisfaction with the final group choice and with the community package. While all women were satisfied with the choices, some women expressed dissatisfaction with the benefits included in the packages (for example the coverage of cesarean delivery only).

Comparing the ratio premium/sum covered (Table 3.1) for each package can help analyzing the judiciousness of the choice made. Package 4 seems to be a judicious

[32] A list of different possible reasons has been presented to respondents, who were asked to select the most important one.

choice, since it is the most advantageous one, when looking at the ratio (1,6% vs. 2% for package2).

3.5.2 Second trial – Kanpur Dehat district

The packages: In the second trial (Kanpur Dehat district) five different health insurance packages have been offered, all including the same benefits but with different caps, defining different coverage levels (Figure 3.5). Higher coverage caps imply a higher premium. The benefits include the coverage of costs for outpatient care from selected medical practitioners, hospitalization costs, transportation and family financial support during hospitalization.

Figure 3.5 - CHAT board at Kanpur Dehat district (English version).

Table 3.3 - Description of packages and choices in the second trial (Kanpur Dehat district).

	package1 (blue)	**package2 (yellow)**	**package3 (red)**	**package4 (green)**	**Package5 (orange)**
Premium (INR)	192	221	243	270	290
Number of benefits	4	4	4	4	4
Sum covered (INR)	Outpatient + 3175	Outpatient + 4200	Outpatient + 5225	Outpatient + 6250	Outpatient + 7275
(Premium/Sum covered*)	(6%)	(5.3%)	(4.7%)	(4.3%)	(4%)
CHAT1-individual choice					
Frequency 1st choice (%)	99.66	-	-	-	0.34
Frequency 2nd choice (%)	-	92.95	3.03	-	4.03
CHAT1-group choice					
Frequency 1st choice (%)	100	-	-	-	-
Frequency 2nd choice (%)	-	90.36	2.71	-	6.93
CHAT2-group choice					
Frequency 1st choice (%)	100	-	-	-	-
Frequency 2nd choice (%)	-	100	-	-	-

The package choices: The packages and the distribution of choices among the different packages are presented in Table 3.3. The outcomes from the individual and group sessions are rather homogeneous, compared to the other two trials. Almost all individuals (99.7%)[33] selected package 1 as first choice for the own family and the totality of groups selected the same package for the own group during the group sessions. Package 2 is the favorite one as second choice, both as individual and as group choice. Individuals showed a net preference for lower premium packages for their own family and for the group. Given the homogeneity of choices, we are not able to model the outcomes. Both individual and group decisions are concentrated on one package. We do not observe any preference transitivity from individual to group sessions.

Reported reasons for the choices: In the exit questionnaire, 50% of respondents reported that the cheaper price was the main reason for choosing package 1; 50% reported having consulted other SHG members and other women in the village before choosing. Regarding the group decisions, the main reported reason for the choice was again the cheap price. The second main reason was that other SHG members liked that package. Few participants reported having asked NGO staff for orientation. From the qualitative interviews it emerges that, despite the final choices were concentrated

[33] The outlier data might depend on a reporting error, since only one single individual was reported deviating from the unanimous package selection. However, this result is not influencing the outcomes in a relevant way.

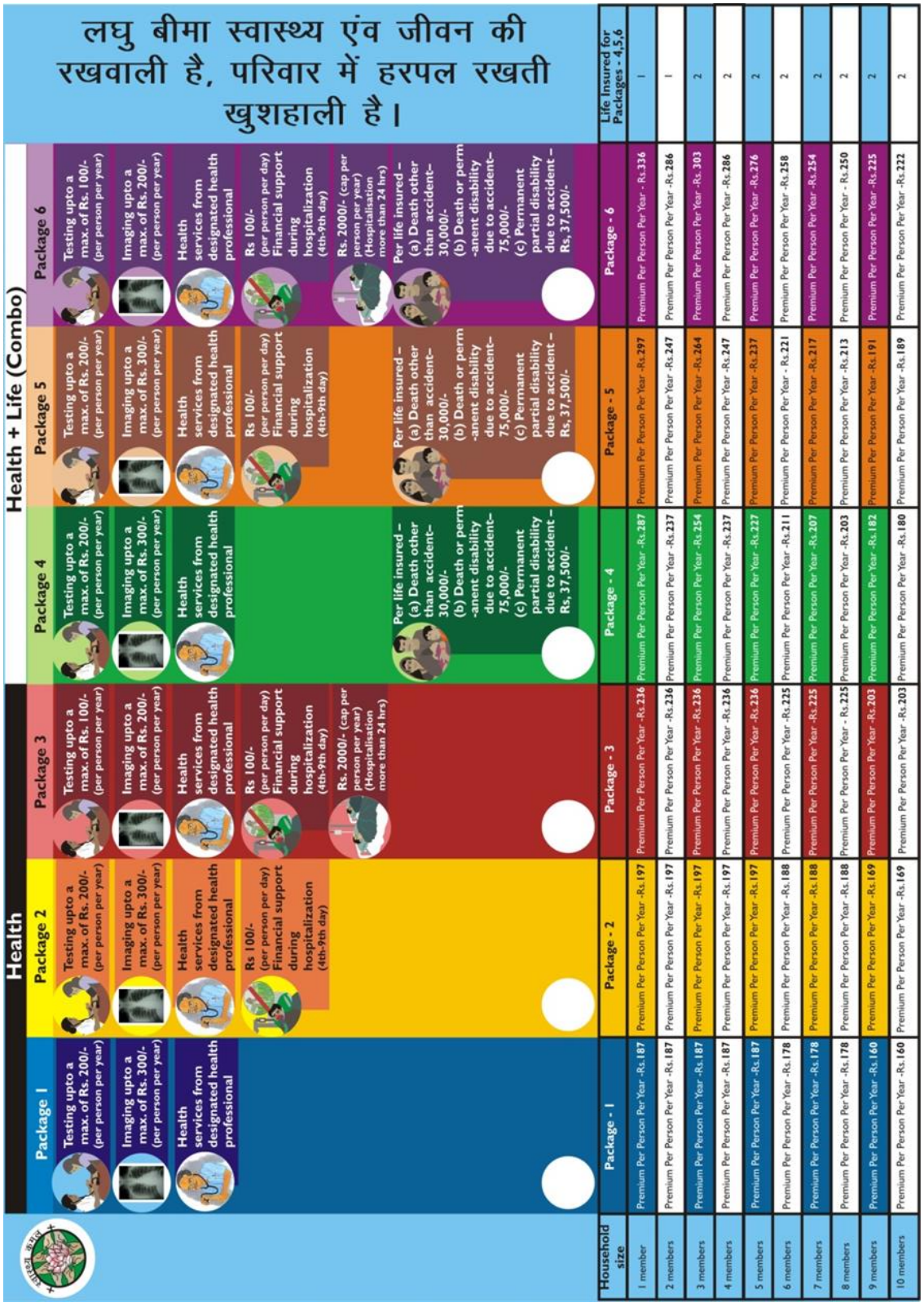
on one single package, discussions and deliberations have taken place before the official choice was made. During these pre-discussions some individuals were willing to choose more expensive packages but changed their mind after considering the low ability to pay of other group members. The level of health morbidity was also taken into account during the decision-making. Women tell that there was no dominant opinion in the group and that, instead, every single opinion was listened to (in particular that of less wealthy members). Some women reported choosing the cheapest package because still uncertain concerning the functioning and effectiveness of the CBHI program. They, thus, rationally decided to opt for the cheapest package and to try to enroll into the project with the least cost possible.

When considering the ratio premium/sum insured (Table 3.3), it emerges that the choice made by participants was not the optimal one, since package 1 is the one with the highest ratio of all packages. Thus, we can infer that affordability has been the main factor influencing decisions. Since we do not observe any difference in the choices across different socio-economic groups, we can affirm that solidarity with less wealthier members in the group might have played a determinant role in group decisions.

3.5.3 Third trial – Vaishali district

The packages: In the third trial (Vaishali district), six different packages have been offered, three including only different combinations of health insurance benefits and three including a combination of health and life insurance - specifically targeted at the breadwinner of the household and limited to a maximum of two HH members (Figure 3.6). The health insurance benefits comprise the coverage of testing, imaging, outpatient care (at selected medical professionals), hospitalization costs and daily financial support during hospitalization. The level of insurance coverage has been fixed using caps. Cheaper packages include fewer benefits.

Figure 3.6 - CHAT board at Vaishali district (English version).



Household size	Package - 1	Package - 2	Package - 3	Package - 4	Package - 5	Package - 6	Life Insured for Packages - 4,5,6
1 member	Premium Per Person Per Year -Rs.187	Premium Per Person Per Year -Rs.197	Premium Per Person Per Year -Rs.236	Premium Per Person Per Year -Rs.287	Premium Per Person Per Year -Rs.297	Premium Per Person Per Year - Rs.336	1
2 members	Premium Per Person Per Year -Rs.187	Premium Per Person Per Year -Rs.197	Premium Per Person Per Year -Rs.236	Premium Per Person Per Year -Rs.237	Premium Per Person Per Year -Rs.247	Premium Per Person Per Year -Rs.286	1
3 members	Premium Per Person Per Year -Rs.187	Premium Per Person Per Year -Rs.197	Premium Per Person Per Year -Rs.236	Premium Per Person Per Year -Rs.254	Premium Per Person Per Year -Rs.264	Premium Per Person Per Year -Rs. 303	2
4 members	Premium Per Person Per Year -Rs.187	Premium Per Person Per Year -Rs.197	Premium Per Person Per Year -Rs.236	Premium Per Person Per Year -Rs.237	Premium Per Person Per Year -Rs.247	Premium Per Person Per Year -Rs.286	2
5 members	Premium Per Person Per Year -Rs.187	Premium Per Person Per Year -Rs.197	Premium Per Person Per Year -Rs.236	Premium Per Person Per Year -Rs.227	Premium Per Person Per Year -Rs.237	Premium Per Person Per Year -Rs.276	2
6 members	Premium Per Person Per Year -Rs.178	Premium Per Person Per Year -Rs.188	Premium Per Person Per Year -Rs.225	Premium Per Person Per Year -Rs.211	Premium Per Person Per Year - Rs.221	Premium Per Person Per Year -Rs.258	2
7 members	Premium Per Person Per Year -Rs.178	Premium Per Person Per Year -Rs.188	Premium Per Person Per Year -Rs.225	Premium Per Person Per Year -Rs.207	Premium Per Person Per Year -Rs.217	Premium Per Person Per Year -Rs.254	2
8 members	Premium Per Person Per Year - Rs.178	Premium Per Person Per Year -Rs.188	Premium Per Person Per Year - Rs.225	Premium Per Person Per Year -Rs.203	Premium Per Person Per Year -Rs.213	Premium Per Person Per Year - Rs.250	2
9 members	Premium Per Person Per Year -Rs.160	Premium Per Person Per Year -Rs.169	Premium Per Person Per Year -Rs.203	Premium Per Person Per Year -Rs.182	Premium Per Person Per Year -Rs.191	Premium Per Person Per Year -Rs.225	2
10 members	Premium Per Person Per Year -Rs.160	Premium Per Person Per Year -Rs.169	Premium Per Person Per Year -Rs.203	Premium Per Person Per Year -Rs.180	Premium Per Person Per Year -Rs.189	Premium Per Person Per Year -Rs.222	2

The package choices: Looking at the individual choices in Table 3.4, we observe more variability in the choices compared to the other two trials. Package 2 (slightly more expensive than the cheapest package but including more benefits) was the package selected by the majority of people as first choice, both in the individual and in the group sessions. Many of them have then selected package 1 (the cheapest one) as second choice.

For most of the participants the size of benefits and the value for money (within affordability) have played an important role in choosing the package. Some individuals had opted for higher cost packages for their own family, but have moved their choice toward cheaper packages in the group sessions.

Table 3.4 - Description of packages and choices in the third trial (Vaishali district).
*without outpatient care

	Package1 (blue)	**Package2 (yellow)**	**Package3 (red)**	**Package4 (green)**	**Package5 (orange)**	**Package6 (purple)**
Premium (INR)	187	197	236	287	297	336
Number of benefits	**3**	4	5	4	5	6
Sum covered (INR)	Outpatient + 500	Outpatient + 600	Outpatient + 2400	Outpatient +500 + (max 75,000)	Outpatient +600 + (max 75,000)	Outpatient +2400 + (max 75,000)
(Premium/Sum covered*)	(37%)	(33%)	(9.8%)	(0.4%)	(0.4%)	(0.4%)
CHAT1-individual choice						
Frequency 1st choice (%)	17.9	38.3	14.4	17.4	10.3	1.9
Frequency 2nd choice (%)	33.21	35.63	17.72	8.58	2.99	1.87
CHAT1-group choice						
Frequency 1st choice (%)	3.79	56.15	9.41	18.06	10.93	1.67
Frequency 2nd choice (%)	27.62	36.87	21.55	7.28	6.68	-
CHAT2-group choice						
Frequency 1st choice (%)	-	84.22	13.96	1.82	-	-
Frequency 2nd choice (%)	12.75	56.45	19.73	7.28	3.79	-

Determinants of individual choices: We use package 2 (Table 3.5) as reference category in the multinomial regression models. We find that more women autonomy and a higher frequency of hospitalizations within the household increase the probability of choosing package 2 over package 1 (which in fact does not include coverage for hospitalization or financial support during hospitalization). Larger families are more likely to choose package 3 (the most inclusive health insurance package) over package 2, showing a higher risk aversion. However, demographic HH

Table 3.5 - Relative Risk Ratios from multinomial logistic regression on the package choices for the third trial.
****significant at 1%, ** significant at 5%, * significant at 10%.*

Variables	Package1	Package2	Package3	Package4	Package5	Package6
non-health expenditures per-family member	1.000		0.999	1.000	1.001*	0.999
years of education	1.091***		0.977	1.082	0.992	0.951
number HH members	1.140		1.151*	1182*	0.950	1.123
proportion of children in the HH	0.643		0.893	0.932	4.831*	2.930
proportion of elderly in the HH	0.263	base	0.656	0.112	0.127	0.000***
proportion of women in reproductive age in the HH	1.873	outcome	1.167	0.582	1.534	26.575
scheduled HH	0.918		0.753	1.847	3.690*	0.805
women autonomy inside HH	0.847**		0.897	0.842**	0.907	0.913
same choice eldest SHG member (yes/no)	0.836		0.759	0.793	0.355	20.033*
same choice most educated SHG member (yes/no)	1.375		1.598	0.196	0.336	12.053*
proportion of health exp on tot expenditures	0.913		0.367	0.170*	1.704	0.252
HH average number pregnancies	0.749		0.170	0.046*	0.217	87273.9*
HH average number outpatient visits	1.273		0.754	0.608	1.008	0.178
HH average number hospitalizations	0.117*		0.921	1.900	1.084	0.000
chronic ill individuals in the HH (yes/no)	1.544		1.346	1.957*	0.753	2.704
HH could afford to finance health care mostly-completely (yes/no)	0.955		0.897	1.226	0.994	2.401**
HH has foregone seeking health care (yes/no)	0.793		1.224	0.587	0.979	0.127**
RSBY-insured (yes/no)	1.335		1.661	1.572	0.583	1.992

characteristics, HH financial status and health care use are not significantly influencing the choice of package 3. A correlation between individual choices and the choices of the most educated members relatively to package 2 (also the final community package) was observed. Women autonomy, a higher frequency of pregnancies within the HH and a higher proportion of health expenditures on total expenditures tend to increase the probability of choosing package 2 over package 4 (which additionally includes life insurance coverage but fewer health insurance benefits), while the presence of chronic-ill HH members increases the probability of choosing package 4 over package 2 (probably because HHs perceive more need for life insurance coverage). A higher level of household expenditures per person (used as proxy for family welfare) and a higher proportion of children in the household increase the probability of choosing package 5 (including both life and health insurance coverage) over package 2. Given the very high price of package 5, family wealth plays an important role in the decision of choosing this package. Strangely, belonging to scheduled casts seems to increase the probability of choosing package 5. When moving to the most expensive package, we find that households who reported having been able to self-finance health care mostly or completely in the past (usually better-off families) and reporting more frequent pregnancies are more likely to choose package 6, while families reporting having foregone seeking health care (usually poorer households) and with a higher proportion of elderly members are less likely to choose this expensive and inclusive package. Some correlation can also be observed between individual choices and eldest members´ choices for package 6.

Preference transitivity between individual and group choices: While individual choices were more widely distributed on the four packages, preferences gradually concentrated on package 2 in the group sessions. Wilcoxon signed-ranks test reports that the number of benefits included in the choice for the group exceeds significantly the number of benefits included in the individual choice ($z=-2.84$; $p<0.05$). This can be interpreted as a willingness to align individual and group preferences after group deliberations and discussions.

Reported reasons for the choices: The responses from the exit questionnaire show that the size of benefits and the affordability of the products have been relevant factors influencing choices. Among the respondents choosing package 2 (the second cheapest package) during the individual session, 36% reported that the main reason was its

cheap price. The package includes more benefits than the cheapest one and for a small difference in price. A relevant group of participants (44%) reported to have been influenced by other women in the village and/or SHG leaders and/or most educated women in the group. Further reasons for choosing this package were the number of benefits included and because it was considered to be the best, in terms of value for money. The main reason reported by those choosing the cheapest package was the cheapest price (67%). People choosing the most expensive packages reported considering their choice as the best option. Strangely, few people reported that the cheap price was the main reason, probably meaning the value for money.

In the group rounds of CHAT, most of the individuals who had opted for more expensive package as individual choice have then opted for cheaper packages for the whole SHG. Most of the individuals (72%) choosing package 2 reported having been influenced by other SHG members, 17% reported that the price was an important factor in the choice, while 7% report choosing the package that was considered the best or containing more benefits. Individuals choosing other packages reported looking at the price and having been influenced by other SHG members' choices. Qualitative interviews report that participants weighted both costs and benefits when making choices. In fact, package 2 (the most preferred one) contains several benefits for a relatively low price. Women reported that the price was a determinant factor influencing choices and that the opinion of other SHG members was listened to, especially that of the leaders and trusted members. However, each one´s opinion was taken into account in the discussion. Some women reported that father-in-laws influenced the choice during household internal discussions. Possessing other insurance policies was also reported influencing the choice: Women tried to choose the package with less overlapping with the other insurance policies and offering the best range of complementary benefits. In general, all interviewed women reported satisfaction with the final group choice and with the community package.

When considering the ratio premium/sum insured (Table 3.4) we can observe that group choices tend to move toward more "value for money". Many of the choices, in fact, transited from package 1 (the cheapest) in the individual session to other more expensive packages (with a better price/value ratio) in the group sessions.

To conclude this section dedicated to the analysis of the CHAT outcomes, Table 3.6 presents an overview of the three final community packages and the relative price ranking within the set of choices offered in the CHAT tool in each site.

Table 3.6 - Comparison of benefits included in the three community packages and price ranking within the range of packages offered in the relative CHAT board.

Benefit/Site	Site 1	Site 2	Site 3
Hospitalization	X	X	
Family financial support during hospitalization	X	X	X
Delivery	X		
Transportation during hospitalization	X	X	
Outpatient care at selected providers		X	X
Testing			X
Imaging			X
Price ranking	**most expensive**	**cheapest**	**2nd cheapest**

Figure 3.9 and 3.10 summarize the self-reported reasons for individual and group choices in the three sites after merging all responses from the exit questionnaires.

