London School of Economics and Political Science

Social capital and enrolment in community-based health insurance in Senegal

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Declaration of Authorship

I certify that the thesis I have presented for examination for the MPhil/PhD degree of the London School of Economics and Political Science is solely my own work other than where I have clearly indicated that it is the work of others (in which case the extent of any work carried out jointly by me and any other person is clearly identified in it). The copyright of this thesis rests with the author. Quotation from it is permitted, provided that full acknowledgement is made. This thesis may not be reproduced without my prior written consent. I warrant that this authorisation does not, to the best of my belief, infringe the rights of any third party.

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Statement of conjoint work

I confirm that Chapters 2, 3 and 5 are jointly co-authored. In all these papers, the literature review, theoretical ideas, econometric analysis and drafting of the papers were carried out by me. In paper 5, the qualitative analysis was carried out by me. In paper 2 the co-author provided comments on drafts of the paper. In papers 3 and 5, the co-authors participated in the fieldwork and provided comments on drafts of the papers. In paper 3, one co-author led a team of coders who conducted part of the qualitative analysis.

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Abstract

Universal coverage is a core health system goal which can be met through a variety of health financing mechanisms. The focus of this PhD is on one of these mechanisms, community-based health insurance (CBHI). CBHI aims to provide financial protection from the cost of seeking health care through voluntary prepayment by community members; typically it is not-for-profit and aims to be community owned and controlled. Despite its popularity with international policymakers and donors, CBHI has performed poorly in most low and middle income countries. The overarching objective of this PhD is therefore to understand the determinants of low enrolment and high drop-out in CBHI. The PhD builds on the existing literature, which employs mainly economic and health system frameworks, by critically applying social capital theory to the analysis of CBHI. A mixed-methods multiple case study research design is used to investigate the relationship between CBHI, bonding and bridging social capital at micro and macro levels and active community participation. The study focuses on Senegal, where CBHI is a component of national health financing policy. The results suggest that CBHI enrolment is determined by having broader social networks which provide solidarity, risk pooling, financial protection and financial credit. Active participation in CBHI may prevent drop-out and increase levels of social capital. Overall, it seems CBHI is likely to favour individuals who already possess social, economic, cultural and other forms of capital and social power. At the macro level, values (such as voluntarism, trust and solidarity) and power relations inhering in social networks of CBHI stakeholders are also found to help explain low levels of CBHI enrolment at the micro level. The results imply the need for a fundamental overhaul of the current CBHI model. It is possible that the needed reforms would require local institutions to develop new capacities and resources that are so demanding that alternative public sector policies such as national social health insurance might emerge as a preferable alternative.

Acknowledgements

I sincerely thank my supervisors, Professors David Lewis and Elias Mossialos for their guidance and inspiration throughout the PhD. I also thank Professor Elias Mossialos for giving me the opportunity to pursue the research. I am grateful to Professor Bart Criel, Dr Werner Soors, Professor Alfred Ndiaye and Pascal Ndiaye for the years of fruitful collaboration; Professor Alistair McGuire, Dr Joan Costa-i-Font, Jon Cylus and Philipp Hessel for their advice on the quantitative aspects of the PhD; the Senegalese Ministry of Health and other national stakeholders, the team of fieldwork assistants, staff of the three community-based health insurance schemes studied and the interviewees for their enthusiasm during fieldwork; the Institute of Tropical Medicine, Antwerp, the Stewart Halley Trust and the LSE Seed Fund for funding the fieldwork; my colleagues at the LSE for their encouragement; and my friends and family for their moral and practical support.

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List of abbreviations

APR	*Alliance pour la République* (Alliance for the Republic)
ACCORD	Action for Community Organisation, Rehabilitation and Development
ARV	Antiretroviral drugs
ASC	*Association Sportive et Culturelle* (Sports and cultural association)
CAFSP	*Cellule d'Appui au Financement de la Santé et au Partenariat* (Health Financing and Partnership Support Unit)
CBHI	Community-based health insurance
CCDGR	*Centre de Coordination pour le Développement de Guinaw Rail* (Guinaw Rail Centre for Development Coordination)
CFA	*Communauté Financière Africaine* (Central African Franc)
CHWs	Community health workers
CREPOS	*Le Centre de Recherches sur les Politiques sociales* (Centre for Research on Social Policies)
ESAM	*l'Enquête Sénégalaise auprès des Ménages* (Senegalese Household Survey)
G8	Group of Eight
GDP	Gross domestic product
GMS	*Groupement Mutualiste de Santé* (CBHI group)
GRAIM	*Groupe de Recherche et d'Appui aux Initiatives Mutualistes* (Research and Support Group for Mutualist Initiatives)
HH	Household
HIV/AIDS	Human immunodeficiency virus infection / acquired immunodeficiency syndrome
IDSN	International Dalit Solidarity Network
ILO	International Labour Organization
ITM	Institute of Tropical Medicine
ITNs	Insecticide treated nets
LMIC	Low- and middle-income countries
LSE	London School of Economics and Political Science
MDGs	Millennium Development Goals

MoH	Ministry of Health
MSAS	*Ministère de la Santé et de l'Action sociale* (Ministry of Health and Social Action)
MUCAPS	*Mutuelles de santé et Capital Social* (CBHI and social capital)
NGO	Non-governmental organizations
NHIS	National Health Insurance Scheme
OECD	Organisation for Economic Co-operation and Development
OOP	Out-of-pocket
ORS	Oral rehydration salts
ORT	Organization for Education Resources and Training
PCA	Principal component analysis
PDS	*Parti Démocratique Sénégalais* (Senegalese Democratic Party)
PPP	Purchasing power parity
RADDHO	African Assembly for the Defence of Human Rights
RCMS	Rural cooperative medical system
ROSCAs	Rotating credit and savings associations
SAH	Self-assessed health
SEWA	Self Employed Women's Association
SSA	Sub-Saharan Africa
STD	Sexually transmitted disease
TB	Tuberculosis
U5MR	Under-5 mortality rate
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
US	United States
USA	United States of America
USAID	U.S. Agency for International Development
WAW	Wer Ak Werle
WHO	World Health Organization

Note on the structure of the thesis

This thesis conforms to the requirements of a doctoral thesis from the London School of Economics and Political Science. It follows the publishable paper format, in which at least three thematically linked papers of publishable standard, along with an introduction and a conclusion are submitted as a thesis. At least one paper should be single authored, and any other papers should be primarily authored, by the PhD student. Co-authored papers should be accompanied by statements on the contribution of the co-authors.

This thesis begins with an introductory chapter which provides information on the motivation for the research and background on the themes and context. Chapters 2, 3, 4 and 5 form the main body of the thesis. They are presented in the style of journal articles and are thus termed "papers". The thesis ends with a concluding chapter.

Chapter 1

The Introduction is solely the work of the PhD author. Parts of the chapter are based on:

Mladovsky, P. (2012). Social Health Protection: Policy Options for Low- and Middle-income Countries. In McGuire, A. & Costa-i-Font, J. (Eds.), The LSE companion to health policy. Cheltenham; Northampton, Mass.: Edward Elgar.

Chapter 2 (Paper 1)

The first paper is primarily the work of the PhD author. In 2008 it was published as:

Mladovsky, P. and Mossialos, E. (2008) A conceptual framework for community-based health insurance in low-income countries: social capital and economic development. *World Development*. 36 (4): 590-607

PM devised the paper, reviewed the literature and drafted the paper. EM commented on drafts of the paper. Prior to publication in the journal the paper was subject to double-blind peer review by two reviewers.

Chapter 3 (Paper 2)

The second paper is primarily the work of the PhD author. In 2013 it was published as:

Mladovsky, P., Soors, W. Ndiaye, P. Ndiaye A., and Criel., B. (2013) Can social capital help explain enrolment (or lack thereof) in community-based health insurance? Results of an exploratory mixed-methods study from Senegal. *Social Science and Medicine* 101: 18-27

PM devised the paper, reviewed the literature, conducted the econometric analysis, interpreted the qualitative data and drafted the paper. WS, AN, PN and BC participated in fieldwork (development of research protocol, design of research tools and implementation) and commented on drafts of the paper. Additionally, AN coordinated a team of research assistants who coded the qualitative data. The contributions of WS, AN, PN and BC took place in the context of the MUCAPS research project (see section 1.6 and Appendix 1). Prior to publication in the journal the paper was subject to double-blind peer review by two reviewers.

Chapter 4 (Paper 3)

The third paper is solely the work of the PhD author. It draws on the results of fieldwork conducted under the MUCAPS research project. In 2014 it was published as:

Mladovsky, P. (2014) Why do people drop out of community-based health insurance? Findings from an exploratory household survey in Senegal. *Social Science and Medicine.* 107: 78-88

Prior to publication in the journal the paper was subject to double-blind peer review by two reviewers.

Chapter 5 (Paper 4)

The fourth paper is primarily the work of the PhD author. The paper is currently under review for publication in a peer-reviewed journal ("revise and resubmit" stage) as:

Mladovsky, P. Ndiaye, P. Ndiaye A., and Criel., B. The impact of stakeholder values and power relations on community-based health insurance coverage: qualitative evidence from three Senegalese case studies. Submitted to: *Health Policy and Planning*

PM devised the paper, reviewed the literature, conducted the qualitative analysis and drafted the paper. PN, AN and BC participated in fieldwork (development of research protocol, design of research tools and implementation) and commented on drafts of the paper, as part of the MUCAPS project. It has been subject to double-blind peer review by two reviewers.

Chapter 6

Chapter 6 is solely the work of the PhD author. It presents the conclusions of the PhD, focusing on key findings as well as implications for policy, methods and theory. Future research agendas are also suggested.

Chapter 1 Introduction

1.1 Research motivation, research questions and hypothesis

Community-based health insurance (CBHI) is a health financing mechanism which aims to provide financial protection from the cost of seeking health care through voluntary prepayment by community members; it is not-for-profit and aims to be community owned and controlled (Hsiao 2001). Senegal has witnessed a rapid increase in the number of CBHI schemes, reaching 129 in 2007 (CAFSP 2010). The current government elected in 2012 views CBHI as a key mechanism for achieving universal coverage (Ministère de la Santé 2012), a continuation of the previous government's policy (Ministère de la Santé 2004). However, as in most low- and middle-income countries (LMIC), overall population coverage in Senegal remains low, with 4% or less of the population enrolled in CBHI (Soors et al. 2010). Another major problem for CBHI schemes is retaining enrolees; it is estimated that in Senegal in 2004, 47% of people who had ever enrolled in CBHI had ceased paying the monthly premium and therefore lost access to the benefits of CBHI (Hygea 2004).

There have been numerous studies on the determinants of enrolment in CBHI in sub-Saharan Africa (SSA) (Defourny and Faillon 2011). In light of the findings, the literature proposes various strategies to address low population coverage of CBHI (Mills et al. 2012, Ndiaye, Soors, and Criel 2007, Soors et al. 2010). However, continued low population coverage suggest these strategies have not been successfully implemented, raising the possibility that some important determinants of low enrolment may have been overlooked. In contrast, while drop-out from CBHI is frequently reported as a problem, it has rarely been analysed in depth (De Allegri et al. 2009). In light of the apparently poor performance of CBHI and the aforementioned gaps in knowledge, the overarching research question addressed by this PhD is*: what are the determinants of low enrolment and high drop-out in CBHI?*

In the PhD is it argued that the literature on CBHI coverage is primarily underpinned by two conceptual frameworks: an "economic framework", focusing on features of market transactions such as willingness-to-pay,

information, price and quality (Dror 2001, Preker 2004, Pauly 2004, Zweifel 2004); and a "health system framework" which typically sets financial transactions into the broader institutional context of interactions between insureds, insurance schemes, health service providers and the state (World Health Organization 2000, Bennett 2004, Bennett, Kelley, and Silvers 2004, Criel et al. 2004, ILO 2002). However, very few studies have employed sociological perspectives to analyse enrolment. Addressing this gap is the primary objective of this PhD. Specifically, the PhD poses the following second research question: *can a critical engagement with social capital theory contribute to understanding why CBHI schemes do not appear on course to develop significant levels of population coverage in a sustainable way?*

The PhD elaborates a conceptual framework for analysing CBHI through the lens of bonding and bridging social capital (Chapter 2). This informs the hypothesis tested by the PhD: *increased bridging social capital at all levels of CBHI helps to increase enrolment in CBHI, but the benefits of this dynamic are likely to be unequally distributed and to favour individuals and groups who already hold other forms of capital and social power.*

Understanding these issues is important for Senegal and other countries which have made CBHI central to health financing policy. It is also important for other countries which have experimented with CBHI and abandoned it in favour of alternative methods of financing health care, as there is a need to understand causes of failure so that mistakes are not repeated in the future. Hence, while the main objective of the PhD is not to develop CBHI policy, some specific policy recommendations flowing from the research conducted on social capital are proposed in Chapter 6.

The remainder of this chapter provides further background on: CBHI; social capital theories and their application to research on international development; and Senegal, the national context in which the PhD research took place. The chapter then briefly outlines the research methods employed in the PhD; describes the research project in which the PhD was nested; and provides a summary of the four PhD papers.

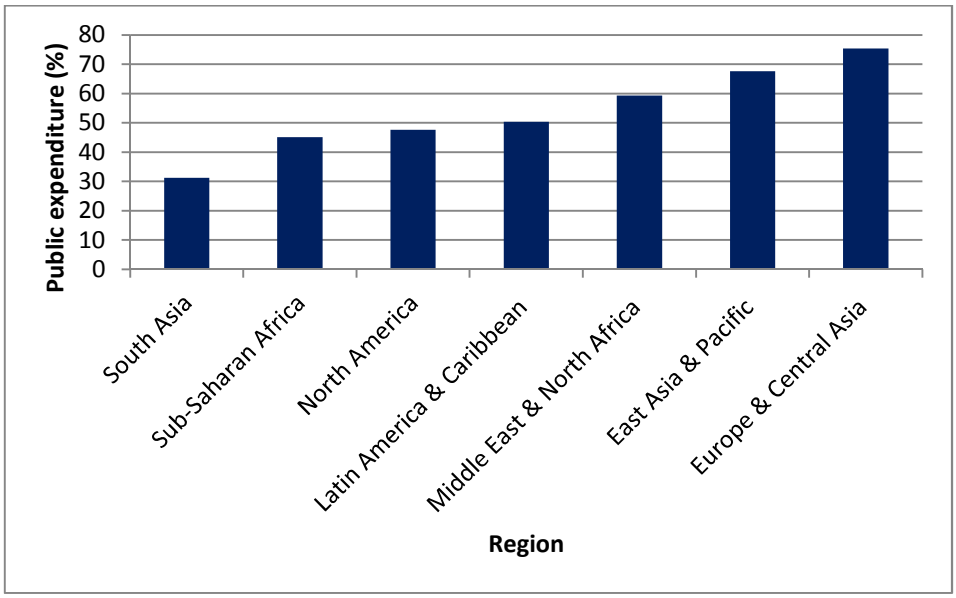
1.2 Community-based health insurance (CBHI)[1]

Background: financing health care in low and middle income countries

Financing health care has become an increasingly important policy issue in national and international efforts to improve health and health care in low- and middle-income countries (LMIC). The increased attention can partly be explained by the realisation that due to the widespread use of user charges, high levels of out-of-pocket (OOP) expenditure on health reduce access to health care, especially among the poorest (Hjortsberg 2003, Preker, Langenbrunner, and Jakab 2002), and increase the financial risks of ill health to households due to selling of assets, indebtedness, impoverishment, reduction of essential expenditure on food, education and so on, in addition to the costs of being unable to carry out normal income generating activities due to ill-health (van Doorslaer et al. 2006, Xu et al. 2003, Wagstaff 2009, McIntyre et al. 2006, Pannarunothai and Mills 1997, McPake 1993, Ridde and Girard 2004, Shaw and Ainsworth 1996). This particularly affects SSA which has very low levels of public expenditure on health compared to other regions (Fig 1.1). Insurance mechanisms such as CBHI are needed to reduce the burden of user charges by increasing risk pooling and prepayment. Another driving factor for the focus on health financing is the further realisation that international development mechanisms aiming to support public health such as aid, loans, debt reduction and global health initiatives are unlikely to succeed without the presence of strong health systems, which include strong health financing systems (Travis et al. 2004).

[1] Parts of this sub-section are based on (Mladovsky 2012)

Figure 1.1: Public expenditure on health as a percentage of total health expenditure, by region, 2011



Source: (World Health Organization 2013)

The World Health Organization (WHO) has outlined a set of objectives for health financing policy in the Resolution on 'Sustainable health financing, universal coverage and social health insurance' (World Health Assembly 2005) as well as in two world health reports (World Health Organization 2000, 2010) and other policy documents (Kutzin 2008, Carrin et al. 2008). According to WHO universal coverage, defined as securing access for all to appropriate promotive, preventive, curative and rehabilitative services at an affordable cost, is a key goal for any health system. National health financing policies aiming for universal coverage need to incorporate three complementary dimensions of protection against the financial risk of ill health: breadth of coverage (the extent of the population covered), scope of coverage (the range of benefits) and depth of coverage (the share of service cost covered by the third party, i.e. user charges). The further goal of social health protection is related to and includes the goal of universal coverage, but more explicitly defines the values that a health financing system should embody, namely equity, solidarity and social justice (International Labour Office 2007).

The broad goals of universal coverage and social health protection incorporate a series of specific objectives which are commonly accepted as fundamental to the development and reform of health financing policy (World Health Organization 2000). These are:

- Sufficient, equitable and efficient revenue collection
- Risk pooling in order to ensure equitable financial access to health care
- Efficiency and equity in the purchasing and provision of quality health care

It is recognised that the goals of universal coverage and social health protection can be, and usually are, met through a mix of health financing mechanisms (International Labour Office 2007, World Health Assembly 2005). These may include:

- tax-funded national health insurance
- contribution-based mandatory regulated social health insurance financed by employers and workers
- mandated or regulated private health insurance
- mutual and community non-profit health financing schemes such as community-based health insurance (CBHI) or subsidised vouchers.

The role and impact of community-based health insurance

The focus of this PhD is on one of these mechanisms, CBHI. As explained in Section 1.1, CBHI aims to provide financial protection from the cost of seeking health care through voluntary prepayment by community members; typically it is not-for-profit and aims to be community owned and controlled (Hsiao 2001, Atim 1998). In practice CBHI can take many forms: insurance schemes may be implemented at the village or district level or based on membership to a distinct social or cultural group; schemes can be linked to a church group, association or agricultural cooperative, or they can be initiated and managed by a local hospital, for example; and members may pay the premium monthly, or annually, or just after the harvest when households have more resources. For the last 15 years or so CBHI has been of interest to international funders and

policymakers (Soors et al. 2010). For example, the G8 summit at Saint Petersburg in 2006 encouraged:

> "stepped-up discussion at the international level on practical approaches to the expansion of public, private and community-based health insurance coverage in developing countries." (G8 Russia 2006)

Potential advantages of CBHI in relation to reducing the negative impact of user charges include: increased prepayment; spreading the cost of ill-health over time; increased risk pooling, spreading the cost of ill-health across the community; increased equity in health financing; reduced catastrophic expenditures; increased health service utilization; increased revenues for health services; and improved quality, efficiency and sustainability of health services through strategic purchasing, if there is purchaser / provider separation.

Another reason for promoting CBHI has been the perceived weaknesses of public health financing arrangements in LMIC such as tax funded schemes and social health insurance which are argued to include: limited public resources; corruption; ineffective tax systems; inefficiency due to bureaucracy; inability to respond to diversified consumer demand resulting from economic growth; and a lack of trust in public entities (Drechsler and Jutting 2005, Pauly et al. 2006). CBHI is also thought to have the potential to overcome problems associated with private for-profit voluntary health insurance in LMIC such as adverse selection, moral hazard and low demand due to the smallness of community financing schemes which may provide informal safeguards such as full information, social sanctions, trust and increased solidarity (Davies and Carrin 2001, Zweifel 2004, Pauly 2007, Zhang et al. 2006). These advantages are argued to potentially offset the main perceived disadvantage of CBHI, namely the small size of risk pools, which may threaten the viability of schemes by reducing the potential to: spread risk, actuarially correctly assess the probability of loss occurring, maintain solvency, cross-subsidise and lower transaction costs (Schieber and Maeda 1997).

However, ultimately, because of the voluntary nature of CBHI, it is hard to envisage that it alone could promote universal coverage for health care for the population. As such, international development agencies rather construe CBHI as a transitional mechanism to achieving universal coverage for health care in low-income countries (World Health Organization 2000, Arhin-Tenkorang 2001, Davies and Carrin 2001, Gottret and Schieber 2006). It is argued that in countries where there is an absence of financial protection and where OOP expenditure is high, CBHI could be introduced, in combination with other types of voluntary health insurance, SHI for specific professional groups and some tax-based financing, to move towards a greater promotion of equity in the health system until eventually compulsory forms of health financing are fully implemented. The increased policy attention on CBHI has resulted in a sharp increase in the number of schemes: for example, in 11 francophone countries in west Africa, there was nearly an 10 fold increase in the number of schemes in 10 years, from 76 schemes in 1997 to 626 schemes in 2006 (estimated projection) (La Concertation 2004) (Table 1.1). However, in most LMIC population coverage remains low and rarely exceeds a few percent (Soors et al. 2010).

Table 1.1: Growth in number of CBHI schemes in West Africa, 1997 - 2006

	Year			
Countries	**1997**	**2000**	**2003**	**2006 (estimate)**
Bénin	11	23	42	120
Burkina Faso	6	26	35	60
Cameroun	18	20	22	30
Côte d'Ivoire	0	29	36	47
Guinée	6	27	55	90
Mali	7	22	51	102
Mauritanie	0	0	3	5
Niger	6	12	9	19
Senegal	19	29	79	130
Tchad	3	4	7	11
Togo	0	7	9	12
Total	**76**	**199**	**348**	**626**

Source: (La Concertation 2004)

Reviews of the literature on CBHI (Ekman 2004, Jakab and Krishnan 2001, Spaan et al. 2012, Soors et al. 2010) suggest mixed results in various dimensions of performance. There is evidence of market failure in the form of adverse selection (De Allegri, Kouyate, et al. 2006, Jütting 2003, Chankova, Sulzbach, and Diop 2008, Zhang et al. 2006) and moral hazard (Criel et al. 1998, Musau 1999). While some CBHI schemes seem to enrol relatively poorer population groups (Ranson, Sinha, Chatterjee, et al. 2006), a study of CBHI in Senegal, Ghana and Mali found individuals from the richest quintile are more likely to be enrolled compared with those from the poorest quintile (Chankova, Sulzbach, and Diop 2008), indicating inequitable coverage. The same study found that in some contexts, members had lower out-of-pocket payments compared with non-members, suggesting CBHI can increase financial protection. For example, for members who benefited from CBHI coverage in Ghana, hospital out-of-pocket expenditures averaged US$2, compared with US$44 for non-beneficiaries. However in Mali and Senegal,

CBHI coverage did not have a significant protective effect on OOP expenditures for outpatient curative care, as CBHI schemes in both study sites had co-payments for outpatient care ranging from 25 to 50%, mitigating protective effect of CBHI membership on OOP expenditures. Evidence from India suggests SEWA and ACCORD, two major CBHI schemes, halved the number of households that would have experienced catastrophic health expenditure (spending >10% of annual household income) by covering hospital costs. However, 4% and 23% of households with admissions still experienced catastrophic expenditure at ACCORD and SEWA respectively, due to high co-payments (Devadasan et al. 2006). In terms of health care utilization, in Senegal the likelihood of hospitalization was positively associated with CBHI coverage, although CBHI coverage did not seem to contribute significantly to seeking outpatient care from the modern health sector, probably due to co-payments (Chankova, Sulzbach, and Diop 2008). Studies from Bangladesh, Cambodia, the Democratic Republic of the Congo and India on the impact of CBHI on resource mobilization for health showed an overall positive effect, while studies from Rwanda and Uganda show weak financial sustainability (Spaan et al. 2012).

Another obstacle to community health financing is the poor quality of health services (Criel and Waelkens 2003). CBHI can potentially contribute to improving quality efficiency and sustainability of health services through strategic purchasing (World Health Organization 2000, Hsiao 2001), if the health service provider is separate from the purchaser (i.e. the CBHI scheme). However, for strategic purchasing there must be an enabling environment: information about the quality and quantity of services must be provided; there needs to be investment in new skills in contracting on the part of both the purchaser and provider (Bennett, McPake, and Mills 1997); and a revision of the balance of power between purchaser and provider must be accepted (Desmet, Chowdhury, and Islam 1999, Meessen, Criel, and Kegels 2002, Carrin, Waelkens, and Criel 2005, Criel et al. 2005). In light of these numerous preconditions, it is not surprising that in a study of 258 CBHI schemes in low-income countries only 16% conducted strategic purchasing (ILO 2002).

However, more recently, a review found that CBHI schemes in Kenya, Uganda and Tanzania improved service quality (Spaan et al. 2012).

At the national level, a review of CBHI policies and their implementation found that Rwanda and Ghana are the only countries in SSA in which CBHI has contributed significantly to progress towards universal coverage by forming part of a comprehensive national strategy (Soors et al. 2010, Letourmy 2010). However, a closer look at the evolution of coverage in these countries suggests the role of CBHI is questionable. In both countries, achieving high levels of population coverage seems to have been achieved in large part thanks to government provision of insurance rather than community-owned CBHI initiatives. Population coverage of CBHI schemes in Rwanda reached 85% in 2008 (at which point enrolment became mandatory) (Soors et al. 2010), but it has been pointed out that these schemes were managed largely by civil servants (Kalk 2008). Prior to the state-driven approach introduced in 1999, population coverage by CBHI in Rwanda had only been around 1.2% (Soors et al. 2010). In Ghana, the number of CBHI schemes rose rapidly from 47 in 2001 to 168 in 2003 when CBHI was effectively superseded by the mandatory National Health Insurance Scheme (NHIS), but less than 40% of these CBHI schemes were functional at that time and the combined total coverage they extended to the population was just 1% (Sulzbach, Garshong, and Banahene 2005). Following the introduction of the public NHIS scheme, population coverage in Ghana reached 62% by 2009 (National Health Insurance 2011). This suggests that while countries which have achieved high levels of health insurance coverage have a history of CBHI, in SSA there is no evidence that CBHI can cover large parts of the population in its pure form (i.e. voluntary and community controlled (Hsiao 2001)).

Despite the various challenges experienced by CBHI it is present in at least 16 countries in SSA and forms a key component of national health financing policy in at least eight of these[2] (Soors et al. 2010). Senegal, the focus of this PhD, is among the countries in which CBHI is part of national policy

[2] Senegal, Mali, Cameroon, Niger, Tanzania, Rwanda, Burundi and the Democratic Republic of Congo.

(Ministère de la Santé 2012, 2004). If the Senegalese government is to be successful in its decision to continue pursuing CBHI, it is essential to understand the underlying reasons for barriers to CBHI development, especially the causes of low enrolment and high drop-out, and to identify policies which build on CBHI as a step in the path to universal coverage.

1.3 Social capital theories and their application to research on international development

As stated in section 1.1, this PhD aims to address gaps in the existing literature on CBHI by asking whether a *critical engagement with social capital theories can contribute to understanding why most CBHI schemes do not appear on course to develop significant levels of population coverage in a sustainable way*.

This section provides background on social capital theories and their application to research in international development in order to elaborate the PhD hypothesis.

Defining social capital

The general definition of social capital employed in this PhD is "the information, trust and norms of reciprocity inhering in one's social network" (Woolcock 1998, p. 153). As several further types of social capital can be distinguished within this broad definition, and as theories of social capital are contested, it is important to explain why this definition is used.

There are three main authors who have explicitly developed theories of social capital. The French sociologist Pierre Bourdieu distinguishes between four types of capital: economic, cultural, symbolic and social. He defines social capital as "the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition" (Bourdieu 1986, p. 248). Economic capital is defined as money or property rights, cultural capital as cultivated knowledge or culturally valued items, and symbolic capital as any type of

capital that is represented (i.e. apprehended through knowledge or (mis)recognition). Bourdieu's distinctive argument is that the four types of capital can be converted or transformed into one another, with economic capital being the ultimate outcome. Those who already hold capital are strategically more adept at transforming and accumulating it and may consciously and unconsciously do so. Thus economic accumulation becomes part of a general process of accumulating social connections, education, titles, or even "dispositions of the mind or body" (Bourdieu 1986, p. 243) which all reinforce each other. Bourdieu's analysis is based on his own sociological and anthropological studies in France and in non-Western societies. His concept of capital has predominantly been seen as a theory of reproduction, more precisely of how a mode of domination reproduces itself (Calhoun 1993). It is important to note that Ben Fine, the main detractor of social capital theory, directs most of his criticism not at Bourdieu, but at subsequent academics who elaborated alternative social capital theories (Fine 1999).

James Coleman (Coleman 1988, 1990) is an American sociologist and rational choice theorist (Scott 2000). For Coleman, "social capital inheres in the structure of relations between actors and among actors" (Coleman 1988, p. S98). Coleman states that social capital "is productive, making possible the achievement of certain ends that in its absence would not be possible" (Coleman 1988, p. S98), but for him it is individual choice rather than domination that is the cause of unequal outcomes. He argues the most important outcome of social capital is the production of human capital through education. The characteristics of social relations that constitute this productivity are: obligations, expectations, and trustworthiness of structures; information channels; and norms and effective sanctions. Coleman develops a quantitative methodology for measuring social capital and its effect on social phenomena. The more 'closure' a social structure achieves (where not only is actor A linked to actors B and C, but actors B and C are also linked, "closing" the triangle), the "stronger" the social capital. Coleman finds that social capital is mostly a public good, meaning that rationally acting individuals are unlikely to invest in it to socially optimal levels. He argues that for this reason social capital is declining in each successive generation and that as a result it is

necessary to compensate with formal organization of social capital production. Fine accuses Coleman of employing a simplistic conceptual framework of methodological individualism which, "Whilst explicitly seeking to generalize beyond the physical, to distinguish social from economic and even human capital…primarily remains tied to an understanding of the social as the informational or other cultural externalities between individuals" (Fine 1999, p. 7). He contrasts Coleman's approach of studying social capital as the physical "logistics of networks" in an abstract manner to Bourdieu's construct of social capital which, although designed to measure individual levels of capital through surveys, is, he argues, used by Bourdieu in terms of its content and meaning and therefore does not fall victim to the limitations of methodological individualism. This PhD attempts to draw upon Bourdieu's theory of social capital. An individualistic approach is used to quantitatively measure social capital, but by grounding the analysis in a culturally and contextually relevant setting, partly achieved by also using qualitative research, the PhD seeks to elucidate how different levels of social capital determine not only differential access to resources in a given context, but also the reproduction of social power.

More recently, Robert Putnam (Putnam, Leonardi, and Nanetti 1993, Putnam 1995, 2000) popularized the concept of social capital to such an extent that he has been accused by critics of contributing to the "McDonaldisation" of social theory (Fine 2010). Putnam made a theoretical diversion from Bourdieu and Coleman by conceiving of social capital as a "stock" that can be the property of a group or community, district or even nation rather than of an individual. By conceiving of social capital as a "stock" Putnam has attracted criticism for over-simplification (Fischer 2005, Harriss 2002, Portes 2000, Fine 2001). Putnam writes that ""social capital" refers to features of social organizations such as "networks, norms, and social ties that facilitate coordination and cooperation for mutual benefit" (Putnam 1995, p. 67). Putnam uses the example of successful regional governments in Italy to argue that historical informal networks of civic engagement constitute social capital which in turn facilitates improved governance (Putnam, Leonardi, and Nanetti 1993). This argument has been accused of being circular, but Putnam's later work (Putnam

2000) in part addresses this problem by distinguishing between "bonding" social capital and "bridging" social capital. This forms an important contribution to social capital theory. Bonding social capital reinforces exclusive identities and homogenous groups through ethnic fraternal associations or country clubs, provides a specific reciprocity and mobilizes solidarity. Bridging social capital is outward looking and links people across social cleavages as in the civil rights movement, for example. Bonding and bridging social capital are key concepts in social capital theory which have been further elaborated by other academics (Woolcock 2001, 1998, Woolcock and Narayan 2006, Portes and Sensenbrenner 1993) and are employed in this PhD. Both Putnam's and Coleman's views of social capital have been criticized for overlooking the ways in which high levels social capital can result in negative outcomes (Portes 1998). Several subsequent studies of social capital, including this PhD, have sought to address this critique by exploring the negative effects of social capital and the relationship between social capital and domination. These themes are further elaborated in the next sub-section.

The application of social capital theories to the field of international development

Numerous studies have found that higher levels of social capital are positively correlated with improved development outcomes in areas such as agriculture, water and sanitation and microcredit in LMIC (Brown and Ashman 1996, Narayan and Pritchett 1997, van Bastelaer and Leathers 2006, Grootaert and Narayan 2004, Anderson, Locker, and Nugent 2002, Krishna 2001, Uphoff and Wijayaratna 2000, Lyon 2000, Weijland 1999, Bebbington 2006, Evans 1996). The sociologist Michael Woolcock (Woolcock 2001, 1998, Woolcock and Narayan 2006) has synthesized and categorized the various strands of social capital theory and studies of social capital and development into a conceptual framework. This conceptual framework underpins the PhD and is explained and applied to CBHI in chapter 2. As such it is described only briefly here. The framework incorporates four dimensions of social capital (Box 1.1).

Box 1.1: Four dimensions of social capital

Micro level:

(i) *Relations within local communities*

Bonding social capital characterized by horizontal ties, as well as individual informal social relations and transactions.

(ii) *Relations between local communities and external civil society groups*

Bridging social capital characterized by vertical ties and formal relations.

Macro level:

(iii) *Relations between civil society and macro-level state institutions*

Bridging social capital characterized by vertical ties, state institutions embedded in community relations, and community level relations facilitated by macro level state structures.

(iv) *Relations within corporate sector institutions*

Bonding social capital characterized by horizontal ties within institutions and a professional ethos committed to pursuing collective goals, fostered by a social relations between individual representatives of institutions.

Source: Adapted from (Woolcock 1998)

Woolcock (1998, p. 186) argues that "All four dimensions must be present for optimal developmental outcomes. This successful interaction within and between bottom-up and top-down initiatives is the cumulative product of an ongoing process that entails "getting the social relations right"". This PhD analyses CBHI from the perspective of the first three types of social capital in the framework, the fourth being beyond the scope of the research conducted. Of particular importance for the PhD is Woolcock's argument that in some contexts, the first dimension (bonding social capital at the micro level) may be unproductive, as it may for example permit free-riding on communal resources by less diligent members of the group or cut off important sources of information (Portes and Sensenbrenner 1993). He characterizes this as the "negative" effect of social capital. The second dimension (micro level bridging social capital) holds a particularly important role in the framework as it is

argued to counterbalance the potentially “negative” effect of bonding social capital at the micro level.

In the development literature, some have suggested that social capital might also be an outcome of development projects and programmes which aim for participatory approaches (Turner 1999). Creating social capital through development is said to be potentially beneficial for the sustainability of interventions (Turner 1999).

The application of social capital theory to international development has been critiqued for: promoting a rationale for social engineering by development agencies; broadening the scope of justifiable intervention from the economic to the social in order to rectify market imperfections in order, in turn, to ensure that market-oriented policies are successful whilst obscuring a critique of those policies; ignoring the effect of class and other structural social inequalities on economic action; and reinforcing a conservative, neo-liberal development agenda (Harriss 2002, Harriss and De Renzio 1997, Fine 2001, Navarro 2002, Fine 2010, Labonte 1999).

However, these accusations cannot be applied to all studies of social capital and development, particularly in cases where Bourdieu’s theories are employed. Several studies have used social capital theory to point to the reproduction of patterns of domination in the context of development programmes. As such, in these studies social capital theory is used to mount a critique of policy, not obscure it. For example, Campbell (2003) describes how an HIV/AIDS prevention project in South Africa with strong technical and financial external support failed to mobilize intended beneficiary groups and to effect behaviour change. Drawing on Bourdieu her analysis concludes that unequal distributions of economic, cultural, symbolic and social capital empowered project staff rather than the community, so that all the emphasis on change and learning was placed on community and none on project staff. Rather than taking the social causes of the spread of HIV/AIDS seriously, project staffs' approach favoured traditional biomedical interventions such as STD control, and as a result did not address the root causes of the problem.

Similarly another qualitative study from Uganda (Titeca and Vervisch 2008) employs social capital theory to explore power dynamics of community organisations and finds that organisations can become vulnerable to an undemocratic distribution of power and legitimacy in the absence of both bonding and bridging social capital. A mixed-methods study (Adhikari and Goldey 2010) also finds that social capital at the village level in Nepal can be both positive and negative in the process of inducing community based organizations. The main downside of social capital was rule breaking with impunity and elite capture of resources during the transition from external to internal management. In an ethnographic study in Tanzania (Cleaver 2005) it is also concluded that development projects seeking to increase community participation and collective action are likely to reproduce the exclusion of the poorest. These studies and other commentators (Williams 2004) conclude that development projects seeking to build on or induce social capital of the poor must acknowledge that if they adopt a politically neutral approach which does not consider local dynamics of power and domination they are unlikely to result in social inclusion or poverty alleviation. The PhD builds on this literature by critically applying social capital theory to the analysis of CBHI. CBHI and health financing more broadly have not been studied from this perspective before. Another innovative dimension of the PhD is to employ mixed-methods to critically investigate positive and negative effects of bonding and bridging social capital in a SSA context.

Based on the literature, as stated earlier, the overall hypothesis to be tested in the PhD is that: *increased bridging social capital at all levels of CBHI helps to increase enrolment in CBHI, but the benefits of this dynamic are likely to be unequally distributed and to favour individuals and groups who already hold other forms of capital and social power*. As such, the focus of the PhD is on the positive and negative effects of social capital. In this sense, inspiration is taken from Bourdieu's theory of social capital, through Woolcock's framework. Further elaboration of the concepts underpinning the PhD is provided in chapter 2.

1.4 Senegal[3]

Demographic, economic, political, social and cultural overview

The PhD fieldwork was conducted in Senegal. Senegal is located in West Africa and is bordered by Mauritania, Mali, Guinea, Guinea Bissau and Gambia and by the Atlantic Ocean. At the time of the fieldwork it had 12 regions (these have since become 14). Senegal's population was estimated at 12,855,153 in 2011. The average annual growth rate of the population was 4.1% in 2010, which indicates rapid population growth. 45% of the population is under 15, 65% under 25, while only 3.9% is 65 years and older. It is estimated that in 2010, 42% of total population resided in urban areas. Dakar, the capital, had an estimated population of 2.78 million in 2009 (Agence Nationale de la Statistique et de la Démographie 2011).

Senegal is classified as a low-income country (World Bank 2013). In 2011 Senegal had a GDP (PPP) of $ 25,115 million, ranking 112th out of 180 countries and a per capita GDP (PPP) of $ 1,967 (World Bank 2013). In the Human development Index, Senegal ranks 155th out of 187 countries (UNDP 2011). Based on the Senegalese Household Survey, the prevalence of poverty was estimated at 57% in 2004. 72% of the poor live in rural areas (ESAM 2004). The global economic crisis, reflected by rising food and oil prices, has exacerbated poverty in Senegal (Fall, Salmon, and Wodon 2010). 97% of jobs in Senegal are informal sector (ESAM 2004). In terms of education, around six in ten women and four in ten men have received no formal education (République du Sénégal 2006).

Senegal is noted in Africa for its stability and tradition of democracy. Largely peaceful elections brought about a change of government in 2000 and in 2012. At the time of fieldwork the President of Senegal was Abdoulaye Wade, leader of the Senegalese Democratic Party (PDS) which considers itself Liberal in political leaning. The current President is Macky Sall, leader of the Alliance for the Republic (APR). Previously, he served as Prime Minister under Wade.

[3] The author is grateful to Alfred Ndiaye for providing some of the references in this sub-section.

Government decentralization was introduced in Senegal in the early 1970s, with the transfer of responsibility for health, education, environment, urban planning and housing, culture and other domains to local structures known as *Collectivités Locales*.

Senegal's population is predominantly Muslim (94%) and affiliated to Sufi brotherhoods (mainly Tidianiya, Mouridiya and Khadrya). 5% of the population is Christian (mostly Roman Catholic) and indigenous beliefs are reported to account for 1%. The population is composed of several ethnicities: Wolof (45.0%), Pulaar (25.2%), Serer (13.8%), Diola (5%) and Manding and Socé (3.9%). French is the official language. Wolof, Pulaar, Jola and Mandinka are the main indigenous African languages spoken (ESAM 2004).

Most ethnic groups in Senegal are socially stratified according to so-called "castes". Castes are characterised by heredity, the practice of endogamy, and certain occupational groupings (Diop, 1981). Caste discrimination exists in the form of prohibitions against inter-caste marriage and in economic, religious and political spheres. However, caste is rarely discussed openly and is considered a taboo in Senegalese society. Although Senegal is a signatory to various legal instruments promoting human rights and its constitution ensures the equality of all its citizens, there are no specific constitutional or legislative mechanisms against discrimination based on caste (RADDHO and IDSN 2012). Regrettably, the PhD research does not investigate the relationship between caste and enrolment in CBHI due to the powerful social taboos which were considered too sensitive to address in the framework of the research. This is a limitation of the study (see chapter 6).

Social relations in Senegal are considered an important source of solidarity and instrumental support. This is acknowledged in Senegal’s Poverty Reduction Strategy Paper (République du Sénégal 2006) which seeks to incorporate people’s perceptions into its diagnosis of poverty in Senegal. Based on the findings of various sources of research it finds that for Senegalese people, poverty is perceived to be strongly linked to the absence of social relations:

> "a person who is poor lives in total, economic, and social destitution… Such a person is often considered a social dropout and lives in a state of quasi-permanent impoverishment, cut off from the social fabric…" (République du Sénégal 2006, p. 10)

Development projects have sought to build on this social fabric and as a result, Senegalese society has experienced a proliferation of various types of community associations that have evolved around cultural, religious and economic life. For example, a study of three regions in Senegal found that in 1982, 10% of villages had at least one village organisation; by 2002, this figure had risen to 65%. Disaggregating by type of organisation, in 2002 47% of the villages had market oriented organisations (focused on, for example, processing and marketing, livestock breeding and animal husbandry, horticulture and irrigated crop production), while 33% had at least one community-oriented organisation (focused on, for example, cultivation of a collective field, maintenance of a cereal bank, social activities, and potable water management) (Bernard et al. 2008).

Another important social structure in Senegal is "privileged relationships" which resemble what is categorised in anthropology as "fictive kinship" (Carsten 2000). Common examples are "*ndeye dike*" ("the mother of my choosing or twin"), "*homonyme*" (a namesake - a child that is named after a person) or "*parrain / marrain"* ("godfather / godmother"). These relationships constitute emotional and affective ties but can also be a medium for instrumental financial support (Buggenhagen 2011, Gasparetti 2011, Heath 1992). However, there is some evidence that increasing poverty resulting from the global economic crisis may be weakening these traditional safety nets, with relatively wealthier households being less willing to take on responsibility for children of less affluent families than before (Fall, Salmon, and Wodon 2010).

Health

In Senegal in 2009 male life expectancy was 60 and female 63, compared to the average of 52 and 56 respectively in the African Region (World Health Organization 2012). Basic health indicators are presented in Table 1.2. Senegal's infant and child mortality rates have improved over the last 15 years,

with the under-5 mortality rate falling by around 50% between 1990 and 2011 to 65 per 1000 live births (Table 1.2). This is considerably lower than the average for the African Region (119 in 2010). The maternal mortality ratio is also lower, at 370 compared to 480 per 100,000 live births. Antenatal care visits are relatively high, at 93% (at least one visit) compared to 74% in the African Region. The percentage of children sleeping under insecticide treated nets (ITNs) is relatively high (35% (2007 – 2012) compared to the African Region average of 18% (2005 – 2009)). The measles vaccination rate is relatively low, at 60% compared to 76% in the African Region. Treatment of diarrhoea with oral rehydration salts (ORS) is also low, at 22% compared to 41% in the African Region.

Table 1.2: Health indicators, Senegal

Infant and child mortality	
Under-5 mortality rate (U5MR), 1990	136
Under-5 mortality rate (U5MR), 2011	65
Infant mortality rate (under 1), 1990	69
Infant mortality rate (under 1), 2011	47
Neonatal mortality rate 2011	26
Maternal health	
Total fertility rate, 2011	5
Antenatal care (%) 2007-2012*, At least one visit	93
Antenatal care (%) 2007-2012*, At least four visits	50
Delivery care (%) 2007-2012*, Skilled attendant at birth	65
Delivery care (%) 2007-2012*, Institutional delivery	73
Delivery care (%) 2007-2012*, C-section	6
Maternal mortality ratio , 2010, Adjusted	370
Other health indicators	
Measles vaccination (%), 2011	60
Diarrhoea (%) 2007-2012*, Treatment with (ORS)	22
Malaria (%) 2007-2012*, Children sleeping under ITNs	35
Adult HIV prevalence (%) 2011	0.7

Source: Statistics compiled by (World Health Organization 2012, UNICEF 2013)

*Data refer to the most recent year available during the period specified in the column heading

Health system infrastructure

Policy in the health sector is directed towards the achievement of the Millennium Development Goals (MDGs) and the objectives of the second National Health Development Plan (Ministère de la Santé 2009). In 2010, Senegal had 32 functioning hospitals, 89 health centres, 1,035 functioning health posts, two mental health centres, and 1,603 functioning health huts. The great majority of these structures are in the public sector. Additionally there are 76 private Catholic clinics. Another important source of health care in Senegal is traditional medicine (Fassin and Fassin 1988).

Health financing

As in most LMIC, total expenditure on health in Senegal is low, at 6% of GDP in 2011 (Table 1.3). Though it has been increasing since 2005 it is still slightly below the SSA average of 6.5%. Private expenditure on health as a percentage of total health expenditure is 41.7. This is relatively low compared to the average for SSA (54.9%), but high compared to East Asia and Pacific (32.4%) and Europe and Central Asian regions (24.6%) (Fig. 1.1). 78.5% of private expenditure on health is spent directly OOP as user charges (Table 1.3). Senegal's health system operates according to the principle of cost recovery through user charges, in line with the Bamako Initiative (Ridde and Girard 2004). OOP expenditure is the main source of funding for ambulatory care and drugs, while government funding is focused on hospital care (Table 1.4).

As discussed in section 1.2, high levels of OOP expenditure on health have been shown to be inequitable and to cause reductions in use of necessary health care, increased catastrophic expenditure on health and increased poverty. In light of this, the Senegalese government has developed policies targeting both the public and private sectors in order to enhance risk pooling and protect vulnerable groups and the poor from the financial risk of ill health.

Table 1.3: Health expenditure, Senegal

	2005	2011
Per capita total expenditure on health (PPP int. $)	90.5	118.5
Per capita government expenditure on health (PPP int. $)	50.1	69.1
Total expenditure on health as a percentage of GDP	5.4	6
General government expenditure on health as a percentage of total government expenditure	12.4	11.9
General government expenditure on health as a percentage of total expenditure on health	55.3	58.3
External resources for health as a percentage of total expenditure on health	18.3	14
Social security expenditure on health as a percentage of general government expenditure on health	3.8	4
Private expenditure on health as a percentage of total expenditure on health	44.7	41.7
Out-of-pocket expenditure as a percentage of private expenditure on health	76.3	78.5
Private prepaid plans as a percentage of private expenditure on health	19.3	17.9

Source: (World Health Organization 2013)

Table 1.4: Health expenditure by function and financing agent (millions of CFA), Senegal, 2005

	Financing agent				
Health expenditure by function	**Public**	**Households (OOP)**	**Other private**	**Other**	**Total**
Curative care (hospitals)	24,168	17,174	5,871	1,299	48,511
Curative care (ambulatory)	9,213	11,055	4,542	459	25,269
Dental care	439	1,324	620		2,383
Auxiliary services (lab, radiology)	735	5,882	2,577		9,193
Medications	576	41,162	4,404		46,142
Other	99,154	7,768	7,655	8,119	122,698
Total health expenditure	**134,285**	**84,365**	**25,669**	**9,877**	**254,196**

Source: (Ministère de la Santé 2005)

There has been some success, with the share of private prepaid plans (including CBHI) in private health expenditure in Senegal reaching 17.9% in 2011 (Table 1.3) (World Health Organization 2012). This is relatively high compared to other countries in SSA (Table 1.5). In addition to CBHI, private prepaid plans in Senegal include private insurance offered to formal sector employers (known as *Instituts de Prévoyance Maladie*) and other forms of complementary voluntary private health insurance targeting the formal sector (Ministère de la Santé 2005).

Table 1.5: Share of private health spending and prepaid insurance plans in private health expenditure, selected SSA countries, 2011

	Private expenditure on health as a % of THE	**Private prepaid plans as a percentage of private expenditure on health**
South Africa	52.3	81.1
Senegal	41.7	17.9
Kenya	60.4	9.3
Ghana	43.9	6.2
Nigeria	63.3	3.1
Uganda	73.7	0.2

Source: (World Health Organization 2013)

The development of CBHI schemes (known as "*mutuelles de santé*" in French) primarily targeting the informal sector has been a policy of the Senegalese government since 1997 (Ministère de la Santé 2004). In 2004 a strategic plan for the development of CBHI was published (Ministère de la Santé 2004). A legal framework for CBHI was established through the 2003 *Loi relative aux mutuelles de santé*, but this law is under revision and lacks an implementation act (Soors et al. 2010). By 2003 there were 139 CBHI schemes and other voluntary private health insurance companies (this figure includes 79 functional schemes in addition to schemes in the process of being launched and temporarily suspended schemes) in 10 of the 12 regions of Senegal (Table 1.6). However, by 2007 only 4% or less of the population were enrolled in CBHI (Soors et al. 2010).

Table 1.6: Number of CBHI schemes in Senegal by region

Region	CBHI schemes in 2003
Dakar	44
Thiès	39
Kaolack	11
Diourbel	10
St Louis	9
Louga	8
Ziguinchor	8
Tambacounda	5
Fatick	4
Kolda	1
Senegal total	**139**

Source: (Ministère de la Santé 2004)

Note: Figures include complementary voluntary private health insurance companies and CBHI schemes

Public sector contributory health insurance schemes for the formal sector are also in place. These constitute the Social Security Fund (*la Caisse de Sécurité Sociale*), the Social Security Retirement Institute (*l'Institut de Prévoyance Retraite*), and a scheme for civil servants (Ministère de la Santé 2005). The government has also pursued a policy of exemptions from user charges and subsidies targeting certain vulnerable population groups, diseases and services (MSAS 2007), specifically:

- Free deliveries and caesarean sections;
- Free health care for the elderly (aged 60 and over) (Plan Sesame);
- Free access to antiretroviral drugs (ARV)
- Free access to anti-TB drugs
- A subsidy for lowering the cost of treatment for : malaria, diabetes (insulin), cancer, kidney failure, and heart disease
- Free treatment of severe malaria in children and pregnant women and the subsidized price of ITNs;
- A subsidy to support health care access for the poor

However all these initiatives are experiencing difficulties with implementation (Soors et al. 2010), as health service providers continue to charge fees to supposedly exempted patients or for supposedly exempted services. For example, a recent nationally representative study of the user fee exemption mechanism for elders, Plan Sesame, found that 49.3% of the Senegalese elderly who are eligible (i.e. those aged over 60) were not aware of its existence and only 10.5% of the sample had ever benefited from the services offered by the Plan (Ndiaye 2013). This in turn means that in practice, exemptions policies have not greatly diminished the need for CBHI or other forms of prepayment and risk pooling on the ground.

1.5 Overview of PhD methodology

As the PhD follows a publishable papers format, details of the methods used in the PhD are provided separately in each paper. A very brief overview of the methodology is also provided in this section.

Data collection

The PhD employed a mixed-methods multiple case study design. Criteria for selecting cases and a description of the cases are provided in chapters 3-5. For the quantitative data collection, a household survey was implemented, using stratified random sampling. The sample size is 720. Further details of the household survey are provided in chapters 3 and 4. For qualitative data collection, purposive sampling was used to select 108 interviewees from the household survey. These individuals were interviewed again using a semi-structured topic guide. Snowball sampling was used to identify a further 64 CBHI stakeholders for focused, open-ended interviews.

The development of the research tools (household questionnaire and interview guides) is described in chapters 3-5 and the tools are provided in appendices 2-4.

Data were collected in 2009 by the PhD author, a project team and a group of ten Senegalese professional quantitative and qualitative interviewers. Further

details about the project in which the PhD is nested are provided in section 1.6 and Appendix 1. All data are available on request.

Data analysis

The household survey data were analysed using logistic regression. The models and results are presented in chapters 3 and 4. The stakeholder interview data were analysed using inductive coding. Detailed methods and results are presented in chapter 5. Due to the large volume of data, deductive coding of the 108 semi-structured interviews was done by a team of research assistants using a coding frame. Further details are provided in chapter 3 and Appendix 1.

1.6 The role of the MUCAPS project in the relation to the PhD

The PhD was conducted within a broader research project called MUCAPS ("*Mutuelles de santé et Capital Social*" / "CBHI and social capital"). The project began in 2009 and is due to end with the publication of a report (lead authored by the PhD author) in April 2014. The partners in the project are the London School of Economics and Political Science (LSE), the Institute of Tropical Medicine (ITM) in Antwerp, Belgium, and CREPOS (Centre for Research on Social Policies) in Dakar, Senegal. Members of the project research team are: the author of the PhD, Philipa Mladovsky (co-Principal Investigator) from the LSE; Prof. Bart Criel (co-Principal Investigator), Pascal Ndiaye, Dr. Werner Soors and Benjamin Lelubre from ITM; and Prof. Alfred Ndiaye from CREPOS. The MUCAPS project was initiated by the PhD author and Prof. Bart Criel. 50% of the budget for the fieldwork was funded by the LSE Seed Fund and the Stewart Halley Trust (the PhD author raised these funds) and 50% was provided by ITM. Care was taken to ensure there is a clear demarcation between the research conducted by the PhD author, which was used for both the PhD and the research project, and the research conducted by the rest of the project team, which was not used for the PhD or was used to provide raw data or as supporting or background material and is acknowledged

as such. Further details of the PhD author's role in the project and the relationship between the PhD and the project can be found in Appendix 1.

1.7 PhD papers summary

The PhD consists of four papers. In chapter 2, a framework of social capital and economic development is elaborated and used to organize and interpret existing evidence on CBHI. This first PhD paper is an original conceptual paper. It elaborates the overall PhD hypothesis (*increased bridging social capital at all levels of CBHI helps to increase enrolment in CBHI, but the benefits of this dynamic are likely to be unequally distributed and to favour individuals and groups who already hold other forms of capital and social power)* and addresses the second PhD research question (*can a critical engagement with social capital theory contribute to understanding why CBHI schemes do not appear on course to develop significant levels of population coverage in a sustainable way?).* The paper argues that the international policy model linking community-based health insurance (CBHI) and universal coverage for health care in low-income countries is implicitly determined by the development of mutual health insurance in nineteenth century Europe and Japan and that the economic and health system frameworks employed in CBHI policy have not sufficiently taken into account contextual considerations. Having reviewed the evidence, the paper goes on to argue that social capital theories could contribute to understanding why generally CBHI does not achieve significant and sustainable levels of population coverage. Specifically, the paper proposes that solidarity, trust, extra-community networks, vertical civil society links and state-society relations affect the success of CBHI; aligning schemes to these social determinants of CBHI could result in a health financing mechanism that differs from the model of CBHI proposed by current analytic frameworks. The paper provides a conceptual framework which underpins the subsequent empirical chapters.