Figure 3.9 - Self-reported reasons for individual choices of the pooled sample (N=184) of respondents of the exit questionnaire (20% of CHAT participants in each site).

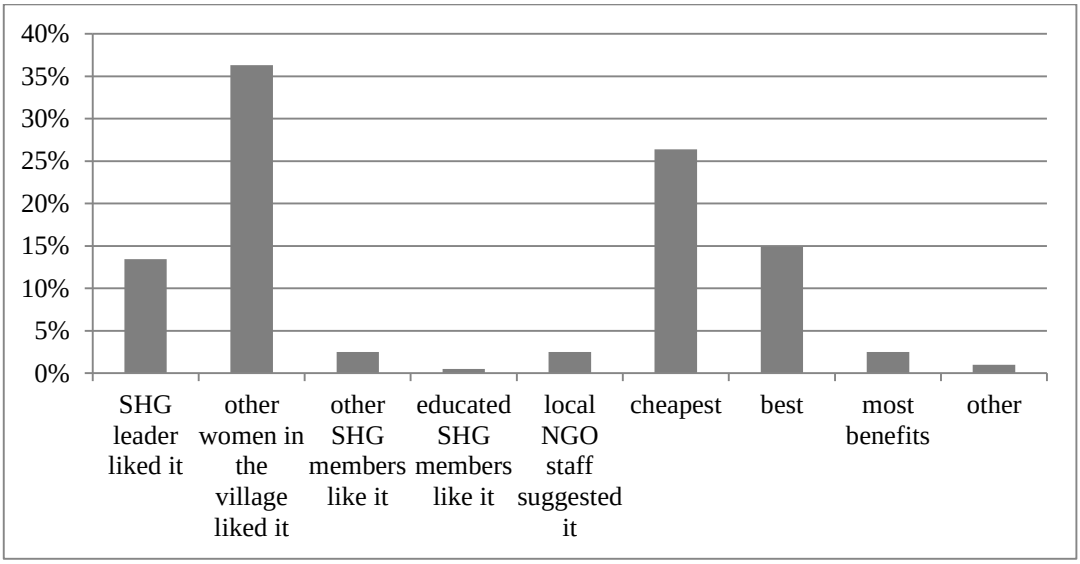
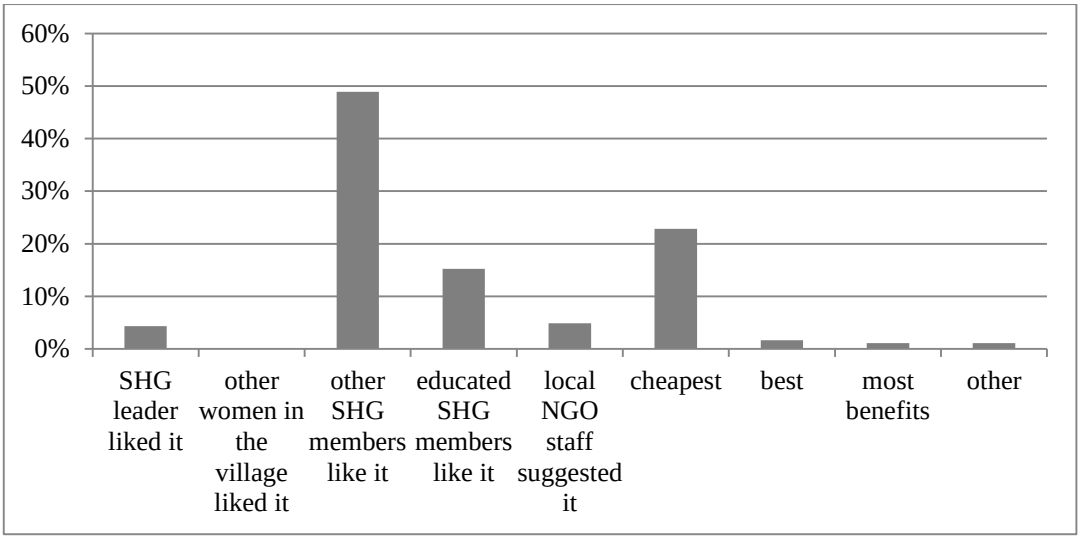


Figure 3.10 - Self-reported reasons for group choices of the pooled sample (N=201) of respondents of the exit questionnaire (20% of CHAT participants in each site).

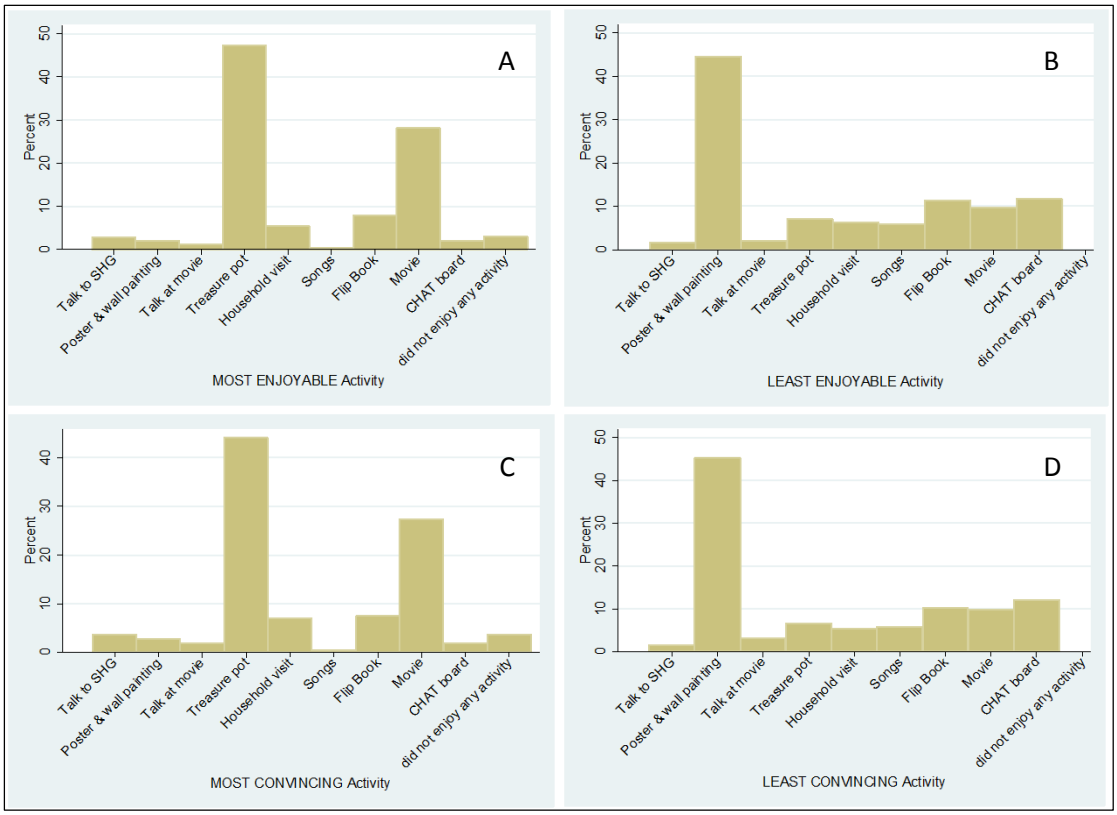


3.6 Evaluation of the CHAT tool

Within the exit questionnaire, around 20% of CHAT participants were asked to evaluate the project activities they were involved in, including the CHAT sessions and other several activities used during the insurance educational phases of the project (aimed and creating awareness on the risks and effects connected with ill-health and on the functioning and usefulness of health insurance as safety net). Such activities included theater shows, movies, treasury pot (a game-like description of the insurance mechanisms), songs, meetings and talks.[34] Respondents identified the most and least enjoyable activities and the most and least convincing activities, giving reasons for their evaluation. Some questions in the questionnaire were specifically investigating the CHAT procedures. The questionnaire also investigated whether the women were able to discuss the CHAT options with the other family members during the two weeks break or to indicate impediments to that. Figure 3.11 (A to D) illustrates the merged responses from the three sites. The CHAT process was neither among the activities mostly selected as "enjoyable" (less than 5%) nor among the "least enjoyable" (ca. 12%) ones (Figure 3.11 A and B).

[34] In order to make the informational process as easier to understand as possible, several entertaining activities have been used, so that community members would be more willing to participate. It is quite predictable that more entertaining activities will be considered more enjoyable that the CHAT sessions, which require more commitment and concentration from the participants than game-like activities.

Figure 3.11 - Self-reported evaluation of the project activities (in percentage of total responses on a subsample of 20% of CHAT participants).
Notes: The quadrants report the distribution of responses concerning the selection of the most enjoyable activity (A), the least enjoyable activity (B), the most convincing (C) and the least convincing one (D)



For the effectiveness of the scheme, it is very relevant to understand how convincing the CHAT method has been and what aspects of the process did not meet participants´ expectations. Again, the CHAT process was not one of the most selected activity neither as "most convincing" (less than 5%) nor as "least convincing" (ca. 12%). Respondents defining the CHAT process as the most convincing activity selected "used good examples", "activities are repeated" and "gave clear explanation of the benefits" as explanation for their evaluation.[35] Respondents evaluating the CHAT process as the "least convincing activity" reported as reasons (in order of prevalence) that "the activity was not repeated", "the activity was boring", "did not involve men" and "used bad examples". Interestingly, there is an evident correspondence between the most enjoyable and convincing activities, since most of the individuals (87.89%)

[35] Within the questionnaire several alternatives where presented indicating possible reasons for the evaluation of the different activities. Reasons included: "Used good examples", "activities were repeated", "one-on-one interaction with the staff", "gave clear explanation of benefits", "involved men", "fun", "addressed specific doubts", "gave clear explanation of the scheme structure" and "other" (offering the chance to present further reasons not included).

have identified the same activity as both “most enjoyable” and “most convincing”, while most of the activities defined as “least enjoyable” were also classified as “least convincing”. We could suppose that the enjoyability of the activity might have influenced the general perception of the same activity.

Around 70% of respondents in each site have reported that the project staff was able to explain the benefits options in a good or very good way, and 80% reported that the project staff had been friendly or very friendly with them. The rest of the respondents have given a neutral evaluation of the project staff, so that no negative feedback was received concerning the way the project staff conducted the CHAT activities. Concerning the participants´ ability to discuss the CHAT options with their family during the two weeks break offered between CHAT 1 and CHAT 2, only few respondents (ca. 9%) reported having found some problems. The most prevalent reported reasons were that the family members were against the insurance scheme, that they somehow did not possess a CHAT board (even if the project staff had distributed one to each CHAT participant) or that they were too busy with other activities and could not find the time to discuss the CHAT options.

These questionnaires allowed to get a relevant feedback on the CHAT process and gave inputs for improving the tool before the following project phases are implemented.

3.7 Correspondence between CHAT choices and enrolment decisions

This section analyzes the correspondence between the participants´ willingness to enroll in the CBHI scheme (after the CHAT process) and the original individual and group choice made by each participant, in order to understand whether the responsiveness of the final community package to personal preferences could increase the willingness to enroll.

Figure 3.12 in Appendix shows the patterns of preferences from the original individual choice to the final group choice in the first trial (Pratapgarh district). Individual choices were distributed among all four packages offered, but were particularly concentrated on package 4 (71.2%). Choices from the first group session (CHAT 1) are represented in the third level of the three-graph and connected to the respective previous individual choice. Most of the participants of the first group

sessions (66.32%) have followed the path "package 4/package 4" (in the individual/group sessions respectively). The second most followed path has been "package 2/package 4". We observe a convergence toward package 4 in the group sessions. In the final group sessions (CHAT2) all paths converge to package 4, which is then also selected as final community package. When linking enrolment decisions with individual and group choices, we can observe that not only those individuals for whom the community package satisfies the personal preferences have decided to enroll in the CBHI scheme. Also 37% of the participants choosing package 1 as personal preference, 58% choosing package 2 and 55% choosing package 3 in the individual sessions have nevertheless enrolled. Looking at the first group sessions, 33% of participants choosing package 2 have enrolled, but none of the participants choosing package 1. The total enrolment rate in the first site for the first implementation year has been 42%, despite the final package responded to all final group preferences. The majority of the enrolled individuals had selected package 4 as individual preference (65%), 16% had chosen package 2, 11% package 3 and 8% package 1. Thus, it seems that people whose individual preference was satisfied with the final community package were more willing to enroll.

In the second trial (Kanpur Dehat) the paths of choices along the different CHAT sessions are more concentrated (Figure 3.13 in Appendix). Individual choices are concentrated on package 1 (99.7%). All individual choices converge to package 1 in the first group sessions (third level of the three-graph), which is also the unanimous choice in the final group sessions. In this site, 43% of participants have thereafter enrolled in the scheme. All enrolled individuals had chosen package 1 as individual choice. Further analysis is necessary in order to investigate the reasons behind the non-enrolment of the remaining CHAT participants.[36]

In the third trial (Vaishali), presented in Figure 3.14 in Appendix, paths of choices along the different CHAT sessions are quite heterogeneous[37]. Individual choices are distributed among all packages offered, with more concentration on package 2 (38%). During the first group sessions around 25% of participants shift their preference

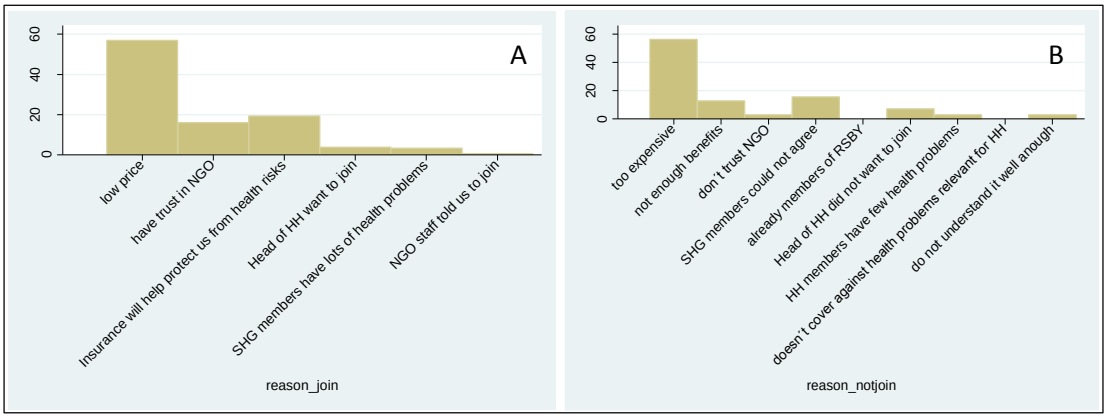
[36] However, this analysis is out of the scope of this study. Some insights on enrolment are presented later on, extracted from an exit-questionnaire on a sub-sample of CHAT participants. The detailed analysis of the factors influencing CBHI enrolment is the scope of other studies within the CBHI project.

[37] For reasons of space, Figure 3.14 has been truncated after the first group sessions. The missing paths to the final group sessions are discussed in the text.

toward package 2. Choices converge even more toward package 2 in the final group sessions, where around 35% of respondents deviate from their previous group choice and toward package 2 as final choice. Looking at the enrolment rates, 39% of the enrolled people had chosen the community package as individual preference. Furthermore, 54% of enrolled individuals had chosen the final community package in the first group session (CHAT 1) and 79% in the final group session. However, only 52% of individuals choosing package 2 as own personal preference have thereafter enrolled, despite the responsiveness of the community package to their own preferences. Here again, an in-depth analysis of the factors influencing the decision to enroll is necessary.

The exit questionnaire also inquired respondents concerning the reasons for enrolling (or not enrolling) in the CBHI scheme, selected among a given list of reasons including: "Low price", "trust in local NGO", "insurance will help protect us from health risks", "the head of the HH wants to join the scheme", "the SHG members have a lot of health problems", "NGO staff told us to join" and "other". Almost 60% of enrolled respondents (71.48%) reported that the low price was the main factor influencing their enrolment (Figure 3.15 A). Around 20% believed that the scheme would help protecting by health risks, while for other 20% the trust in the local NGO convinced them to enroll. The main reported reason for non-enrolling was the size of the insurance premium (almost 60% of respondents), followed by a missing agreement with the SHG during the choice of the packages (ca. 15%) and the insufficient number of benefits in the packages (ca. 12%).

Figure 3.15 - Self-reported reasons for joining (A) or not joining (B) the CBHI scheme in percent of total responses on a subsample of randomly selected 20% of CHAT participants.



3.8 Discussion

The CHAT sessions have shown to be an effective method for eliciting low-income communities´ preferences. However, the exclusion of male community members in the choice of the insurance package within the CHAT sessions might represent a limitation. The selection of self-help groups as target groups for the CBHI project and for the CHAT sessions has been motivated by the advantages of working with already formed and consolidated groups within the community, but also by the desire to follow the guidelines of the IRDA, which only allows and recognizes the use of selected intermediaries (among which self-help groups) for the implementation of MI in India (see IRDA Micro-Insurance Regulations, 2005). Furthermore, the male community members were involved in the "benefit options workshops", during which the packages offered in the CHAT have been developed. During the CHAT process, SHG members have also been given the chance to discuss the CHAT options with the other HH members, before the final group choice was made. Gender aspects within the decision process have also been taken into account in the regression models, through a variable controlling for women´s autonomy and decision power within the HH. We also do not find remarkable differences concerning the distribution of health care-seeking episodes among male and female community members, so that we could exclude a different perception of health morbidity between the female and male individuals.

Another drawback in the CHAT phases might be the involvement (for practical reasons) of a restricted group of community representatives for the development of the CHAT packages during the benefit options workshops. There is the possibility that some representatives might have forward-spaced personal interests over community interests.

The three trials have offered different and complementary insights into the decision-making process for the selection of the preferred health insurance package. In the first trial, individuals were asked to choose among packages differing in price, type of benefits and coverage level (caps), but all within a quite low range of prices, when compared to the other two trials. This trial was very relevant for showing how individuals in developing communities trade in terms of number and type of benefits, coverage level and premium. Since the majority of participants have chosen the most inclusive and expensive package (both as individual and as group preference), we can infer that "value for money" has been the preferred strategy. The regression analysis

showed that individuals belonging to HHs with a higher number of chronically ill members tend to choose more inclusive package with higher insurance coverage. This is probably due to the higher perceived morbidity and the higher risk exposure of chronically ill people. Those individuals reporting a better ability to self-finance health expenditures opted for cheaper packages, covering a lower proportion of health care costs but keeping the whole range of benefits as the most expensive package.

The second trial offered participants the chance to choose among packages only differing in the level of coverage (caps) of each benefit, but all including the same benefits. This trial showed us how people value the level of coverage against risks offered by each package versus the price of the package, when the number and type of benefits is held fixed. All participants selected the cheapest package, both as individual and as group choice. Thus, we can conclude that a cheaper price was preferred to a better risk-protection (also confirmed by the responses of the exit-questionnaire). This differs from the strategy observed in the first trial. However, it is likely that the lower price range in the first trial, compared to the second trial, allowed individuals to select the most expensive package whose price is even lower that the price of the cheapest package offered in the second trial.

In the third trial, next to pure health insurance packages, people have been offered the chance to select combo-packages including life and health insurance. These combo-packages won the interest of some of the participants (mostly the wealthier ones) during the individual CHAT session, but preferences shifted toward pure health insurance packages during the group sessions.