Chapter 3 addresses the first PhD research question (*what are the determinants of low enrolment and high drop-out in CBHI?)* and the second PhD research

question. The specific hypothesis tested is that people who decide to enrol in CBHI have bonding and bridging social capital, while those who do not enrol have bonding social capital and less or no bridging social capital. Using mixed methods, this second paper explores this hypothesis by comparing levels of bonding and bridging social capital among members and non-members of three case studies constituting CBHI schemes in Senegal. As such, it addresses the first two dimensions of social capital as defined by Woolcock (Box 1.1): micro level relations within local communities; and relations between local communities and external civil society groups. The results of the logistic regression suggest that CBHI members had broader social networks which provided them with solidarity, risk pooling, financial protection and financial credit. Enrolment in CBHI was less common among those with less social power, suggesting that health financing strategies in Senegal should focus on removing social as well as financial barriers to financial protection from the cost of ill health. Qualitative interviews confirm this interpretation.

Chapter 4 also addresses the first and second PhD research questions. It provides a closer look at the internal participatory dynamics of the CBHI schemes, disaggregating the data on CBHI members into two groups, current members and ex-members. In doing so, the paper focuses on the second dimension of social capital, relations between local communities and external civil society groups. It brings together two under-explored themes in CBHI: drop-out and active community participation. It is hypothesised that drop-out is negatively correlated with the experience of actively participating in CBHI and with increased levels of the potential intermediary benefits of active participation, such as trust, information and solidarity in relation to the CBHI scheme. The results of the logistic regression suggest that the more active the mode of participation in the CBHI scheme, the stronger is the statistically significant positive correlation with remaining enrolled. Possible intermediary outcomes of active participation are also significantly positively correlated with remaining in the scheme. Perception of poor quality of health services is, however, identified as the most important determinant of drop-out. It is suggested that through active participation, members of CBHI developed personal relationships with the scheme leaders, staff and with each other,

thereby increasing their access to information and trust in the scheme and ultimately reducing the likelihood of dropping out. The results suggest that schemes may be able to reduce drop-out by increasing active participation, although if those who already have higher levels of social capital are more likely to participate, this may further increase social inequalities in health coverage.

Chapter 5 also addresses the first and second PhD research questions but it takes a broader perspective of the factors influencing enrolment and drop-out, focusing on the third dimension of social capital: relations between civil society and macro-level state institutions (see Box 1.1). In this paper, the hypothesis is proposed that values and power relations inhering in social networks of CBHI stakeholders can help to explain levels of CBHI coverage. To test this, transcripts of interviews with CBHI stakeholders are analysed using inductive coding. The stakeholders represent health service providers, staff of the CBHI schemes, local leaders (religious, traditional, political and community), as well as local donors and representatives of international organizations. The five most important and interlinked themes identified which affect enrolment in CBHI are voluntarism, trust, solidarity, political engagement and social movements. Analysis of these themes raises a number of policy and implementation challenges for expanding CBHI coverage. These relate to: remuneration of CBHI scheme staff; development of internal and external governance structures through CBHI and NGO federations; government subsidies to cover premiums; marketing strategies which are in line with local perceptions of solidarity; the need for increased transparency in policy; engagement of CBHI scheme leaders in local politics; and a social movement dynamic based on shared values. It is argued that systematically addressing all these challenges would represent a fundamental reform of the current CBHI model promoted in Senegal and in Africa more widely.

Chapter 2 A conceptual framework for community-based health insurance in low-income countries: social capital and economic development[4]

Abstract

The international policy model linking community-based health insurance (CBHI) and universal coverage for health care in low-income countries is implicitly determined by the development of mutual health insurance in nineteenth century Europe and Japan. The economic and health system frameworks employed in CBHI policy have not sufficiently taken into account contextual considerations. Social capital theories could contribute to understanding why generally CBHI does not achieve significant and sustainable levels of population coverage. A framework of social capital and economic development is used to organize and interpret existing evidence on CBHI. This suggests that solidarity, trust, extra-community networks, vertical civil society links and state-society relations affect the success of CBHI. Aligning schemes to 'social determinants' of CBHI could result in structures that differ from those proposed by current analytic frameworks.

[4] A version of this chapter was published in *World Development* (Mladovsky and Mossialos 2008).

2.1 Introduction

Community-based health insurance (CBHI) provides financial protection from the cost of seeking health care. It has three main features: prepayment for health services by community members; community control; and voluntary membership (Hsiao 2001)[5]. Major international development agencies construe CBHI as a transitional mechanism to achieving universal coverage for health care in low-income countries (World Health Organization 2000, Arhin-Tenkorang 2001, Davies and Carrin 2001, Gottret and Schieber 2006). The current international policy model linking CBHI and universal coverage is implicitly informed by the history of health service financing in Europe and Japan, where CBHI schemes in the nineteenth century eventually merged to form various types of national health insurance (Criel and Van Dormael 1999). However, several studies suggest that while there may be lessons to be learnt, emerging in a different socioeconomic context, under different circumstances, it is not safe to assume that CBHI schemes in their current form will develop into forms of national health financing according to the historical precedent (Carrin and James 2005, Criel and Van Dormael 1999, Barnighausen and Sauerborn 2002, Ogawa et al. 2003). Although it is estimated that in West Africa there was more than a two-fold increase in the number of CBHI schemes in just three years, from 199 schemes in 2000 to 585 in 2003 (Bennett, Kelley, and Silvers 2004), this is still a small number of schemes when compared to the situation in Europe[6]. In the nineteenth century there were 27,000 friendly societies, which operated much like CBHI schemes, in the United Kingdom alone (Bennett, Kelley, and Silvers 2004). Also, rather than being locally initiated by farmers, associations of industry workers or employers as in Europe and Japan, today's CBHI schemes are mostly the result

[5] Following the consensus that the optimal design for CBHI is schemes that are managed separately from the health care provider (Bennett 2004) the discussion in this paper excludes studies of provider-based CBHI schemes.

[6] In another example from West Africa, in Ghana, the number of CBHI schemes rose rapidly from 47 in 2001 to 168 by 2003, but less than 40 percent of schemes were functional at that time, and the combined total coverage they extended to the population was just 1% (Sulzbach, Garshong, and Banahene 2005). However, in general, national data on population coverage of CBHI are scarce.

of top-down interventions led by foreign aid agencies or national governments (Meessen, Criel, and Kegels 2002, Criel and Van Dormael 1999). Reviews have concluded that the evidence base on CBHI is limited in scope and quality (Ekman 2004) and that it is unclear whether CBHI schemes are actually sustainable in the long term (Bennett, Kelley, and Silvers 2004).

Constraints to increasing CBHI coverage and sustainability have been identified primarily by a body of literature taking an economic or a health system perspective. In agencies such as the World Bank and WHO, analysis of CBHI policy is underpinned by an economic framework, with discussion focusing on features of market transactions such as willingness-to-pay, information, price and quality (Dror 2001, Preker 2004, Pauly 2004, Zweifel 2004). Another related perspective attempts to set financial transactions into the broader institutional context of the health system, analyzing interactions between insureds, insurance schemes, health service providers and the state. This is described here as a "health system framework" (see for example (Bennett 2004, Bennett, Kelley, and Silvers 2004, Criel et al. 2004, ILO 2002)) and it corresponds with the model of health system analysis laid out in the WHO (World Health Organization 2000). Underpinning both the economic and health system frameworks is the behavioral model of rational utility maximizing *homo economicus*.

This paper argues that the rational individualist model does not permit the systematic incorporation of social context into policy. New, complementary, directions in thinking on CBHI policy are needed; particularly an increased focus on values, goals and power relations, as has been argued in relation to social policy in general (Flyvbjerg 2001). Specifically, it is proposed that a critical engagement with social capital theories could contribute to our understanding of why most CBHI schemes do not appear on course to develop according to the 19th century precedent, achieving significant levels of population coverage in a sustainable way. It could also help explain the apparently successful implementation of CBHI in certain countries, most notably Rwanda, where coverage of 25.8% of the total population was achieved between 2000 – 2005 (Musango et al. 2006).

Social capital has been the subject of spirited academic debate for almost two decades. Since its definition remains under dispute, as a matter of convenience the paper employs the following as a point of departure for discussion: "the information, trust and norms of reciprocity inhering in one's social network" (Woolcock 1998, p. 153). Further categories in the social capital taxonomy are considered later in the paper. For at least ten years empirical studies have suggested that higher levels of social capital are positively correlated with improved development outcomes in areas such as agriculture, water and sanitation and microcredit in low-income countries (Brown and Ashman 1996, Narayan and Pritchett 1997, van Bastelaer and Leathers 2006, Grootaert and Narayan 2004, Anderson, Locker, and Nugent 2002, Krishna 2001, Uphoff and Wijayaratna 2000, Lyon 2000, Weijland 1999). The World Bank's 'Social Capital Initiative' even suggested that social capital could be the 'missing link' between natural, physical and human capital and economic growth and development (Grootaert and van Bastelaer 2001). Theories of social capital have also been applied widely in public health policy (see (Moore et al. 2006) and (Shortt 2004) for a literature review). However, although an important component of social capital, trust, is occasionally discussed in the CBHI literature, CBHI has *not*, for the most part, engaged with social capital theories. In the few cases where social capital theory is considered, it is either mentioned only cursorily, or the richness and complexity of the theory is overlooked.

The specific framework of social capital adopted in this paper was developed by Woolcock (Woolcock 1998, 2001, Woolcock and Narayan 2006). It brings together several theories of social capital and draws on quantitative and qualitative evidence from field studies. Its particular advantage for our analysis is its focus on community level economic development projects in low-income countries, similar to CBHI[7]. It offers CBHI policy a framework that incorporates both economic and social theory by attempting to reconcile debates over whether humans are rational agents or governed by norms and

[7] While from a policy perspective the primary purpose of CBHI is not economic development - rather it is to improve access to health care services – CBHI is a financial mechanism, and as such it is compared and contrasted within the framework with other forms economic development.

culture. In doing so, the social capital framework can be viewed as an attempt to pragmatically address the need for an alternative, or complement, to income-based and purely economic approaches to development (Bebbington 2004). By applying this framework to CBHI analysis, this paper aims to develop a methodology for grounding CBHI in context-dependent considerations such as values, community goals and local power relations.

Woolcock's social capital framework is briefly outlined below. Next, the social capital framework is used to organize and interpret evidence and information on CBHI. Since an empirical study identifying the causal links between social capital and CBHI is beyond the scope of this paper, the paper draws on existing studies of CBHI. Finally, there is a discussion on the possible importance of social capital to the implementation of CBHI and gaps in current knowledge on this subject.

2.2 Social capital: a policy framework

The concept of social capital was popularized in social science by Robert Putnam (Putnam, Leonardi, and Nanetti 1993, Putnam 1995, 2000). He conceives of social capital as a 'stock' that is the property of a group or community, district or even nation and constitutes features of social organization - "networks, norms, and social ties that facilitate coordination and cooperation for mutual benefit" (Putnam 1995, p. 67). He argues that informal networks of civic engagement build social capital which in turn facilitates improved governance (Putnam, Leonardi, and Nanetti 1993). By conceiving of social capital as a 'stock' Putnam made a theoretical diversion from the principal preceding theories of social capital (Bourdieu 1986, Coleman 1990, 1988) attracting criticism for over-simplification (Fischer 2005, Harriss 2002, Portes 2000, Fine 2001). Previous social capital theorists (Bourdieu 1986, Coleman 1988, 1990) had conceptualized social capital as a resource for individuals which is socially structured - see for example Coleman's definition: "social capital inheres in the structure of relations between actors and among actors" (Coleman 1988, p. S98). It is this earlier version of social capital that is employed in Woolcock's policy framework (Woolcock 2001, 1998, Woolcock

and Narayan 2006). The framework constitutes four types of social capital: (i) bonding social capital inhering in micro level intra-community ties; (ii) bridging social capital inhering in micro level extra-community networks; (iii) bridging social capital inhering in relations between communities and macro-level state institutions; (iv) and bonding social capital inhering in macro level social relations within public institutions. A synthesized (and simplified) version of the framework is presented below.

(a) Bonding social capital at the micro-level: relations within communities

'Bonding social capital', the first category in Woolcock's framework, inheres in dense networks within communities. It constitutes expectations between individuals, the trustworthiness of structures, information channels, norms and effective sanctions that can prevent unproductive behavior in individuals (Coleman 1988). As such, social capital "is productive, making possible the achievement of certain ends that in its absence would not be possible" (Coleman 1988, p. S98) (for example doing well at school). The concept of bonding social capital has been employed in studies to understand why some immigrant groups in the USA fared better than others in economic development (for example setting up small businesses and enterprises) (Portes and Sensenbrenner 1993, Portes 1998). It was found that in some contexts, groups characterized by high levels of bonding social capital could provide enterprising individuals with psychological support and high levels of trust, lowering the transaction costs in enterprise. This is an example of how social capital has been understood as a response to market imperfections[8] (Fine 2001).

However, as well as identifying the merits of bonding social capital, research into US immigrant groups also revealed that the same attributes of the normative structure (trust, social support, sanctions etc) that made the

[8] This idea also corresponds with the theory in new institutional economics that in contexts where there is no formal third-party such as government or the judiciary to enforce constraints on human interaction, there is a need for informal constraints, such as common values, repeat dealing, cultural homogeneity and kinship, to prevent corruption and inefficiency (North 1990).

accumulation of human and economic capital possible were in some settings unproductive, for example by permitting free-riding on communal resources by less diligent members of the group, deriding efforts to study and work hard, or cutting off sources of information (Portes and Sensenbrenner 1993). In this paper, this is characterized as the "negative" effect of social capital. The role of negative social capital forms an important part of Woolcock's framework (Woolcock 2001).

(b) Bridging social capital at the micro level: relations across communities

Research in the US found that successful (productive) immigrant groups were characterized by individuals who were able to draw on bridging relations outside the network as well as bonding relations. This was thought to be because extra-community business relations were free from the potentially overwhelming demands family and friends place on successful members of the group for support (the negative effect of social capital), permitting exchange to take place on the basis of formal rules or fair market competition. This led to the idea that there must be two basic dimensions of social capital at the community level: intra-group ties and extra-group networks. The conclusion was that individuals need to be able to draw on strong intra-community bonding ties *and* extra-community bridging contacts to balance them out in order to counter the negative effects of social capital (Portes and Sensenbrenner 1993).

Bourdieu's theory of social capital (Bourdieu 1986), which is employed in the American research on immigrants, elucidates why some groups are unable to accumulate and employ bridging networks. He argued that individuals and families who already hold forms of capital (of which according to Bourdieu there are four types - economic, social, cultural and symbolic) are strategically adept at accumulating and transforming it (he argues the types of capital are fungible) and may consciously and unconsciously do so. Bourdieu sees economic accumulation as part of a general process of accumulating social connections, education, titles or names or even dispositions of the mind or body which all reinforce each other. Individuals and families that do not have

access to the various types of capital are from the outset in a disadvantaged position to accumulate it.

Woolcock and other social capital theorists have been criticized for overlooking Bourdieu, thereby ignoring the effect of class and other structural social inequalities on economic action and reinforcing a conservative, neo-liberal development agenda (Harriss 2002, Harriss and De Renzio 1997, Fine 2001, Navarro 2002). While in some instances this is a pertinent critique of social capital theory, a careful interpretation of Woolcock's framework suggests that Bourdieu's ideas do have a significant (albeit indirect) influence on it by way of the central position given to the negative effect of social capital. This differentiates the framework from the theory of social capital as solely productive and a rational response to market imperfections and engenders an alternative definition of social capital: "those expectations for action within a collectivity that affect the economic goals and goal-seeking behavior of its members, even if these expectations are not oriented toward the economic sphere" (Portes and Sensenbrenner 1993, p. 1323). Put this way, social capital theory can be employed to understand how social structures such as class or ethnicity promote *or constrain* economic action. It is this definition that underpins Woolcock's model.

(c) Bridging social capital at the macro level: relations between communities and state institutions

Research into the relationship between social capital, government structures and development outcomes in low-income countries found that "Norms of cooperation and networks of civic engagement among ordinary citizens can be promoted by public agencies and used for developmental ends" (Evans 1996, p. 1119). This takes up Putnam's theory that social capital is instrumental in promoting effective government (Putnam, Leonardi, and Nanetti 1993) but reverses it. Rather than focusing on the idea that links between groups and public institutions ensure that public policy is a collective good that benefits all, the research underlines the importance of direct involvement of public officials in getting citizen efforts organized and sustaining citizen involvement. Here, the role of the state is more than providing public goods and an enabling

rule of law. There are, however, difficulties with this idea, addressed in the next subsection.

(d) Bonding social capital at the macro level: organizational integrity within corporate sector institutions

Powerful institutions which transcend the public-private divide, such as governments, can potentially be vehicles for corruption and nepotism. The key to preventing this is a competent, engaged set of public institutions (Evans 1996). Here, social capital is a professional ethos committed to pursuing collective goals, fostered by social relations between individual representatives of institutions; it is a form of bonding social capital at the macro level and facilitates positive state/society bridging relations. It has been pointed out that since coherent robust bureaucracies rarely exist in developing countries, the advocacy for state/society bridging social capital is misguided (Harriss 2002), although this is probably an overly pessimistic view.

Regarding the four types of social capital in the framework, Woolcock (Woolcock 1998, p. 186) argues that "All four dimensions must be present for optimal developmental outcomes. This successful interaction within and between bottom-up and top-down initiatives is the cumulative product of an ongoing process that entails "getting the social relations right"". The following section explores to what extent CBHI policy has been "getting social relations right" by analyzing CBHI through the lens of each of the four types of social capital in Woolcock's framework.

2.3 Understanding the feasibility of CBHI through the lens of the social capital framework

By reviewing the CBHI literature, a core set of studies that consider the social context of CBHI schemes were identified (Atim 1999, Bloom and Shenglan 1999, Criel and Waelkens 2003, Dror and Preker 2002, Franco, Mbengue, and Atim 2004, Hsiao 2001, Jowett 2003, Kiwanuka-Mukiibi, Derriennic, and Karungi 2005, Meessen, Criel, and Kegels 2002, Ron 1999, Schneider 2004, Zhang et al. 2006). In the remainder of the paper, the adapted, simplified version of Woolcock's framework is populated with these studies. The

framework is used to organize the CBHI studies and extrapolate from them. The paper also draws on other literature on CBHI, literature on other types of health insurance, and social capital literature outside the health field to develop the analysis. From this, it is tentatively assessed whether there is value in applying social capital theories to the formation and evaluation of CBHI policies.

(a) Micro-level bonding social capital within communities: positive and negative effects on CBHI

(i) Positive bonding social capital: constraining adverse selection and moral hazard and increasing willingness to pay?

The growth in interest in CBHI is linked to the failure of governments in low-income countries to implement compulsory health insurance for all or most of the population. The voluntary nature of CBHI gives rise to serious obstacles, particularly adverse selection. Other obstacles, such as moral hazard, are common to all forms of health insurance. In CBHI in particular, low demand and willingness to pay also pose a problem (Bennett, Creese, and Monasch 1998, Meessen, Criel, and Kegels 2002). In order to counteract adverse selection, it is suggested in the economic literature on CBHI that contracts are designed to ensure: a minimum enrollment rate in the target population; waiting periods so as to prevent people from joining a scheme only when they are ill; and enrollment not on an individual basis but rather on a family basis (Carrin 2003). Ex-ante moral hazard may be uncommon in low-income countries since the costs associated with accessing health services are sufficient to deter increased 'frivolous' utilization (World Health Organization 2000). However ex-post moral hazard is likely where CBHI schemes cover minor conditions and decisions to utilize services are driven by the client rather than the provider (Bennett, Creese, and Monasch 1998)[9]. Following the economic framework, this can be addressed by introducing deductibles, copayments

[9] Depending on the provider remuneration mechanism, provider moral hazard may also potentially be a problem for CBHI. Linking demand-side financing to provider outputs may be technically and socially challenging due to the renegotiation of power relations between providers and clients (Carrin, Waelkens, and Criel 2005).

and/or gatekeepers as part of the contract (Hsiao 1995). However, although they increase a scheme's sustainability by limiting claims, charges can harm vertical equity, since they disproportionately affect the poor (Ranson 2002a).

It has been suggested that informal mechanisms depending on social norms at the local level may be more equitable and efficient than the formal, contract-based ways of combating such problems. This is recognized in the economic literature on CBHI when it is suggested that trust mitigates against adverse selection and moral hazard in CBHI (Pauly 2004, Pauly et al. 2006) and that CBHI covering small pools provides informal safeguards, such as full information and social sanctions (Davies and Carrin 2001, Zweifel 2004). However, in these papers, although the importance of trust is highlighted, it is unsupported by any kind of evidence or example from CBHI experience and it receives no analytical development, since there is no economic theory of trust (a limitation recognized by Pauly) (Pauly 2004). Therefore, while the economic analysis of adverse selection in CBHI is useful, it has some important weaknesses.

Other studies of CBHI taking a "health system" perspective also propose that trust decreases the likelihood of adverse selection and moral hazard and increases willingness to pay, but these do provide examples from the field and propose strategies to increase levels of trust. These include: improving behavior of medical staff to patients, such as increased levels of politeness (Criel and Waelkens 2003); improving quality of care (through strategic purchasing) (Schneider 2005); transparency and accountability among those managing the scheme (Schneider 2005); recourse to justice to punish fraud (Schneider 2004, Meessen, Criel, and Kegels 2002); subsidies for the poor (Schneider 2005); increased community participation in the scheme management (Schneider et al. 2001, Hsiao 2001, Atim 1999); scheme meetings; a significant proportion of staff working voluntarily (Atim 1999, Schneider et al. 2001). However, the analysis is confined to investigating how trust could be produced and employed at various points in the consumer-provider-insurance triangle. These discussions of trust do not take into account the broader social context and how this may affect CBHI. For example, in a

study of the role of trust in CBHI in Rwanda (Schneider 2005), the effect of solidarity among scheme members on willingness to pay is discussed without any mention of the specific nature and possible root of this solidarity. The socially determined values and norms that form the context of the CBHI and may influence it in practice are left largely unexamined. For example, no mention is made of the effect on trust of the civil war and genocide that occurred less than a decade before the study took place. Ethnic fragmentation has been associated with decreased local public good provision in Kenya (Miguel and Gugerty 2005), decreased levels of group participation in the US (Alesina and La Ferrara 2000) and increased informal sector activity and decreased tax compliance in 52 countries (Lassen 2003) to name but a few studies of the effect of ethnic diversity on trust. Experience from these studies suggests that CBHI may be hampered by ethnic fragmentation, but almost no studies of CBHI, even in contexts of great ethnic diversity, have investigated the effect of ethnicity on trust among potential scheme members.

One exception is a study comparing a hospital-based scheme in Ghana with a scheme based in a city in Cameroon where membership was based on ethnic affiliation (Atim 1999). It attempts to test the theory that solidarity and the smallness of CBHI schemes can account for successful CBHI. It found that in Cameroon, the bonds of ethnic urban solidarity networks represented an effort to re-create or utilize rural solidarity mechanisms as an insurance against the risks of modern urban life, creating a "social movement dynamic". The paper concludes that while this in part explained the success of the Cameroonian scheme, a scheme without ethnic bonds could also incorporate elements of a social movement through greater community participation, accountability and autonomy in the course of time. Echoing this, studies outside the CBHI literature have suggested that the negative effects of ethnic fragmentation on trust could be mitigated through improved institution building (Miguel 2004, Easterly 2001).

Ideas that trust and solidarity bonds in the community improve the likelihood of success in CBHI have parallels with the theory in Woolcock's framework (Woolcock 1998, 2001, Woolcock and Narayan 2006) that bonding social

capital decreases fraud and increases economic development. However, research in China (Hsiao 2001, Zhang et al. 2006) is one of only two explicit attempts to measure the effect of social capital on CBHI (the other is a study in Vietnam (Jowett 2003) (see below). In the Chinese research, social capital is employed only in the Putnamian sense to mean a stock of "social cohesion and solidarity". It was found that social capital facilitated collective action, which in turn facilitated willingness to pay. A statistically significant association between indicators of social capital (degrees of trust and reciprocity) and farmers' willingness to join community financing was demonstrated, controlling for other socio-demographic characteristics (Zhang et al. 2006). The suggested pathway linking levels of trust and reciprocity to willingness to pay in Chinese CBHI schemes is that members with higher levels of solidarity are more ready to accept the cross-subsidization which is implicit in the insurance mechanism (Hsiao 2001). CBHI is therefore viewed as a form of collective action. A study in Guinea-Conarky demonstrating that scheme members understand and approve of the re-distributive effects of CBHI (Criel and Waelkens 2003) supports this view. Other studies have recognized this effect and suggested emphasizing the solidarity benefits of health insurance in information disseminated to communities (Desmet, Chowdhury, and Islam 1999, Schneider 2005).

There is limited evidence then, that in at least in some CBHI schemes, willingness to pay is increased by solidarity bonds and cannot be understood in neoclassical economic terms, where willingness to pay is based on individual expected utility. Instead, a complex interplay between rational utility maximizing and socio-cultural norms (such as solidarity and collective action) probably impacts on individuals' decisions to join a scheme (Schneider 2004). This is because eventually benefiting from the scheme (by drawing on the insurance in times of illness) depends on need rather than the amount contributed. This is true of all types of insurance, but in a community setting the redistributive effect may be more apparent to scheme members. This may particularly be the case in SSA, where CBHI appears to have a different logic to endogenous community-based forms of risk management and income smoothing such as rotating credit associations, which are based on a notion of

reciprocity (you get out what you put in) (Criel and Waelkens 2003, Criel and Van Dormael 1999) (see (Sorensen 2000) for a discussion of risk management in rural communities in developing countries). Unfortunately, it is difficult to further comment on the possible links between CBHI and endogenous forms of risk management since these have hardly been studied (Criel and Van Dormael 1999).

(ii) Negative role of bonding social capital

The hypothesis that strong intra-group ties mitigate against adverse selection and moral hazard echoes Putnam and Coleman by assuming that social capital has only a positive, normative effect on social relations. However, there is a second argument in the CBHI literature that turns this hypothesis on its head and holds that strong intra-group bonds actually *prevent* the emergence of successful CBHI (Meessen, Criel, and Kegels 2002, Atim 1999, Jowett 2003). An example of this comes from Ghana where, in face of conflicting loyalties between a CBHI scheme and their community, field assistants apparently connived with community members in the practice of evading the stipulation of family membership, a mechanism designed to prevent adverse selection (Atim 1999).

Also supporting the negative view of social capital, Jowett (Jowett 2003), using data from voluntary health insurance (which operates much like CBHI) in Vietnamese provinces, takes issue with the argument that social capital facilitates collective action and willingness to pay described above (Hsiao 2001). The results from Jowett's study, which controls for a range of health and socio-economic variables, showed that high levels of two proxies of social capital - perceptions of social cohesion and informal financial networks - were correlated with lower, not higher, rates of take-up of community-based voluntary health insurance, suggesting that intra-community bonding social capital 'crowds out' voluntary health insurance. In this instance strong intra-community ties apparently favored informal financial networks such as borrowing money that *prevented* more formal and institutionalized types of mechanisms such as CBHI from emerging. The Ghanaian and Vietnamese

studies, then, fit into the section of the social capital framework that suggests that high levels of bonding social capital permit free-riding and prevent formal rules for market transactions from being enforced.

There are therefore two countervailing (positive and negative) views of the effect of bonding social capital on CBHI in the literature. As discussed, this is consistent with the social capital framework which provides the basis for an alternative, third hypothesis: communities with both strong intra-community ties (promoting solidarity) *and* extra-community networks (promoting a willingness to invest in and draw on a larger, more generalized and formal pool of resources) are probably more likely to experience greater success with CBHI than communities with one or neither types of social capital[10]. Individuals in communities characterized by only strong intra-community ties may actually be disadvantaged and may benefit from investing in mechanisms to strengthen the other type.

(b) Micro-level bridging social capital: the effect of vertical and horizontal civil society links on CBHI

An important issue for policy makers is whether it would be possible to aid communities in constructing social capital to create better conditions for CBHI, without embarking on some form of social engineering. Affective and emotional relations between family and neighbors are probably not the types of social relations that can or should be developed through policy. However, bridging ties are 'constructible' since they constitute social links that are facilitated by institutional arrangements (Bebbington and Carroll 2000, Krishna 2004, Putzel 1997, Fox 1996, Evans 1996).

[10] An interesting related question is whether the creation and functioning of CBHI has an impact on the development of social capital. However, a discussion of this is beyond the scope of this paper.

(i) Horizontal civil society links: facilitating the enlargement of the risk pool

In the CBHI literature, enlarging the risk pool has already been interpreted as a case of constructing bridging social capital (Preker et al. 2002). Establishing and strengthening links with formal financing networks is cited as an example. In Rwanda federations of small CBHI schemes pool part of their funds at the district level to cover care in district hospitals (Schneider et al. 2001). Creating horizontal links through scheme mergers in this way allows schemes to expand the risk pool while continuing to capitalize on the positive social bonds fostered by small risk groups [11] (Davies and Carrin 2001). Larger pools are required in order to: spread risk; actuarially correctly assess the probability of the loss occurring and therefore maintain solvency; cross-subsidize (Schieber and Maeda 1997) and lower transaction costs (Ron 1999).

Another mechanism for facilitating the enlargement of the risk pool without increasing the risk of fraud is "the establishment of supervisory and audit bodies, and support for an independent press and for the professional groups involved" (Meessen, Criel, and Kegels 2002): 90-91. Such interventions are proposed as a method of fostering an enhanced "generalized morality" across CBHI schemes, or identity or loyalty within a large reference group that encompasses all relevant market transactions (Meessen, Criel, and Kegels 2002) - in short, the development of bridging social capital. An example of this comes from a region of Senegal. The GRAIM (*Groupe de Recherche et d'Appui aux Initiatives Mutualistes)* coordinates 21 schemes, supporting development and building capacity and seems to have led to more interest in scheme membership (Bennett, Kelley, and Silvers 2004). Such interventions

[11] The other main method of enlarging risk pools is (social) reinsurance. This is seen an alternative to external subsidisation or contingency reserves as a means of protecting the scheme from financial instability from catastrophic events (Fairbank 2003, Dror 2001). However others have argued that although self-financing may be attractive, because the membership of schemes is usually limited to poor groups, it may be wiser to view CBHI as a supporting strategy to government financing rather than as an exclusive financing alternative (Bennett, Creese, and Monasch 1998).

are confined to building links between CBHI schemes and other formal institutions in the health system. However some studies have suggested that horizontal linkages between small scale community projects can be even more effective when they connect heterogeneous organizations, building bridges across different sectors.

From the social capital literature, federations of coffee producers and other rural development projects in the Andes (Bebbington and Carroll 2000) may provide a useful model for CBHI. Federations are characterized by Bebbington and Carroll (Bebbington and Carroll 2000) as supra-communal organizations of the poor constituting a special manifestation of social capital. Federations were found to have the potential to foster regional and more strategic forms of collective action and engagement with government, civil society and markets and to build sustainable bridges between different types of organization. Links between political and economic organizations were particularly important. The former type of organization was often more adept at lobbying and mobilization to protect and promote particular concerns of its members, while the latter type (which would include CBHI schemes), was concerned with social enterprise and facilitating service delivery and was more pragmatic, but less inclusive in its stance. Successful federations were able to develop bridges between different types of organization, so that they were able to benefit from each other's strengths.

An overview of ten schemes in India has found that a crucial element of the development of CBHI is the 'nesting' of schemes in a broader development agenda, generating trust among scheme members (Devadasan et al. 2006). All the schemes studied were initiated by local NGOs. In this, the authors argue, Indian schemes differ from African schemes, the latter being largely initiated by external development agencies. In light of the likely importance of horizontal bridging social capital, forming strategic linkages with other grassroots organizations could be important for African schemes. This may particularly be the case in contexts where membership is drawn from poorer sections of society with a weak capacity for mobilization. How far it would be possible to build such relationships would depend greatly on the political and

leadership dynamics at work in the region. This conceptualization of CBHI entails a broader and deeper consideration of communities' needs, goals and power relations than is currently evident in most of the CBHI literature.

(ii) Vertical bridging relations: the role of NGOs and faith based organizations in capacity building

Vertical linkages are employed by CBHI schemes to build capacity in technical areas such as financial and general management and in administration, since the requisite skills for implementing CBHI are often not available locally (Bennett, Creese, and Monasch 1998). In an exploratory study comparing a successful CBHI scheme in the Philippines and a less successful one in Guatemala (Ron 1999), one of the major success factors in the Philippines (where the scheme grew steadily over 3 years) may have been the support of bridging social capital constructed through several types of vertical links. A very effective administrative structure was provided by the international NGO Organization for Education Resources and Training (ORT). The structure was developed through the built-in members' participation mechanisms of a cooperative, combined with the financial and moral support given by the ORT country office and ultimately the World ORT Union. The Guatemalan scheme, which failed to progress after initial registration despite receiving superior technical assistance from the WHO, did not develop supportive links with local social and political structures. In particular, the scheme lacked the support of the local Catholic Church. It could be argued then, that the scheme did not develop sufficient bridging social capital. Perhaps supporting the case for the importance of bridging capital is the fact that following the publication of the study the Guatemalan scheme was successfully re-launched, this time with the support of Catholic Church (Dr Aviva Ron, 2006, personal communication) . However, further research would be needed to understand whether bridging social capital actually affected the outcome of the schemes in the longer term.

While the potential of NGOs to assist CBHI may be great, in some cases the provision of assistance to community development projects may actually prevent the accumulation of social and other forms of capital at the grassroots.

This occurs when vertical bridging relations cause dependency through top-down, non-participatory interventions (Abom 2004, Fox 1996). Studies have indeed found that community participation in CBHI is essential to scheme sustainability (Kiwanuka-Mukiibi, Derriennic, and Karungi 2005, Franco, Mbengue, and Atim 2004). One in-depth study, focusing on Senegal, found that participation has a tendency to wane over time, jeopardizing the sustainability of schemes. Increased decentralization and training are suggested as potential solutions (Franco, Mbengue, and Atim 2004).

The example of a South African HIV/AIDS prevention project which had exceptionally strong technical and financial external support but failed due to poor community participation might be instructive for addressing waning community participation in CBHI (Campbell 2003). In this project, participatory management by a multi-stakeholder committee aimed to empower key marginalized groups (notably sex workers) and to facilitate collective action. However, it failed to take into account the impact of broader social forces on the community (for example poverty) and social hierarchies (for example gender relations) and therefore did not create appropriate incentives for participation. Efforts to support community participation were undermined by experts possessing technical and scientific know-how (epidemiology and biomedicine). Their knowledge was given symbolic and real precedence in the program, so objectives articulated by them displaced the objectives of the intended "beneficiaries". Drawing on Bourdieu, the analysis attributes this failure to unequal distributions of economic, cultural, symbolic and social capital in the project which favored the technical project staff and not the local community. Where participation has been studied in CBHI, there has been no significant analysis of power relations between technical experts and the community in defining appropriate incentives. Broad lessons for CBHI could be drawn from the South African project and other cases documented in the large literature on participatory development. Indeed, a recent study of CBHI found that incentives that are socially and politically relevant may be at variance with incentives designed using technical and scientific expertise (such as economic theory) (De Allegri, Sanon, et al. 2006). Defining incentives in a participatory, "bottom-up" fashion may result in scheme structures and

activities that fall outside the classic insurance model. For example, in Uganda, low ability to pay premiums led to interest among members in pursuing income generation activities to supplement premium payments, and the CBHI scheme becoming an income generating business, as well as an insurance house (Derriennic, Wolf, and Kiwanuka-Mukiibi 2005)[12].

(c) Bridging social capital at the macro level: relations between communities and state institutions

There are several views on the appropriate role of the state in CBHI. Pauly et al (2006) have recently advocated minimal government regulation of CBHI, arguing that government subsidy causes cream skimming and adverse selection. The health system framework suggests that although CBHI is a private sector method of financing health care, the government can play a vital role in schemes' success, should it decide that CBHI is a good strategy to further its objectives. Bennett et al (1998) argue that if there is government failure, or no clear government policy, schemes are likely to play an important role in the delivery of health care, but issues relating to their role in the broader health system are unlikely to be relevant. If government is strong, it is argued that CBHI relations with the government are likely to be very important. The following three government mechanisms for supporting community health financing have been identified: stewardship (for example regulation and monitoring); creating an enabling environment (for example the rule of law); and resource transfer (for example subsidies) (Ranson 2002b). The social capital literature complicates this picture. Evans (1996) argues that state agencies can aid civil society organizations to consolidate themselves through

[12] Another point related to the potentially negative impact of external support is that as with other types of local development, technical agencies and NGOs may harm the development of CBHI through unharmonized efforts. There are now at least four international technical and / or financial support mechanisms for CBHI projects: 'Partners for Health Reform*plus'*, funded by the U.S. Agency for International Development; the 'Health insurance Fund' funded by the Dutch Ministry of Development Coordination; the 'Centre of Health Insurance Competence' of the German development agency GTZ; and the 'Health Micro-Insurance Schemes Feasibility Study Guide' of the International Labour Organization. Where these agencies are working in the same country, they will need to ensure their policies are coordinated.

the construction of state-society "synergy" and that the state plays two different roles in this: complementarity and embeddedness.

(i) Complementarity

The first is akin to the health system approach described above, namely to provide public goods and an enabling rule of law and while private organizations and institutions produce goods and services. This is termed "complementarity" by Evans.

Complementarity is important in CBHI. For example, a major obstacle to CBHI is the poor quality of health services (Criel and Waelkens 2003). CBHI can potentially contribute to improving quality efficiency and sustainability of health services through strategic purchasing (World Health Organization 2000, Hsiao 2001). In health care markets CBHI can be a means of facilitating improved vertical integration and determining the nature and scope of the products supplied by health care providers (Zweifel 2004). If the provider is separate from the purchaser, an insurance body can improve efficiency and curb provider moral hazard (Atim et al. 2001) if it pursues a policy of strategic purchasing (World Health Organization 2000). However, for strategic purchasing there must be an enabling environment: information about the quality and quantity of services must be provided; there needs to be investment in new skills in contracting on the part of both the purchaser and provider (Bennett, McPake, and Mills 1997); and a revision of the balance of power between purchaser and provider must be accepted (Desmet, Chowdhury, and Islam 1999, Meessen, Criel, and Kegels 2002, Carrin, Waelkens, and Criel 2005, Criel et al. 2005). In light of these numerous preconditions, it is not surprising then that in a study of 258 CBHI schemes in low-income countries only 16% conducted strategic purchasing (ILO 2002). One method of creating these conditions is for government to provide the function of monitoring, regulating and / or accrediting providers, so that schemes do not need to develop the technical skills to conduct these activities themselves. China's rural cooperative medical system (RCMS) provides an example of

complementarity[13]. Since China's health services have become decentralized, local government has less financial leverage to control the running of hospitals and other facilities. The role of government is increasingly to monitor and regulate services. RCMS schemes, on the other hand, channel financial resources to hospitals and local government, but do not have the technical skills to assess quality and cost-effectiveness. Local government and RCMS schemes therefore need to cooperate in order to influence providers through strategic purchasing (Bloom and Shenglan 1999).

(ii) Constructing social capital through embeddedness

The second role of the government is "embeddedness", a political process facilitating the construction of social capital at the local level (Evans 1996) [14]. Central to this is the idea that in some contexts there is an informal permeability of boundaries between civil society and private sector organizations and the government that can facilitate development. It is often assumed that such permeability should be avoided as it can foster corruption, but Evans argues that embeddedness can significantly enhance development. An engagement with civil society or the private sector in the form of day-to-day interactions of government officials can build its own, positive, norms and loyalties (Evans 1996). An example comes from the Taiwanese irrigation system where the water requirement per crop in Taiwan is around 50% lower than in other South East Asian countries. This efficiency is attributed to the embeddedness of the state in social structures at the local level (Lam 1996). Local public officials belonging to Irrigation Associations officially manage the irrigation system but are embedded in the day-to-day operations of the farming groups. Officials depend on voluntary labor and donations by farmers to carry out maintenance and operations, while farmers depend on officials to

[13] Although previously RCMS schemes were government owned, schemes are now voluntary and are managed by a village or township committee. Schemes are separate from providers. Because of these features (privately owned, purchaser/provider split) RCMS is considered in this discussion of CBHI schemes.

[14] Embeddedness is a qualitatively different concept to the processes that constitute decentralization since it focuses on informal social relations which do not feature in decentralization models.

integrate local needs into the overall plan. Officials gauge these needs not through the formal mechanism of farmers' representatives, but through informal conversations held while collecting water fees. Although these mechanisms are informal, Lam argues that they have not evolved by chance. Rather, they are fostered by the institutional design of the irrigation system. Autonomy of the various units within the irrigation bureaucracy coupled with back-up from higher levels of authority allows individual officials to develop informal rules to cope with various problems they might face, without this informality becoming unmanageable or corrupt. Further support for synergy comes from the egalitarian nature of farming in Taiwan, which has one of the lowest Gini indexes in the developing world. Wealthy local elites do not derive their power as land owners or employers, but as heads of political factions which compete to win votes (Lam 1996). From this and several other case studies, Evans concludes that embeddedness is likely to emerge in egalitarian societies where institutional structures are designed to encourage a certain set of norms and loyalties at the intersection between civil society and government involvement in development projects (Evans 1996).

Research into state-society synergy would be particularly important in countries intending to follow the 19th century precedent and scale up coverage by integrating CBHI into government-led national social health insurance schemes, such as Ghana (Government of Ghana 2003), since in these contexts issues of power between regulatory state officials and CBHI schemes will come to the fore. Synergy may also be important in contexts where ability to pay is very low. One critical weakness of CBHI is that it has not experienced significant and sustained success to improve access and financial protection among indigents because (a) the poor are excluded from CBHI schemes because they cannot pay the premium or (b) the poor under-utilize services even if they have coverage (Ranson 2002a, Atim et al. 2001). This suggests that if CBHI is the only form of social protection for health expenditure, it is unlikely to be sufficient. For CBHI to promote equitable access to health care, it is likely that indigents would need to be subsidized by the state, while the rural non-poor and informal workers are targeted to make contributions to CBHI (Bennett, Kelley, and Silvers 2004). In such scenarios, following the

social capital framework, public subsidies may work best when administrative structures in CBHI intersect with local political structures in order to facilitate bureaucrats' loyalty and enthusiasm to become "embedded" in schemes and put their energy into making them work.

A possible example of embeddedness comes from a Senegalese scheme which developed a successful collaboration in which rural councilors are members of the scheme and they support its functioning by letting the manager make presentations at their meetings, and by raising awareness and asking people to join the scheme while they are making their own visits to local communities (Franco, Mbengue, and Atim 2004). In Rwanda, the eventual success of a mutual health insurance pilot with declining membership was in part due to the intervention of the District Mayor who facilitated links with a micro-finance scheme and offered to personally ensure monitoring of the project. The organization of the now extensive network of CBHI schemes in Rwanda is adapted to the decentralized government framework, with Mayors sitting on mutual health insurance committees at the district level (Ministry of Health Republic of Rwanda 2004). However, if governments are to have a role in facilitating CBHI through state-society "synergy", public institutions need to be competent and engaged. This is the subject if the next subsection.

(d) Bonding social capital at the macro level: relations within institutions

Woolcock (1998) defines organizational integrity as a type of social capital. He draws on neo-Weberian theory in perceiving institutional coherence, competence and capacity as deriving from an organizational form that socializes bureaucrats. This allows Woolcock to view the effectiveness of organizations, particularly government, as a product of social relations which foster a certain set of norms.

The corporately coherent robust Weberian bureaucracy in the Taiwanese irrigation system (Lam 1996) ensured that embeddedness did not degenerate into clientalism, while at the local level the bureaucracy was open to inputs from farmers and local officials (Evans 1996). Evans (1996) argues that without a coherent Weberian bureaucracy (characterized by meritocratic

recruitment, good salaries, sharp sanctions against violations of organizational norms and solid rewards for career-long performance) state-society synergy is possible but it will not be a force for good and will foster corruption instead. On the other hand, if a Weberian bureaucracy exists without synergy, inflexible rules and uniform structures (a Weberian "iron cage") will prevent synergy and limit the possibilities for development. In other words, both synergy and coherent robust bureaucracy are needed for optimal developmental results. To support his argument Evans points to studies demonstrating that "synergy" contributed to the success of East Asian countries that experienced rapid development in the late 20th century. Thus Evans diverges from Putnam's view that a lack of prior endowments of micro level bonding social capital is the key constraint to effective local government (Putnam, Leonardi, and Nanetti 1993), arguing rather that the limits in government structures cause the inability to scale-up (through state-society synergy) micro levels of social capital to generate action on a scale that is politically and economically efficacious.

The argument that the implementation of successful market-oriented initiatives requires the engagement of competent government has already been compellingly made in regard to health sector reforms such as contracting out (Bennett, McPake, and Mills 1997). Specifically, this research found that in order to ensure private sector initiatives were efficient and equitable as compared to direct government provision, government would need to develop a broad array of new skills and capacities. The requirements for this capacity building were so demanding on government that in principle it put into question the supposed advantage of the reforms over direct provision. In relation to CBHI, a market-oriented initiative, it is also likely that regulating, expanding and promoting equity and efficiency in schemes would require government to develop new skills and capacities (as discussed above). Whether in the long run this process would be preferable to public sector health care financing is a question that falls beyond the scope of this article[15]. What is

[15] A direct comparison between CBHI and public sector health financing is not expounded in this article, since the relative merits of private health insurance as compared to tax and social health insurance based systems have been discussed extensively elsewhere. See for example (Maynard and Dixon 2002, van Doorslaer et al. 1999, Wagstaff et al. 1999).

apparent, from the research on health sector reforms (Bennett, McPake, and Mills 1997), and from Woolcock's framework, is that this process would require the government to be competent and engaged. In other words, bonding social capital at the macro level would arguably be an important factor influencing the government's ability to develop the new skills and capacities required to support CBHI to develop equitably, on a scale that is politically and economically efficacious.

2.4 Conclusions

CBHI has been proposed by international development agencies as a transitional mechanism to achieving universal coverage for health care in low-income countries (World Health Organization 2000, Arhin-Tenkorang 2001, Davies and Carrin 2001, Gottret and Schieber 2006). This policy model linking CBHI and universal coverage is implicitly informed by the historical experience of mutual health insurance in countries such as Germany and Japan in the nineteenth century, where the social context was dramatically different to that of today's schemes (Criel and Van Dormael 1999). This paper argues that the analysis of CBHI in agencies such as the World Bank and WHO, broadly based on economic theory, has taken insufficient account of context-dependent policy considerations. These include values of scheme members and people in their communities, community goals and local and regional power relations. There is a need to develop an alternative framework to complement the economic and health system approaches to analyzing CBHI.

An analysis of the CBHI literature suggests that a critical engagement with social capital theories could enhance our understanding of CBHI and help explain why in most low-income countries (with notable exceptions such as Rwanda) schemes do not appear on course to develop according to the 19th century precedent, achieving significant levels of population coverage in a sustainable way. Features of social capital such as solidarity, trust, extra-community networks, vertical civil society links and state-society relations at the local level appear to affect outcomes in CBHI. To this extent, it may be possible to talk of "social determinants of CBHI". However, these social

determinants have been insufficiently considered in CBHI policy analysis and development, possibly limiting understandings of failures and successes of CBHI. Our conclusions are not based on the findings of primary research, which was beyond the scope of this paper. The limitation of this is that the studies employed do not necessarily aim to identify the importance of social capital. There was therefore a need to draw additional conclusions beyond the objectives of the researchers, by linking their work to a new framework.

With this caveat in place, possible social determinants of CBHI and their impact on CBHI are tentatively proposed here. The paper firstly argues that applying Woolcock's social capital framework (Woolcock 1998, Woolcock and Narayan 2006, Woolcock 2001) to the CBHI data puts into question the idea, proposed in the CBHI literature, that schemes characterized by strong intra-community ties are more likely to experience success in CBHI than those without these ties, because of increased solidarity which may reduce adverse selection and moral hazard. The framework complicates the picture by proposing that communities characterized by only strong intra-community ties may actually be disadvantaged in CBHI development due to increased levels of corruption and clientism, or a preference for more informal financial networks. A broader understanding of the factors determining the effect of bonding social capital on CBHI is therefore needed. Bridging social capital in the form of more extensive professional links with NGOs, umbrella organizations or local government (within and beyond the health sector) is likely to be important.

Bridging ties are 'constructible' since they constitute social relations that are facilitated by institutional arrangements rather than affective bonds (Bebbington and Carroll 2000, Krishna 2004, Putzel 1997, Fox 1996, Evans 1996). They can foster more professional relations, strategic alliances, administrative capacity and enlarged risk pools in CBHI schemes. However, vertical links with NGOs, while bringing many benefits, may also foster dependency and may reinforce social structures that endorse and privilege the work of technical experts. This does little to augment the accumulation of capital (social, economic, human or otherwise) of intended beneficiaries of technical assistance – the scheme staff and scheme members. The role of

positive bridging social capital in CBHI therefore ought to be explored. A related question is whether and how the advantages of bonding social capital could be sustained alongside increased horizontal and vertical bridging links.

Alongside links with NGOs and civil society, the concept of 'embeddedness', also constituent of bridging social capital, suggests that local government structures can foster productive informal social relations between communities and local government officials (Evans 1996). In CBHI, it is unclear whether structures that facilitate the personal engagement of local bureaucrats may also increase the possibility of corruption. The effect of embeddedness also needs to be weighed up against more conventional "complementarity" (public/private division of labor) and laissez faire approaches, although it is worth noting that the latter may not be viable in cases where CBHI is to be scaled up and integrated into a government program for universal coverage (such as social health insurance) as proposed by WHO (World Health Organization 2000).

The process of working through the social capital framework has led us to the conclusion that certain types of social capital are probably a determinant of successful CBHI, but it has also led us to think beyond this. It may become apparent that CBHI schemes need to actively develop bridging relations to foster the types of social capital required to ensure that the schemes are aligned to local communities' goals, power relations and values. For example, CBHI schemes could link into federations of community-based organizations with diverse political and economic interests, situating themselves in the broader regional or even national development agenda and increasing their inclusiveness locally. Or schemes may find they need to pursue diverse activities to complement insurance, such as income generation. In egalitarian societies, if institutional structures that foster norms and loyalties at the intersection between civil society and government are in place, CBHI schemes could systematically forge links with decentralized government structures (such as District Health Management Teams) or develop into quasi -non-governmental organizations.

Social capital theory has been critiqued as a rationale for social engineering by development agencies. It is accused of broadening the scope of justifiable intervention from the economic to the social, in order to rectify market imperfections in order, in turn, to ensure that market-oriented policies are successful, whilst obscuring a critique of those policies (Fine 2001). CBHI, as a form of private, voluntary health insurance, is a market-oriented policy, but this paper does not aim to build a case for, or against, social interventions to ensure it is successful. Rather, the paper hopes to demonstrate the potential utility of social capital research in unpacking complex social relationships in CBHI and making their importance to policy and programming intelligible. Evidence from future studies may support social interventions to develop CBHI. Or, echoing critical analyses of other market-oriented health sector reforms (Bennett, McPake, and Mills 1997), future evidence may indicate that social interventions require local institutions to develop new capacities such that the market-oriented reforms become more demanding on these local institutions than alternative, public sector policies.

So far, this discussion has not considered methodologies for primary research into the effects of social capital on CBHI. Indicators of social capital have already been developed and these could be adapted for quantitative studies investigating the relationship between social capital and CBHI. Such a task would be no small undertaking. An in-depth literature review of research on social capital suggests that a number of serious conceptual and statistical problems exist with the current use of social capital by social scientists, particularly in attributing causality to social capital in empirical studies (Durlauf and Fafchamps 2004).

The results suggest that while applying the social capital framework to CBHI could indeed entail empirically testing a theory of the social conditions under which CBHI is successful, this is not the only possible research methodology. An alternative approach would be to employ the framework qualitatively, for example by using it to guide semi-structured interviews and anthropological fieldwork in order to advance CBHI policy analysis and to understand its social context. This would involve situating empirical or technical analyses (which

have already been undertaken within existing economic and health system frameworks for CBHI) in praxis and taking account of context-dependent considerations, such as values, goals and power relations (Flyvbjerg 2001). Such a process could result in the evolution of schemes that are structured and operate quite differently than those proposed under the economic and health system frameworks and that have quite different long term trajectories than the schemes emerging in the 19th century.

Chapter 3 Can social capital help explain enrolment (or lack thereof) in community-based health insurance? Results of an exploratory mixed methods study from Senegal[16]

Abstract

CBHI has achieved low population coverage in West Africa and elsewhere. Studies seeking to explain this point to inequitable enrolment, adverse selection, lack of trust in scheme management and information and low quality of health care. Interventions to address these problems have been proposed yet enrolment rates remain low. This exploratory study proposes that an under-researched determinant of CBHI enrolment is social capital. Fieldwork comprising a household survey and qualitative interviews was conducted in Senegal in 2009. Levels of bonding and bridging social capital among 720 members and non-members of CBHI across three case study schemes are compared. The results of the logistic regression suggest that, controlling for age and gender, in all three case studies members were significantly more likely than non-members to be enrolled in another community association, to have borrowed money from sources other than friends and relatives and to report having control over all community decisions affecting daily life. In two case studies, having privileged social relationships was also positively correlated with enrolment. After controlling for additional socioeconomic and health variables, the results for borrowing money remained significant. Additionally, in two case studies, reporting having control over community decisions and believing that the community would cooperate in an emergency were significantly positively correlated with enrolment. The results suggest that CBHI members had greater bridging social capital which provided them with solidarity, risk pooling, financial protection and financial credit. Qualitative interviews with 108 individuals selected from the household survey confirm this interpretation. The results ostensibly suggest that CBHI schemes should build on bridging social capital to increase coverage, for example by enrolling households through community associations. However, this may be

[16] A version of this chapter was published in *Social Science and Medicine* (Mladovsky et al. 2013)

unadvisable from an equity perspective. It is concluded that since enrolment in CBHI was less common not only among the poor, but also among those with less social capital and less power, strategies should focus on removing social as well as financial barriers to obtaining financial protection from the cost of ill health.

3.1 Introduction

Community-based health insurance (CBHI) is typically not-for-profit and aims to provide financial protection from the cost of seeking health care through voluntary prepayment to community owned and controlled schemes (Hsiao 2001). Senegal has witnessed a rapid increase in the number of CBHI schemes, reaching 129 in 2007 (CAFSP 2010). The government elected in 2012 views CBHI as a mechanism for achieving universal coverage (Ministère de la Santé 2012), a continuation of the previous government's policy (Ministère de la Santé 2004). However, as in most low- and middle-income countries (LMIC), overall coverage in Senegal remains low, with 4% or less of the population enrolled in CBHI (Soors et al. 2010), echoing wider limitations of CBHI (Ekman 2004).

There have been numerous studies on the determinants of enrolment in CBHI in sub-Saharan Africa (SSA) (Defourny and Faillon 2011). Demand-side determinants identified by quantitative studies from West Africa are: higher levels of wealth and education, poorer health status and being prone to the risk of illness (Jütting 2004, De Allegri, Kouyate, et al. 2006, Chankova, Sulzbach, and Diop 2008, Jütting 2003). Determinants on the supply-side include a perception of the inadequacy of traditional care and long distance from the health facility (De Allegri, Kouyate, et al. 2006). Qualitative studies suggest that perceptions of quality of health care, trust in CBHI scheme management (Criel and Waelkens 2003), availability of information on CBHI (Ridde et al. 2010) and scheme design (De Allegri, Sanon, et al. 2006) also determine enrolment. A third set of determinants points to social and cultural issues, including low levels of socioeconomic inequality within the community ,

membership of other community organisations (Jütting 2003) and ethnicity and religion (De Allegri, Kouyate, et al. 2006, Jütting 2003).