The results from the regression analysis show that a higher frequency of hospitalizations increases the likelihood to select package 2 over the cheapest package 1, which, in fact, does not include the coverage of hospitalization costs. Women belonging to larger families or to HHs including chronic ill members seemed to be more risk-averse and willing to select a more expensive and inclusive package. Wealthier HHs and those with a higher proportion of children were more likely to select combo-packages, probably linked to the ability of wealthier HHs to pay for more expensive and inclusive packages and the necessity for families with children to protect the HH against the risk of illness or death of the breadwinners.

The price was a common reported factor influencing the choice of packages in all trials, but this came quite expected, given the HH financial constraints in such low-income settings. Peer influence among SHG members was reported playing an

important role in decisions, especially for less educated members. This was also quite expected, given the low average literacy rate of women in the community. However, in the qualitative questionnaires both women and facilitators reported that no women was pushed to make a certain choice by group members and that, instead, each women´s opinion was taken into account during the group discussions. Results from the following years of implementation of the scheme might show a growing confidence of CHAT participants in the decision-making. The preference transitivity between the different CHAT sessions let us also infer that deliberations and discussion have taken place, which have influenced the decisions. Solidarity with less-wealthy members might have also played a role in the final group sessions, since we observe a shift of preferences toward cheaper packages in the final group sessions in two of the three sites. The impact of the group discussions in the decision-making process is also inferable by observing the number of benefits included in the group choices, which always significantly exceeds the number of benefits included in the individual choices.

Possessing RSBY social state insurance, instead, did not show to influence decision-making particularly. This might also be connected to the fact that this governmental scheme, at the time the CHAT sessions have been run, was in the early stages of roll out in the regions targeted by the CBHI project.

The CHAT process has received mostly positive feedbacks from the community. People reported that information was clearly transmitted by facilitators and that the tool was easy to understand. Group sessions succeeded in stimulating discussions and deliberations. We can also observe some correlation between the level of responsiveness of the final community package to prospect clients´ perceived priorities (manifested mostly through the individual choices made during CHAT1) on the willingness to enroll in the CBHI scheme. The majority of CHAT participants among the three sites who thereafter enrolled into the CBHI scheme had expressed their personal preference for the very same package that was offered as community package. However, some participants reported that the unaffordability of the insurance plan was determinant for the non-enrollment, even in trials where the group agreement had fallen on the cheapest package and despite the responsiveness of the community package to individual preferences. It would be relevant to study community members´ perception of the role of health care in their hierarchy of priorities, for example when compared to other priorities such as education, dowry or

telecommunications, which, if put above health care, might reduce the willingness to invest the limited HH resources in health insurance. A wedding, for example, is reported to be the most costly event within a household (see Chapter 2), whose cost is much higher than the health insurance premium demanded within the CBHI scheme.

Further motives must have played a role in the enrolment decision during this first year. Ahuja & Jutting (2004) explain how credit availability represents the key for the success of micro insurance (MI) community programs. However, in our case, given the possibility for SHG members to borrow some (limited) amount of money through the informal microcredit system within the SHGs, it is less likely that the missing access to credit have constrained the financing of the insurance premiums and limited the enrolment rates. Some dissatisfaction with the packages offered within the CHAT might have also influenced enrolment decisions, since the exit questionnaires report that the limited number of benefits included in the packages was the reason for non-enrolling in the scheme for some of the CHAT participants. However, it must be remembered that packages have been designed using a participatory approach. Restrictions on the number of benefits and on the level of coverage had been necessary in order to keep products affordable. Since the benefit options workshops have only involved representatives from the communities, it is possible that the packages defined during the workshops did not satisfy all community members´ personal preferences. Some dissatisfaction on the insurance packages also emerged during the visits to the project sites in the first year of implementation of the scheme. During the SHG meetings, several women expressed the wish to include the coverage of drugs costs in the insurance package. The problem of drugs costs and availability is, in fact, well known in the Indian context (Kotwani et al., 2003; Kotwani et al., 2007; Dror et al., 2008; Gitanjali et al., 2011). Even basic drugs are often unavailable in the public pharmacies and hospitals, so that individuals are pushed to buy drugs by private sellers and pay higher prices. Unfortunately, this is a very complex issue that cannot be easily resolved within the constrained possibilities of a community-based scheme. Without governmental intervention in the supply and monitoring of the distribution of drugs in public medical facilities, community schemes cannot be able to support the cost of drugs through the community pooling of resources alone. Members from the first trial also expressed the wish to include the coverage of outpatient care in the community package. In fact, this was the only site where the coverage of outpatient care was not included, due to a missing agreement with the

local medical practitioners on the cost of visits for insured. This problem has been put on the top of the agenda of the CBHI-project partners, which have added the benefit to the insurance plan during the second year.

3.9 Conclusions

This study has shown that members of developing communities in rural India (mostly illiterate and with little or no experience with insurance mechanisms) are able to make decisions concerning health insurance plans, when provided with adequate information and when using eliciting tools which are tailored to their level of literacy. As foreseeable in low-income settings, the price was a common relevant factor influencing the choice of insurance plans in all three sites. However, community members also showed to be able to trade between the different features of the products offered. "Value for money" (within affordability) was often the preferred strategy for selecting among the packages. Peer influence among SHG members was also reported influencing decisions, as well as solidarity with less wealthy SHG members. This came quite expected, given the low average literacy rate of the participants and their inexperience with insurance. Additionally, we find that factors like the number of children and chronically ill members in the family, a higher frequency of hospitalization episodes within the household, as well as better HH financial conditions improve the probability of selecting more expensive and more inclusive packages. On the other side, households reporting a better ability to self-finance health expenditures (referring to past experiences) were more likely to select cheaper packages, showing a more confidence in their future capability to face health expenditures. Surprisingly, we do not find significant differences between the choices made by RSBY-insured and uninsured participants.

In general, the CHAT procedure has been positively received and evaluated by the communities. This study also showed some correlation between the results of the CHAT sessions and the willingness to enroll in the scheme.

The information gained through these CHAT exercises is relevant for the development of insurance packages in resource-poor communities. The results give good hope for the replicability of such eliciting methods in other communities. The insights presented in this study might also serve as input for both policy makers and commercial insurers for the development of health insurance schemes in India that are more aligned with developing communities´ needs and expectations.

3.10 Appendix

Figure 3.3 - Round version of the CHAT board (Source: Danis et al., 2007).

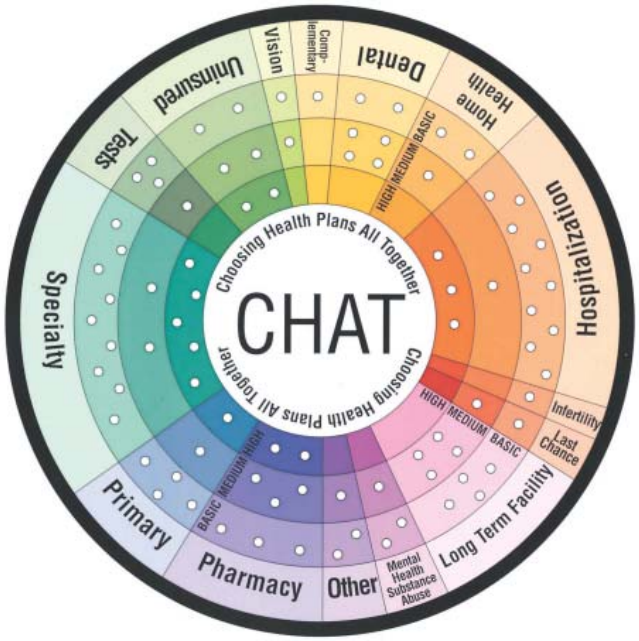


Figure 3.7 - Spreadsheet of the calculator used during the benefit options workshops.

CALCULATOR - KANPUR					
BENEFIT TYPE	THRESHOLD NO REIMBURSEMENT BELOW THE THREHSOLD LIMIT	COPAYMENT % ONE HAS TO SHARE AGAINST EACH BILL AFTER DEDUCTION OF THRESHOLD	CAP PPPY MAX POSSIBLE REIMBURSEMENT	PURE RISK PREMIUM PPPY	% PERSONS FULL COVERED
CONSULTATION-ONLY (QUALIFIED MBBS)	0	0%	0	0.00	0.00%
CONSULTATION WITH ONLY RMPs	(CHOOSE ONLY YES Or NO)		YES	40.00	
TESTING	0	0%	0	0.00	0.00%
IMAGING	0	0%	0	0.00	0.00%
MATERNITY-ANC/PNC	FIXED AMOUNT REIMBURSEMENT		0	0.00	
DELIVERY	0	0%	0	0.00	0.00%
HOSPITALISATION	0	0%	7000	165.47	32.48%
TRANSPORT DUE TO HSOPITALISATION	FIXED AMOUNT REIMBURSEMENT		100	2.80	
	START AFTER (DAYS)	UPTO A MAX (DAYS)	RATE/DAY (RS)		
WAGELOSS DUE TO HOSPITALISATION	3	10	75	8.75	
TOTAL PURE RISK PREMIUM PPPY				217.02	
SECURITY MARGIN			10%	21.70	
TOTAL PURE RISK PREMIUM PPPY (BEFORE ADMIN COST)				238.72	
TOTAL PURE RISK PREMIUM PPPM (BEFORE ADMIN COST)				19.89	
ADMIN COST PPPM				5.32	
TOTAL PREMIUM PPPM				25.21	
TOTAL PREMIUM PERPERSON PER YEAR				303.00	

Figure 3.8 - Description of the phases of the CHAT method for eliciting people´s preferences for health insurance packages (to be read from the left to the right).

Notes: The subscript number on the SHG-members level of the graph is indicating the number of the respective SHG the individual belongs to (reported in the previous level of the graph). The same holds for the subscript number on each of the individual choices.

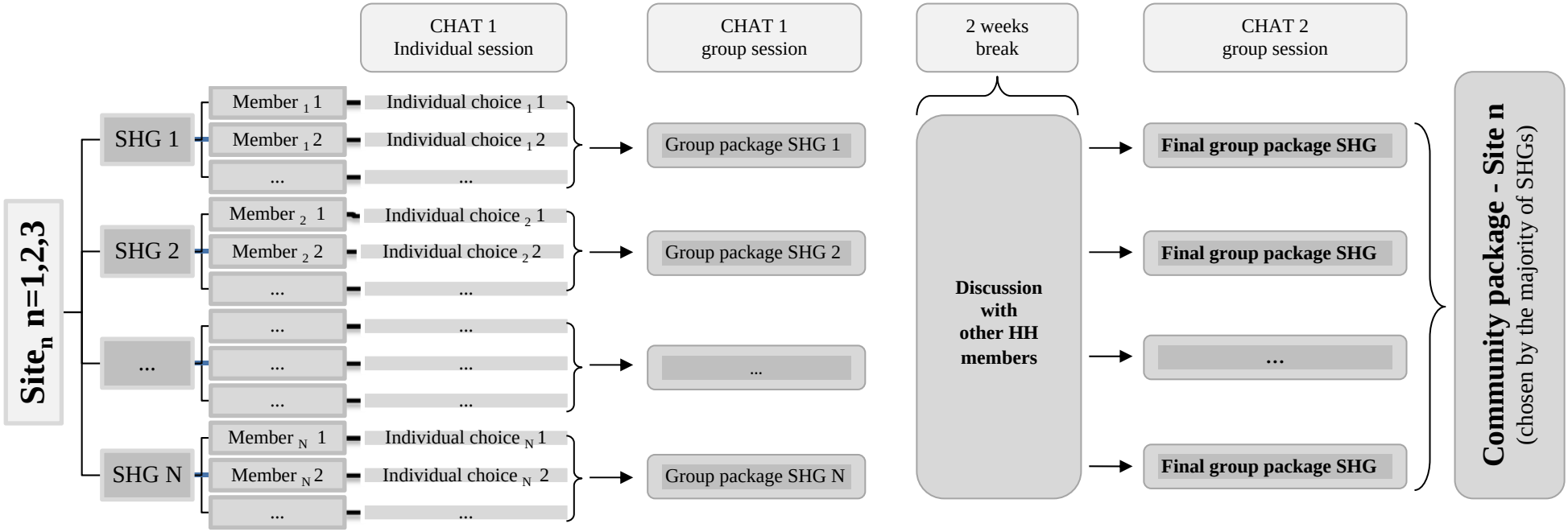


Figure 3.12 - Paths of preference transitivity from the individual choices, to the first and second group choices and to the final community package (each respectively represented in one level of the three-graph) in the first site (Pratapgarh district).

Notes: For reasons of space, only the choices actually selected are reported. The graph allows tracing the path of preferences from the original individual choices onward and from the final community package backward toward the original individual choices. Choices are presented in percentage of the total choices in each CHAT session.

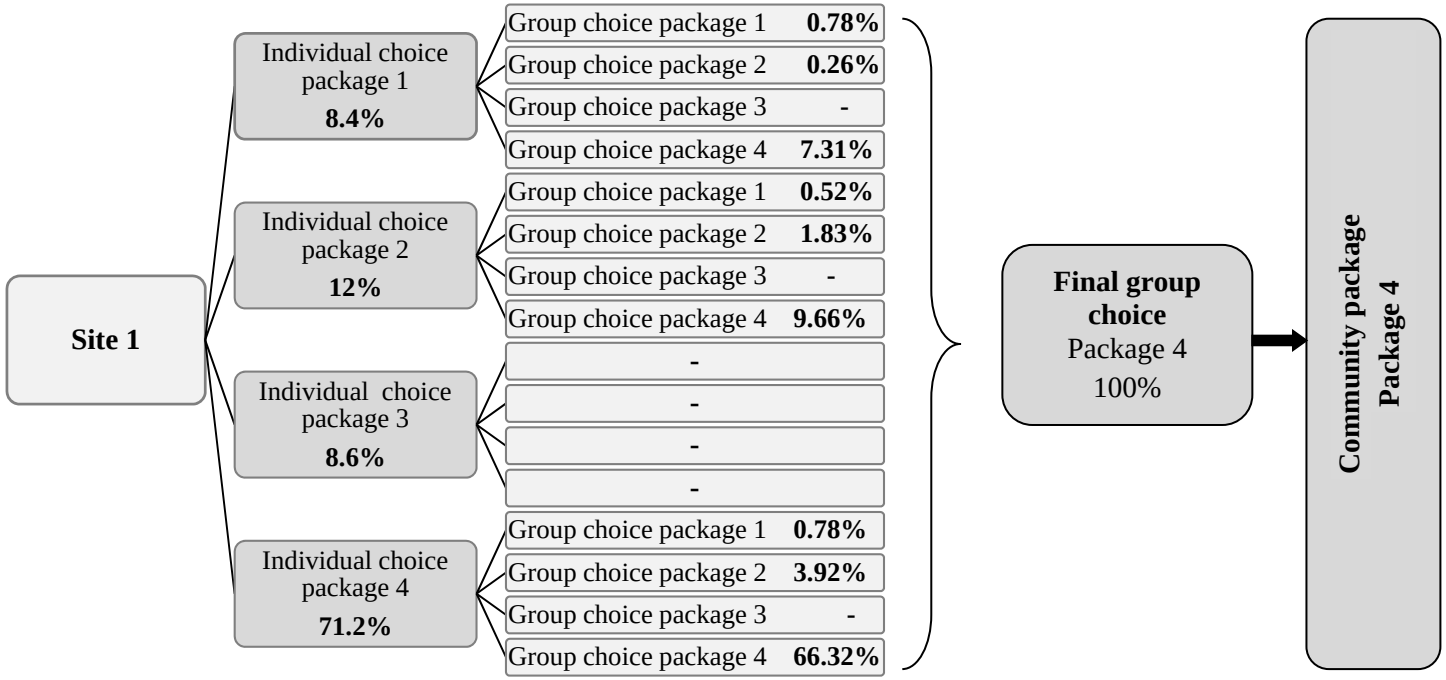


Figure 3.13 - Paths of preference transitivity from the individual choices, to the first and second group choices and to the final community package (each respectively represented in one level of the three-graph) in the second site (Kanpur Dehat district).

Notes: For reasons of space, only the choices actually selected are reported. The graph allows tracing the path of preferences from the original individual choices onward and from the final community package backward toward the original individual choices. Choices are presented in percentage of the total choices in each CHAT session.

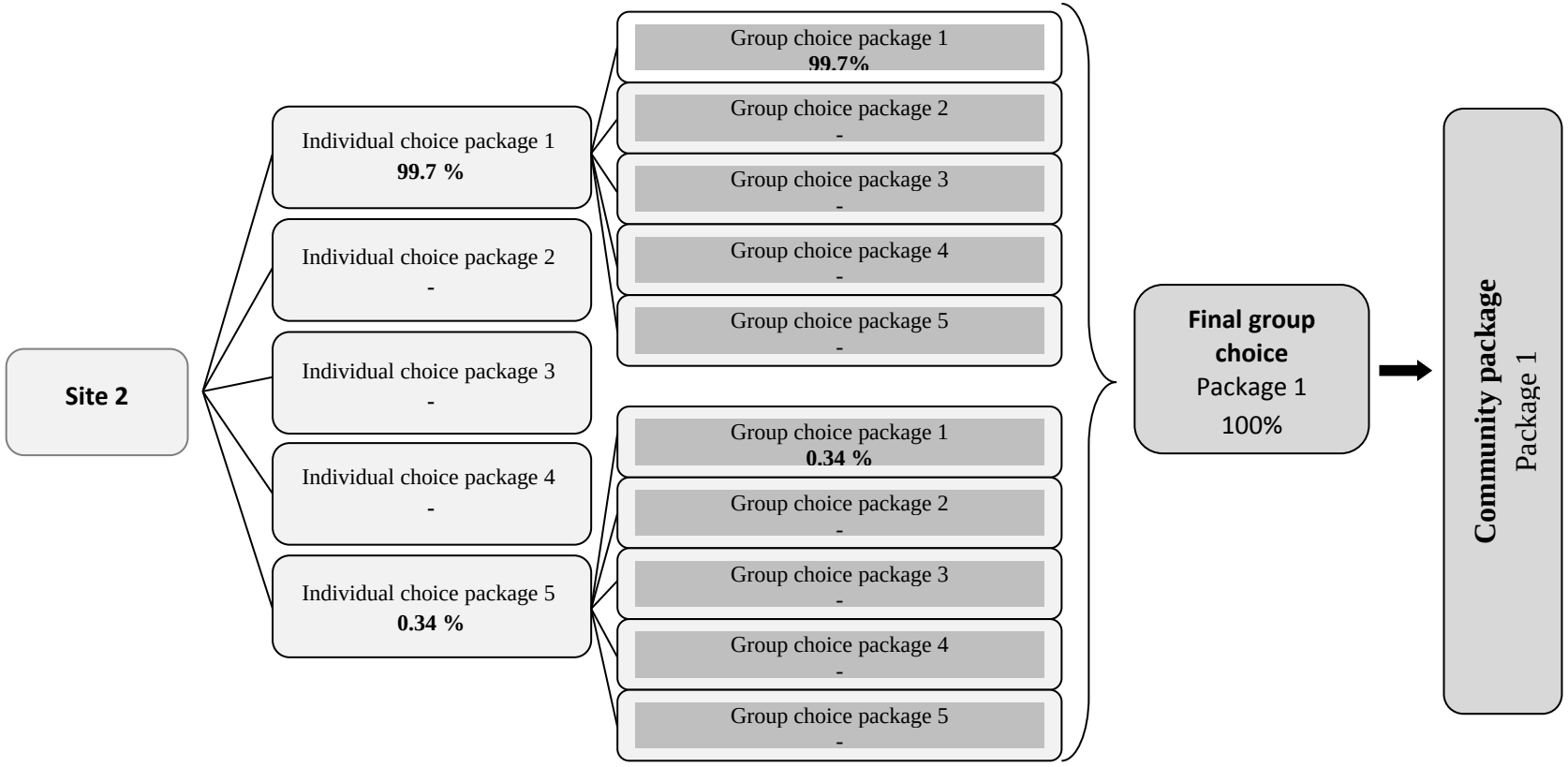
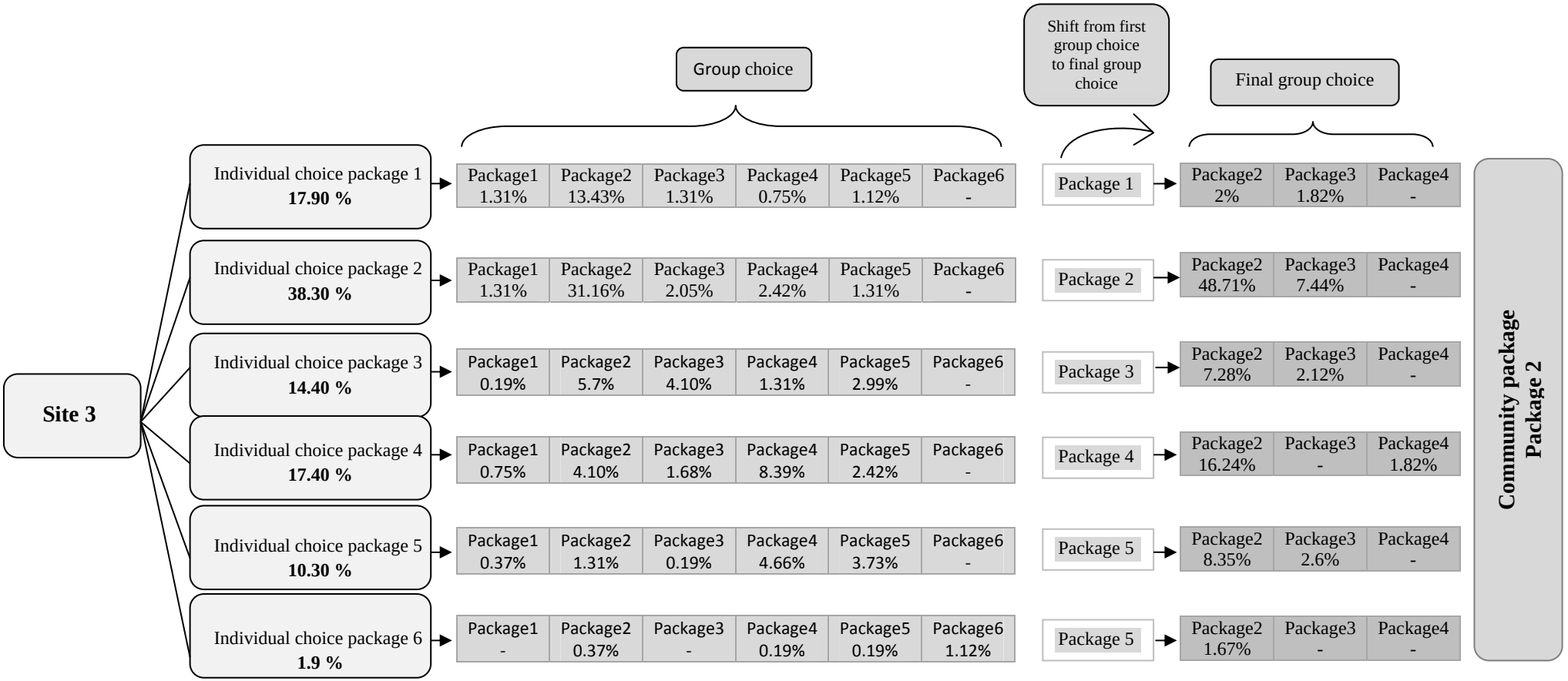


Figure 3.14 - Paths of preference transitivity from the individual choices, to the first and second group choices and to the final community package (each respectively represented in one level of the three-graph) in the third site (Vaishali district).
Notes: For reasons of space, the third level of the three-graph has been reduced to a summarized presentation of choices (which are not directly linkable to the original individual choices through backward steps on the three-graph).



4 INSURANCE FOR THE POOR IN INDIA: THE ROLE OF PRIVATE INSURERS IN THE LOW-INCOME MARKET

4.1 Introduction

Low public health spending and a lack of financing mechanisms for health care expenditures are significant causes of poor health outcomes and financial burden for low-income households in India. Micro health insurance has emerged as a tool for reducing households´ vulnerability to ill-health risk in developing communities. MI has also a social effect on the way individuals assume personal responsibility for dealing with their own risk exposure.

MI is offered through different channels. Commercial insurance companies are currently the major global providers of MI products, through direct or indirect delivery channels (Roth et al., 2007), showing a growing active role of the private sector in development processes. However, commercial insurers entering the MI market need to adapt their established processes, designed for traditional clients, to the requirements of the low-income market. Insurers need to recognize that not only the products but, instead, the whole traditional business model requires restructuring when serving the MI market. In return, MI must show to be a viable business, in order to guarantee private insurers´ commitment.

The Indian MI market is still at its infancy and there´s a lot of growth potential, especially for micro health insurance (MHI). Health insurance is, in fact, found to be one of the most strongly expressed needs of the poor (Roth el al, 2007; Chandhok, 2009; Devabalan & Sundararajan, 2009). The MHI market is still highly supply-driven and demand is not yet adequately addressed. Life insurance is by far the most distributed MI product, because of the simpler actuarial calculations and the lower risk of fraud or moral hazard. Health insurance, however, is the fastest growing segment and there is large unserved demand (Mukherjee, 2012).

Concerning MI, India has valuable lessons to teach to the rest of the world. India is in the vanguard in terms of innovative MI regulations, which are meant to encourage the

development of inclusive financial services. The Indian insurance regulatory agency, in fact, recognizes the importance of MI for social protection and particularly promotes the “partner-agent model“, which combines the technical know-how and capital reserves of commercial insurers with the agent's proximity and trustful relationship to the low-income clients.

Based on these considerations, this study is meant to analyze the challenges and prospects for commercial micro insurance practices in India, with a focus on the provision of micro health insurance products. The final objective is to identify the role private insurance plays for the development of inclusive insurance practices. The importance of MI within commercial insurers´ portfolio will be analyzed, as well as the extent to which a corporate social responsible attitude can be connected to a broader commitment to extending insurance services to the unserved population.

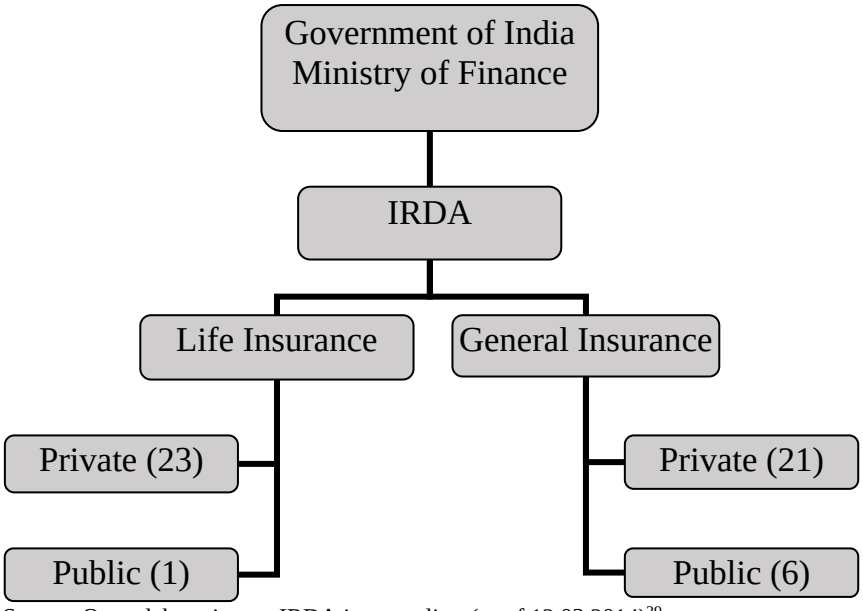
The analysis included in this paper is structured as follows. First, I will present a background overview of the insurance market in India and describe the peculiarities of the commercial MI market, as well as the different implementation models. A case study will be used to identify successful practices for the implementation of micro health insurance services using the partner-agent model. I will then present an overview of the MHI products currently offered by commercial insurers in India. Finally, I will describe the challenges for commercial insurers in the MI market and present possible solutions for the development of the MI sector in India, taking into account business ethical considerations, as well as the role of market regulations. Conclusions will then be summarized and discussed.

4.2 The Indian insurance scenario

Until the late ´90s, the insurance industry in India was led by a monopoly of national insurance companies. In 1956, the Indian government combined local and foreign life insurers to form the Life Insurance Corporation of India (LIC), a state-run life-insurance monopoly. In 1973, general insurance companies were integrated in the state-run General Insurance Corporation (GIC). First in 1999 the insurance market was allowed some limited openness and competition through the entry of private and foreign insurance companies into the market. The government also established the Insurance Regulatory and Development Authority (IRDA), which is responsible for

the regulation of the insurance and reinsurance industry. The Constitution of India assigns to the federal government (or Union) the responsibility for the supervision of the insurance sector. Insurance companies must be officially formed and registered under the Companies Act of 1956. Foreign companies can only own a maximum of 26%[38] of equity of an Indian insurance company and can only work in the Indian market if collaborating with domestic companies. The law also limits the kind of risks a company can insure. Insurers are not allowed to sell life and general insurance on the same policy, with the exception of health insurance, which can be included as benefit in both life and general insurance products. The structure of the Indian insurance industry is presented in Figure 4.1. Life insurance generally includes credit life, saving policies and pension annuities. General insurance includes all other policies not included in life insurance. Health insurance is the second most important segment (after motor insurance) in terms of share of total general insurance premium for the financial year (FY) 2012-13 (Fig. 4.2).

Figure 4.1- Structure of the Indian insurance industry. In brackets the number of registered insurers (as of March 2014).

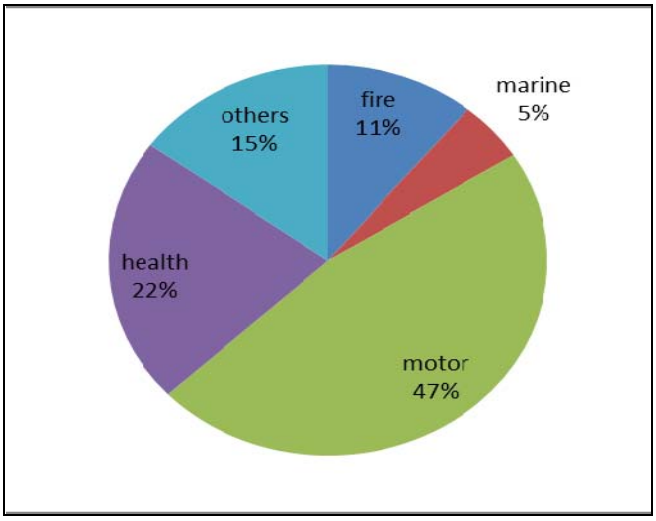


Source: Own elaboration on IRDA insurers lists (as of 12.03.2014)[39]

[38] There have been proposals to extend the foreign direct investments (FDI) up to 49%, in order to strengthen the insurance market growth. The process still requires legislative approval and has found strong opposition.

[39] The lists are available at:
https://www.irda.gov.in/ADMINCMS/cms/NormalData_Layout.aspx?page=PageNo129&mid=3.1.9 &
https://www.irda.gov.in/ADMINCMS/cms/NormalData_Layout.aspx?page=PageNo264&mid=3.2.10
(accessed 12.03.2014).

Figure 4.2 - Segment-wise premium for general insurance for the FY 2012-13.

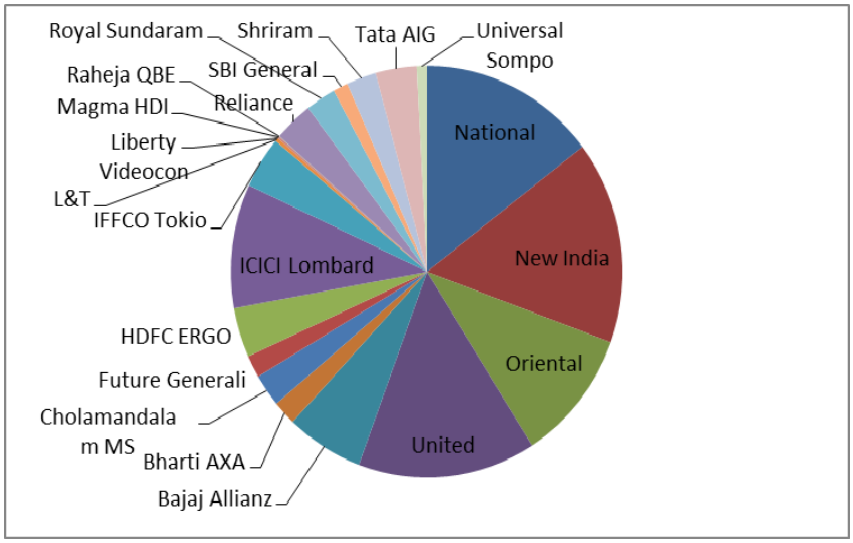


Source: Own elaboration based on IRDA (2013)

The insurance industry in India is at a primitive stage, compared to many other countries. The liberalization of the insurance market had brought positive effects on the penetration of insurance in India (measured as percentage of insurance premium to GDP), which has grown from 2.71 percent in 2001 to 5.20 percent in 2009. Lately, however, the penetration rate has gone down, reaching 3.96 percent in 2012. This means that the growth of the insurance sector has been lower than the GDP growth (IRDA, 2013). General insurance currently registers a penetration lower than 1% and isn´t as spread as life insurance (3.8%) yet. Health insurance is the fastest growing segment among general insurance policies, with a premium growth of 16.57% in the year 2012-13 (IRDA, 2013). Table 4.1 presents the health insurance premium by insurance type for the FYs 2011-12 and 2012-13 and shows a positive growth of the health insurance segment over the last years. Public insurers contributed 61% of the total health insurance premium for 2012-13, private insurers 28% and stand-alone health insurers 11%. The public sector insurers continue to be the leading players in health insurance in India (Figure 4.3)[40].

[40] Data do not include the four stand-alone health insurers: Star Health and Allied Insurance Co. Ltd., Apollo Munich Health Insurance Co. Ltd., Max Bupa Health Insurance Co.Ltd. and Religare Health Insurance Co. Ltd.

Figure 4.3 - Market share of the general insurance sector among private and public insurers in FY 2012-13



Source: Own elaboration based on IRDA (2013)

The IRDA has taken several initiatives in order to strengthen the development of the health insurance sector, among which the standardization of several procedures for health insurance products and the support of procedures for protecting policyholders´ interests (IRDA, 2013). A Health Insurance Forum was created in 2012, which involves representatives of all stakeholders.

Table 4.1 - Health insurance premium (in 10 million INR units or crore).
Notes: In brackets the growth (in percent) over the previous year.

Insurer	2011-12	2012-13
Non-Life Private	3,660.79 (20.76)	4,382.52 (19.72)
Non-Life Public	8,148.23 (17.88)	9,592.15 (17.72)
Standalone Health	1,659.78 (8.07)	1,726.21 (4.00)
Total	13,468.80 (17.33)	15,700.88 (16.57)

Source: IRDA (2013)

4.3 The MI market

4.3.1 Regulations and supervision

Understanding that the new openess of the insurance market and the derived competitiveness could cause the exclusion of the weaker groups of the population from insurance services, the IRDA issued the IRDA (Obligation of Insurers to Rural or Social Sectors) Regulations in 2002, which require every insurance company to engage with the rural and social sectors by complying with the obligation to cover fix determined quotas of their portfolio within the rural and social sector. The regulation requires that 2% (7% for life insurance) of all general insurance business must be generated from the rural sector during the first financial year. The percentage should then increase annually to reach 7% (20% for life insurance) in the 10th financial year. Furthermore, in order to fulfill social sector obligations, insurers must sell at least a certain number of so called "social insurance policies" to vulnerable groups of the population, mostly those employed in the informal sector. The IRDA regulations set rural and social insurance targets for every company starting its business activity after the IRDA Act 1999. Table 4.2 shows the current quotas required within the rural and social sector obligations for both life and general insurers. However, the regulations are not very specific concerning the definition of the target clients for the rural sector. There is no reference to the income level or any other specific socio-economic condition. For the social sector the regulator offers more precise information, explicitly defining the target clients as those employed in the informal sector, economically vulnerable (but without specifying any threshold) or belonging to backward casts and living in urban or rural areas.

Table 4.2 - Rural and social sector obligations.
Notes: Amounts have been corrected following the third Amendment issued by the IRDA in 2008, which corrects the requirements of the Regulations issued in 2002.

	Rural sector obligations (in % of total portfolio)		**Social obligations (in number of policies)**
FY of insurer´s operation	**General insurance**	**Life insurance**	**Life and general insurance**
1st	2%	7%	5,000
2nd	3%	9%	7,500
3rd	5%	12%	10,000
4th	5%	14%	15,000
5th	5%	16%	20,000
6th to 10th	5 to 7%	18 to 20%	25,000 to 55,000

Source: IRDA (2002 & 2008)

For insurance companies which were already active before the IRDA Act 1999 the IRDA shall decide on the entity of the quota, but the regulations fix that the quantum of insurance business in the relevant sectors shall not be less than what had been recorded for the accounting year ending on 31 March 2002. Insurers failing to meet these targets risk monetary sanctions[41] and can be revoked the insurance license.

It is still difficult to assess the effectiveness of these regulations. By pushing insurers to serve the low-income market, the authority has promoted innovation in the insurance market. Insurers have now developed new products and delivery channels for reaching the low-income clients. However, there´s the risk that insurers, if put under pressure, might dump low-quality products on inexperienced low-income clients in order to be compliant with the obligations (Lloyd´s and MicroInsurance Center, 2009). Moreover, most insurers showed no further commitment to the social and rural sector than what is required by regulations. Mukherjee (2012) compares the number of policies sold in the FY 2010-11 by selected insurers in rural areas with the rural sector obligations and finds that most insurers adopted a "just achieve targets" approach and stopped selling policies when reaching the mandatory quotas. However, the last IRDA report for the FY 2012-13 shows some new commitment of private insurers in the rural and social segment, since several insurers were reported selling slightly more policies than those required by the authority during that financial year.

The IRDA has shown awareness concerning the importance of MI for the extension of social security to vulnerable groups. In the "Concept paper on need for developing Micro-Insurance in India" (18 August 2004) the IRDA promotes the partner-agent model (described in details in the following) for implementing MI and recognizes its high potential for increasing insurance coverage in India. In November 2005, the IRDA issued the "Insurance Regulatory and Development Authority (Micro-insurance) Regulations, 2005" (or Microinsurance Act), which create a regulatory framework for the partner-agent model, set boundaries for the development of MI products and define distribution mechanisms for MI. Concerning micro health

[41] The IRDA has filed several insurers for failing to meet the quotas. Here a few examples: TATA AIG General Insurance was penalized for not meeting the target rural and social quotas for the financial year 2006-2007, Tata AIG and Iffco Tokio missed out their rural sector obligations, while HDFC Ergo could not meet its social sector obligations for 2007-08. Apollo Munich didn´t meet rural and social obligations in 2008-09. They had to lay a penalty of Rs. 5 lakh (ca. Euro 6,000).

insurance, the regulations specify the terms of a health insurance contract (both within the general and life insurance segments) as individual or family contracts, with one year term (until 7 years in case health insurance is offered within life insurance) and a coverage of Rs. 5,000 to 30,000 for individual contracts or of Rs. 10,000 to Rs.30,000 for family contratcs (Table 4.3). The regulations also define the figure of the "micro-insurance agent" as "a Non-Government Organisation (NGO) or a Self-Help Group (SHG) or a Micro-Finance Institution (MFI), who is appointed by and insurer to act as a micro-insurance agent for distribution of micro-insurance products" [42].