The literature proposes the following strategies to address inequity, adverse selection and inadequate supply of health services and insurance: public funding to subsidise premiums, strategies to promote increased revenue collection from the "healthy and wealthy", and improved CBHI management and quality of care (Mills et al. 2012, Ndiaye, Soors, and Criel 2007, Soors et al. 2010). Yet continued low rates of enrolment suggest these strategies have not been successfully implemented. Meanwhile to date there has been no attempt to systematically explain how and why social and cultural determinants affect CBHI enrolment and understand the policy implications. This gap is addressed by the present study which proposes that the decision to enrol in CBHI is determined, in part, by levels of social capital. The hypothesis to be tested is that people who decide to enrol in CBHI have bonding and bridging social capital, while those who do not enrol have less bridging social capital or bonding social capital only. This is explored by comparing levels of social capital among members and non-members of three CBHI schemes in Senegal.

Background: defining social capital

The study builds on the argument that social capital can promote or constrain CBHI, proposed in a literature review of CBHI by Mladovsky and Mossialos (2008). They adopt the following definition of social capital: "the information, trust and norms of reciprocity inhering in one's social network" (Woolcock 1998):153). Tracing interconnected theories of social capital they further adopt the principle that social capital constitutes: "those expectations for action within a collectivity that affect the economic goals and goal-seeking behavior of its members, even if these expectations are not oriented toward the economic sphere" (Portes and Sensenbrenner 1993):1323).

Bonding versus bridging social capital

Drawing on Portes & Sensenbrenner (1993), Mladovsky and Mossialos (2008) argue that distinguishing between "bonding" and "bridging" social capital is

essential to understanding whether features of social capital (e.g. expectations between individuals, the trustworthiness of structures, information channels, norms and effective sanctions) have a productive outcome in CBHI. "Bonding social capital" inheres in dense networks within communities. Research suggests that while bonding social capital makes the accumulation of human and economic capital possible in some contexts, it can be unproductive in others. For example in some immigrant groups in the USA high levels of bonding social capital lowered transaction costs in enterprise (Portes and Sensenbrenner 1993, Portes 1998). However, bonding social capital was unproductive in other groups, promoting free-riding on communal resources, derision of efforts to work hard and cutting off important external sources of information (Portes and Sensenbrenner 1993); this is hereafter termed the "negative effect of bonding social capital". The differing impact of bonding social capital on economic action is explained by varying levels of "bridging social capital", which inheres in micro level extra-community networks. Productive immigrant groups were characterized by individuals who were able to draw on bridging relations outside the network *as well as* bonding relations. This is thought to be because extra-community relations were free from the potentially overwhelming demands family and friends place on successful members of the group for support, permitting exchange to take place on the basis of formal rules or fair market competition (Portes and Sensenbrenner 1993). Studies of bonding and bridging social capital from the development literature on SSA (Titeca and Vervisch 2008, Campbell 2003, Njuki et al. 2008) broadly support the findings from North America. However, mixed methods studies differentiating between the impact of bonding and bridging social capital in SSA are rare, and none have focused on CBHI.

The unequal distribution of social capital

Another characteristic of social capital which may hinder positive developmental outcomes is identified by Bourdieu (1986) who argues that individuals who already hold forms of capital (economic, social, cultural and/or symbolic) are strategically more adept at accumulating and transforming it (he argued that these types of capital are fungible). Through the continual process

of accumulating and transforming the different forms of capital, unequal power relations and social hierarchies are formed and strengthened. The aforementioned literature on social capital in Africa also broadly supports this theory. As such it is important to study the *distribution* of social capital within communities and consider how this might cause unequal access to benefits offered by development projects. Previous studies of CBHI do not take such issues into account.

3.2 Methods

The study used a mixed methods multiple case study design which included a household survey and semi-structured interviews. Ethical approval for the research was obtained from the Senegalese Ministry of Health.

Case study selection

The fieldwork was conducted from March to August 2009. To enhance generalizability of the results of the study (Yin 1994), multiple (three) cases constituting CBHI schemes were selected: Soppante, Ndondol and Wer Ak Werle (WAW) (Table 3.1). Three regions (out of 12) were first selected for inclusion in the study. These were among the regions with the highest number of CBHI schemes in Senegal (Table 3.1), meaning the study focuses on contexts where CBHI development is relatively advanced. In each region, the federation which coordinates CBHI schemes provided information used to identify the three cases. The cases all fulfilled two basic criteria of success in order to control for the possibility that a lack of enrolment was mainly due to supply-side problems: the number of members[17] ever enrolled in the CBHI scheme (including those whose policy had expired) was greater than the national average of 329 (Hygea 2004); and the schemes had been established for a minimum of eight years. At the same time, the schemes varied according to the following criteria, in order to study a wide range of contexts (Table 3.1):

[17] A "member" (termed "adherent" in French) is permitted to register 10-12 people from their household on the insurance policy meaning that the total number of enrollees in the insurance schemes was far higher than the number of "members". The premium for each individual in the household is paid monthly.

geographic zone; type of economic sector of the target population; and tier of services contracted by the scheme.

Table 3.1: Case studies selected

Name of case study	Year scheme commenced	Tier of services contracted by the scheme	Region (total number of CBHI schemes in the region*)	Geographic zone	Predominant economic sector	Other characteristics of the scheme
Soppante	1997	Health post Hospital	Thies (39)	Mostly rural, some peri-urban and urban	Informal	Scheme covers a very large and diverse geographic zone
Ndondol	2001	Health post Health hut Maternal and child health centre	Diourbel (10)	Rural	Informal agricultural	District predominantly inhabited by one ethnic group, the Serer Local Catholic missionaries helped establish the scheme Scheme offers microcredit exclusively to its member
WAW	2000	Health post Health centre	Dakar (44)	Peri-urban	Informal traders	Partnered with an association promoting income generation for women

*Source: (CAFSP, 2010)

Quantitative methods

Sampling

Since overall population enrolment rates were low, disproportionate stratified sampling was used. In each case study, a list of households which had ever purchased a CBHI policy was used as a sampling frame for the random selection of members (Table 3.2). All three schemes had a high rate of non-renewal of policies (Table 3.2). This is typical for CBHI schemes in Senegal

(Hygea 2004) and SSA more generally (De Allegri et al. 2009). Because this study is concerned with the decision to ever enrol in CBHI, and since expired policies (i.e. the most recent monthly premium had not been paid) could be renewed by paying the outstanding premium payments and a penalty charge, both households with active and expired policies are referred to as "members" and are included in the analysis. Each group was sampled separately (Table 3.2). The household questionnaire was administered to the named member. The control sample was selected using the "random route" method to select non-member households living in close proximity to the members interviewed[18]. In the control households, the household head and/or spouse were asked who in the household would in theory be responsible for CBHI membership and this person was interviewed.

Table 3.2: Household survey sample

Scheme	Total number of members ever enrolled (active and expired policies)	Total number of member households selected (active and expired policies)	Target number of non-members
Soppante	985 (166 + 819)	161 (70 + 91)	100
Ndondol	463 (136 + 327)	156 (58 + 98)	120
WAW	678 (281 + 397)	170 (85 + 85)	100

Questionnaire design

A questionnaire was developed with six core components: socioeconomic and demographic characteristics; household roster; economic characteristics; social capital; membership of CBHI; and health and utilisation of health services. For the social capital component, most questions were adapted from the SOCAT questionnaire (World Bank). The questionnaire used for the WAW case study is provided in Appendix 2.

[18] This is similar to the methodology used in a UNDP study of at risk populations (UNDP 2006)

Variables

The dependent variable is membership of CBHI. Among the independent variables, eight measure different facets of social capital. These were the main variables on which information related to social capital was collected. Individual/household rather than community level variables were used. Two social capital variables measure the structure of social networks: number of memberships of associations and privileged relations. The remaining variables measure tangible and perceived assets that may be transmitted by social networks: information; belief that everybody in the community would cooperate (a proxy for solidarity); trust; financial credit; perceptions of control over local decision-making (a proxy for social power); and voting (a proxy for political participation).

Membership of associations was used as a proxy for bridging social capital, since it implied having social links beyond kin, friendship, or intra-community groups. Furthermore, associations typically had a productive function, even if this was not their primary goal (Niang 2000). Examples of associations included Muslim prayer groups ("*dahiras*"), rotating credit and savings associations (ROSCAs) ("*tontines*"), microcredit groups, sports clubs and CBHI itself. The variable is based on the question *"How many associations do you and members of your household belong to in total (not including the CBHI scheme)?*". In the case of Soppante, a dummy variable was created to categorise households according to whether they belonged to no associations or to one or more associations. For Ndondol and WAW, the questionnaire asked for the specific number of associations to which a household belonged and dummies measure membership of no, one, two, three, or more than three associations. This was because in these case studies, another association had partnered with CBHI, meaning that some CBHI members were de facto members of two associations. It was hypothesised that, as in previous studies (Jütting 2003), enrolment in CBHI would be positively correlated with membership of other associations, since people with existing social capital are likely to be more adept at further accumulating it.

In order to measure bonding social capital a dummy variable based on the question "*Do you have privileged relationships?*" was used. In Senegal "privileged relationships" are a form of "fictive kinship"(Carsten 2000). Common examples are "*ndeye dike*" ("the mother of my choosing or twin"), "*homonyme*" (a namesake - a child that is named after a person) or "*parrain / marrain"* ("godfather / godmother"). These relationships constitute emotional and affective ties but can also be a medium for instrumental financial support (Buggenhagen 2011). It was hypothesised that enrolment in CBHI may be either negatively or positively correlated with having privileged social relations, depending on levels of bridging social capital.

The issue of information channels was explored by a question asking where respondents obtained information on community matters or politics, with a set of 14 possible responses (multiple responses were permitted). A dummy variable distinguishes between receiving information from relatives, friends and neighbours only (a proxy for bonding social capital only), or receiving information from relatives, friends and neighbours and / or another source (e.g. the local market, traditional forums, or associations) (a proxy for bonding plus bridging, or only bridging, social capital). Assuming the information on CBHI was positive (i.e. it promoted enrolment), it was hypothesised that people who received information from relatives, friends and neighbours only were less likely to enrol in CBHI due to the "negative" effect of bonding social capital.

A set of variables was included on perceptions of solidarity within the community and was derived from the question "*Do you think it is likely that everybody in the community would cooperate to solve a common problem such as a lack of water*?". It was hypothesised that enrolment would be positively correlated with high levels of solidarity if, as per the discourse around CBHI in Senegal (Ministère de la Santé 2004), solidarity was seen as characteristic of CBHI.

Another variable measures generalised trust. Bonding social capital was measured by trusting in one's friends, family and most people in one's community, while bridging social capital was measured by trusting: people

from other ethnic or linguistic groups; foreigners; people of other religions / brotherhoods / confessions; local government; imams and priests; traditional leaders; teachers; medical staff; security forces; justice; and persons of other castes. Responses were given on a Likert scale. Indices were constructed by performing a principal component analysis. It was hypothesised that a lack of trust at any level could prevent enrolment due to fears of moral hazard and / or corruption in CBHI (Pauly et al. 2006). This hypothesis is supported by a study which found that higher degrees of generalised trust were correlated with Chinese farmers' willingness to join community financing (Zhang et al. 2006).

A further set of variables focused on sources of financial credit, following Bourdieu's theory that the various forms of capital are fungible. A set of dummies was created from the following questions: "*Did you borrow money in the last 12 months?*" and "*From whom did you borrow the money*?". The latter question was followed by a set of eight options (multiple responses were permitted). The dummies divide respondents into three groups: those who had not borrowed money; those who had borrowed money from family, relatives or friends only (a proxy for bonding social capital); and those who had borrowed money from family, relatives, friends and / or another source, such as an association (a proxy for having bonding plus bridging, or only bridging, social capital). It was hypothesised that people who had not borrowed money or borrowed money from immediate family, relatives or friends only were less likely to enrol in CBHI due to the "negative" effects of bonding social capital. This is supported by a study on voluntary health insurance in Vietnam (Jowett 2003) which showed that borrowing money from informal financial networks (family and friends) was correlated with lower rates of enrolment.

Another variable focused on control over local decision-making, following Bourdieu's theory that social capital increases social power. One set of dummies was based on the question "*How many of the decisions made in the community or by neighbours which affect your daily life do you have control over?*". Five possible responses were offered, ranging from "control over no decisions" to "control over all decisions".

Finally, a dummy variable was based on a question asking respondents whether they voted in the most recent local elections. This was used as a proxy for bridging social capital since voting in Africa has been found to be positively associated with increased membership of civil society groups and political mobilization (Kuenzi and Lambright 2005). It was hypothesised that voting would be positively correlated with CBHI enrolment.

The main potential confounders that are commonly included in quantitative studies on CBHI enrolment and on social capital and health (Harpham, Grant, and Thomas 2002) are included in this study. In addition to age and gender of the respondent, the socio-economic characteristics considered were level of education, household expenditure and wealth. The expenditure variable is based on reported monthly household expenditure on 14 different categories. Expenditure was adjusted using the OECD scale (weighting 1 for the first adult, 0.7 for other adults and 0.5 for each child) (OECD , Forster 1994). To proxy household wealth, an asset index was constructed by performing a principal component analysis using variables of household possession of goods (Howe et al. 2009). The health variables used are: disability, chronic illness, recent illness or accident in last 15 days and self-assessed health. For the latter variable three dummies were created, the first combining "very good" and "good", and the third combining "poor" and "very poor". Given that Senegal is ethnically and religiously diverse (Smith 2013), ethnicity (whether or not the respondent is Wolof (the majority ethnicity)) and religion, (whether or not the respondent is Muslim (the predominant religion)) were included. In the third case study, WAW, the religion variable was dropped since almost 100% of respondents reported being Muslim.

Model

A logit model was used to analyse the probability of enrolling in CBHI; the dependent variable was equal to 1 if the household was enrolled in CBHI and 0 if not. Each of the eight social capital variables were analysed separately. Two regressions were run for each social capital variable. The first regression was a restricted model which includes only age and sex as control variables (Model

1). The second regression was an unrestricted model where an additional range of socioeconomic and cultural control variables was included (Model 2). Since, according to Bourdieu, the different forms of capital are fungible, one might expect any correlation between social capital and CBHI enrolment observed in Model 1 to disappear in Model 2.

A model of the following form was estimated:

$$\text{Logit}\,[p\ (y = 1)] = \log\left(\frac{p}{1-p}\right) = \alpha + \beta\ 1X1,i + \ldots + \beta 12X12,i$$

where Y is being a member of CBHI or not, $X_{1\text{-}12}$ are dummies indicating whether the individual has or does not have a specific characteristic, p is the probability of enrolment in CBHI, α is the constant and βs are the model parameters. For each regression, c statistics were used to measure the goodness of fit of the model. The likelihood-ratio test was used to compare the fit of Model 1 and Model 2. All models are case study specific and were estimated using STATA 10.0.

Qualitative methods

A total of 108 individuals from member and non-member households of the three CBHI schemes (Table 3.3) were purposively selected to include a variety of characteristics (age, gender, position in the household) from the household survey and interviewed again by the same interviewer, using semi-structured topic guides. The guides covered: decision-making on CBHI enrolment, comparison of CBHI to other associations, impact of CBHI on social capital, perceptions about management of the scheme and health care utilisation. The topic guide is provided in Appendix 3. Sample size was determined by the data obtained and data collection continued until saturation. All interviews were recorded and transcribed using verbatim transcription. All transcripts were analysed in Nvivo8 by a team of coders using deductive coding with an *a priori* coding frame (Miles and Huberman 1994). The interview guides, background literature and hypotheses were used to develop the coding frame. All members of the coding team were trained to ensure a common

understanding of the codes. The coding frame was piloted and revised with extra codes before application to the full dataset. Throughout the coding process, the coders periodically cross-checked each other's coding to maintain consistency. Results of the qualitative analysis were used for triangulation and to expand the interpretation of the quantitative results (Collins, Onwuegbuzie, and Sutton 2006). As such, codes pertaining to the variables included in the quantitative analysis were selected for further analysis in this paper. The broader results of the qualitative analysis will be published elsewhere.

Table 3.3: Semi-structured interviews sample

Scheme	Member households	Non-member households
Soppante	27	10
Ndondol	18	13
WAW	28	12
Total	**73**	**35**

3.3 Results

The sample consists of 720 individuals across the three case studies. Descriptive statistics are presented in Table 3.4.

Table 3.4: Descriptive statistics of study sample and *t*-tests for significance

	Soppante				Ndondol				WAW			
	Non member	Member	Difference (*t*-test)	All	Non member	Member	Difference (*t*-test)	All	Non member	Member	Difference (*t*-test)	All
Household characteristics												
Expenditure quintile (%)												
Ex q1 (lowest)	28.2	14.5	13.7**	20.3	20.8	19.8	1.0	20.3	22.5	18.4	4.1	20.3
Ex q2	23.3	17.4	5.9	19.9	15.2	25.0	9.8	19.9	21.6	19.2	2.4	20.3
Ex q3	22.3	18.1	4.2	19.9	24.8	14.7	10.1*	19.9	20.7	18.4	2.3	19.5
Ex q4	14.6	23.9	9.3	19.9	19.2	20.7	1.5	19.9	20.7	19.2	1.5	19.9
Ex q5 (highest)	11.7	26.1	14.4**	19.9	20.0	19.8	0.2	19.9	14.4	24.8	10.4*	19.9
Asset quintile (%)												
Ass q1 (lowest)	44.6	24.0	20.6**	32.2	38.2	24.3	13.9*	31.5	19.8	21.6	1.8	20.8
Ass q2	8.4	9.6	1.2	9.1	13.8	10.4	3.4	12.2	17.0	21.6	4.6	19.5
Ass q3	16.9	23.2	6.3	20.7	13.8	24.3	10.5*	18.9	38.7	24.8	13.9*	31.2
Ass q4	16.9	19.2	2.3	18.3	19.5	15.7	3.9	17.6	19.8	25.6	5.8	22.9

	Soppante				Ndondol				WAW			
	Non member	Member	Difference (*t*-test)	All	Non member	Member	Difference (*t*-test)	All	Non member	Member	Difference (*t*-test)	All
Ass q5 (highest)	13.3	24.0	10.7	19.7	14.6	25.2	10.6*	19.7	4.7	6.4	1.7	5.6
Member of associations other than CBHI (%)												
0	14.1	4.4	9.7**	8.5	8.9	5.2	3.7	7.1	21.8	5.7	16.1***	13.3
One or more	85.9	95.6	9.7**	91.5								
1.0					23.4	18.1	5.3	20.8	26.4	20.3	6.0	23.2
2.0					25.8	19.0	6.8	22.5	17.3	30.1	12.8*	24.0
3.0					12.1	27.6	15.5**	19.6	21.8	22.0	0.1	21.9
> 3					29.8	30.2	-0.3	30.0	12.7	22.0	9.2	17.6
Individual characteristics												
Age years (%)												
< 36	11.8	26.9	15.1**	20.3	19.7	20.2	0.5	19.9	23.6	23.8	0.1	23.7
36 - 45	23.5	26.9	3.3	25.4	26.2	25.4	0.8	25.8	32.7	33.6	0.9	33.2

	Soppante				Ndondol				WAW			
	Non member	Member	Difference (*t*-test)	All	Non member	Member	Difference (*t*-test)	All	Non member	Member	Difference (*t*-test)	All
46 - 55	22.5	24.6	2.1	23.7	22.1	26.3	4.2	24.2	24.5	27.0	2.5	25.9
56 - 65	20.6	9.7	10.9*	14.4	18.9	14.9	3.9	16.9	14.5	11.5	3.1	12.9
>65	21.6	11.9	9.6*	16.1	13.1	13.2	0.0	13.1	4.5	4.1	0.4	4.3
Gender (%)												
Male	61.8	60.1	1.6	60.8	64.8	45.6	19.1**	55.5	20.7	22.1	1.4	21.5
Education (%)												
None	52.0	39.9	12.1	45.0	76.2	69.3	6.9	72.9	55.0	52.0	2.9	53.4
Literate	24.5	31.9	7.4	28.8	10.7	11.4	0.7	11.0	11.7	8.1	3.6	9.8
Primary	17.6	13.8	3.9	15.4	12.3	14.0	1.7	13.1	19.8	21.1	1.3	20.5
Secondary or higher	5.9	14.5	8.6	10.8	0.8	5.3	4.4*	3.0	13.5	18.7	5.2	16.2
Ill health (%)												
Handicapped	4.9	7.2	2.3	6.3	1.6	2.6	1.0	2.1	1.8	1.6	0.2	1.7
Chronic illness	18.6	20.3	1.7	19.6	17.2	15.8	1.4	16.5	32.4	20.5	11.9	26.2
Recent illness	12.7	18.1	5.4	15.8	9.0	8.8	0.2	8.9	7.2	10.7	3.4	9.0

	Soppante				Ndondol				WAW			
	Non member	Member	Difference (*t*-test)	All	Non member	Member	Difference (*t*-test)	All	Non member	Member	Difference (*t*-test)	All
Self-assessed health (%)												
Very good or good	65.7	73.7	8.0	70.3	76.0	80.2	4.2	78.0	40.5	42.3	1.7	41.5
Fair	28.4	18.2	10.2	22.6	20.7	16.2	4.4	18.5	45.0	40.7	4.4	42.7
Bad or very bad	5.9	8.0	2.1	7.1	3.3	3.6	0.3	3.4	14.4	17.1	2.7	15.8
Religion (%)											0.0	
Muslim	94.2	92.7	1.5	93.3	94.3	85.3	9*	90.0	98.2	100.0	1.8	99.2
Ethnicity											0.0	
Wolof	72.8	73.7	0.9	73.3	7.2	11.2	4.0	9.1	55.0	58.7	3.8	57.0
Privileged relationships												
Privileged relationships	91.3	95.7	4.4	93.8	89.7	96.2	6.5	92.7	87.0	89.4	2.5	88.3
Sources of information												
From friends/relatives/neighbours only	9.7	2.9	6.8*	5.8	12.0	12.9	0.9	12.4	9.0	8.0	1.0	8.5

	Soppante				Ndondol				WAW			
	Non member	Member	Difference (*t*-test)	All	Non member	Member	Difference (*t*-test)	All	Non member	Member	Difference (*t*-test)	All
Likelihood of community cooperation												
Not at all likely or very unlikely	11.9	4.4	7.5*	7.6	12.0	8.7	3.3	10.4	23.9	15.3	8.5	19.3
Likely	19.8	22.6	2.8	21.4	41.6	40.0	1.6	40.8	39.4	41.1	1.7	40.3
Highly likely	68.3	73.0	4.7	71.0	46.4	51.3	4.9	48.8	36.7	43.5	6.9	40.3
Borrowed money in last 12 months												
None	60.4	42.2	18.2**	50.0	47.6	34.5	13.1*	41.3	60.4	40.0	20.4*	49.6
From friends/relatives only	26.7	28.9	2.2	28.0	32.3	24.1	8.1	28.3	9.0	12.8	3.8	11.0
From friends/relatives and/or other sources	12.9	28.9	16.0**	22.0	20.2	41.4	21.2***	30.4	30.6	47.2	16.6**	39.4
Trust												
Principal component 1	5.8	-4.4	10.2	0.0	-18.5	20.0	-38.5	0.0	-24.3	21.7	-46.0	0.0
Principal component 2	-16.7	12.5	-29.2	0.0	0.7	-0.8	1.5	0.0	-1.2	1.1	-2.3	0.0

	Soppante				Ndondol				WAW			
	Non member	Member	Difference (*t*-test)	All	Non member	Member	Difference (*t*-test)	All	Non member	Member	Difference (*t*-test)	All
Principal component 3	-6.0	4.5	-10.5	0.0	3.8	-4.1	7.9	0.0	15.3	-13.7	29.0*	0.0
Control over community decisions affecting daily life												
None	24.5	17.4	7.1	20.4	24.0	13.9	10.1*	19.2	33.6	18.5	15.1**	25.6
Very few decisions	24.5	24.6	0.1	24.6	27.2	28.7	1.5	27.9	25.5	21.0	4.5	23.1
Some decisions	13.7	15.2	1.5	14.6	8.8	14.8	6.0	11.7	14.5	19.4	4.8	17.1
Most decisions	25.5	21.7	3.8	23.3	28.8	28.7	0.1	28.8	18.2	26.6	8.4	22.6
All decisions	11.8	21.0	9.2	17.1	11.2	13.9	2.7	12.5	8.2	14.5	6.3	11.5
Voted in last local elections												
Voted	77.8	75.4	2.4	76.4	64.2	73.0	8.8	68.5	72.3	79.2	6.9	75.9
Total number of respondents	**103**	**138**		**241**	**125**	**116**		**241**	**112**	**126**		**238**

Notes: *P<0.10; **P<0.05; ***P<0.01

In terms of bridging social capital, across the three case studies over 85 per cent of households contained at least one individual who was a member of at least one association other than CBHI (Table 3.4). Households enrolled in CBHI were significantly more likely to be members of other associations compared to non-CBHI households, controlling for age and gender only (Model 1, Table 3.5). In Ndondol and WAW, CBHI households were more likely to be members of several other associations, suggesting these were not only associations that were de facto linked to CBHI. The results are strongest and most consistent in WAW where membership of other associations rather than the socio-economic variables was statistically significant (Model 2, Table 3.6).

Table 3.5: Determinants of enrolment in CBHI (logistic regression results), Model 1

	Odds ratios											
	S	**N**	**W**	**S**	**N**	**W**	**S**	**N**	**W**	**S**	**N**	**W**
Age years (base: <36)												
36 - 45	0.48*	1.04	0.92	0.42*	0.96	0.77	0.45*	1.09	1.03	0.46*	1.06	0.92
46 - 55	0.42*	1.34	1.11	0.41*	1.18	1.2	0.40**	1.37	1.07	0.39**	1.39	1.1
56 - 65	0.20***	0.9	0.85	0.17***	0.82	0.52	0.19***	0.99	0.8	0.16***	1.03	0.84
>65	0.22***	1.37	0.69	0.20***	1.54	0.74	0.21***	1.43	1.08	0.19***	1.4	0.85
Gender (base: female)												
Male	1.47	0.50**	1.14	1.58	0.40***	1.04	1.36	0.43***	1.12	1.45	0.43***	1.04
Member of associations other than CBHI (base: none)												
1 or more	3.66**											
1		1.22	2.84**									
2		1.15	6.89***									
3		3.36*	3.79**									

	Odds ratios											
	S	**N**	**W**	**S**	**N**	**W**	**S**	**N**	**W**	**S**	**N**	**W**
>3		1.46	6.13***									
Privileged relationships (base: none)												
Privileged relationships				3.22*	4.16**	1.17						
Sources of information (base: from												
friends/relatives/neighbours and/or other sources)												
From friends/relatives/neighbours only							0.35*	0.92	0.83			
Likelihood of community cooperation (base:												
not at all likely or very unlikely)												
Likely										3.17*	1.42	1.65
Highly likely										2.64*	1.87	1.85

	Odds ratios											
	S	**N**	**W**	**S**	**N**	**W**	**S**	**N**	**W**	**S**	**N**	**W**
c-statistic	0.66	0.66	0.66	0.67	0.66	0.57	0.67	0.61	0.56	0.67	0.63	0.57
Age years (base: <36)												
36 - 45	0.40**	1.14	0.98	0.47*	1.19	1.08	0.44*	0.98	1.12	0.38**	1	1
46 - 55	0.37**	1.44	1.02	0.44*	1.54	1.08	0.37**	1.23	1.14	0.33**	1.26	1.13
56 - 65	0.17***	0.98	0.72	0.19***	1.07	0.65	0.16***	0.91	0.87	0.13***	0.86	0.78
>65	0.22***	1.73	0.75	0.21***	1.61	0.71	0.17***	1.43	1.01	0.18***	1.21	0.86
Gender (base: female)												
Male	1.57	0.36***	1.24	1.35	0.42***	1.11	1.38	0.40***	0.99	1.54	0.41***	1.15
Borrowed money in last 12 months (base: none)												
From friends/relatives only	1.53	1.3	2.33*									
From friends/relatives and/or other sources	3.90***	3.66***	2.41***									
Trust												
Principal component 1				0.98	1.07	1.11						
Principal component 2				1.15	1.06	1.02						
Principal component 3				1.17	0.98	0.74**						
Control over community decisions affecting daily life (base: none)												
Very few decisions							1.68	2.17*	1.46			

	Odds ratios											
	S	**N**	**W**	**S**	**N**	**W**	**S**	**N**	**W**	**S**	**N**	**W**
Some decisions							1.44	3.01**	2.39**			
Most decisions							1.59	2.29**	2.62**			
All decisions							2.44*	3.71**	3.29**			
Voted in last local elections (base: no)												
Voted										0.76	1.71*	1.34
c-statistic	0.69	0.70	0.63	0.66	0.63	0.60	0.67	0.65	0.62	0.66	0.65	0.56

Notes: *P<0.10; **P<0.05; ***P<0.01.