Table 4.3 - IRDA parameters for micro health insurance products for the general insurance segment.

Type of cover	Min. cover	Max. cover	Min. term of cover	Max. term of cover	Min. age at entry	Max. age at entry
Health insurance (individual)	Rs. 5,000	Rs. 30,000	1 year	1 year	Insurer´s discretion	
Health insurance (family)	Rs. 10,000	Rs. 30,000	1 year	1 year	Insurer´s discretion	

Source: IRDA Microinsurance Act (2005)

The IRDA had also released an exposure draft in July 2012 that aimed at re-examining the definition of MI products and at restructuring the MI market. According to the draft, each insurer would only be allowed to market one single product in rural regions in order to fulfill social and rural obligations. In each state, only two general and two life insurers would be allowed to sell their single product and should cover at least 75% of rural and social obligations within that state. This proposal was meant to create stability and lower competition in the MI market but has been highly opposed by insures and consequently not been approved (Saraswathy, 2012).

India has been a world leader in the development of new regulations for the MI sector, motivating the global insurance industry to follow its example. The IRDA reports that in the FY 2006 (only one year after the introduction of MI regulations) more than 30 million policies had already been sold to low-income clients (Roth et al., 2007). MI is more and more recognized as an important tool for reaching national human

[42] The IRDA has issued a circular on April 3rd 2013 and extented the definition of micro insurance agents, which now also includes, among others: district cooperative banks, regional rural banks and individual owners of Kirana shops (small local retailers), of public call offices, of petrol bunk and of medical shops located in rural areas.

development objectives. Brazil followed India´s example and also introduced MI regulations in 2005, followed by the Philippines in 2006 and Peru in 2007 (USAID, 2008). However, the level of compulsoriness within the MI regulations should be reconsidered when replicating the Indian model in other countries. Godbole and McCord (2007), for example, suggest a new model allowing insurers interested in entering the MI market to cooperate for reaching the compulsory quotas in the rural and social sector. The authors propose that surplus policies reached by an insurer could be purchased by insurers in deficit, in a sort of MI credits system. This would not diminish the final effect (the total number of policies issued in the rural and social sector). Governments could also consider other ways of motivating insurers to serve the low-income market, such as by offering tax benefits or co-participation in governmental social security schemes. The regulator should also define the role of community-based (or mutual) informal MI schemes within the MI market. In India, such schemes operate in a legal vacuum, since the IRDA hasn´t taken any clear position regarding their legal status yet. As non-registered insurers, such schemes do not need to comply with rural and social obligations and can overlook minimum capital requirements, but are also excluded from the advantages of getting re-insurance. Regulated insurers define it unfair competition and call for equal regulation. However, the regulator should also consider the compensative role such schemes play in serving the vulnerable groups, where the state and commercial insurers have not yet arrived.

4.3.2 MI distribution models for commercial insurers

Private insurers can distribute MI products through two different models. The first is the *agent model*, which is the standard insurance model used by private insurance companies and which implies the direct sell of policies through the insurance agency offices. The insurer is alone responsible for the design and marketing of the products, as well as for pre- and post-contract services. Clients come into direct contact with the insurer when buying an insurance policy. The second model is the *partner-agent model*. This model implies a partnership between a formal insurer and an agent, which is in close contact with the community and which sells insurance products on behalf of the insurer, thus allowing decentralizing the insurer´s financial services to remote and rural areas. An agent is commonly an NGO, a Microfinance (MF) organization or

a local retailer (for example a fertilizer supplier in rural areas). This is the model that is currently mostly used within MI. The agent is retributed by the insurer through a commission or fee on the policy sold. This distribution system enables insurers to come into contact with the low-income customers and to reduce transaction costs, since it utilizes the agent´s established networks within the community. The agent supports the marketing of the product, collects premiums and has an important monitoring function. The insurer absorbs all the insurance risks and is responsible for the design and pricing of the products, as well for the claim-settlement procedures.

Private insurers can also offer MI products through public-private partnerships, by collaborating in governmental schemes, such as the RSBY health insurance. Such schemes are subsidies-dependent and therefore not comparable with market-based models. These schemes are not further discussed because out of the scope of this study.

Table 4.4 summarizes the main pros and cons of both agent and partner-agent models. The main advantage of the partner-agent model resides in the combination of both partner´s and agent´s strenghts in their core activities. The model benefits from both the technical know-how and capital reserves of the former insurer and from the agent´s networks, vicinity and trustful relationship to the local communities. However, possible conflicts of interest might arise between the agent´s social goals and the insurer´s business objectives. Agents do not want to put at risk the credibility and trust gained within the communities where they operate. They might tend to be more *légere* in claim-settlement issues, in order to reduce clients´ dissatisfaction. Insurers, on their side, expect to compensate their upfront investments and can only guarantee their commitment if there´s a perspective of profitability in the business, which is only possible when the scheme reaches scale and a large pool of policyholders is created.

Table 4.4 - Summary of pros and cons of the agent model vs the partner-agent model.

Distribution model	Pros	Cons
Agent model	• Formally recognised MI model; • technical insurance know-how and capital reserves; • can formally get re-insurance; • agents are part of the staff of the insurance company and adequately trained in respect of the business objectives of the principal; • no coordination with partners necessary.	• High transaction costs; • internal agents necessitate extensive training for learning the different MI setting; • offices are usually distant and diffcult to be accessed by poor people (physical distance); • clients might also be scared away by the formality of the insurance offices; • difficult to get trust of poor customers without a local partner guaranteeing for the insurer´s good purposes; • agents might be more interested in quick selling than informed sales and clients satisfaction.
Partner-agent model	• Formally recognised MI model which operates under the insurance law; • the model combines both partner´s and agent´s potential and expertise in their core activities; • formal insurer offers stability through solid financial reserves and the possibility of getting re-insurance for the scheme; • lower transaction costs by using the agent´s networks within the communities; • reduced information asymmetries thanks to the agent´s close contact with the community; • closer monitoring system against fraud; • the close contact with the community allows for direct clients´ feedback and helps the re-design of products for increasing clients´satisfaction.	• Difficulty in individuating the adequate partner; • agents often need insurance training (minimum training is also required by the IRDA in the `Concept Paper on Microinsurance`); • local partners (mostly NGOs and MFIs) are dependent on external funding from donors and are therefore less reliable in the long-term; • many NGOs and MFIs are often already involved in exclusive partnership and there are often difficulties for insurers building connections in the desired target region; • possible conflicts of interest between the social scope of the agent and the business interests of the insurer.

4.3.3 Developing innovative MI models: An empirical analysis

This section presents a case study that is used to empirically identify successful features and challenges of an innovative MI implementation model. The case presented is relevant for two reasons: It represents a best practice in terms of innovation of product features, organizational structure and procedures, but it also shows some obstacles which could also be encountered by other MI schemes.

Within the partner-agent project "Insure Lives and Livelihoods" (ILAL), a response program for the coastal communities in Tamil Nadu and Pondicherry (following the tsunami disaster in 2004), the NGO CARE India (an affiliate of CARE International) implemented a very innovative micro health insurance program[43], together with the insurance company Bajaj Allianz General Insurance (a joint venture between Bajaj Finserv Limited and the German Allianz SE). The case study is based on information gained trough semi-structured qualitative interviews[44]. Additional information is extracted from project brochures and project publications, together with the documentation from a mid-term review of the project[45]. Here the main features of the micro-health insurance program:

Organizational structure: The program is based on a partnership between a private insurer and an international development organisation and is locally supported by partner NGOs active at the project sites. It consists of three health mutual schemes (in the Cuddalore, Kanyakumari and Nagipattinam districts in Tamil Nadu), with Bajaj Allianz playing the role of co-insurer and supporting the financial viability of the program by settling claims at the high end of the spectrum in exchange for one third of the insurance premium. Two thirds of the premium is kept at the mutual level for managing smaller claims.

Target population: A feasibility study confirmed the need of health insurance in the targeted regions. The good health care infrastructure in the regions was recognized as

[43] The microinsurance program also included two life and two general insurance plans. These are not discussed, beacuse not relevant for this study.

[44] Interviews were conducted during my research stay in India in September and October 2011 with contact persons from CARE India and Bajaj Allianz, respectively Mr. Devabalan Raja (technical Manager at CARE India) and Dr. Ashok Patil (Head of Rural Business at Bajaj Allianz).

[45] The review was commissioned by the partners in 2010 and conducted by consultants from the Micro Insurance Academy (Delhi). The report is available on request upon authorization of the interested parties.

favourable to the program. Target groups have been well defined on the base of needs and vulnerability. Target clients belonged to coastal fisher communities and rural poor families in tsunami-affected districts. The program was also aiming at including marginalized groups of the community, such as backward casts.

Choice of the partner: Bajaj Allianz considered the advantage of a partnership with an organization such as CARE and knew that the association could guarantee enormous outreach, given the large network of CARE´s partner-NGOs, which would offer access to large amount of SHGs. CARE reports that "Bajaj Allianz saw the business proposition at the bottom of the pyramid" (Devabalan & Sundarajan, 2009). Bajaj Allianz, on the other side, represented a good commercial partner, thanks to its technical know-how and the financial capability to provide upfront investment for the product design and the start-up of the program. Both partners had already experience with MI. The ILAL program had already been tested and implemented in Andhra Pradesh in 2006, in collaboration with Royal Sundaram Alliance Insurance, before extending it to Tamil Nadu and Pondicherry. The project´s original partner-NGO Kodi Trust already had a long experience with programs in the area of health promotion, through which it had earned considerable trust in the communities.

Table 4.5 - Main features of the micro health insurance product.

Age for proposers Age for family members	18-70 years (3months-70 years)	
Term	1 year	
Premium	Rs. 392 (€ 4.70/family of four)	
Sum insured	Max Rs. 10,000/family	
	Mutual	Bajaj Allianz
Surgeries	Rs. 5,000	Rs. 5,001- Rs. 10,000
Diseases	Rs. 2,500	Rs. 2,501- Rs. 5,000
Day care	Rs. 1,000	-
Other services	Outpatient treatment at subsidized cost, medicines at subsidized rate, quality care at concession from the network hospital.	
Exclusions	One year waiting period for pre-existing diseases; treatment for alcoholism/drug abuse; sterilization and other ailments requiring tertiary care.	

Source: CARE India (n.d).

The product: Using information obtained through a baseline study (aiming at assessing people´s specific needs, risk exposure and ability to pay for insurance), Bajaj Allianz cooperated with CARE in the development of a specifically designed product, against its initial proposition to use the existing products designed for fulfilling the social and rural obligations. The product was first piloted in the Kanyakumari district in December 2007 and then officially marketed in 2008, in partnership with the local NGO Kodi Trust. It was thereafter extended to the other sites. Table 4.5 presents the highlights of the product. Given the existence of a good network of public hospitals in the project region, the products have been designed to include benefits complementing the RSBY national scheme by offering cashless tertiary care.

Voluntary enrolment: Despite the risk of low demand, enrolment was offered on a voluntary basis (instead of as compulsory linkage to savings or credit schemes), with the conviction that people would be more likely to put value and trust into programs offering them the chance to choose for themselves. Thus, in the first place, the project needed to reach a sufficient demand and, subsequently, to reach a fast scaling up, in order to guarantee the financial sustainability of the scheme.

Educational and communicational tools: Effective educational programs and insurance awareness campaigns had been developed for the whole ILAL program, in order to spread information about the relevance and functioning of the insurance program. Appropriate communication strategies have been developed for the communities, such as visual materials (posters, flip charts, brochures), folk programs (puppet shows, street plays) and group meetings (e.g. SHG meetings). The educational programs were very comprehensive and included risk education, insurance education, product education and product logistics issues (e.g. premium payment and claim settlement). The ILAL educational scheme was recently described as a best practice in an ILO´s study (Burns & Dalal, 2010).

Monitoring: Local NGOs have promoted mutual committees to govern and monitor the mutual schemes locally. Qualified doctors have also been appointed for the provision of outpatient care and for controlling against overutilization of services. The

program had also selected network of trusted hospitals which would offer quality health care services at concession prices.

Program outreach and challenges for success: [46]After two years of operations, a mid-term review was commissioned by CARE and Bajaj Allianz, in order to assess the achievements and to learn from the first experiences. The review was meant for identifying successful practices for replication and for suggesting improvements, whenever required. The Micro Insurance Academy was engaged for the review. The parameters used for the evaluation were: social goals, operations and management (key performance indicators, process mapping, distribution, innovation, management and strategy), intermediation, monitoring and evaluation, capacity building, coordination and claim management. In general, the health mutuals were considered offering an "important and interesting opportunity for providing quality, low-cost family health coverage". Positive also the evaluation of the project´s governance, which had been "consistently addressed". However, low renewal rates and falling membership numbers were registered in the Kanyakumari site during the second year of operations (the other sites had just completed their first year of operations and renewal data were not available). As of March 2010, the program was still financially sustainable but with little hope to further grow, against the target required by the partner-insurer. Consultants suggested conducting a due diligence of the project, before any further investment was made. The program had proven to be innovative in several different ways, from the product features to the organizational structure of the scheme. The product had also been designed to effectively meet local needs. However, the scheme had an average turn-around time of claims of three months, which was likely to create dissatisfaction among clients.

Since the start of the program, several new challenges had emerged due to external factors:

- The government of Tamil Nadu had started a national pilot scheme offering free insurance coverage for critical illnesses and its outreach was spreading very fast (ca. 30,000 families as of beginning of 2010). Free coverage distracted clients from the fee-based mutual program.

[46] This section is based on Dror & Donodovan (2010).

- A new tsunami in 2008 brought huge amount of donors´ funding and governmental grants to the region where the mutual schemes were developed. Clients started to lose interest for the fee-based mutual schemes.
- Consequently, clients started to pretend reimbursement of part of premium when they did not claim.

Table 4.6 presents data about the outreach of the program compared to the yearly targets.

Table 4.6 - Yearly program outreach in terms of new enrolments and renewals (expressed in No. of families) vs yearly project targets.

Year of operations	No. enrolments/renewals (families)	Project target
Year 1 (as of June 2008)	1,100 families (3,872 individuals)	1,500 families
Year 2	292 renewals (18%) 767 new families enrolled	3,000 families
Year 3 (as of March 2010)	97 renewals (9%) 501 new families enrolled	7,000 families

Source: CARE India (n.d.)

During the first year (as of June 2008), 1,100 families were enrolled in the scheme. Enrolment had then declined of 1,632 units during the second year, with only 292 renewals (18%) and 767 new families. In the third year, renewals were only 97 (9%) and the new families enrolled only 501. The annual target of 5,000 families was still far away. In September 2011, Mr. Devabalan reported that Bajaj Allianz would leave the scheme starting from December 2011 and that, therefore, a new partner was needed in order to maintain the scheme alive.

Reasons for failure: The interviews conducted with representatives of both project partners helped getting some insights into the factors that have mined a MI program that was based on a very good structure. Mr. Devabalan reported that when Bajaj Allianz first approached CARE in 2006, the idea of a common MI scheme was not in the air. Bajaj Allianz had collected a considerable sum of money through a social responsible employee-project and wanted to donate this sum to CARE in order to support the victims of the tsunami in south India. It was CARE convincing Bajaj for a broader commitment into a common MI project aiming at benefiting the community in a sustainable way. However, no formal agreement was signed concerning the

length of the commitment. Later on, the scheme started to be challenged by low enrolment and renewal rates. The insurer pushed to extend the schemes to new areas but CARE found it difficult to implement the scheme in new settings and didn´t manage to create the expected new demand for the program. In the meantime, a change in the management took place at Bajaj Allianz. The new management team set new priorities while restructuring the company´s investments and distribution strategies. The MI scheme was not in the new management´s interests anymore, since it was not likely to scale and bring profits. Bajaj Allianz considered that the new subsidized governmental program would not offer any chance for the outreach of the mutual schemes in the region and, consequently, abandoned the scheme in December 2011.

Dr. Ashok Patil claimed that the change in the management was not relevant for the decision to abandon the scheme. The main reason was, instead, the incapability for CARE to make the scheme financially viable. Since the product was well designed, "it had to scale". The scheme was not financially self-sustainable. The upfront investment made by the insurer did not suffice to cover all transaction costs and the further extension of the program. CARE demanded frequent new funding from the insurer, which made the scheme become too expensive for Bajaj Allianz. Additionally, Bajaj Allianz had started distributing a new MI product called "Micro Care"[47]. This accident insurance product was much easier to administer than the health insurance product and its outreach was much faster, thus very profitable and preferable to the health insurance one. To summarize, Table 4.7 contains the main successful features of the scheme and the challenges met in the implementation.

The lesson learned: Within a partner-agent model the local organizations (agents) are challenged by the difficulty to reach the target objectives and profitability goals of the commercial partner. The commitment of a commercial insurer to MI schemes is strictly related to the management´s commitment, which depends on the prospects of profitability that the scheme can offer.

[47] Details on the product are available at: https://allianz.com/v_1380546675000/media/responsibility/documents/microinsurance_product_pool_october_2013#page=39 (accessed 12.11.2013).

Table 4.7 - Summary of successful features and challenges of the CARE-Bajaj Allianz mutual scheme.

Successful features	Challenges
• Good distribution network through CARE & NGOs; • Technical know-how and experience of Bajaj-Allianz; • Good organizational structure, governance and monitoring; • Good educational and communicational strategies; • Customized product; • Voluntary enrolment; • Good health care infrastructure in the region; • Contracting with health care providers (reduced costs of claims).	• Competition of governmental programs; • Low renewal rates; • Low outreach; • Management commitment (partner insurer); • Financial sustainability; • Replicating the scheme in new settings.

Reaching scale is the guarantee needed for the company´s management to justify investments in MI, since low-premium contracts can only bring returns when a large number of policies are issued. Many external factors can also influence the success of such schemes. For example, subsidized governmental schemes represent a big challenge for the uptake of fee-based MI schemes. It is therefore necessary to create alternative insurance plans, complementing the state-run subsidized schemes. Furthermore, an adequate health infrastructure is a fundamental issue for guaranteeing the attractiveness and effective utilization of a health insurance policy.