Dependent variable: individual enrolment in CBHI (yes = 1; no = 0).

S = Soppante, N = Ndondol, W = WAW

Table 3.6: Determinants of enrolment in CBHI (logistic regression results), Model 2

Independent variables	Odds ratios											
	S	N	W	S	N	W	S	N	W	S	N	W
Age years (base: <36)												
36 - 45	0.53	1.59	0.85	0.42	1.55	0.64	0.46	1.81	0.99	0.58	1.76	0.9
46 - 55	0.21***	1.6	1.24	0.19***	1.53	1.28	0.19***	1.95	1.17	0.18***	1.93	1.17
56 - 65	0.17***	0.84	1.02	0.14***	0.96	0.55	0.14***	1.05	0.99	0.15***	1.12	1.02
>65	0.21**	1.96	0.59	0.15***	2.53	0.55	0.18***	2.53	1.03	0.19**	2.36	0.68
Gender (base: female)												
Male	1.43	0.26***	1.33	1.71	0.23***	1.22	1.47	0.25***	1.26	1.39	0.24***	1.23
Education (base: none)												
Literate	1.53	0.68	0.55	1.24	0.74	0.54	1.26	0.81	0.6	1.34	0.81	0.58
Primary	0.47	0.84	0.91	0.41	0.9	0.74	0.42*	1.13	0.95	0.47	1.13	0.86
Secondary or higher	1.09	2.26	1.29	0.47	4.11	1.31	1.02	6.07	1.15	1.25	5.27	1.09
Expenditure quintile (base: lowest)												
q2	1.9	1.83	1.14	1.69	1.36	0.88	1.9	1.58	1.03	2.06	1.62	1.17
q3	1.77	0.36*	1.04	2.01	0.31**	0.88	1.6	0.33**	1.15	1.5	0.34**	1.17
q4	3.86**	0.88	0.98	3.77**	0.7	1.41	4.06**	0.78	1.19	3.73**	0.75	1.28
q5 (highest)	4.17**	0.83	1.91	5.32**	0.9	1.87	4.08**	0.87	2.61**	4.04**	0.86	2.75**
Asset quintile (base: lowest)												
q2	2.43	0.73	0.91	2.47	0.77	0.85	2.24	0.93	1.02	1.92	0.9	0.99
q3	3.56***	3.68***	0.40*	5.22***	3.54***	0.41*	3.28**	3.91***	0.49*	3.87***	3.47***	0.45*
q4	1.88	1.27	1.09	2.49*	1.7	1.57	1.95	1.27	1.15	2.2	1.17	1.21

Independent variables	Odds ratios											
	S	N	W	S	N	W	S	N	W	S	N	W
q5 (highest)	2.61*	3.42**	0.57	3.34**	2.74**	1.36	2.62*	3.37**	0.93	3.30**	2.91**	0.92
Ill health												
Handicapped (base: no)	1.64	2.2	0.39	1.81	2.33	0.45	2.13	2.62	0.71	2.14	2.41	0.64
Chronic illness (base: no)	0.55	0.72	0.59	0.54	0.73	0.73	0.64	0.73	0.71	0.72	0.77	0.63
Recent illness (base: no)	1.68	1.3	2.6	2.75*	1.05	2.57	1.77	1.33	2.01	1.71	1.23	2.24
SAH (base: very good or good)												
Fair	0.67	0.9	1.07	0.54	0.7	1.09	0.6	0.78	0.97	0.64	0.84	1.07
Bad or very bad	2.08	2.64	1.3	1.27	2.52	0.98	1.89	2.63	1.02	2.15	2.78	1.5
Ethnicity and religion												
Muslim (base: yes)	0.34	0.11***		0.32	0.15***		0.29	0.15***		0.35	0.14***	
Wolof (base: yes)	0.72	1.01	1.31	0.63	1.06	1.6	0.84	0.96	1.46	0.6	1	1.47
Member of associations other than CBHI (base: none)												
1 or more	3.04											
1		0.78	3.33**									
2		0.87	9.05***									
3		2.78	3.56**									
>3		1.07	6.37***									
Privileged relationships (base: none)												
Privileged relationships				1.41	5.68**	0.96						

Independent variables	Odds ratios											
	S	N	W	S	N	W	S	N	W	S	N	W
Sources of information (base: from friends/relatives/neighbours and/or other sources)												
From friends/relatives/neighbours only							0.51	1.7	0.8			
Likelihood of community cooperation (base: not at all likely or very unlikely)												
Likely										1.49	1.57	2.23*
Highly likely										3.66*	1.81	2.09*
Likelihood-ratio test statistic	33.3	40.66	16.61	35.37	32.35	19.85	34.54	40.7	16.17	33.6	25.94	25.14
P value	0.02	0.00	0.48	0.01	0.02	0.28	0.01	0.00	0.51	0.01	0.26	0.28
c-statistic	0.76	0.78	0.73	0.79	0.77	0.70	0.76	0.76	0.66	0.77	0.70	0.70
Age years (base: <36)												
36 - 45	0.36*	1.65	0.95	0.52	1.92	1.12	0.43	1.82	1.13	0.42	1.76	0.97
46 - 55	0.16***	1.72	1.09	0.19***	2.22	1.22	0.14***	1.69	1.15	0.16***	1.95	1.23
56 - 65	0.11***	0.99	0.79	0.14***	1.26	0.86	0.12***	0.95	1.02	0.10***	1.09	0.92
>65	0.17**	2.53	0.63	0.18**	2.69	0.72	0.12***	2.29	0.81	0.18**	2.32	0.74
Gender (base: female)												
Male	1.89	0.22***	1.43	1.41	0.24***	1.49	1.74	0.23***	1.1	1.54	0.21***	1.35
Education (base: none)												

Independent variables	Odds ratios											
	S	N	W	S	N	W	S	N	W	S	N	W
Literate	1.18	0.71	0.53	1.35	1	0.42	1.13	0.7	0.56	1.22	0.86	0.6
Primary	0.34*	0.96	0.86	0.44	1.13	0.95	0.42	1.03	0.83	0.43	1.14	0.92
Secondary or higher	0.82	4.11	1.14	1.34	6.49	1.07	0.88	7.82*	0.82	0.73	5.66	1.1
Expenditure quintile (base: lowest)												
q2	1.47	1.46	1.06	2	1.61	0.85	2.2	1.3	0.89	1.6	1.43	0.98
q3	1.66	0.29**	1.08	1.7	0.32**	1.14	1.63	0.28**	1.24	1.51	0.31**	1.13
q4	4.00**	0.64	1.1	4.48***	0.81	1.18	4.22**	0.71	0.97	4.48**	0.74	1.15
q5 (highest)	3.67**	0.67	2.05	5.64***	0.89	2.26	4.18**	0.79	2.40*	3.46**	0.81	2.34*
Asset quintile (base: lowest)												
q2	1.64	0.85	0.89	2.07	1.18	0.82	2.64	0.86	0.82	2.11	1.12	0.91
q3	2.95**	2.91**	0.49	2.98**	3.81***	0.49	3.75***	3.90***	0.40**	3.61***	3.76***	0.46*
q4	1.75	0.95	1.18	2.01	1.21	1.33	1.94	1.58	1.14	2.25	1.11	1.07
q5 (highest)	2.81*	2.83**	0.95	2.08	2.93**	0.95	2.69*	3.99***	0.91	3.01**	3.12**	0.92
Ill health												
Handicapped (base: no)	2.2	2.59	0.88	1.77	2.4	0.68	2.35	4.44	0.71	2.21	2.32	0.7
Chronic illness (base: no)	0.51	0.83	0.73	0.78	0.81	0.64	0.73	0.67	0.65	0.68	0.79	0.67
Recent illness (base: no)	1.95	0.99	1.8	2.3	1.18	2.13	1.71	1.44	1.62	1.98	1.25	2.06
SAH (base: very good or good)												
Fair	0.53	0.8	0.98	0.46	0.81	0.83	0.52	0.77	0.97	0.53	0.83	0.99
Bad or very bad	2.31	2.34	1.26	1.35	2.66	1.01	1.75	4.11	1.15	1.68	1.75	1.2
Ethnicity and religion												

Independent variables	Odds ratios											
	S	N	W	S	N	W	S	N	W	S	N	W
Muslim (base: yes)	0.26	0.19***		0.3	0.17***		0.25	0.13***		0.28	0.15***	
Wolof (base: yes)	0.86	1.24	1.57	0.78	0.94	1.56	0.63	1.16	1.4	0.78	1	1.48
Borrowed money in last 12 months (base: none)												
From friends/relatives only	1.17	1.5	2.02									
From friends/relatives and/or other sources	4.27***	2.82**	2.33***									
Trust												
Principal component 1				1.01	1.09	1.13*						
Principal component 2				1	1.05	0.91						
Principal component 3				1.21	1.03	0.78						
Control over community decisions affecting daily life (base: none)												
Very few decisions							0.78	3.55**	1.27			
Some decisions							0.67	5.24***	2.22*			
Most decisions							1.03	2.21	3.27**			
All decisions							2.02	3.26*	3.82**			
Voted in last local elections (base: no)												
Voted										1.17	1.51	1.32
Likelihood-ratio test statistic	34.69	33.39	14.01	33.87	37	16.77	35.39	41.19	15.14	32.69	38.09	16.05
P value	0.01	0.02	0.67	0.01	0.01	0.47	0.01	0.00	0.59	0.02	0.00	0.52

Independent variables	Odds ratios											
	S	N	W	S	N	W	S	N	W	S	N	W
c-statistic	0.78	0.77	0.69	0.77	0.76	0.69	0.78	0.78	0.69	0.76	0.77	0.67

Notes: *P<0.10; **P<0.05; ***P<0.01.

Dependent variable: individual enrolment in CBHI (yes = 1; no = 0).

S = Soppante, N = Ndondol, W = WAW

Views on what CBHI and other associations have in common may help understand these results. In all three case studies members said that both types of organisation aim to improve community development through solidarity and democracy:

> "what I see as similarities is primarily... social mobilization with the same objectives… solidarity among members… in addition to democracy…. All (CBHI) members are treated in the same way, they are on an equal footing... In the other associations... there is also democracy". (WAW member household)

In terms of bonding social capital, across the three case studies, over 80 per cent of respondents had privileged relationships. In Soppante and Ndondol, members were three or more times as likely to have privileged relationships as compared to non-members in Model 1 and for Ndondol the relationship remained significant in Model 2. The qualitative results suggest that kinship and privileged relations were a medium for instrumental financial support, both in general and specifically in the context of CBHI, as illustrated by the practice of members enrolling their extended kin:

> "We have a second CBHI policy which is held by my younger brother and on that policy we enrolled my other brothers, their children and my homonyms (namesakes)" (Soppante member household)

Similarly, several non-members said they had not enrolled in CBHI because they could not afford to pay the premium for their extended kin.

A minority of respondents (around 8 to 12 per cent) reported receiving information on community matters or politics from relatives, friends and neighbours only. Members were less likely to report this than the non-members, although this was (weakly) statistically significant only in one case study. The qualitative interviews help to explain why diversified access to information was a determinant of enrolment, as all types of interviewees complained that information about the CBHI schemes was scarce.

In Soppante and WAW, members were more than two times as likely to perceive their community to have solidarity (measured by the belief that everyone would cooperate to solve a common problem) than non-members and this was statistically

significant in Model 2. Solidarity in CBHI was seen by members to derive from contributing to CBHI even when healthy, thereby allowing risk pooling to take place:

> "If you enrol and pay premiums (into the CBHI scheme), you benefit, but you also help others." (Soppante member household)

Between 50 and 60 per cent of respondents had borrowed money in the last 12 months. CBHI members were at least twice as likely to have borrowed money from a source other than, or in addition to, family, relatives, or friends, as compared to non-members. This result was strongly significant in Model 2 for all three cases. The qualitative interviews reveal that associations were an important source of financial credit.

The results of the principal component analysis of the trust variables were in general not statistically significant. Similarly, in the qualitative research, a lack of trust in CBHI managers was not cited as a reason for non-enrolment.

Around a fifth of all respondents reported having control over no decisions made in the community or by their neighbours which affected their daily life. CBHI members were more than two times as likely to report having control over such decisions compared to non-members. The correlation was statistically significant for all three cases in Model 1 and remained significant for Ndondol and WAW in Model 2. The types of people who were thought to have influence over community decisions were those with cultural, human and social capital:

> "Traditional leaders, retired teachers and leaders of women's associations are among the people who influence important decisions in our community" (WAW, member household)

More than 60 per cent of respondents reported voting in the last local elections. There was a weakly statistically significant difference between members (more likely to vote) and non-members in Ndondol in Model 1. As mentioned, the qualitative results suggest that members believed CBHI schemes were managed in a democratic manner, perhaps helping to explain why voting was correlated with enrolment.

The other independent variables generally support the findings of previous studies on CBHI. In all three cases, members were likely to be better educated, but the results were not statistically significant. In Soppante and WAW, CBHI households had significantly higher levels of expenditure than non-member households. In Ndondol, CBHI member households were wealthier. In Soppante, members reported worse health for every indicator, possibly indicating adverse selection, although this was not statistically significant. In terms of the other independent variables, in some cases there were significant differences in age (Soppante) and gender and religion (Ndondol) across members and non-members. The differences in gender, religion and ethnicity can mostly be explained by specific characteristics of the three schemes (Table 3.1).

The likelihood-ratio tests (Table 3.6) suggest that Model 2 had a better fit than Model 1 in Soppante and Ndondol. However, this was not the case for WAW. For Soppante and Ndondol, the c-statistics were all between 0.6 and 0.7 in Model 1 and between 0.75 and 0.8 in Model 2. For WAW, the c statistics were between 0.55 and 0.7 in Model 1 and between 0.65 and 0.8 in Model 2. This suggests all the regressions (except for four in Model 1 in WAW) pass the goodness of fit test (Hosmer and Lemeshow 2000).

3.4 Discussion

The social capital variables provide an insight into previously unexplored determinants of CBHI enrolment by explicitly distinguishing between bonding and bridging social capital and exploring social power differentials. The result that ceteris paribus members of CBHI were more likely to also be members of other associations supports the hypothesis that members of CBHI have higher bridging social capital. This echoes previous studies on CBHI (Jütting 2003) and the wider development literature which finds that an existing social network is a precondition of participation in community organizations (Weinberger and Jutting 2001). The c-statistics and likelihood-ratio test results, which suggest that Model 1 is the stronger model in the case of WAW, underline the primacy of bridging social capital as a determinant of urban CBHI. The data suggest that in rural contexts (Soppante and

Ndondol) members of CBHI are also more likely than non-members to have bonding social capital, as measured by having privileged social relationships.

The "negative" effect of having *only* bonding social capital is indicated by the consistent finding that members were more likely than non-members to have borrowed money from sources other than friends and relatives. Caution is needed in interpreting these results for Ndondol and WAW, since these schemes were connected to a microcredit mechanism. However, the result is strongest for Soppante which was not connected to any source of financial credit. The result is also supported by the aforementioned Vietnamese study (Jowett 2003). The negative effect of having only bonding social capital is also indicated by the result that members were more likely to receive information from sources other than friends, relatives and neighbours (though statistically significant only for Soppante in Model 1).

Taken with the strong finding that CBHI members had higher levels of perceived community-wide solidarity and the results on voting and perceived democratic nature of CBHI, it seems that CBHI members had greater bridging social capital which they had developed by broadening their social networks via democratic social structures which provided them with information, solidarity, risk pooling, financial protection and financial credit. Non-members, on the other hand, seem to be characterised by bonding social capital only, receiving financial credit and information from a narrow social network characterised by affective relationships. Enrolment in CBHI could therefore be interpreted as indicative of a transition from what has been described by Durkheim (1984) as "mechanical solidarity" (characteristic of traditional societies and typically organized around kinship affiliations) to "organic solidarity" (characteristic of complex industrialised societies and based on integration of specialized economic and political organizations). The result that the associational dynamic and role of generalised trust were the strongest and the effect of privileged relationships weakest in the urban context of WAW supports this interpretation.

The finding that bridging social capital is positively correlated with enrolment in CBHI, while bonding social capital alone is not, ostensibly suggests that CBHI schemes should build on existing bridging social capital to increase population

coverage, for example by enrolling households through associations. However, given Bourdieu's theory that interlinked forms of capital are a source of social power, it is likely that the current exclusion of less powerful individuals from CBHI (indicated by the result that CBHI members are more likely to have influence over community decisions) would be exacerbated by such enrolment strategies. A complementary, or alternative, strategy could be subsidies for CBHI premiums which target not only poorer households but also those with low bridging social capital and low social power. However, research from West Africa (Porter and Lyon 2006) finds that channelling external development funds through groups and associations (such as CBHI) often fails to include the poorest and most vulnerable and incurs social costs such as peer pressure and loss of trust, suggesting that overturning established social hierarchies through CBHI subsidies could be difficult to achieve in practice. Therefore, echoing previous analyses of market-oriented health sector reforms (Bennett, McPake, and Mills 1997) and consumer-led financing (Ensor 2004), it is likely that alternative or complementary public sector and/or supply-side financing policies are needed. These may include direct and indirect tax-based funding (Mills et al. 2012) and broader social protection policies integrated into government systems of social welfare (Devereux and White 2010).

Limitations

The study has several limitations. Firstly, as an exploratory study, the sample size is small. Secondly, the "random route" methodology may mean that differences between members and non-members are either over- or under-estimated. Thirdly, because different forms of capital may be fungible (Bourdieu 1986), it is possible that some of the variables included in the study measure factors other than social capital. It is also possible that the social capital variables are picking up the effect of other omitted variables. Another limitation is that due to the cross-sectional and non-experimental study design, it is difficult to attribute the direction of causality. However, it is likely that the social capital variables are a determinant of membership and not vice versa, since social structures such as associations and privileged relations are antecedent to CBHI schemes which were established relatively recently (Niang 2000). Furthermore, the policy implications do not depend on the direction of

the relationship between social capital and CBHI enrolment. Finally, more case studies would be needed to increase generalizability.

3.5 Conclusions

Several indicators relating to social capital seem to be strongly, consistently and positively associated with CBHI enrolment. The quantitative results are strengthened by the qualitative interviews. These results have policy relevance, given that CBHI is at the heart of Senegal's strategy for universal coverage. One implication is that CBHI should build on bridging social capital, for example by increasing enrolment through existing associations. However, this strategy may be unadvisable from an equity perspective. A second implication is that subsidies for premiums should target not only indigent households but also those with low bridging social capital and low social power, in order to overcome social barriers to enrolment. However, such reforms are likely to require overturning established social hierarchies and may be difficult to implement through CBHI. Alternative or complementary public sector financing policies are needed. The study also demonstrates that despite controversy about the concept (Fine 2001), by drawing on Bourdieu, social capital can be defined, measured and used to identify strategies for improved developmental outcomes.

Chapter 4 Why do people drop out of community-based health insurance? Findings from an exploratory household survey in Senegal[19]

Abstract

Although a high level of drop-out from community-based health insurance (CBHI) is frequently reported, it has rarely been analysed in depth. This study explores whether never having actively participated in CBHI is a determinant of drop-out. A conceptual framework of passive and active community participation in CBHI is developed to inform quantitative data analysis. Fieldwork comprising a household survey was conducted in Senegal in 2009. Levels of active participation among 382 members and ex-members of CBHI across three case study schemes are compared using logistic regression. Results suggest that, controlling for a range of socioeconomic variables, the more active the mode of participation in the CBHI scheme, the stronger the statistically significant positive correlation with remaining enrolled. Training is the most highly correlated, followed by voting, participating in a general assembly, awareness raising / information dissemination and informal discussions / spontaneously helping. Possible intermediary outcomes of active participation such as perceived trustworthiness of the scheme management / president; accountability and being informed of mechanisms of controlling abuse/fraud are also significantly positively correlated with remaining in the scheme. Perception of poor quality of health services is identified as the most important determinant of drop-out. Financial factors do not seem to determine drop-out. The results suggest that schemes may be able to reduce drop-out and increase quality of care by creating more opportunities for more active participation. Caution is needed though, since if CBHI schemes uncritically fund and promote participation activities, individuals who are already more empowered or who already have higher levels of social capital may be more likely to access these resources, thereby indirectly further increasing social inequalities in health coverage.

[19] A version of this chapter was published in *Social Science and Medicine* (Mladovsky 2014)

4.1 Introduction

Community-based health insurance (CBHI) aims to provide financial protection from the cost of seeking health care through voluntary prepayment by community members; typically it is not-for-profit and community owned and controlled (Hsiao 2001, Atim 1998). The Senegalese government elected in 2012 views CBHI as a key mechanism for achieving universal coverage (Ministère de la Santé 2012), a policy initiated by the previous government (Ministère de la Santé 2004). Senegal has witnessed a rapid increase in the number of CBHI schemes, reaching around 139 between 1997 and 2004 (Hygea 2004). Yet as in most low- and middle-income countries (LMIC), overall population coverage remains low, with 4% or less of the Senegalese population enrolled in CBHI (Soors et al. 2010). Another problem for CBHI schemes is retaining enrolees; it is estimated that in Senegal in 2004, 47% of people who had ever enrolled in CBHI had ceased paying the premium and therefore lost access to the benefits of CBHI (Hygea 2004). In order to explore why people drop-out of CBHI schemes, this paper develops a conceptual framework of community participation in CBHI and draws on data collected in a household survey on the relationship between CBHI membership, active community participation and social capital.

Background

Drop-out from CBHI

While drop-out from CBHI is frequently reported as a problem it has rarely been analysed in depth (De Allegri et al. 2009). Two exceptions come from West Africa. One is a quantitative study of a CBHI scheme in Burkina Faso which had been operational for three years and had a drop-out rate of 30.9 to 45.7% (Dong et al. 2009). The study focuses entirely on demographic, economic and health-related indicators and finds that female household head, increased age, lower education, fewer illness episodes, fewer children or elderly in a household, poor health care quality, less seeking care, higher household expenditure and shorter distance to the contracted health facility were correlated with increased drop-out. The other paper is a qualitative study from Guinea-Conakry (Criel and Waelkens 2003) where CBHI population coverage fell from 8% of the target population to about 6% in the

following year. The main reasons for non-enrolment and drop-out were poor quality of care and reported inability to pay the premium.

Understanding of the concept of insurance, information flow, mistrust of institutionalised associative movements, confidence in the management of CBHI and integration of CBHI with existing systems of mutual aid were found not to be underlying causes, possibly because CBHI promoters discussed the scheme with community members from the start (Criel and Waelkens 2003). However, as with the Burkina Faso study, the Guinea-Conakry study was conducted only two years after the commencement of the scheme. This makes it difficult to assess the longer-term determinants of drop-out and the sustainability of the participatory dynamic of the scheme.

Community participation in CBHI

Community participation, ownership and control in scheme design and management are in principle key defining features of CBHI (Hsiao 2001, Atim 1998, Soors et al. 2010). Smallness of CBHI schemes has been seen as a drawback in terms of risk pooling, but an advantage in terms of community focus (Davies and Carrin 2001). As CBHI was rolled out in LMIC, policymakers and researchers hoped that the community-oriented approach would promote a set of important benefits: trust in CBHI management, solidarity and acceptance of cross-subsidisation, the flow of information, the quality of health services; and reduced fraud, moral hazard and adverse selection (Pauly 2004, Pauly et al. 2006, Davies and Carrin 2001, Hsiao 2001, Zweifel 2004). Implicit in this view was the idea that CBHI would benefit from existing social capital (Mladovsky and Mossialos 2008), defined as "the information, trust and norms of reciprocity inhering in one's social network" (Woolcock 1998, p. 153). It was hypothesised that the community-oriented dynamic would in turn promote high levels of enrolment in CBHI. However, this hypothesis has hardly been studied and the various possible modes of community participation in CBHI have never been rigorously conceptualised in the form of an overarching theoretical framework.

In contrast, community participation has been extensively conceptualised and analysed in the broader literature on health (Rifkin 1986, Morgan 2001, Zakus and Lysack 1998, Rifkin 2009). Rifkin (1986), points to three main approaches to community participation in health programmes: medical; health services; and community development. The latter approach defines participation as "community members being actively involved in decisions about how to improve [health]", where health is seen as a "human condition which is a result of social, economic and political development" (Rifkin 1986, p. 241). Key factors are "people's perceptions of health and their motivation to change health care" as well as the importance of communities "learning how to decide the ways in which change can best be achieved" (Rifkin 1986, p. 241). This approach seems to best match the goals of CBHI as described by policymakers and researchers and is the definition adopted in this study. Rifkin further distinguishes between different modes of community participation. The most passive mode is participating in benefits of the programme: in CBHI this accords with becoming a member of the scheme by paying the premium. More active modes in ascending order of range and depth of participation are: activities, management, monitoring and evaluating, and planning (Table 4.1) (Rifkin 1986).

It is not clear whether low CBHI enrolment in sub-Saharan Africa could be linked to a lack of active participation, as there is little evidence on this topic. The few studies on community participation in CBHI present contradictory results. Two qualitative studies (Ridde et al. 2010, De Allegri, Sanon, and Sauerborn 2006) compare the views of members of CBHI to non-members and find that although levels of active community participation in CBHI were generally low, people did not point to this as a reason for not enrolling. In contrast, two other qualitative studies (Basaza, Criel, and Van der Stuyft 2007, Atim 1999) compare schemes in which the level of active community participation was high with schemes with low active participation and suggest that higher active participation may be one of the factors accounting for higher levels of enrolment. A further qualitative study (Schneider 2005) suggests that active participation may have positively influenced enrolment by building trust, transparency, solidarity and honesty.

Objectives of the study

This study brings together the two aforementioned under-explored themes in CBHI: drop-out and active community participation. It is hypothesised that active participation in CBHI and its potential intermediary benefits, such as trust, information and solidarity are negatively correlated with drop-out. This hypothesis is explored by comparing levels of active participation among members and ex-members of three CBHI schemes in Senegal.

To provide a conceptual framework to guide the analysis, examples of active community participation in CBHI identified in the literature on sub-Saharan Africa (De Allegri, Sanon, and Sauerborn 2006, Atim 1999, Basaza, Criel, and Van der Stuyft 2007, Criel et al. 2005, Criel and Waelkens 2003, Ridde et al. 2010, Schneider 2005, Waelkens and Criel 2007) are categorised according to Rifkin's (1986) framework (Table 4.1).

Table 4.1: Mode, definition and examples of community participation in CBHI in Sub-Saharan Africa

Mode of participation (in ascending order ranging from passive to active)	Definition	Examples of active community participation in CBHI in Sub-Saharan Africa
1. Benefits	Passive: community members are recipients of services	Enrolment / paying the premium
2. Activities	Active: community members contribute to health programmes but do not participate in the choice of what activities are to be undertaken or how they will be carried out	Disseminating information, attending meetings and general assemblies, voting in elections, receiving training
3. Management	Active: those involved in activities have some managerial responsibilities. They make decisions about how these activities are to be run, but do not decide which activities are undertaken	Managing the day-to-day operation of the scheme (e.g. enrolling members, collecting premiums, managing finances, holding meetings and general assemblies)
4. Monitoring and evaluating	Active: community members are involved in measuring objectives and in monitoring activities, but not involved in developing programme objectives	Collecting information, reporting and reviewing
5. Planning	Active: community members (usually key individuals such as leaders and teachers) decide what programmes they wish to undertake and ask health staff, agencies and/or government to provide the expertise and/or resources to enable the activities to be pursued	Identifying the need for the scheme; deciding on the scheme design and objectives (e.g. benefits package, premium price, mode of collection, target population); leading the scheme (e.g. contracting providers, hiring and training staff, setting the agenda for general assemblies, attracting funding, research and technical assistance); coordinating CBHI on a regional level; developing CBHI policy.