4.3.4 Micro health insurance products offered by commercial insurers

Though the low number of officially registered MI products at IRDA (only 23 products filed by insurance companies since the MI regulations in 2005[48]), there are a lot of non-registered MI products offered by commercial insurers in India. The 23 products currently registered are offered by life insurers. Most of these policies are sold through MFIs as compulsory policies in combination with credit services. None of these policies includes health insurance coverage. Mukherjee (2012) estimates that as of 2012 approximately 64 products were offered by private life and general insurers which were not registered as MI products at IRDA. Furthermore, 40 schemes (mostly concentrated in southern India), offered MI products in collaboration with local NGOs or MFIs. However, these estimates do not allow to infer the prevalence of health insurance schemes and products. Several other studies have attempted to track record

[48] The list of MI products registered at IRDA is available at: http://www.irda.gov.in/ADMINCMS/cms/NormalData_Layout.aspx?page=PageNo271&mid=26.2 (accessed 16.10.2013).

on the distribution of MI products in India but, given the fast and continuous changes taking place within the sector, they are not up-to-date with the current sector developments and most of the products indicated in these studies are not offered anymore. A study conducted by ILO (2005a) identified 83 MI products filed by 19 insurance companies in India as of 2005. Of these products, 42 were life insurance products and 41 were general insurance products, of which 14 were health insurance products (10 covering hospitalization costs and 4 covering critical illnesses - mostly excluding coverage of costs related to maternity and HIV/AIDS). Another study by ILO (2005b) reported that other 51 products were sold by MFIs, cooperatives, health mutuals and health care providers in partnership with insurance companies.

This section presents an up-to-date overview of the micro health insurance products currently offered by private insurers doing business in India. Table 4.8 lists all micro health insurance products currently available. Details are obtained from insurers´ websites and reports, public disclosures, as well as scientific references. The table reports the name of the product and the insurer (a link to the website with information on the product is provided), the risk insured, whether it is an individual or group policy, the premium (when available) and policy exclusions. The last column shows the classification of the product as reported by the insurer (distinguishing between products which explicitly target the rural and social sector and those that are classified as micro insurance products) and the distribution channels used to market the products (when reported).

Table 4.8 - Micro health insurance products offered by commercial insurers as of March 2014

Product name & insurer	Risk insured and benefits	Type of policy	Premium (year)	Exclusions and restrictions	Classification and distribution channels
Gramin Aarogya Nidhi HDFC ERGO[49] Available at: http://www.hdfcergo.com/rural-insurance/gramin-arogya-nidhi.html	• Patient hospitalization (due to accident or sickness) • personal accident benefits	• Both individual and family floater	• (not reported)	• Pre-existing diseases (first 4 years) • HIV/AIDS • mental disorder or insanity	• Under the voice "Rural sector" but targeted at "rural, suburban and social sectors" • Channels: public-private partnerships and collaboration with NGOs and MFIs
Family health insurance Plan ICICI Lombard Available at: https://www.icicilombard.com/rural-insurance/Health-insurance.html#	• Patient hospitalization in network hospitals (bed charges max. Rs. 600 per day) • pre-hospitalization up to 30 days • post-hospitalization up to 60 days • selected daycare procedures (dialysis, cataract, radiotheraphy,…)	• Familiy floater (eligibility 91days until 60 years)	• (not reported-premium varies with sum insured) • No-claim discount (5% on renewal)	• Pre-existing diseases (first 4 years)	• Rural insurance

[49] Information about the MI segment at HDFC ERGO are partly obtained from the Munich Re website: http://www.munichre.com/corporate-responsibility/en/solutions/primary-insurance/microinsurance/default.aspx.

Product name & insurer	Risk insured and benefits	Type of policy	Premium (year)	Exclusions and restrictions	Classification and distribution channels
(No name) CHOLA MS General Insurance Available at: www.cholainsurance.com/rural-insurance.aspx	• Health insurance (no specification) • Critical illness insurance	• Family floater • individual	• (not reported)	• (not reported)	• Rural insurance
Future Sampoorna Suraksha-Micro Insurance Product Future Generali Available at: http://www.futuregenerali.in/GeneralInsurance/PDF/Sampoorna%20Brochure_8%20x%2016.pdf	Includes a health insurance section covering: • hospital cash benefit (max 30 days) for each continuous and completed period of 24 hrs of hospitalization due to accidental bodily injury or sickness	• Individual policy (group policy also possible, conditions not presented) • Age eligibility: 6 months-70 years	**Plan A**: Rs. 175 for Rs. 175 daily hospitalization benefit **Plan B**: Rs. 280 for Rs. 250 daily hospitalization benefit **Plan C**: Rs. 340 for Rs. 300 daily hospitalization benefit • Eclusive of service tax • Max coverage 30 days (subject to one day deductible)	• Pre-existing adversities (2 years waiting period) • Further exclusions in policy wording (section 1, 1. (ii))	• Rural sector
Rural Hospital Cash Insurance Royal Sundaram General Insurance Available at: http://www.royalsundaram.in/rural-social-sector/rural-hospital-cash-insurance.aspx	• Hospital cash benefit for each continuous and completed period of 24 hrs of hospitalization due to accidental bodily injury or sickness for a maximum period of 21 days	• Individual, spounce or family	• **Silver policy**: Rs. 400 for Rs. 500 daily hospital cash • **Gold policy**: Rs. 650 for Rs. 1,000 daily hospital cash	• Pre-existing diseases • AIDS • Pregnancy • Mental conditions	• Rural sector

Product name & insurer	Risk insured and benefits	Type of policy	Premium (year)	Exclusions and restrictions	Classification and distribution channels
Shakti Health Shield Royal Sundaram General Insurance Available at: http://www.royalsundaram.in/rural-social-sector/social-sector-sakthi-shield.aspx	• (not reported)	• Individual (SHG women) or family policy	• (not reported)	• (not reported)	• Social sector
Personal Accident Plus "Micro Care" Bajaj Allianz General insurance Available at: https://www.allianz.com/v_1398674893000/media/responsibility/documents/Allianz_SE_-_Microinsurance_Product_Pool_3_7_-_20140502_-_MH.pdf	• Hospital cash benefit for illness (within accidental death and disability policy)	• Individual	• Rs. 150-300	• (not reported)	• Rural and "financial inclusion" segment • Channels: Banks and MFIs
Jan Kalyan Bima IFFCO-Tokio General Insurance Co.Ltd. Available at: Available at: http://www.iffcotokio.co.in/micro-rural-insurance	• Critical illness combined with other benefits (fire, robbery, personal accident)	• Individual or group policy	• Rs. 450 (individual)	• Hospitalization due to illness during first 90 days	• Microinsurance and rural sector • Channels: Cooperative societies, Micro-insurance agents, Cooperative banks, Bima Kendras

Product name & insurer	Risk insured and benefits	Type of policy	Premium (year)	Exclusions and restrictions	Classification and distribution channels
Kisan Suvidha Bima IFFCO-Tokio General Insurance Co.Ltd. Available at: http://www.iffcotokio.co.in/micro-rural-insurance	• Hospitalization due to critical illness combined with other benefits (fire, robbery, personal accident, tractor insurance)	• Individual and/or family members • Age eligibility: 5-65 years	• (not reported)	• (not reported)	• Microinsurance and rural sector • Channels: Cooperative societies, Micro-insurance agents, Cooperative banks, Bima Kendra
Swasthya Pratham Micro Insurance Product MAX Bupa Health Insurance http://www.maxbupa.com/customer-care/DownloadAllFrom/Swasthya%20Pratham%20Policy%20Wording.pdf	• Hospitalization, selected day-care procedures, pre and post hospitalization, medical treatment due to illness or accident (additional benefits for outpatient care, maternity care, transportation, wage loss can be added)	• Individual or group • Age limit 18-65 years for main member and 3months-65years for family member	• (not reported)	• HIV/AIDS and several other exclusions • pre existing conditions for first 2 years • 30 days waiting period	• Microinsurance
Rural Micro Health Insurance Star Health and Allied Insurance Company Ltd. Available at: http://www.starhealth.in/rural.php	• Health insurance: hospitalization for more than 24h, surgery, ambulance transportation	• (not reported) • Age eligibility: 5months-65years	• (not reported)	• pre-existing diseases (2 years waiting time) • children insured only with at least one parent	• Rural and microinsurance

The IRDA offers no clear information concerning the differences between the micro insurance products defined by the IRDA regulations (2005) and the social and rural insurance products required by the 2002 obligations for the rural and social sector. Therefore, there´s no clear distinction between micro insurance and social and rural insurance. None of the products presented in Table 4.8 has been officially registered at IRDA. Few insurers classify their products under MI. Most of the reported insurers classified the products as "rural products", probably because they are especially meant to comply with the rural obligations. However, no reference is made to the social sector. Thus, MI and rural products are generally considered distinct entities, with rural products being the most prevalent kind of product. Insurers have not embraced the concept of micro insurance as defined by the IRDA through the MI regulations and the number of MI products registered per year at IRDA is even declined in the last years. Only one product of the 23 registered products has been registered in 2009-10 and no new product has been registered ever since. Apparently, offering such MI products as defined in the IRDA regulations is not a priority for insurers, when compared to the necessity of fulfilling the rural and social sector obligations. This might be due to the difficulty for insurers to distribute products with features fitting with the parameters defined by the IRDA. Many insurers claim, in fact, that the restrictions on the level of coverage within MI products (see Table 4.3) are inadequate and that products with such features would be even unattractive for low-income clients (Rajalakshmi & Indira, 2013).

Analyzing the features of the products listed in Table 4.8, another tendency can be identified among the products. The majority of the products offer coverage limited to hospitalization costs. Most commercial insurers opt for a one-fits-all product, indifferentiated and mostly limited to the coverage of high-cost and low-frequency risks such as hospitalizations. In Chapter 2, findings from three rural sites show that the main ill-realated financial burden for HHs in rural areas is represented by low-cost but highly frequent medical costs, such as those connected to chronic illnesses. These figures are also confirmed by other authors in other regions in India (Dror et al., 2008; Binnendijk et al., 2011) and nationally by IRDA[50] national analyses. The burden

[50] (Now ex-) IRDA-chairman Hari Narayan held a presentation on „Health and Health Insurance in India "within the Session „Health Insurance Regulation and Health System Performance: The

created by these frequent medical costs is further increased by the continuous inflation of medical expenditures (IRDA, 2011). Private insurers should enter the MI market by creating an added value, thus offering other products than those offered by the government or by other organizations. The RSBY subsidized scheme is a huge competitor for private insurers offering MI products covering hospitalization costs only. Private insurers should therefore create a complementary market, for example by focusing on preventive and outpatient care.

In general, I found that little information on MI products was made available by insurers. Premiums are often not reported, as well as the delivery channels. An exception is Alliance SE, which was the only company publishing detailed information on the MI activities and on the way the company develops new business models and extends its spectrum to new countries[51]. It was very difficult to get information concerning insurers´ costs, investments and revenues/losses derived from the MI segment. The only information publicly available are the "short term and long term investment in social sector", included in some companies´ financial disclosure, and (rarely) the number of policies sold within the rural and social sector and the total premium collected. It was not possible to isolate information on micro health insurance products. Without a clear definition of MI products and with only disaggregated data available for micro insurance businesses, it is difficult to compare performances among providers and different schemes.

4.4 Challenges for commercial insurers in the MI market

Insurers that want to expand into this sector face several challenges. The lack of sectoral statistical data and performance indicators, as well as the lack of information on MI clients´ needs and on their level of risk exposure, creates insecurity among insurance suppliers, given the difficulty in developing and pricing MI products. For the development of health insurance products, detailed information on the clients´ health status and morbidity are necessary, in order to apply actuarial pricing methods. While this information is easily available within the standard insurance business, it is

Imperative Link "of the 8th World Congress on Health Economics in Toronto on July 13, 2011. The presentation is available upon request from the author.

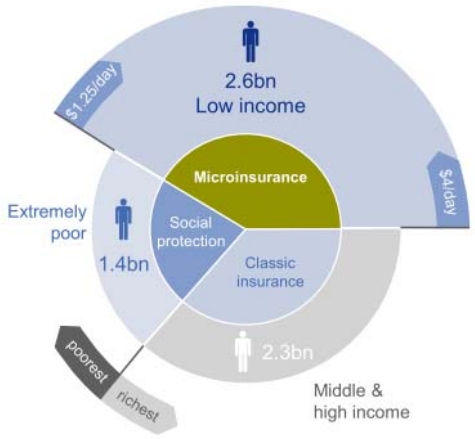
[51] Detailed information on the products is available at: https://allianz.com/v_1380546675000/media/responsibility/documents/microinsurance_product_pool_october_2013#page=39 (accessed 12.11.2013)

very costly and difficult to be obtained within the low-income segment. Insurers need to develop new ways of quantifying new risks and in absence of adequate information. Furthermore, products must be simple and use simple procedures. The low premium and the comparatively high transition costs make the business in this segment very difficult for commercial insurers. Finding appropriate and new non-traditional delivery channels to reach the low-income clients represents another big challenge for insurers, together with the need to develop new monitoring systems for the claim settlement. Some of the main problems affecting the penetration of commercial micro insurance are now discussed in details.

4.4.1 Defining target customers

In order to be able to develop an appropriate product, the insurer must primarily identify the target clientele. Though affordable, micro insurance products are not for free (when excluding fully subsidized governmental schemes). Clients must be able to pay the insurance premium; thus, they must be involved in some kind of income-generating activity and have a minimum level of income. Swiss Re (2010) and Allianz SE (2012) identify the target group for commercial MI in the group of individuals which are located above the $1,25/ day poverty line (based on 2005 PPP) and up to an income of $4/day (Figure 4.4). Those individuals situated above the $4/day threshold are more likely to be able to afford classic insurance products and are usually the main target for commercial insurance products. Those individuals located below the $1,25/day threshold are the extremely poor and barely able to afford basic necessities, thus considered incapable of paying for commercial insurance premiums. Swiss Re (2010) also claims that private MI implementation cannot be an effective solution for this segment of the population. Social protection schemes, such as subsidized health insurance premiums guaranteeing free access to health care, could offer some sort of risk protection to these extremely poor people (Ahuja & Jütting, 2004). Commercial insurers very often limit their commitment with the very poor and low-income groups to philantrophic or “corporate social responsible” initiatives. This issue will be further discussed in the next section.

Figure 4.4 - World population classified according to the income level and the corresponding risk protection schemes.



Source: Allianz SE (2012)

However, insurers offering appropriate MI products might be able to serve BPL clients, as showed through the implementation of CBHI schemes. Though more profitable in the short term, "cream skimming" strategies (by purposely selecting high-premiums clientele) might not be a good strategy for insurers in the long term, if they are interested in extending their business and in remaining competitive in a market like India, where the bulk of unserved clientele belongs to the low-income segment of the population.

4.4.2 Developing the right product

Classical insurance products provided by commercial insurers in India are developed on a top-down approach. Such products cannot be simply scaled down and applied to the MI market. MI products must, instead, be properly prioritized for target groups, since MI clients differ from standard wealthier insurance clients. Furthermore, MI clients´ priorities and ability to pay are very context specific. Therefore, it is not possible to rely on a one-fits-all model for serving the MI market. Products and procedures must be adapted to the local context. Needs assessment surveys and baseline surveys are necessary to understand the specific MI setting. In general, products should be simple, the insurance policy should be easily written and cover relevant risks and the premium should be affordable. The pricing of the products should be as transparent as possible, allowing clients to compare offers. As compared to standard insurance products, MI products can only offer a limited coverage against risks. Caps and benefits compensation are lower and usually high risks (such as

HIV/AIDS) are excluded. In MHI products, exclusions usually contemplate the type of health care benefit (hospitalization and/or outpatient care and/or drugs, etc.) or the providers (e.g. only coverage of costs at selected providers). Exclusions are generally necessary to keep products affordable and for the sustainability of the schemes. However, insurers must be extremely clear and transparent in explaining policy conditions before the policy is issued, in order to avoid clients´ dissatisfaction. In general, the claim settlement process should be easy, without the requirement of submitting too many documents, and possibly cashless. Inclusion is also a fundamental issue in MI. Generally, commercial insurers tend to use a risk-rated premium calculation for health insurance policies, which use risk factors (e.g. age, gender, medical history, occupation, etc.) to determine individual risk ratings. A higher risk rating will be transformed in a higher premium. This procedure is highly discriminative, since it makes it impossible for the the very needy (e.g. the elderly and severly ill people) to afford expensive insurance premiums. Insurers should, instead, consider adjusting standard insurance procedures to the new setting. By applying a community-rated premium (without medical underwriting or any kind of risk rating), insurers would be able to pool high and low health risks and to avoid the exclusion of some high-risks groups from the insurance coverage. However, this procedure is not free of challenges. Since most of the MI programs are voluntary, prices might be considered unfair by low-risk individuals, so that the insurance plan would only attract high-risk clients. Compulsory insurance (for example making the access to microcredit conditional to a health insurance policy) could guarantee an efficient pooling of risks in this case.

4.4.3 Financial sustainability

Next to the affordability of the products, financial sustainability is determinant for the success of MI schemes. Adequate pricing methods should prevent the company´s exposure to losses due to underpriced risks. The pricing of the MI products is usually done by private insurers using the same actuarial formula as for traditional insurance. The price derives by combinig the cost of claims expected to occur (obtained by multiplying the probability of an event with the expected cost of covered benefits), the administrative costs, a security margin (in order to cover uncertainties such as covariate risks - e.g. epidemics - and/or possible actuarial miscalculations) and the re-

insurance costs (if applied). In order to obtain the probability of claims, specific data on the target clients are necessary. Concerning health insurance, national databases (including actuarials tables) and WHO statistics are available for the standard insurance market. Such databases do not exist for the low-income market. Specific surveys are necessary in order to learn about low-income clients´ risk level. These are very expensive surveys, which would increase insurers´ costs and, thus, the premiums. MHI is particularly challenged by the level of transaction costs, compared to other insurance types, because of the higher number of interlocutors involved in the transactions (e.g. TPAs[52] and health providers). Insurers´ estimates of administrative costs are usually derived from a cost plan including all possible expenses for the administration of policy issuing and distribution processes. Because of the fragmented structure of the MI market, keeping track of all the financial transactions is very complex. Processes are mostly decentralized and partly delegated to agents (e.g. NGOs). Thus, developing an efficient record system for all MI transaction and management costs is extremely important. The IRDA allows insurers to outsource some administrative activities to the Third Party Administrators (TPAs), whose commission cannot exceed 15% of premium. Using TPAs would allow keeping part of the administrative costs under control.

Concerning security margins, insurers tend to charge higher margins for MI products than for standard products, because of the higher level of uncertainty concerning the frequency and distribution of risks in the low-income settings. Including MI in larger risk pools, together with the high-premiums insurance portfolios, would create diversification of risks and reduce the mean variation of annual costs, thus reducing the need of high security margins. Re-insurance could also be a valuable solution for MI, since it would allow transferring part of the risk of loss to the re-insurer (Dror, 2006; Biener & Eling, 2012). Re-insurance would also be charged on premiums, but the increase of premium when including re-insurance would still be lower than the effect on price given by the need of loading on premia and capital retention (Dror, 2006). Furthermore, re-insuring the MI portfolio would not particularly destabilize

[52] Third Party Administrators are new figures introduced by IRDA in order to ensure better services to health insurace policyholders. The TPAs manage claims and the reimbursment procedure and arrange for cashless hospitalizations for the policyholders. TPAs are separate entities coordinating insurance companies, policyholders and health care providers. TPAs are usually functioning as back-office administrators for private health insurers (Bhat & Babu, 2004).

private insurers´ finances, since the MI portfolio represents on average only 1% of insurers´ total exposure (Allianz AG, GTZ & UNDP, 2006).

4.4.4 Creating awareness and getting people´s trust

Despite the continuous improvements in the MI sector, insurance is not very spread as risk protection mechanisms for the poor yet (Dercon, 2000; Dercon & Krishnan, 2003; Collins et al., 2009; Kruk et al., 2009). Chapter 2 showed how poor households in rural India still rely on strategies such as borrowing (mostly from friends, informal credit systems or moneylenders), using savings and selling assets in order to cope with health care-related expenditures. MI clients are generally low-income and low-educated people and with very little knowledge about insurance. The development of appropriate awareness campaigns is fundamental for getting people´s attention on the functioning and value of insurance. Educational programs must be tailored to low-educated and illiterate people. The lack of trust in commercial insurers is a barrier for the penetration of commercial MI products. Especially for health insurance, trust must be created both at the health care provision level (in the patient-provider relation) and at the insurance level. Insurers can build reputation of trustworthiness by demonstrating expertise and responsiveness to consumers´ needs. At the same time, a minimum quality and availability of health care infrastructure is necessary in order for the clients to benefit from the insurance. Despite the development of good products, a lack of adequate medical services could challenge the success of an insurance product, since the insured expect to be offered quality care. Unfortunately, the weak and obsolete public health infrastructure, especially in rural and remote areas, has a deterrent effect on potential clients´ willingness to buy insurance policies. The private health infrastructure doesn´t have the capacity to serve the mass of unserved patients. Furthermore, the use of private medical services would push insurance prices much above the capacity to pay of MI target-clients.

The terms of the insurance contract should also be extremely transparent and claim settlement easy and fast, in order to avoid disappointment among the clients and losing people´s trust. Insurers should also contemplate the creation of organs for consumer assistance close to the communities. Decentralized organs offering assistance for claim settlement or grievance could create more commitment to using insurance services. Low-income clients could, in fact, be scared away by the formality

of the insurance business, while involving local agents (such as NGOs in the partner-agent model) could lower the physical distance between insured and insurers.

4.4.5 Moral hazard, adverse selection and fraud

Moral hazard behavior, according to which insured individuals would behave differently than people exposed to risks, is often associated with MI. In health insurance, moral hazard behavior refers to the fact that insured people are more likely to use health care[53]. However, it is important to remark the difference between a changing health care seeking behavior and the excessive unneeded use of care. Through health insurance people might be incentivated to excessively use health care, since they do not have to pay the full marginal cost of care (Jacob and Lundin, 2005). However, this behavior should not be confused with the normal change in health care seeking behavior induced by MI. The objective of MI should be, in fact, offering poor people the chance to get high-value care, which they couldn´t afford without insurance. Insurers should therefore only concentrate on fighting hazards that put the sustainability of the scheme at risk. A back-log effect at the start of the MI implementation is, instead, quite inevitable, which creates a high concentration of claims right at the beginning of the MI scheme. This is the result of poor people´s long-time under-use of (valuable) health care. When these people are finally able (through insurance plans) to access valuable health care, they will clog up the insurance system right at the beginning. Insurance schemes only covering hospitalization costs are less challenged by this effect, because of the acute and unexpected nature of the event, as confirmed by Dr. Nishan Jain[54] (GIZ) concerning the RSBY scheme. The back-log effect is, instead, more visible when MI programs include benefits such as outpatient treatment, as reported by Mr. Devabalan Raja (CARE India).[55] One possible solution against the excessive use of care could be including a coinsurance (requiring the insured to pay some part of the costs out-of-pocket). However, this would reduce risk protection (together with excess utilization)

[53] However, it is rather difficult and subjective to identify episodes when care is "really" needed or not.
[54] Dr. Nishan Jain is Deputy Programme Director at Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) in Delhi and Advisor to Government of India on national health insurance programmes. Dr. Nishant Jain kindly reported information on the *Rashtriya Swasthya Bima Yojana* (RSBY) state-run insurance program during the Summer School: "Micro Health Insurance in Developing Societies – Protection for the Poor? The Example of India" organized by the University of Cologne in Delhi in September 2011.
[55] Mr. Devabalan Raja kindly reported information about CARE´s micro insurance programs during an interview in September 2011.

and would contrast with the original scope of MI to mitigate the risk exposure of the poor. In alternative, using local agents (like in the partner-agent model) could create a peer monitoring mechanism against hazards and fraud (such as faking claims).

Another risk for voluntary MI programs is the so called “adverse selection“ risk, which occurs when individuals (very usual in poor settings) only undertake insurance when in immediate need of health care. Adverse selection usually happens in combination with low general demand, thus creating a situation of inefficient pooling. Technically, implementing compulsory insurance schemes, where only all community members at once can get insured, would be the most direct remedy. However, this solution is not ideal in poor settings, where HHs need to prioritize between several basic necessities. Another solution could be including a waiting time in the health insurance policy, so that the insurance coverage would not start at the issue of the insurance policy, but some time later (usually six months or one year later). Such a policy would, however, undermine clients´ trust in the insurance scheme. Other corrective methods often used by insurers are policy exclusions and/or pre-medical tests assessing prospect clients´ risk level (thus charging higher premiums for severely ill clients). Despite the severity of the adverse selection risk for the sustainability of MI schemes, this sort of risk is intrinsically connected to serving low-income groups and, therefore, cannot be eliminated without undermining the effectiveness of micro insurance as a financial protection tool for the poor.

4.5 Extending health insurance to the poor: A business ethical issue?

With the aim to respond to emerging social, environmental and economic issues, an increasing number of corporate leaders are promoting companies´ sense of corporate social responsibility (CSR). CSR is now considered as an integral part for the process of wealth creation, next to conventional profit generating business activities. Companies´ new attention to social responsible issues is driven by several factors. On one side, the arisen concern of consumers and investors on social and environmental issues. On the other side, the faster communication and information technologies push toward more transparency in business activities (EU Commission, 2001). Some companies see CSR as a strategic investement in quality improvement, some other as a cost for beneficial marketing.

This section aims at analyzing the extent to which Indian insurance companies connect the concept of CSR with micro insurance and at understanding whether insurance companies´ CSR attitudes could be favourable for creating an inclusive insurance business for the poor. The findings are based on research about the CSR activities undertaken by insurance companies active in India, which are obtained through companies´ websites, reports, press releases and other public disclosures. Table 4.9 presents an overview of the CSR activities declared by the main commercial insurance companies active in India. Some companies did not report any information on CSR activities and have not been included. In general, no or very elusive information was available about inputs and outputs of companies´ CSR involvement. Column two in Table 4.9 reports the social initiatives reported under CSR for the FY 2012-13. Column three reports whether insurance and/or micro insurance are included within such CSR activities. It emerges that insurance companies´ CSR activities mostly include philantrophic social initiatives in the area of education, child welfare, health, environment and social inclusion. Companies mostly make donations to organizations, which then deliver the social benefit. This way CSR remains disconnected from the company´s core business and is not included in the company´s business model, as the original meaning of CSR would claim. The leading question behind companies´ CSR should be instead: “How does the company affect society?”. Social responsible companies should then behave accordingly. Since insurers´ core business consists in offering risk protection plans, creating an inclusive insurance service for the poor would appear to be the most obvious social responsible activity to undertake. Excluding few exceptions, the majority of Indian insurers do not include MI within their CSR activities. One exception is ICICI Lombard, which reports on the website: “At ICICI Lombard investing in rural markets is seen as a keen social responsibility. The protection provided to the rural class is specified and customized according to their needs”. Thus, the company´s vision of corporate social responsibility encompasses serving the undersupplied rural segment by offering appropriate insurance products.

Table 4.9: Overview of the CSR activities undertaken by commercial insurers active in India in the FY 2012-13

Insurance company	Social initiatives listed under CSR FY 2012-13	CSR activities include insurance / microinsurance
HDFC Ltd (HDFG ERGO General and HDFC Life insurance)	"HDFC has undertaken development oriented work and supported several social initiatives in the areas of education, child welfare, medical research, welfare for the elderly and the handicapped among several others" [56]	Yes, but only within life insurance and no specific information on products available
ICICI Lombard	"Rural Development Initiatives"[57], including the micro insurance activities. Further philantrophic activities through employee-driven campaigns (including medical camps, nutritional support, mother and child care, etc.)	Yes, under rural development initatives
CHOLA MS	Health care, educational and other developmental philantrophic services through the AMM Foundation of the Murugappa Group[58] Special safety initiatives during religious festivals in Mumbai.	No
Future Generali	Developmental programs through Future Group, including: -Enviromental programs -Inclusive growth, community-driven and sustainable development (no specific information on projects)	No clear information available
AVIVA Life Insurance	Initiatives facilitating education for underprivileged children, providing life skills training and linkages to vocational training opportunities, health and hygiene campaigns and early childhood care.	No

[56] The HDFC´s Social Initiatives Annual Report for 2008 included social programs partially involving health insurance practices. Whithin the "income housing and microfinance" segment of social activities, HDFC Ltd. was collaborating with the NGO Malanadu Development Society on a microcredit plus system which also included the possibility to connect health insurance to microcredit. Prachodhan, an initiative of the Evangelical Social Action Forum (ESAF) in central and north india, was reported collaborating with HDFC Standard Life and HDFC ERGO for providing both life and non-life insurance to their SHG members. However, such programs are not listed anymore within the social activities currently involving HDFC Ltd. (These contents are available at: http://www.hdfc.com/others/social_initiatives.asp (accessed 10.01.2014)).

[57] Detailled information on the "Rural Development Initiatives" is available at: https://www.icicilombard.com/about-us/career-corporate-policy/Rural_Development.html (accessed 10.01.2014).

[58] The Murugappa Group is the business group including CHOLA MS General Insurance Ltd. Information on the Group CSR activities available at: http://www.murugappa.com/community/overview.htm (accessed 10.01.2014).

Insurance company	Social initiatives listed under CSR FY 2012-13	CSR activities include insurance / microinsurance
Bajaj Group (Bajaj Allianz General and Life Insurance)	Several philanthropic and rural development initiatives including: -health, family welfare, immunisation, supply of potable drinking water, sanitation and alternative source of renewable energy, health check-up camps -Employment Generation Programmes, awards, support of higher education centers	No
TATA Group (TATA AIG General & TATA AIA Life Insurance)	Philatrophic initiatives including: -Employees volunteering programs -programs aiming at creating equal opportunities for disadvantaged casts -community programs on education, health, sports, rehabilitation -environmental programs	No
Bharti Axa	Several philantrophic activities including[59]: -programs promoting reduction of carbon footprint, fitness and health -risk education program for women and self-defence program -going green campagne for reducing paper and plastic use -health camps with free check-up and medicines for underspriviledged women -blood donation an health awareness program -diversity and inclusion program -underpriviledged girl education program	No
IFFCO-TOKIO General insurance	Activities within the insurance core business aiming at reaching growth and development of the rural and social sector[60] (no specific information on activities or products)	Yes
Apollo Hospitals Group (Apollo Munich Health Insurance)	Health initiatives, inclusive medical services, rural school programs[61]	No
Max India Group (Max Bupa Health Insurance)	Health, childern and environmental programs[62]	No

[59] Full details on these and other CSR activities are avilable at: http://www.bharti-axagi.co.in/corporate-social-responsibility (accessed 10.01.2013).
[60] Direct information available at: http://www.iffcotokio.co.in/csr (accessed 10.01.2014).
[61] Details on the programs available at: http://www.apollohospitals.com/initiatives-corporate-social-responsibility.php (accessed 10.01.2014).
[62] Details available at: http://www.maxindia.com/csr.html (accessed 10.01.2014).

Most of the insurers observed in this study tend to prefer one-time or periodical financial grants for charitable activities to long-term commitments. This way CSR appears to be "neither strategic nor operational but cosmetic" (Porter and Kramer, 2006) and could even have a negative impact on ethical business, since it offers "bad" companies the chance to cover the negative social effects of their business strategies through philantrophic activities. Laura Donovan, expert in CSR and MI in India, claims that companies´ committment to MI as a socially responsible part of their business portfolio is striktly connected to corporate benchmarks[63]. Without returns in the medium-long term insurers will not guarantee a commitment to MI and will prefer other kinds of commitment for their socially responsible activities.

The recently issued Companies Act (2013) makes an effort to introduce the culture of corporate social responsibility in Indian firms by requiring solvent companies[64], including insurance companies, to spend at least 2% of the average net-profits of the immediately preceding three years on CSR activities. Companies failing to comply with this requirement are expected to compile a report justifying their shortcoming (see section 135 of the Act). There have been mixed reactions to this compulsory approach with respect to CSR among Indian and foreign companies active in India. These regulations show again the Indian authorities´ intent to promote a growing involvment of the private sector for solving social issues. As much as for the social and rural obligations for insurance companies, it might take a while until companies digest the compulsority of this regulation and absorbe CSR as a culture. Furthermore, CSR activities are not specified enough within the Act, so that it is not possible to infer what kind of projects could be undertaken in order to fulfill the regulations[65]. The definition of CSR in the Companies Act encompasses mostly philantrophic

[63] Mrs. Laura Donovan, ex senior consultant at the Micro Insurance Academy and ex Chief Executive at Partners in Change (PIC), a Delhi-based not-for-profit society dedicated to promoting pro-poor CSR, kindly reported information for this study during my research stay in Dehli in September 2011. More information about PIC can be found here: http://www.picindia.org/whoweare.html (accessed 08.09.2013).

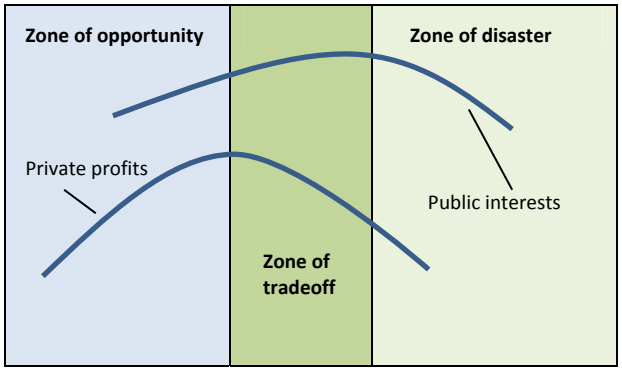
[64] Information about companies excluded by this compulsority are included in Section 135 of the Act, available at: http://indiacode.nic.in/acts-in-pdf/182013.pdf (accessed 19.11.2013).

[65] Schedule VII of the Companies Act describes CSR activities as: (i) activities aiming at eradicating extreme hunger and poverty; (ii) activities promoting education; (iii) activities promoting gender equality and empowering women; (iv) activities aimed at reducing child mortality and improving maternal health; (v) activities aimed at combating human immunodeficiency virus, acquired immune deficiency syndrome, malaria and other diseases; (vi) activities aimed at ensuring environmental sustainability; (vii) activities supporting the acquisition of employment enhancing vocational skills; (viii) social business projects; (ix) contribution to governmental funds for socio-economic development and relief.

activities, so that MI could only be included under the voice “social business projects“ and, thus, when considered a separate entity compared to the standard for-profit business activities.

Several studies try to identify common features of companies engaging in corporate social responsible activities. One finding is that the company´s engagement is closely related to the management´s commitment to social responsible business (Sood and Arora, 2006). Mishra & Suar (2010) claim that responsible business practices can be profitable and beneficial to Indian firms, showing that managers´ favorable perception towards CSR is associated with an increase in financial and non-financial performance. Karnani (2011), instead, claims that “doing well by doing good” is an illusion, since companies´ social responsible activities are simply a cost for them. He therefore concludes that CSR is not the appropriate tool for achieving large social goals and that “business gurus exhorting companies to incrase their profits while solving big social problems have fallen into a logical fallacy”. He supports his proposition by describing three possible scenarios (Figure 4.5) in which private profits and public interests can be combined. In the zone of opportunity (left) both private and public interests are satisfied[66]. The opposite happens in the zone of disaster. Critical is the zone of tradeoff, where social benefit is obtained at the cost of private profits.

Figure 4.5 - Possible scenarios for private profits vs public interests



Source: Own elaboration on Karnani (2011)

Karnani uses the example of wind farms for this last scenario. Wind farms are a socially beneficial way of producing energy but they are not competitive in a free

[66] The inclination of the curve could vary depending on the case in analysis.

market, given the higher costs connected to the production. The majority of social problems lie in this zone, which represents a situation of market failure. According to the author, when the market fails and problems reside in the trade-off zone, neither free market forces alone, nor CSR will solve the problem. In order to solve long-term social problems, constraints on firms behaving exclusively in their self-interst are necessary, which can take the form of voluntary constraints (spontaneously accepting a loss in profitability) or regulations (governmental or within the firms industry).

I will now use these considerations and apply them to the Indian insurance scenario.

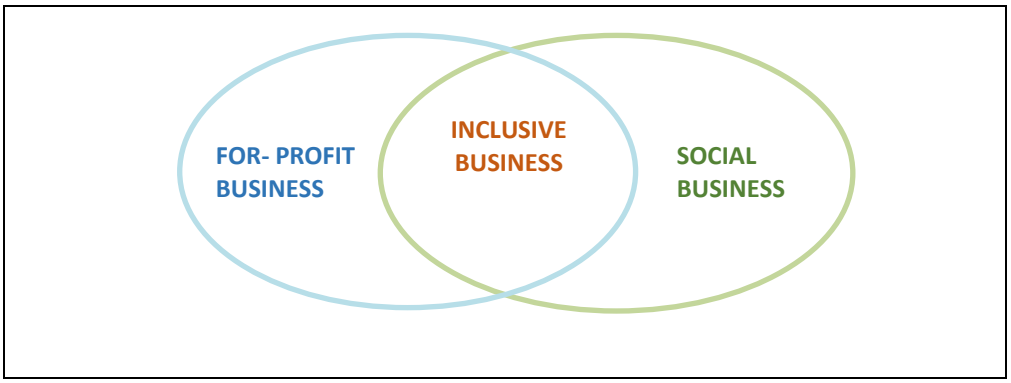
Indian insurers´ approach toward CSR tends (apart from few exceptions) to keep a distance between core business activities and CSR activities, which are instead interpreted as a direct or indirect involvement of the company in social benefical activities (not encompassing insurance activities). Also the definition of CSR provided by the regulator in the Companies Act does not explicitely push for the absorption of CSR within the companies´ business model. We can then conclude that, in this current scenario, CSR is not likely to be the solution for the extension of insurance services to the excluded groups in the Indian society.

The insurance industry regulations issued by the IRDA can, instead, represent the right impulse for insurers to experiment a new market approach and extend their portfolio to the low-income market. It remains to understand the extent to which insurers have started to look at the MI market as a potentially profitable market (thus moving from a trade-off scenario to a zone of opportunity). This issue is discussed in details in the next section.

4.6 Gains and risks for commercial insurers entering MI business

The insurance market in India is a typical example of market failure. There is enough unserved demand, especially for health insurance, but demand and supply are not yet efficiently meeting, especially concerning the low-income segment of the population. Until the IRDA´s intevention through rural and social obligations, insurers in India neglected the low-income market and concentrated their business on the middle to high-premiums market. Sector regulations and public expectations are now pushing for more inclusion within the for-profit business.