Source: Adapted from (Rifkin 1986) and literature on community participation in CBHI in Sub-Saharan Africa

4.2 Methods

Case study selection

Fieldwork was conducted in Senegal from March to August 2009. Case study selection criteria were the following:

(a) The CBHI schemes had enrolled a greater than average number of households (the average was 329 (Hygea, 2004)). Enrolment in Senegal is typically on a household basis. A representative of the household enrols in the CBHI scheme ("adhérent" in French) and purchases a membership card on which a certain number (typically up to 12) household members may be registered. The premium is paid monthly (per household member). In this paper, "households" refers to the number of membership cards purchased.

(b) The schemes had been established for a minimum of eight years.

(c) The schemes had a relatively high drop-out rate compared to the national average (47% in 2004 (Hygea, 2004)). The rationale for selecting schemes with high drop-out was to focus on contexts where there was potentially the most to gain from a policy intervention.

(d) The CBHI schemes had achieved a basic measure of success (criteria (a) and (b)); this was in order to control for the possibility that drop-out was mainly due to fundamental supply-side failures ending in the suspension of the scheme.
In order to obtain a range of contextual factors, additional considerations were: region and geographic zone; economic sector of the target population; and the type of contracted health facility (primary care or hospital).

On basis of local documentation and information provided by Senegalese CBHI experts, three CBHI schemes which met these criteria were selected (Table 4.2). Ethical approval for the research was obtained from the Senegalese Ministry of Health.

CBHI schemes in Senegal (including those selected for the study) typically aimed to promote community participation through a model of democratic governance promoted by the International Labour Organization (ILO 2000). A President, Treasurer, Secretary and Board of Directors are elected by scheme members. Schemes are expected to organise training sessions, annual general assemblies and regular meetings through which members of the scheme and the local community can participate in implementation and decision-making and hold scheme staff accountable.

Table 4.2: Characteristics of the CBHI schemes included in the study

Name of scheme	Year of scheme commencement	Tier of services contracted by the scheme	Region	Geographic zone	Characteristics of the population targeted by the scheme
Soppante	1997	Health post (public sector) Hospital (private and public sectors)	Thies	Rural, peri-urban and urban	Formal and informal sectors
Ndondol	2001	Health post and health hut (public sector) Maternal and child health centre (private sector)	Diourbel	Rural	Informal agricultural sector
Wer Ak Werle (WAW)	2000	Health post Health centre Pharmacy (all public sector)	Dakar	Peri-urban	Predominantly informal sector, female petty traders

Sampling design

Lists of members (households that were up-to-date with premium payments) and ex-members (households that had not paid the monthly premium – see details below) were obtained for each CBHI scheme and used as sampling frames. Each scheme was sampled separately and members and ex-members were sampled separately using disproportionate stratified random sampling (Table 4.3), in order to ensure the inclusion of sufficient numbers of current members in the study. The analysis was conducted on merged data from all three schemes.

The household questionnaire was administered to the named member / ex-member (i.e. the "adhérent") in each household.

Table 4.3: Household survey sample design

Scheme	Total number of ever-members (members + ex-members)	Scheme drop-out rate	Number of members selected (% of total members)	Number of ex-members selected (% of total ex-members)	Total number of members and ex-members sampled
1. Soppante	985 (166 + 819)	83%	70 (42%)	91 (11%)	161
2. Ndondol	463 (136 + 327)	71%	58 (42%)	98 (30%)	156
3. Wer ak Werle (WAW)	678 (281 + 397)	58%	85 (30%)	85 (21%)	170
Totals	**2,126 (583 + 1,543)**	**72%**	**213 (36%)**	**274 (17%)**	**487**

Questionnaire design

A questionnaire was developed with six components: socioeconomic and demographic characteristics; a household roster; economic characteristics; social capital; membership of CBHI; and health and utilisation of health services (the questionnaire for the WAW case study is provided in Appendix 2). The full list of variables included in the study is presented in Table 4.4.

Table 4.4: Variables included in the study

Variable	Description
Dependent variable	
Member	1 = current member of the scheme. 0 = ex-member (i.e. dropped out)
Independent variables	
Demographic and socioeconomic characteristics	
Age quintiles	1 = age quintile, otherwise 0. Age1 is the lowest quintile (baseline)
Gender	
Male	1 = male, 0 = female
Education	
None	1 = no education, otherwise 0 (baseline)
Literate	1 = highest educational attainment is literacy, otherwise 0
Primary	1 = highest educational attainment is primary education, otherwise 0
Secondary or higher	1 = highest educational attainment is secondary education or higher, otherwise 0
Household expenditure quintile (%)	1 = expenditure quintile, otherwise 0. Ex q1 is the lowest quintile (baseline)
Household asset quintile (%)	1 = asset quintile, otherwise 0. Ass q1 is the lowest quintile (baseline)
Ethnicity and religion	
Wolof	1 = wolof, otherwise 0
Muslim	1 = muslim, otherwise 0
HH size tertile	1 = HH size tertile, otherwise 0. HH size1 is the lowest tertile (baseline)
Health and health service access	
Health of HH	
Disability	1 = one or more members of the household has a disability, otherwise 0
Chronic illness	1 = one or more members of the household has a chronic illness, otherwise 0
Recent illness	1 = one or more members of the household had an illness, accident or injury in the last 15 days, otherwise 0
Health care access is advantage of scheme membership	
Advantage	1 = when asked "what are / were the advantages of scheme membership for your household?" selected "health care access", otherwise 0

Variable	Description
Quality of health service providers contracted by the scheme	
No providers satisfactory	1 = when asked "are / were you satisifed with the quality of the health service providers contracted by the scheme" selected "no" for all providers, otherwise 0 (baseline)
Some providers satisfactory	1 = "yes" for some but not all providers, otherwise 0
All providers satisfactory	1 = "yes" for all providers, otherwise 0
Household use of traditional medicine	
Traditional medicine	1 = at least one member of the household used traditional medicine in the last month, otherwise 0
Nearest health care provider	
<= 2km	1 = nearest health care provider is located 2km or less from the household, otherwise 0
Social capital	
Privileged social relationships	
Yes	1 = has a “privileged social relationship” with at least one other person, otherwise 0
Household membership of community associations other than the CBHI scheme	
0 associations	1 = nobody in the household is a member of a community association, otherwise 0 (baseline)
1-5 associations	1 = household is member of 1 to 5 community associations, otherwise 0
>6 associations	1 = household is member of more than 6 community associations, otherwise 0
Active participation in the scheme	
Informal participation	1 = has ever participated in informal discussions about / spontaneously helped the scheme, otherwise 0
Raising awareness / information	1 = has ever participated in raising awareness /disseminating information about the scheme, otherwise 0
General assembly	1 = has ever participated in the scheme's general assembly, otherwise 0
Voting	1 = has ever elected a leader of the scheme, otherwise 0
Training	1 = has ever received training under the scheme, otherwise 0
Intermediary outcomes of active participation	
Source of information on existence of the scheme	

Variable	Description
Friend or family	1 = learnt of CBHI scheme from a friend or family member, 0 = learnt of CBHI scheme from a health service provider, CBHI staff, CBHI members, a community association, community leader, media, or other source
Mechanisms of controlling abuse/fraud by scheme staff/members/health providers	
Informed	1 = when asked "do/did you know of mechanisms of controlling abuse/fraud by people in the scheme?" selected "yes" for at least one of the following categories: staff; other members; health providers. 0 = selected "no" for all categories
Believes can influence scheme operation	
Influence	1 = when asked "do/did you think you are able to influence the functioning of the scheme?" selected "yes". 0 = "no"
Trustworthiness of scheme staff / leaders	
Satisfied	1 = when asked "what aspects of the scheme are/were satisfactory?" selected "scheme leader is/was trustworthy" and/or "scheme staff are/were trustworthy", otherwise 0
Vision on values / solidarity	
Shared vision with other members	1 = when asked "what do you think you have in common with the other members of the scheme?" selected "same vision on values / solidarity". 0 = neighbours, village, family, relatives, religion, gender, age group, ethnicity, language, caste, level of education, occupation, political affiliation, economic status, nothing, members of another association, or other
Solidarity is advantage of scheme membership	
Advantage	1 = when asked "what are / were the advantages of scheme membership for your household?" selected "solidarity", otherwise 0
Types of cross-subsidisation that should occur in the scheme	
Principal component 1	Respondents were asked whether they agreed with 7 statements about solidarity in the scheme, providing answers on a likert scale, with 1 representing "strongly disagree" (lowest level of solidarity) and 5 representing "strongly agree" (highest level of solidarity)
Principal component 2	As above
Scheme should accept diverse members	
Principal component 3	Respondents were presented with the statement "should the scheme accept people from diverse..." and were asked about the following categories: neighbourhood or village, family or relatives, religion, gender, age group, ethnicity or language, caste, education, profession, political affiliation, economic status. They provided answers on a likert scale, with 1 representing "strongly disagree" (lowest level of solidarity) and 5 representing "strongly agree" (highest level of solidarity)

Variable	Description
Some people excluded from the scheme	
Yes	1 = when asked "do you think some members of the community are excluded from the scheme" replied "yes". 0 = "no"
Scheme President/Secretary/Manager/other staff	
Knows	1 = when asked "do/did you know the people who work in the scheme" selected "yes" for at least one of the following categories: President; Secretary; Manager; other staff. 0 = selected "no" for all categories
Knows other members of the scheme	
None	1 = knows no other members of the scheme, otherwise 0 (baseline)
Few	1 = knows few other members of the scheme, otherwise 0
Half or nearly all	1 = knows half or nearly all the other members of the scheme, otherwise 0
Has characteristics in common with other scheme members	
None	1 = when asked "what do you think you have in common with the other members of the scheme?" selected "nothing". 0 = neighbours, village, family, relatives, religion, gender, age group, ethnicity, language, caste, level of education, occupation, political affiliation, economic status, same vision on values / solidarity, members of another association, or other
Other CBHI variables	
Scheme of which household is / was a member	
Scheme1	1 = scheme 1 (Soppante), otherwise 0 (baseline)
Scheme2	1 = scheme 2 (Ndondol), otherwise 0
Scheme3	1 = scheme 3 (WAW), otherwise 0
Scheme operation	
Excellent or satisfactory	1 = when asked "how well do / did you feel the CBHI scheme functions?" selected "excellently or satisfactorily". 0 = replied "average, badly or very badly"
Source of money for paying the premium	
Salary	1 = source of money for paying the premium is salary or regular income generated by the household. 0 = sale of harvest, savings, one-off sale of goods, remittances, other
Premium price accessibility	
Satisfied	1 = when asked "what aspects of the scheme are/were satisfactory?" selected "premium price is accessible", otherwise 0

Note: all variables are individual level unless the household (HH) level is specified

Model

A logit model was used to analyse the probability of dropping out of CBHI. Several regressions were run. The first was a restricted regression which contained a basic set of socioeconomic variables. In each subsequent regression, an extra independent variable or set of variables was analysed separately, in order to test various hypotheses regarding the determinants of drop-out. All models include all observations from all three schemes and were estimated using STATA 10.0.

Dependent variable

The dependent variable was CBHI membership status (member = 1, ex-member = 0). The design of the dependent variable was not straightforward. Two sources of information were available for defining membership status. The first was information provided by the scheme administration which was used to create the sampling frame for the study. However, some of the households that had not paid the monthly premium may not have considered themselves to have dropped-out of the scheme and may have intended to pay the outstanding payments and a penalty charge (mandated by the schemes' rules) in order to re-gain membership. The second source of information on membership status was self-reported (the respondent was asked whether they were a current member or an ex-member, the latter being defined as having decided to permanently drop out of the scheme); this information was collected in the questionnaire. The latter source (i.e. self-reported status) is used in the analysis.

Independent variables

Variables in the restricted regression

The variables included in the restricted regression are described in Table 4.4 (sections a and f). Scheme dummies were included to account for the fixed effect of which scheme the members/ex-members (had) belonged to. Demographic variables control for differences in age and gender. Socioeconomic variables control for the possibility that wealthier and more educated people are more likely to remain enrolled. An expenditure variable was based on reported monthly household expenditure on 14 different categories and adjusted (providing a weight of 1 for the

first adult, 0.7 for other adults and 0.5 for each child) (OECD , Forster 1994). To proxy household wealth, an asset index was constructed by performing a principal component analysis using household possession of goods (Howe et al. 2009).

Variables measuring active participation

Five variables measure modes of active participation in CBHI (Table 4.4, section d). Four of these are formal modes, measuring participation in: raising awareness of / disseminating information on the scheme; a general assembly; electing leaders of the scheme; and training. The fifth variable measures informal active participation: having ever had informal discussions about and/or spontaneously helped the scheme. All five variables can be categorised as "activities" in Table 4.1.

Another set of variables measures the potential intermediary outcomes of active participation (Table 4.4, section e): information flow, measured using two variables (being informed of mechanisms of controlling abuse/fraud by scheme staff/members/health providers; and source of information on the existence of the scheme); accountability (perceptions of influence over scheme operation; trust (perceptions of trustworthiness of scheme management / president); solidarity, measured using three variables (perception of shared values / solidarity; belief that solidarity is advantage of CBHI; and opinions about cross-subsidisation); perceptions of inclusiveness of the scheme measured by two variables (opinions about the diversity of members of the scheme; and perception of whether people are excluded from the scheme); interpersonal relationships within the scheme, measured using three variables (knowing the scheme President/Secretary/Manager/other staff; knowing other members of the scheme; and perception of having something in common with other scheme members).

Other independent variables

The remaining independent variables test competing hypotheses (Table 4.4, sections a to c and f). Two variables measure religion and ethnicity respectively, to account for the possibility that drop-out was related to socio-cultural factors. The household size variable measures whether larger households may have dropped out due to the increased financial burden of premium payments. Variables focusing on satisfaction

with premium price and source of premium payments also measure whether drop-out is related to financial barriers. The health and health services variables account for the possibility that adverse selection, geographic access to health service providers, and reliance on traditional medicine explain drop-out from CBHI. The two social capital variables measure the structure of people's social networks, in order to test the hypothesis that CBHI benefits from existing social capital (Mladovsky and Mossialos 2008), discussed above. The first variable measures having privileged social relationships (with people who may or may not also be members of the CBHI scheme). In Senegal "privileged social relationships" such as being a godfather or godmother constitute emotional and affective ties but can also be a medium for reciprocal instrumental support. The second social capital variable measures membership of community associations other than CBHI. Having privileged relations and membership of other community associations are assumed to be antecedent to membership CBHI, since CBHI was established relatively recently in Senegal compared to these other social structures. The "satisfaction with scheme functioning" variable measures whether negative experiences of CBHI functioning (such as premium collection) affect drop-out.

4.3 Results

The total sample size is 382 households, corresponding to a response rate of 78%. The sample contains 227 members and 155 ex-members (60 households defined as ex-members by the scheme's administration defined themselves as members in the questionnaire, while 14 households defined by the scheme administration as members defined themselves as ex-members).

The results of the logistic regression (Tables 4.5 to 4.7) indicate that although members of the CBHI schemes were wealthier and had higher expenditure levels than ex-members the difference was not statistically significant. Satisfaction with the accessibility of premium price was quite low in the sample, at 38.68% (see Table 4.8 for descriptive statistics) but the odds ratio for this variable was not significant. The odds ratios for the demographic, education, ethnicity and religion variables were also not significant.

Table 4.5: Odds ratios for insurance drop out, part 1

Scheme									
Scheme2: Ndondol	0.42***	0.53*	0.40***	0.41***	0.47**	0.39***	1.16	0.42**	0.41***
Scheme3: WAW	0.68	0.69	0.67	0.65	0.68	0.62	0.99	0.66	0.56
Demographic characteristics									
Age2	0.67	0.67	0.67	0.68	0.64	0.67	0.44*	0.66	0.67
Age3	0.96	0.98	0.95	0.97	0.98	0.98	1.03	0.96	1.01
Age4	0.51*	0.56	0.53*	0.53*	0.51*	0.54	0.26***	0.52*	0.56
Age5 (highest)	0.31***	0.32***	0.31***	0.32***	0.31***	0.29***	0.38*	0.31***	0.34***
Male	0.81	0.79	0.78	0.82	0.76	0.86	1.48	0.78	0.8
Education									
Literate	0.88	0.87	0.93	0.86	0.72	0.78	1.09	0.86	0.9
Primary	1.12	1.16	1.07	1.1	1.1	1.06	1	1.11	1.02
Secondary or higher	0.94	1.02	0.92	0.89	0.95	0.88	0.64	0.93	0.91
Household expenditure quintile									
Ex q2	0.93	0.91	0.98	0.9	1.11	0.91	1.24	0.99	1.09
Ex q3	0.68	0.63	0.67	0.67	0.73	0.67	0.65	0.68	0.8
Ex q4	0.59	0.56	0.57	0.54	0.71	0.6	0.63	0.6	0.75
Ex q5 (highest)	1.34	1.29	1.31	1.19	1.75	1.24	2.77*	1.38	1.64
Household asset quintile									
Ass q2	0.93	0.95	0.93	0.93	0.88	0.86	1.01	0.95	1
Ass q3	1.1	1.12	1.11	1.09	0.98	0.92	0.9	1.09	1.09
Ass q4	1.49	1.49	1.52	1.51	1.45	1.3	1.28	1.5	1.34
Ass q5 (highest)	1.62	1.74	1.69	1.72	1.39	1.49	2.55*	1.62	1.35
Ethnicity and religion									

Scheme						
Wolof	1.57					
Muslim		0.82				
HH size tertile						
HH size2			0.93			
HH size3 (highest)			0.79			
Health of HH						
Disability				1.74*		
Chronic illness				1.01		
Recent illness				2.00**		
Health care access is advantage of scheme membership						
Advantage					3.05***	
Quality of health service providers contracted by the scheme						
Some providers satisfactory						5.54***
All providers satisfactory						13.92***
Household use of traditional medicine in last month						
Traditional medicine						1.21
Nearest health care provider						
<= 2km						2.25**

Notes: *P<0.10; **P<0.05; ***P<0.01.

Dependent variable: membership of CBHI (member = 1; ex-member = 0)

Table 4.6: Odds ratios for insurance drop out, part 2

Scheme											
Scheme2: Ndondol	0.26***	0.41***	0.38**	0.23***	0.42**	0.42**	0.45**	0.44**	0.41***	0.40**	0.53
Scheme3: WAW	0.57	0.68	0.48*	0.41**	0.59	0.64	0.69	0.73	0.67	0.6	0.52
Demographic characteristics											
Age2	0.82	0.76	0.51*	0.51	0.72	0.69	0.66	0.68	0.71	0.66	0.87
Age3	1.1	0.98	1.04	1.08	0.9	0.87	0.88	0.95	1	1.09	1.08
Age4	0.41**	0.50*	0.48*	0.39**	0.48*	0.42**	0.45**	0.50*	0.51*	0.48*	0.83
Age5 (highest)	0.28***	0.31***	0.29***	0.25***	0.31***	0.34***	0.31***	0.33***	0.30***	0.31***	0.42*
Male	0.82	0.82	0.82	0.8	0.74	0.74	0.84	0.8	0.8	0.67	0.64
Education											
Literate	0.8	0.83	0.7	0.55	0.76	0.84	0.82	0.91	0.81	0.78	1.05
Primary	0.77	1.18	1.43	1.17	1.15	1.12	1.09	1.19	1.09	1.16	0.87
Secondary or higher	1.04	0.83	0.75	0.78	0.71	0.72	0.73	0.92	0.77	0.65	0.81
Household expenditure quintile											
Ex q2	1.03	1	0.91	0.79	1.11	1.02	1.04	0.91	0.95	0.86	1.33
Ex q3	0.57	0.66	0.72	0.58	0.79	0.74	0.78	0.7	0.76	0.6	0.97
Ex q4	0.41*	0.64	0.69	0.58	0.76	0.61	0.61	0.58	0.62	0.55	1.06
Ex q5 (highest)	1.13	1.38	1.41	1.06	1.90	1.47	1.51	1.37	1.35	1.26	1.96
Household asset quintile											
Ass q2	0.94	1.02	1.26	1.41	1.04	0.99	0.95	0.97	0.86	0.98	1.11
Ass q3	1.24	1.03	1.11	0.83	1	1.03	1.15	1.15	0.96	1.13	1.01
Ass q4	2	1.33	1.37	1.2	1.29	1.32	1.34	1.51	1.31	1.43	1.49
Ass q5 (highest)	1.5	1.52	1.46	1.47	1.6	1.6	1.6	1.69	1.6	1.66	1.48
Privileged social relationships											

Scheme	
Yes	1.9
Household membership of community associations	
1-5 associations	2.22
>6 associations	7.84***
Active participation in the scheme	
Informal discussions/spontaneously helped (frequently/sometimes/rarely)	2.04**
Raising awareness / information	2.08**
General assembly	2.45***
Voting	2.96***
Training	3.00***
Source of information on existence of the scheme	
Friend or family	1.70*
Mechanisms of controlling abuse/fraud by scheme staff/members/health providers	
Informed	2.04**
Believe can influence scheme operation	
Influence	2.32***
Trustworthiness of scheme staff / leaders	
Satisfied	4.01***

Notes: *P<0.10; **P<0.05; ***P<0.01.

Dependent variable: membership of CBHI (member = 1; ex-member = 0)

Table 4.7: Odds ratios for insurance drop out, part 3

Scheme											
Scheme2: Ndondol	0.48**	0.40***	0.41***	0.39***	0.41***	0.45**	0.35***	0.50**	0.48**	0.41***	0.46*
Scheme3: WAW	0.65	0.7	0.65	0.57	0.67	0.58	0.50*	0.68	0.51*	0.6	0.6
Demographic charactersitcs											
Age2	0.69	0.69	0.64	0.66	0.72	0.76	0.65	0.71	0.59	0.73	0.87
Age3	1.01	0.99	0.9	1.01	0.98	1.18	0.92	1.05	0.95	1.05	1.07
Age4	0.50*	0.53*	0.48*	0.54*	0.53*	0.54	0.51*	0.51*	0.55	0.53*	0.69
Age5 (highest)	0.37**	0.30***	0.31***	0.36***	0.30***	0.34***	0.34***	0.37**	0.35**	0.38**	0.44*
Male	0.75	0.81	0.81	0.8	0.78	0.71	0.64	0.77	0.71	0.78	0.68
Education											
Literate	0.75	0.86	0.86	0.86	0.95	0.71	0.73	0.76	0.87	0.83	0.98
Primary	1.39	1.12	1.06	1.19	1.12	1.23	1.02	1.36	1.05	1.26	0.87
Secondary or higher	0.88	0.92	0.88	0.9	0.95	0.76	0.57	0.85	0.97	0.86	0.98
Household expenditure quintile											
Ex q2	1.01	0.89	0.9	0.97	1.01	1.03	0.89	1	1.22	0.86	1.23
Ex q3	0.67	0.63	0.64	0.66	0.71	0.8	0.66	0.64	0.82	0.65	0.76
Ex q4	0.54	0.55	0.56	0.6	0.61	0.86	0.69	0.53	0.89	0.57	0.79
Ex q5 (highest)	1.47	1.22	1.27	1.47	1.37	1.72	1.51	1.43	2	1.34	1.54
Household asset quintile											
Ass q2	0.99	0.91	0.94	0.87	0.88	1	0.94	0.94	1.16	0.97	1.35
Ass q3	0.93	1.1	1.06	1.1	1.06	0.99	1	0.97	1.14	1.1	1.19
Ass q4	1.29	1.49	1.48	1.43	1.33	1.3	1.21	1.3	1.82	1.64	1.47
Ass q5 (highest)	1.48	1.62	1.58	1.65	1.5	1.58	1.66	1.55	1.87	1.88	1.67
Vision on values / solidarity											

Scheme	
Shared vision with other members	1.05
Solidarity is advantage of scheme membership	
Advantage	1.4
Types of cross-subsidisation that should occur in the scheme	
Principal component 1	1.12*
Principal component 2	1.1
Scheme should accept diverse members	
Principal component 3	1.06
Some people excluded from the scheme	
Yes	1.03
Scheme President/Secretary/Manager/other staff	
Knows	3.53***
Knows other members of the scheme	
Few	2.05
Half or nearly all	7.68***
Has characteristics in common with other scheme members	
None	0.38*
Scheme operation	
Excellent or satisfactory	2.80***
Source of money for paying the premium	
Salary / revenue	1.27
Premium price accessibility	
Satisfied	1.4

Notes: *P<0.10; **P<0.05; ***P<0.01.

Dependent variable: membership of CBHI (member = 1; ex-member = 0)

Table 4.8: Descriptive statistics of study sample

Variable	Members (%*)	Ex members (%*)	All (%*)
a. Demographic and socioeconomic characteristics			
Age quintile			
Age1 (lowest)	27.52	17.53	23.39
Age2	23.39	18.83	21.51
Age3	22.94	18.18	20.97
Age4	14.68	20.78	17.20
Age5 (highest)	11.47	24.68	16.94
Gender			
Male	39.64	50.00	43.88
Education (%)			
None	49.78	58.44	53.32
Literate	17.94	16.88	17.51
Primary	17.94	13.64	16.18
Secondary or higher	14.35	11.04	13.00
Household expenditure quintile (%)			
Ex q1 (lowest)	17.70	22.58	19.69
Ex q2	15.49	14.84	15.22
Ex q3	18.14	22.58	19.95
Ex q4	20.80	25.16	22.57
Ex q5 (highest)	27.88	14.84	22.57
Household asset quintile (%)			
Ass q1 (lowest)	16.51	18.12	17.17
Ass q2	15.60	22.15	18.26
Ass q3	20.64	26.85	23.16
Ass q4	19.27	15.44	17.71
Ass q5 (highest)	27.98	17.45	23.71
Ethnicity and religion			
Wolof	55.95	38.96	49.08
Muslim	92.95	92.21	92.65

Variable	Members (%*)	Ex members (%*)	All (%*)
HH size tertile			
HH size1 (lowest)	34.96	28.39	32.28
HH size2	29.65	31.61	30.45
HH size3 (highest)	35.40	40.00	37.27
b. Health and health service access			
Ill health of HH			
Disability	18.50	16.13	17.54
Chronic illness	45.37	40.91	43.57
Recent illness	39.21	24.52	33.25
Health care access is advantage of scheme membership			
Advantage	93.83	84.52	90.05
Quality of health service providers contracted by the scheme			
No providers satisfactory	4.52	21.59	9.76
Some providers satisfactory	19.10	27.27	21.60
All providers satisfactory	76.38	51.14	68.64
Household use of traditional medicine in last month			
Traditional medicine	54.63	51.30	53.28
Nearest health care provider			
<= 2km	86.30	71.43	80.16
c. Social capital			
Privileged social relations			
Yes	95.31	90.91	93.52
Household membership of community associations			
0 associations	3.52	9.09	5.77
1-5 associations	83.26	86.36	84.51
>6 associations	13.33	4.55	9.71
d. Active participation in the scheme			
Informal discussions/spontaneously helped (frequently/sometimes/rarely)	64.12	47.50	57.24
Raising awareness / information	61.88	46.61	55.40

Variable	Members (%*)	Ex members (%*)	All (%*)
General assembly	48.85	32.24	42.00
Voting	26.76	14.00	21.49
Training	20.28	8.05	15.24
e. Intermediary outcomes of active participation			
Source of information on existence of the scheme			
Friend or family	22.83	13.07	18.82
Mechanisms of controlling abuse/fraud by scheme staff/members/health providers			
Informed	30.67	21.29	26.84
Believe can influence scheme operation			
Influence	46.85	28.77	39.67
Trustworthiness of scheme staff / leaders			
Satisfied	68.21	36.96	58.19
Vision on values / solidarity			
Shared vision with other members	43.44	43.18	43.34
Solidarity is advantage of scheme membership			
Advantage	35.68	31.61	34.03
Types of cross-subsidisation that should occur in the scheme			
Principal component 1	0.29	-0.18	0.00
Principal component 2	0.08	0.01	0.00
Scheme should accept diverse members			
Principal component 3	0.17	0.04	0.00
Some people excluded from the scheme			
Yes	9.82	11.04	10.32
Scheme President/Secretary/Manager/other staff			
Knows	82.06	59.87	73.07
Knows other members of the scheme			
None	5.29	14.84	9.16
Few	54.63	67.10	59.69
Half or nearly all	40.09	18.06	31.15
Has characteristics in common with other scheme members			

Variable	Members (%*)	Ex members (%*)	All (%*)
None	3.62	7.58	5.10
f. Other CBHI variables			
Scheme			
Scheme1: Soppante	40.53	29.68	36.13
Scheme2: Ndondol	23.79	41.29	30.89
Scheme3: WAW	35.68	29.03	32.98
Scheme operation			
Excellent or satisfactory	79.82	60.14	72.13
Source of money for paying the premium			
Salary / revenue	78.32	65.97	73.51
Premium price accessibility			
Satisfied	40.51	34.78	38.68
Totals	**227**	**155**	**382**

The correlation between the health and health service variables and scheme membership was more pronounced. Member households were twice as likely to have had an illness, accident or injury, and nearly twice as likely to have a disability, than ex-member households, pointing to adverse selection. They were more than twice as likely to be situated closer to a health service provider. They were three times more likely to report that health care access is an advantage of membership and had a much higher probability of reporting that the quality of health service providers was satisfactory. All these variables have significant odds ratios, with quality of care being the strongest in the study. Three quarters of members felt that the quality of care of all the providers contracted by the scheme was satisfactory, compared to half of ex-members.