Figure 4.6 - The classification of inclusive business in regard to for-profit and social business



Promoted by governments and international development cooperation, a new definition of development as market-based processes is taking the lead. Serving the poor is not anymore reserved to philantrophy and social business, but is instead becoming integral part of the for-profit business. Financial inclusion - defined as the process of facilitating the access to the formal financial system (including insurance services) of those segments of the population which are denied these facilities (Karmakar et al, 2011) - can therefore be considered an issue concerning both pure social business and standard for-profit business (Figure 4.6). In order to identify possible solutions for the extension of the MI market, it is important to first isolate the role and responsibilities of the for-profit insurance industry. Insurers in India, as profit-oriented entities, are interested in maximizing short term revenues. It is therefore important to understand the business relevance of the low-income MI market for private insurers. Are commercial insurers in India still looking at the relationship between corporate success and social welfare as a zero-sum game? Prahalad (2011) claims (in his renowned work "The fortune at the bottom of the pyramid") that the unserved low-income market has a high business potential for companies who learn how to serve it. He is against the top-down idea of development through aid, which tends to see the poor as victims in need of help, and he also does not see CSR as the solution to the problem, claiming that serious commitment from a firm cannot be based on philantrophy (or CSR). He supports the crucial importance of involving the private business for eradicating poverty, but claims that low-income markets must first "become integral to the success of the firm in order to command senior management attention and sustained resource allocation". Has this potential of the low-income market been overlooked by Indian insurance companies? If there is a

lot of potential for profits in the low income market, then serving this untapped market would be a win-win solution for both insurers and the community (such as in the scenario in the zone of opportunity). However, in a competitive market, if there were easy ways to make profits, some companies would have already exploited these opportunities (Karnani, 2011). The difficulty of entering a new unknown market might have kept insurers away, rather than low expectations on profitability alone. The MI market is not a market for high short-term profits and requires investing in restructuring business processes and in innovation. Insurers have to overgo several challenges in order to be successful, as previously discussed. The MI market requires long-term commitment and a willingness to properly serve a new clientele. These reasons might also explain insurers´ first reluctance to accept the IRDA social and rural regulations, whose effects start to be visible in the increased insurers´ willingness to extend their share of portfolio in the rural and social sector beyond the compulsory quota (IRDA, 2013).

Indian insurers might decide to enter the MI market for several reasons. First of all, the high competition on the standard insurance market is reducing profits on contracts at the minimum. Thus, they might be interested in the low-income market in order to explore a new untapped market or for diversification purposes. The same holds for foreign insurance companies, since western markets are already saturated. Entering MI could also be useful for fulfilling social expectations and promote the company´s brand. Furthermore, with a MI market size estimated at Rs. 62.30 to 84.27 billion per year, with Rs. 13.42 to 17.89 billion for health insurance alone (UNDP, 2009), there is a high potential for market growth, given the large unserved population. Companies might therefore be interested in securing a first-mover advantage in the fastest growing market while the market is still in a development phase. Investing in low-income clients now could also guarantee a larger market share for tomorrow, since today´s low-income clients can be tomorrow´s middle class. Some insights into insurers´ motivation for their involvement in MI could be inferred from companies´ reports and other public disclosures. Allianz SE´s Annual Report (2012) explains that social benefits and business advantage, such as driving innovation and cost efficiency, branding opportunity and “reasonable profits“, are the drivers for the company´s

commitment to MI in India[67]. The report presents a growth in the company´s MI portfolio but, unfortunately, no information about the profitability of the company in the MI segment. Angove et al. (2012) report very positive revenues ($100m) for Allianz SE in India from the marketing of a savings life MI product. The Munich RE group reports on its website that the involvement of HDFC ERGO General Insurance Company Ltd. in MI "allows to combine social commitment with an investment in a growing market which the United Nations estimates has currently reached only 5% of its potential". Andreas Matthias Kleiner, responsible for Asia at ERGO International AG, claims that "Microinsurance will strongly gain in significance in emerging countries over the next few years. International demand is estimated at €1.5bn to €3bn and insurance companies expect a growth rate of 100% in the next four to five years"[68]. IFFCO Tokio manifests social responsible objectives in engaging in MI, such as "the growth and development of the rural and social [insurance] sector". In order to make the business viable, the company has engaged a specialized rural team which develops business strategies for overcoming challenges in the MI segment, including "high distribution and development costs and low profitability". Future Generali Insurance managing director and chief executive KG Krishnamoorthy Rao claims that "the penetration of insurance in rural markets is dismally low, far lower than the national average of 4 percent (life insurance and non-life insurance put together). It presents a huge untapped opportunity, which can be leveraged with suitable products customised for these markets. We are confident that this comprehensive product and its viable price will make a compelling proposition, which will help our partners attract many first-time buyers […]"[69].

Coydon & Molitor (2011) investigated the experiences with MI of 24 top commercial insurance companies, eight of which active in India and, among these eight ones, two offering micro health insurance products. The main self-reported motivations for their

[67] The full report is available at: https://www.allianz.com/v_1364465843000/media/responsibility/documents/Allianz_Microinsurance_Business_Update.pdf (accessed 12.11.2013).

[68] HDFC ERGO is the 4th largest private sector general insurance company in India and is a joint venture between the Indian HDFC Ltd and ERGO International AG (Munich Re Group) The full article is available at: http://www.munichre.com/corporate-responsibility/en/solutions/primary-insurance/microinsurance/default.aspx (accessed 12.11.2013).

[69] The full article is available at: http://articles.economictimes.indiatimes.com/2012-07-03/news/32523960_1_generali-group-future-generali-india-insurance-insurance-and-non-life-insurance (accessed 12.10.2013).

involvement in MI was the desire to invest in new markets and the financial profits expectations, followed by CSR and benefits for the brand´s image. Only 4.17% of respondents think that MI won´t become profitable in the short-term. These results show that commercial players recognize both financial revenues and brand recognition as added values offered by entering MI. However, the study also reports that, despite the good expectations concerning the future viability of the MI market, most insurers declared their current inability of writing MI on a profitable basis. Respondents did not perceive the initial financial investment in MI as an obstacle but reported that the high costs of development for the low-premium contracts, when compared to the low returns, represent a challenge for the financial sustainability of the MI portfolio. The interviewed insurance companies were mostly offering MI in India, because of the large size of the market and the better development of the MI market infrastructure, compared to other countries. Interviewed insurers not involved in MI mentioned as reasons the insufficient size of the market, the lack of expertise in the sector and a priority in standard markets.

Research on the profitability of MI for commercial insurers is very limited (Angove & Tande, 2011; Koven et al., 2013). The impossibility of accessing financial data concerning the MI activities of commercial insurers represents a big challenge for the analysis of the performance of this new market. My analysis of insurers´ financial disclosures did not allow extracting the share of MI from the overall insurance portfolio. It is therefore impossible to estimate the profitability of the insurers´ MI activities through the information provided by the insurers. Tracking record of the many transactions and the relative costs involved within the MI activities is very challenging for the insurers themselves, since most of the insurers adopt the partner-agent MI model and collaborate with different local organizations (mostly NGOs and MFIs), whose activities are difficult to be recorded. Financial returns from MI are per definition generally limited, compared to the standard insurance market, and insurers´ risk exposure much higher, mostly depending on the missing statistical databases. In the case of health insurance, the low clients´ health capital, mostly depending on the low quality of care recived and on missing preventive measures, represents a further burden for the sustainability of insurance schemes. In order to generate profits from low-premium contracts, insurers must be able to scale up quickly and reach a MI

portfolio commensurate to the risk and upfront investments. However, it is difficult to estimate the number of contracts necessary for insurers to break even from the information currently available.

4.7 Discussion

The process of incorporation of low-income clients in the Indian commercial insurance system is still at an embryonic stage. However, both insurers and the Indian government see positive prospects for the future.

Companies´ commitment to CSR does not seem to be a short-term solution for the creation of inclusive insurance services in India. The impact of the new Companies Act (2013) will only be visible in 2 years, when the three-year term for the companies to comply with the regulation will expire. However, since the definition of CSR provided by the Act does not explicitly encompass the companies´ core business activities, but rather philantrophic activities, little hope is reserved on the effect these regulations will have on the extension of insurance services to the excluded groups. Commercial insurers still have to see the advantanges of "doing well by doing good", since responsible business practices have shown to be advantageous for firms as well, not only for customers and the society. Meeting the modern customers´ expectations for a more equitable corporate behavior could, in fact, increase the firm´s competitiveness, from which not only social, but also financial benefits would derive.

The insurance industry regulations for the rural and social sector issued by the IRDA had given the right impulse for insurers to experiment a new market approach and extend their portfolio to the low-income market. The IRDA strongly believes in the importance of micro insurance and supports the role of private insurers for generating inclusive insurance business for rural and social groups. India can be therefore considered a leading example in terms of regulatory framework and support for the MI sector. It remains to understand the extent to which insurers have started to look at the MI market as a potentially profitable market.

Market analyses estimate a huge growth of the Indian MI market, in particular the health insurance segment, over the next years. These estimates are mostly based on the high potential of the huge unserved population, when compared to the highly saturated western markets. However, entering this market is not without challenges for insurers. The success of commercial insurers in the MI market depends on the

commitment of the company to effectively serve a new clientele that differs in many aspects from the standard insurance clientele. Innovating products and restructuring business processes is necessary. The poor and obsolete public health care infrastructure represents the main challenge for the penetration of private health insurance. Clients paying for private insurance expect quality care in return. Furthermore, cost-efficient models are necessary in order to reach affordability and financial viability. Reducing transaction costs is one of the main challenges for MI business. New distribution channels must also be found. MI products cannot be down-scaled versions of standard insurance products. New demand-driven products must be designed, taylored to people´s needs and priorities. Claims should also be possibly cashless (indemnity insurance) instead of reimbursement-based. The use of TPAs could help to make health insurance claims cashless.

Insurers that are not yet willing to invest in innovation and to adequately serve the low-income market but, instead, only use MI to comply with the rural and social obligations, risk to fall into the "zone of disaster". The distribution of inadequate products, in fact, is not likely to be neither a successful business, nor effective in protecting clients against risks. Favourable financial regulations and fiscal incentives could be the drive for insurers´ commitment.

Among the different MI implementation models, the partner-agent model has the potential to both effectively serve the low-income clientele, given the close relationship of local agents with the communities and the technical know-how of the partner, and to be a cost-efficient model, thanks to the lower transaction costs compared to the pure commercial model. Furthermore, the agents´ closeness to the insured could build more trust for the scheme within the community (which is likely to increase the willingness to be insured) and could also allow to better monitor against fraud and hazards. Joining forces with local organisations (usually NGOs or MFIs) could therefore help to overcome some of the main challenges to the spread of commercial MI. The parner-agent model is also officially recognized as MI implementation model by the IRDA, which supports it with ad-hoc regulations. However, the CARE- Bajaj Allianz case study has shown some of the challenges that such a model could face. For example, it is relevant to develop a strong coordination between the partners and to offer support to the local organisations (also in terms of

capacity building). Furthermore, creating a network of agents (local organizations) could help the outreach of the schemes. The scheme should guarantee a certain outreach in order to be financially sustainable, which is necessary to guarantee the insurer´s commitment. Furthermore, it is important to create cost-efficient transactions, as well as to develop a good costs plan and monitoring system for all financial issues. In order to reduce the cost of claims, agreements with local medical providers (bargaining a lower cost of selected services for insured), as well as linkages with the pharmaceutical industry could create a healthy competition between providers and, thus, it would also lower costs. Insurers should offer products that complement the products already available in the MI segment. This means concentrating more on low-cost but high-frequency services (such as outpatient care), instead of focusing on hospitalization coverage only.

One of the problems emerged in this study is the lack of specific information on the MI products and their performance. There´s the need to create a standardized monitoring system for the MI market, with insurers regularly collecting and sharing information on the distributed products and on the outreach of the insurance plan. The availability of such relevant data is fundamental for the development of efficient business models. The creation of a separate body monitoring the MI sector, under the supervision of the IRDA, could possibly serve as incentive for a more structured MI market.

It is a matter of fact that without a perspective of profitability commercial insurers will not show the proper commitment necessary for offering effective insurance services to the poor. Private insurers need time to experiment and see the business case within MI, before the market can successfully evolve. A business case is also fundamental for attracting investments into the MI market. However, one could argue whether the amount of revenues satisfying insurers´ expectations would be plausible (or even ethically acceptable) within MI, which is a low-premium business segment.

Some cross-subsidization in the insurers´ portfolio would let low-income clients pool their resources with the other standard clients, so that the larger pooling could lower the average loss ratio. MI clients represent a too homogeneous group for developing effective risk-sharing strategies since “pooling the poor with the poor is poor pooling“ (Dror, in Radermacher & Brinkmann, 2011).

4.8 Conclusions

To conclude, the trend shows a growing involvement of commercial insurers in the low-income segment of the Indian population. The private MI market, in particular the health insurance segment, is estimated to grow exponentially in India over the next years.

Commercial insurers are starting to be interested in the new MI market and could become important players for the massification of insurance services, with the support of the central government, which particularly encourages the involvement of the private sector in social issues. However, insurance companies´ interest still needs to be guided toward the development of an effective inclusive insurance system, which adequately serves the low-income clientele, and for creating cost-efficient models that guarantee financial viability. The partner-agent model is a very promising model, which has the potential to be both effective and efficient.

The new Companies Act has met public expectations demanding more attention to social issues within the private business. However, as long as insurance companies do not absorbe CSR as corporate culture and recognize it as an added value to the own business model (with potential beneficial effects on both the financial and non-financial performance), business ethical strategies are not going to be effective in creating inclusive insurance services in India.

Concerning the health insurance segment, in particular, there is a huge unmet need for micro health insurance products. Private insurers should find their niche and offer complementary insurance services than those offered by the government and other organizations. The RSBY scheme represents a big challenge for the penetration of private insurance. However, little hope is put in the effectiveness of both private health insurance and government-financed insurance schemes in creating equitable access to health services, as long as the Indian government is not willing to invest more resources in the improvement of the public medical insfrastructure.

5 CONCLUDING REMARKS

This thesis has analyzed how ill-health affects low-income groups in rural India and the way health insurance products could be developed which effectively serve this specific segment of the Indian population, by considering low-income people´s specific needs and financial possibilities. In particular, community-based approaches and market-based approaches have been taken into analysis, next to a presentation of current governmental approaches. The studies presented in this thesis are motivated from the fact that health care is still mainly financed through out-of-pocket payments in India, which exposes low-income groups to severe hardship or forces them to forego seeking health care altogether.

The first study (Chapter 2) was based on a case study in northern rural India and focused on studying the prevalence and types of ill-health episodes, their effects on household welfare and the health care financing strategies used by low-income groups in rural India. Furthermore, ill-health events have been compared to other adverse events afflicting rural communities (e.g. natural disasters, job loss or weddings), in order to identify the relevance (in terms of prevalence and costs) and the possibility for HHs of recovering from ill-health episodes, relatively to other adverse events. The results show that ill-health represents a high economic burden for households in northern rural India. Ill-health was the second most common threat, after natural disasters which, however, are more likely to hit richer HHs, compared to ill-health. Only a quarter of individuals from the studied population were able to recover from health-related expenditures. The study also shows the high prevalence of chronic conditions (and of non-communicable diseases in general) among the population and the importance of the costs for outpatient care (particularly the cost of drugs). These findings indicate that approaches aiming at reducing families´ hardship derived from ill-health conditions should not only focus on inpatient care (which is very costly but less frequent) but should, instead, put more effort in protecting households from health-care expenditures which are more frequent and often distributed over a long period of time. Households were mostly likely to use their savings, sell assets and borrow money in order to finance health care-related expenditures in the short term. These strategies are very corrosive and entail long-term consequences for households´

welfare. A substantial share of households even reported foregoing seeking healthcare, which can have severe consequences on their productivity capacity and, in the long term, on the community´s health capital. This study contributes to the existing literature comparing different shocks affecting developing communities in other countries, since none of the existing studies analyzed the case of India. Furthermore, this study adds important insight into the very limited research on the conduits through which ill-health affects households´ living standard in rural India. The information gained in this study might be relevant for the development of adequate pre-financing strategies for rural communities in India, by highlighting Indian rural communities´ specific needs and vulnerability, as well as the relevant challenge related to the increasing importance of chronic and, in general, non-communicable conditions.

The second study (Chapter 3) presents a case study exploring a bottom-up approach for the development of health insurance products for communities in rural India. The aim of this study is shedding light on communities´ preferences for health insurance plans in rural India, as well as on the factors influencing these preferences. The study is motivated from the necessity of understanding people´s preferences in order to be able to develop insurance products that effectively meet low-income groups´ expectations and priorities. The CHAT (Choosing Health plans All Together) tool was used to elicit SHG members´ preferences using a participative approach. The tool showed to be effective and was also positively evaluated by the communities. The study shows that even individuals with low education or illiterate and with little or no previous experience with insurance are able to make decisions on health insurance plans, if provided with basic insurance information and when using eliciting methods tailored to their level of literacy. As foreseeable in resource-poor settings, people gave much weight to the price of the different insurance options. However, people often opted for a “value for money” choice, thus showing the ability to trade between the several features of the insurance products. Peer influence among SHG members was also often reported influencing decisions. Surprisingly, possessing RSBY insurance card did not show to influence choices. This study also finds some level of correlation between the path of choices during the CHAT exercises and the willingness to enroll into the community insurance scheme. This study contributes to the existing literature by analyzing consumers´ preferences for health insurance plans in developing

communities, since the almost totality of research on this topic has so far concentrated on consumers´ preferences in developed countries. The results of this study might serve as input for the development of effective health insurance plans that are specifically tailored to resource-poor communities´ needs and expectations.

The third study presented in this thesis (Chapter 4) analyzes the role of private insurers in the Indian micro insurance market and the challenges and prospects for the creation of an inclusive insurance market. The study is motivated by the growing involvement of the private insurance sector in the low-income market, also supported by the Indian insurance authority (the IRDA), which has given a first important impulse for the insurers (through the introduction of social and rural obligations) to experiment new market approaches and to develop specific products for low-income clients. The study shows that most insurers are currently offering micro health insurance products that, however, are only aimed at reaching the targets imposed by the IRDA. Business ethical strategies are also not likely to be the right incentive pushing toward more inclusive insurance services in the near future, since most of the insurers taken into analysis do not currently relate their CSR program to micro insurance but are, instead, mostly involved in the funding of philanthropic activities. Despite the huge unmet demand for micro insurance, in particular health insurance products, private insurers have not been able to develop an adequate business strategy to serve this new market yet. This study shows the potential of the partner-agent model for the creation of effective and efficient insurance services for the low-income segment. However, the case study taken in analysis underlines how the good functioning of such a partnership model (which uses the strengths of both business-oriented private insurance models and of development-oriented local organizations) can be challenged by the different approaches taken by the partners or by conflict of interests, as well as by several external factors.

Insurers are slowly starting to see some potential in the MI market and are more willing to invest in innovation, but not without prospects of profitability. The lack of information released by the insurers on the MI products offered and on the performance of their MI portfolio hindered the possibility of making an accurate forecasting of this market. It is therefore necessary to create a standardized monitoring system for the MI markets. Information regularly collected and shared by insurers

would be very relevant for the development of an effective and efficient MI business model.

There are still several challenges for private insurers entering the MI market that need to be addressed. First of all, the new RSBY scheme is quickly serving the main part of the low-income clients with a fully subsidized product covering inpatient care. Private insurers need to find their niche in the low-income market, for example by creating complementary products for the coverage of outpatient care. Furthermore, insurers need to develop a cost-effective model in order to be able to offer affordable MI products and be financially sustainable. However, the main challenge for the success of both governmental and private health insurance plans for low-income groups remains the low quality of the public medical infrastructure, especially in rural areas. The healthy competition between public and private medical providers created by the RSBY scheme has the potential to push both sides to improve the medical infrastructure, if they want to attract more patients and get access to the governmental funding.

To conclude, this thesis provides important insight into the reality around health care costs and financing mechanisms for low-income groups in India. This information might serve as input for the creation of health care financing strategies that allow a more equitable access to health care for the low-income households in India.

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