Rates of active participation ranged between 8% and 48% for ex-members and 20% and 65% for members. Members were statistically significantly twice as likely or more to: have had informal discussions about and/or ever spontaneously helped the scheme; participated in raising awareness and/or information dissemination; voted in

scheme elections; attended a general assembly; and received training. The latter variable had the highest odds ratio.

Source of information on existence of the scheme was significantly correlated with scheme status, with members being more likely than ex-members to have heard of the scheme from a family member or friend compared to another source.

All the odds ratios for the following variables measuring perceptions or knowledge of scheme management were greater than two and significant, with members being more likely than ex-members to: rate the operation of the scheme as excellent or satisfactory; be satisfied with the trustworthiness of scheme management and/or president; think they could influence scheme operation; be informed of mechanisms of controlling abuse and/or fraud by scheme staff, members and/or health providers; and know the scheme President, Secretary, Manager and/or another staff member. The biggest difference was in the trust variable; while nearly 70% of scheme members reported that the scheme managers or leaders were trustworthy, only around one third of ex-members did so.

Less than half of the sample reported that they share a vision on values and/or solidarity with other members of the scheme, and only one third believed that solidarity is advantage of CBHI membership. The odds ratios for these two variables were not statistically significant. Principal component 1 was statistically significant, with members being more likely to have more solidarity than ex-members. The highest scores (0.45 - 0.40) in the PCA (principal component analysis) were for agreement with the following three statements (in order of their scores): members of the scheme should sponsor families who are very poor; members should support families who are very poor by increasing the amount of their contribution; and families who are very poor should be members of the scheme without paying. The next highest scores (0.35 - 0.31) were for: the scheme should merge with other CBHI schemes in the region; families who do not have the means to contribute must be supported by the government; it is acceptable that the beneficiaries of the scheme who become ill benefit more from the services of the scheme. The lowest score (0.29) was for: it is acceptable for someone to pay the CBHI premium even though s/he has not yet benefited from the services offered by the scheme. Only around 10%

of the sample reported believing that some people are excluded from the scheme; there was almost no difference between members and ex-members. Members were nearly seven times more likely to know half or nearly all the other members of the scheme than ex-members. Furthermore, they were less likely than ex-members to report having nothing in common with the other members of the scheme.

The results suggest that members may have higher levels of social capital than ex-members, as ceteris paribus their households were nearly eight times more likely to belong to six or more community associations other than CBHI than ex-members.

The scheme 2 dummy variable is significant in almost all of the regressions. However, this is an artefact of the sampling procedure (the proportion of ex-members sampled in scheme 2 is much higher than in the other two schemes) and does not reflect the real level of drop-out which is lower in scheme 2 than in scheme 1 (Table 4.2).

4.4 Discussion

All five variables measuring active community participation are negatively correlated with drop-out. Interestingly, the more active the mode of participation, the stronger was the correlation. As discussed, researchers and policymakers have hypothesised that information, accountability, trust and solidarity would increase enrolment in CBHI. The results to some extent support this view as perceived trustworthiness of scheme management / president; accountability and being informed of mechanisms of controlling abuse/fraud are all correlated with remaining in the scheme. The result that members were more likely than non-members to hear about the CBHI scheme from a family member or friend also seems to support the hypothesis that high levels of trust promote population coverage, presuming that family and friends were the most trusted source of information. However solidarity does not, on the whole, seem to affect drop-out.

These results suggest that schemes may be able to reduce drop-out by creating more opportunities for more active participation. Caution is needed, however, in attributing the direction of causality; it is possible that people never actively participated in the CBHI schemes because they had dropped out of the schemes rather than vice versa.

The significance of the results for the possible intermediary outcomes of active participation such as trust, information and accountability suggest this is not the case. It would make little sense, for example, that a person did not trust the scheme leaders when they were a member of the scheme, because they had dropped out of the scheme.

Arguably, the two variables which conceptually link all the active participation variables are knowing the scheme leaders/staff and knowing other scheme members. It is possible that through active participation, members of CBHI developed personal relationships with the scheme leaders, staff and with each other, thereby increasing their access to information and trust in the scheme and ultimately reducing the likelihood of dropping out. As such, it could be argued that active community participation in CBHI may increase levels of social capital of CBHI members and that this may in-turn reduce the likelihood of drop-out.

Quality of health services was identified as the most important determinant of drop-out, as in previous studies (Dong et al. 2009, Criel and Waelkens 2003). It is possible that the participatory dynamic in CBHI empowered members to successfully demand good quality care, as proposed in other literature on CBHI (Michielsen et al. 2011, Criel et al. 2005, Schneider 2005, Waelkens and Criel 2007).

Overall, the results suggest that active community participation does take place in CBHI and that it may reduce drop out. This may be because active participation increases (a) trust, information and accountability, through increased social capital and (b) quality of care through increased empowerment. However, more research is needed to explore these causal pathways. While this is ostensibly good news for proponents of active community participation in CBHI it also raises concerns. The majority of people who dropped out of CBHI did not take up opportunities to actively participate, did not trust the scheme staff or leaders, felt they were not able to hold the CBHI scheme to account, did not know many other members and did not believe that CBHI promotes solidarity. Given the high drop-out rates from CBHI (Table 4.3), this suggests that active participation only benefited a small minority of people who enrolled in CBHI.

It is not clear why ex-members of CBHI did not actively participate in CBHI when they were members; further research would be needed to understand this. One possible explanation comes from the community participation literature which argues that participatory development may obscure local power differences by uncritically celebrating "the community" (Williams 2004). It is argued that projects promoting community participation are often initiated by international development agencies which fail to take into account local power relationships and instead accept inequalities as social norms. Because of this, if uncritically applied, participatory community programmes can inadvertently exacerbate disadvantage (Kothari 2001). This critique may be relevant to CBHI which has typically been introduced with the support of international development agencies (Criel and Van Dormael 1999). It is possible that CBHI has been uncritically introduced in the Senegalese context in a manner which inadvertently prevents some less empowered social groups from actively participating. While there do not seem to be inequalities in wealth between members and ex-members, the results on social capital (measured by membership of other community associations) suggest that there may be other social inequalities at play. A possible explanation may be that if CBHI schemes have very limited funds to support active community participation, only some members of CBHI are likely to be successful in accessing these resources. These individuals are likely to be those who already have higher levels of social capital or who are already more empowered. This interpretation is supported by Bourdieu's theory (Bourdieu 1986) that people who already hold forms of capital (economic, social, cultural and/or symbolic) are strategically adept at accumulating and transforming it (he argued that these types of capital are fungible). It also echoes the findings of an extensive literature review of studies on participatory development and decentralization which finds that participants in civic activities tend to be wealthier, more educated, of higher social status (by caste and ethnicity), male, and more politically connected than nonparticipants (Mansuri and Rao 2013). The authors suggest the reason for this may be that resource allocation processes of organisations inducing participation typically reflect the preferences of elite groups.

Limitations

The study has important limitations. Firstly, as it is an exploratory study, it covers a small number of schemes and the sample size is small. The study would merit from being repeated on a larger scale. Furthermore, the study is limited to schemes with high levels of drop-out. Further comparative research analysing schemes with low levels of drop-out would be useful for drawing lessons at the scheme level. Another limitation is that due to the cross-sectional and non-experimental study design, it is difficult to attribute causality. It is also difficult to attribute the direction of causality, as already discussed. These issues could be addressed with further qualitative research investigating members' and ex-members' views of participation and drop-out. Qualitative research could also have been useful for informing the content of the questionnaire. Indeed, because intended beneficiaries were not involved in developing the questionnaire, it is possible there is a researchers' bias. Finally, because of the sampling procedure, it is not possible to determine the rate of active participation in the schemes.

4.5 Conclusions

This study contributes to the literature on CBHI by providing a conceptual framework of passive and active community participation which is relevant to understanding drop out from CBHI. The results suggest that there may be many potential benefits of active community participation in CBHI. These include increased trust, information flow and accountability, increased population coverage due to fewer households dropping out of CBHI, increased social capital of CBHI members and increased empowerment of CBHI patients when accessing health care. However, it is also possible that people with already high levels of social capital benefit more from the participatory dynamic, meaning that CBHI inadvertently exacerbates inequalities in communities and in health coverage. One possible way of addressing this would be to target participatory activities to members with less social capital, although this is likely to be a challenging task as it implies overturning established social inequalities and hierarchies. This in turn suggests that alternative or complementary financing policies are needed to target vulnerable groups.

Chapter 5 The impact of stakeholder values and power relations on community-based health insurance coverage: qualitative evidence from three Senegalese case studies[20]

Abstract

Continued low rates of enrolment in community based health insurance (CBHI) suggest that in many countries strategies proposed for scaling up are unsuccessfully implemented or inadequately address underlying limitations of CBHI. One reason may be a lack of systematic incorporation of social and political context into CBHI policy. In this study, the hypothesis is proposed that values and power relations inherent in social networks of CBHI stakeholders can explain levels of CBHI coverage. To test this, three case studies constituting Senegalese CBHI schemes were selected using specific criteria and studied. Transcripts of interviews with 64 CBHI stakeholders were analysed using inductive coding. The five most important themes pertaining to social values and power relations were voluntarism, trust, solidarity, political engagement and social movements. Analysis of these themes raises a number of policy and implementation challenges for expanding CBHI coverage, several of which have previously been overlooked. First is the need for subsidies to remunerate CBHI scheme staff while retaining the potential benefits of voluntarism and avoiding pitfalls such as inadequacy of the salary and lack of sustainability of the source of funding. Second, there is also a need to develop more sustainable internal and external governance structures through CBHI and NGO federations. Third is reforming CBHI so that it becomes a coherent solidarity mechanism which both provides financial protection and resonates with local values concerning four dimensions of solidarity (health risk, vertical equity, scale and source). Fourth is the need for increased transparency in policy. Fifth is the need for CBHI schemes to increase their negotiating power vis-à-vis more powerful stakeholders who control the resources needed for expanding CBHI coverage through, for example, engagement of CBHI scheme leaders in local politics; federation of CBHI schemes

[20] A version of this paper is currently under review in the peer-reviewed journal *Health Policy and Planning* ("revise and resubmit" stage) as: Mladovsky, P. Ndiaye, P. Ndiaye A., and Criel., B. The impact of stakeholder values and power relations on community-based health insurance coverage: qualitative evidence from three Senegalese case studies.

with political NGOs; and a social movement dynamic based on shared values. Systematically addressing all these challenges would represent a fundamental reform of the current CBHI model promoted in Senegal and in Africa more widely. From a theoretical perspective, the results suggest that studying values and power relations among stakeholders in multiple case studies is a useful complement to traditional health systems analysis.

5.1 Introduction

Community-based health insurance (CBHI) aims to provide financial protection from the cost of seeking health care through prepayment by community members. It is typically not-for-profit and aims to be community owned and controlled (Hsiao 2001). In most low and middle-income countries (LMIC), population coverage of CBHI remains low (Soors et al. 2010). Health systems literature (Mills et al. 2012, Ndiaye, Soors, and Criel 2007, Soors et al. 2010) identifies inequitable population coverage, adverse selection and inadequate supply of health services and insurance as the main obstacles to scaling up CBHI. The literature proposes the following strategies to address these obstacles: public funding to subsidise premiums for the poor; promoting increased revenue collection from the "healthy and wealthy" so as to enhance cross-subsidisation and risk pooling; improved CBHI management; and improved purchasing to enhance quality of care. Yet continued low rates of CBHI enrolment suggest that proposed strategies for scaling up CBHI may not have been successfully implemented or may inadequately address the limitations of CBHI. It has been argued by Mladovsky and Mossialos (2008) that one underlying reason for this may be a lack of systematic incorporation of social and political context into CBHI policy analysis.

CBHI schemes typically have relationships with one or more of the following stakeholder institutions: health service providers, governments, international organizations, donors and NGOs. A further set of institutional relationships may exist among CBHI schemes through reinsurance (the transfer of liability from a primary insurer to another insurer (Dror 2001)), federations and umbrella organizations. Finally, there are relationships between staff and the population covered by the scheme. In the CBHI literature these relationships are typically analysed from a

"health systems" perspective which traditionally focuses on financial, regulatory and legal arrangements between the various stakeholders (World Health Organization 2000). For example, relationships between CBHI schemes and health service providers are analysed as a set of contractual transactions designed to promote efficiency and quality of care through strategic purchasing (Bennett 2004, Criel et al. 2004, ILO 2002), while relationships among CBHI schemes are seen as a way of increasing risk pooling (Davies and Carrin 2001, Dror 2001, Schneider et al. 2001) or collectively contracting hospitals (Waelkens and Criel 2007).

However, a few studies have employed sociological perspectives to analyse the impact of stakeholder relationships on CBHI. For example, an overview of CBHI in India found that "nesting" CBHI schemes in broader local development programmes gives schemes credibility, inspiring trust in the target population (Devadasan et al. 2006). Other studies point to the potential empowerment of patients through membership of CBHI schemes, which is thought to increase choice, accountability and negotiation and thereby improve quality of care (Michielsen et al. 2011, Criel et al. 2005). Drawing on such examples, a review of the CBHI literature conducted by Mladovsky and Mossialos (2008) has analysed CBHI through the lens of social capital theory (Woolcock 1998) to develop a conceptual framework for understanding why in most low-income countries CBHI schemes have not achieved sustainable and significant levels of coverage. They argue that unlike the traditional health systems perspective based on a behavioural model of rational utility maximizing *homo economicus*, analysing health systems through the lens of social capital theory permits the systematic incorporation of social context into policy. This echoes a wider call for the greater incorporation of social science perspectives into health policy and systems research (Gilson et al. 2011). Following Mladovsky and Mossialos, in this study the hypothesis is proposed that studying values and power relations inherent in the social networks[21] of CBHI stakeholders can explain the limitations of CBHI as a mechanism for increasing coverage, in terms of enrolment (population coverage) and the benefit package offered (the scope of coverage)

[21] As in the social capital literature, the term "social network" is used here to encompass a broad set of social relations at micro and macro-levels including: intra-community ties; extra-community networks; relations between community and institutional actors; and relations among actors within institutions (Woolcock 1998).

(World Health Organization 2010). Specifically, the following research question is addressed: *can local stakeholder values and power relations help explain low levels of CBHI coverage*?

Three Senegalese CBHI schemes are analysed. Senegal's health system operates according to the principle of cost recovery through user charges. Private expenditure on health as a percentage of total health expenditure is 41.7 and 78.5% of that is spent directly out-of-pocket (World Health Organization 2013). In order to increase financial protection from the risk of ill health, a policy of exemptions from user charges for certain vulnerable population groups and priority services is in place (MSAS 2007), but these initiatives are experiencing difficulties with implementation (Soors 2010). Additionally, since 1997 successive governments have viewed CBHI as a key mechanism for achieving universal coverage (Ministère de la Santé 2004, 2012). Senegal has witnessed a rapid increase in the number of CBHI schemes (termed "*mutuelles de santé"* in Francophone countries), reaching around 139 between 1997 and 2004 (Hygea 2004). However, coverage in Senegal remains low, with 4% or less of the population enrolled in CBHI (Soors et al. 2010). There is therefore an urgent need to better understand the barriers to expanding CBHI.

5.2 Methods

A multiple case study design was used. Yin, (1994) argues that "replication" across multiple case studies can help the researcher to generalise the results of the study. Replication occurs when multiple cases produce similar results, or when there are contrasting results across more than one case for reasons which are predicted by the theory being tested. Three Senegalese regions (out of 12) were selected for inclusion in the study: Thiès, Diourbel and Dakar. This ensured the inclusion of a range of geographic contexts and three regional federations of CBHI in the study. The three regions had a relatively high number of CBHI schemes (Table 5.1), meaning the study focused on contexts where CBHI was at a relatively advanced stage and a diverse set of social networks between various stakeholders had had the opportunity to develop.

Table 5.1: Number of CBHI schemes in Senegal by region

Region	CBHI schemes in 2003
Dakar	44
Thiès	39
Kaolack	11
Diourbel	10
St Louis	9
Louga	8
Ziguinchor	8
Tambacounda	5
Fatick	4
Kolda	1
Sénégal total	**139**

Source: (Ministère de la Santé 2004)

Note: Figures include complementary voluntary private health insurance companies and CBHI schemes

In each of the three regions, one case study (CBHI scheme) was selected. Local documentation and knowledge of local experts were used to identify the three cases according to a set of key criteria (Box 5.1). All three schemes had a high level of drop-out. Drop-out from CBHI is not only a major obstacle to increasing population coverage in Senegal but also elsewhere in sub-Saharan Africa (De Allegri et al. 2009). Soppante, Ndondol and Wer Ak Werle (WAW) were the three schemes selected (Table 5.2).

Box 5.1: Case study selection criteria

CBHI schemes which varied according to the following contextual characteristics were selected:

- Geographic zone
- The type of economic sector of the target population

Further selection focused on the level of development of CBHI schemes. Only CBHI schemes which met the following core criteria were considered:

- The CBHI schemes had enrolled a greater than average number of households (the average number of households enrolled in a CBHI scheme was 329 (Hygea 2004)) (this affected population coverage). In Senegal, enrolment in CBHI is typically on a household basis. A representative of the household enrols in the CBHI scheme and purchases a membership card on which a certain number (typically up to 12) other household members may be registered. The premium is then paid monthly.
- The schemes had a relatively high proportion of members who had ceased paying the monthly premium and whose insurance policy had therefore expired (the national average rate was 47% in 2004 (Hygea 2004)) (this also affected population coverage)
- The CBHI schemes were currently operational and had been established for a minimum of eight years
- Variation in the tier of the health system contracted by the scheme (the affected the scope of coverage, i.e. the benefit package)

The rationale for selecting schemes with high drop-out was to focus on contexts where there was potentially the most to gain from a policy intervention. At the same time, only schemes which had achieved a basic measure of success (relatively high enrolment and duration) were included, in order to control for the possibility that low coverage was mainly due to fundamental supply-side failures necessitating closure of the schemes.

Table 5.2: Characteristics of the selected cases

	Scheme characteristics				Context		
Name of CBHI scheme	**Number of households ever enrolled**	**Number of households currently enrolled (and proportion of members whose policy had expired)**	**Year of scheme commencement**	**Tier of services contracted by the scheme**	**Region**	**Geographic zone**	**Characteristics of the population targeted by the scheme**
Soppante	986	197 (80%)	1997	Health post Hospital	Thiès	Mostly rural	Formal and informal sectors
Ndondol	464	135 (71%)	2001	Health post Health hut Maternal and child health centre	Diourbel	Rural	Informal agricultural sector
Wer Ak Werle (WAW)	678	278 (59%)	2000	Health post Health centre Pharmacy	Dakar	Urban	Predominantly informal sector, female petty traders

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Fieldwork was conducted from March to August 2009. Stakeholders were identified using purposive snowball sampling, an approach where stakeholders help identify other stakeholders (Miles and Huberman 1994). In the study, stakeholders were defined as individuals who affected or could affect the CBHI scheme. Sample size was determined by the data obtained and data collection continued until saturation. The interviews were conducted primarily by two of the authors and were of a focused, open-ended type. A short topic guide was used which focused on the following themes: personal professional history, knowledge of the scheme, relationship with the scheme, participation in the scheme, perceptions of the scheme and other stakeholders and relevance of the scheme to local health sector priorities. The topic guide is provided in Appendix 4. Sixty-four interviews were conducted in total (Table 5.3). Each interview lasted one hour on average.

The stakeholder interviews were conducted as part of a broader study which investigated the relationship between social capital and CBHI coverage and included a household survey, semi-structured interviews and focus groups with members and non-members of the CBHI schemes.

Table 5.3: Stakeholders interviewed

	Number of individuals interviewed		
Type of stakeholder	**Soppante**	**Ndondol**	**WAW**
Health service providers	8	4	3
Staff of the CBHI scheme	4	6	4
Local leaders (religious, traditional, political, associations, local NGOS)	3	10	8
Donors, international organizations	5	4	5
Total	**20**	**24**	**20**

All interviews were recorded and transcribed using verbatim transcription. Inductive coding (Glaser 1967) was performed in Nvivo8. Segments of interview text were coded by one author. As new codes emerged all transcripts that had been previously coded were read again and the new code added where appropriate. Parent and child codes were linked using tree nodes. During the coding process, periodic meetings were held between all the authors to review codes. Towards the end of the process,

no new codes were added, at which point it was concluded that all major themes had been identified Stakeholder validation was performed to check the credibility of the findings by presenting preliminary results to approximately 50 representatives of national and local Senegalese CBHI stakeholders, including representatives of the schemes studied and the Ministry of Health (MoH), in Dakar in March 2011. The interviews, coding and stakeholder validation were conducted in French. Translation of quotations into English was done for the purpose of this paper. Ethical approval for the research was obtained from the Senegalese MoH.

5.3 Results

A total of 12 parent codes incorporating 84 child codes were identified in the coding analysis. A list of the parent and child codes is provided in Appendix 5. Results pertaining to the five most important (discussed by the greatest number of interviewees and mentioned the most times) codes as regards social values and power relations were selected for further analysis in this paper. Three codes pertain to social values: voluntarism, trust and solidarity. Two pertain to power relations: political engagement and social movements. The selected codes are hereafter termed "themes". Under each theme, results are divided into those which are similar for all three schemes (described as "common features") and those which are different across the three schemes (discussed scheme by scheme). Quotations are presented in boxes 2 to 5. The interviewee identifiers indicate which scheme and stakeholder the quotation derives from (S = Soppante, N = Ndondol, W = Wer Ak Werle (WAW)).

Theme 1: Voluntarism

Common features

Each scheme was staffed by a President and Treasurer and two schemes also had a Secretary; these individuals are referred to hereafter as the "leaders" of the CBHI schemes. Additionally, all the schemes had field staff who collected premiums and/or disseminated information about CBHI. CBHI staff worked on a voluntary basis and received no salaries. Field staff received small honoraria, but the leaders did not. Voluntarism had the advantage of maintaining low overheads which helped prevent increases in the premium price. Voluntarism was therefore seen by many

stakeholders as a means of reducing poverty and contributing to local development (Box 5.2, W3). There were also acknowledged benefits which accrued to individuals who volunteered in CBHI, such as training and per diems.

A major limitation of voluntarism was that the staff members did not have the time to perform essential tasks, since due to their need to generate an income for their families they typically held one or more additional paid jobs. Often, they were also engaged in other types of voluntary work. Furthermore, staff were expected to use their own resources for transportation to collect premiums, deliver the money to the central CBHI fund and conduct marketing. All this resulted in poor scheme management, indicated by irregular collection of premiums by field staff leading to delays in premium payment, a lack of community participation and a lack of time to manage the scheme among the leaders (Box 5.2, S15). This was seen to be a cause of high drop-out. However, the staff were difficult to replace due to the lack of other people in the community with the necessary skills (Box 5.2, W7). The combination of inadequate human and physical resources meant that people in the target population often complained that they did not feel the presence of the CBHI scheme in their community (Box 5.2, N21).

Soppante

Soppante's scheme leaders were considered local and national experts in CBHI and were often called upon to provide technical assistance to other CBHI schemes. This left very little time for management of Soppante. Despite this, no replacement leaders had been recruited. This led some stakeholders to comment that the scheme was over reliant on the two leaders (Box 5.2, S17). Furthermore, Soppante covered the largest geographic zone of the three case studies, making premium collection particularly challenging for field staff. No innovative approaches to overcoming the limitations of voluntarism had been developed.

Ndondol

In Ndondol, the geographic zone covered by the CBHI scheme was highly rural and sparsely populated, making premium collection difficult. The leaders had attempted to overcome some of the limitations of voluntarism by giving people the option of

paying premiums directly to the Treasurer of the scheme in his shop which was located in the principal village of the district. However, this meant that in many villages field staff no longer collected premiums, resulting in minimal contact between the scheme and the community.

WAW

WAW, an urban CBHI scheme, had developed the most innovative approach to premium collection. The scheme had enrolled a large number of women from a local women's microfinance and income generation association and the collection of premiums from these members had been decentralised to groups known as "GMS". Thus, in the GMS groups, field staff collected premiums from women they regularly worked and socialised with.

Box 5.2: Selected stakeholder quotations on voluntarism in CBHI

W3: In CBHI there are no salaries. The staff believe in what they are doing: supporting the development of our community. (Leader of a local *dahira* (Muslim prayer group))

S15: People are often late paying their contributions because, they say, the area manager (field staff) no longer comes around to collect their money ... Later on the area manager told me that the work she did was voluntary and she no longer had the time... (Local nurse)

W7: ... I can't resign without training another person to continue with the job... and the technical management of the scheme is difficult. (CBHI staff member)

N21: If the leaders of the scheme had done what they are supposed to do, that is, come and talk to people, educate them, I could tell you that things had started here ... but there has been no action. (Local community leader)

S17: Unfortunately (Soppante) rests on the shoulders of two people... although their shoulders are strong, this creates problems for such a large scheme. There is some delegation to management committees… but not much coordination. (International donor)

Theme 2: Trust

Common features

Trust in CBHI staff was seen by most stakeholders as an important prerequisite for enrolment into CBHI. Previous negative experiences of theft of communal funds in the context of CBHI and other development projects meant that recruiting staff who would be trusted by the target population was viewed to be crucial. Several stakeholders expressed the view that CBHI schemes and their leaders should be more systematic about using the trust inherent in existing social networks to enrol members, particularly by integrating CBHI schemes into existing community associations. Several stakeholders also highlighted the importance of creating new mechanisms to create trust, for example by communicating regularly with the target population through local CBHI meetings.

Linking the themes of trust and voluntarism, a former scheme leader held the view that working without a salary in CBHI helped win the trust of the population (Box 5.3, W11a). Trust between the CBHI scheme leaders and health service providers was also often referred to as important to scheme success, particularly in terms of contracting (this is explored in more detail in Theme 5). Some health service providers were reported to have doubts about the robustness of CBHI management, particularly in terms of maintaining solvency and paying bills. This meant that CBHI scheme leaders needed to gain the trust of hospital directors and managers who ultimately decided whether or not to sign contracts with CBHI schemes (see also Theme 5). A trusting relationship was seen by some to promote a degree of flexibility in the billing system which meant that delays in payment from the scheme to the provider were tolerated (Box 5.3, S7). This was viewed to be crucial so that scheme members would not be charged the full fee for their treatment if the scheme had an outstanding debt with the provider. This in turn was thought to help increase retention of members (i.e. prevent drop-out from the scheme).

Soppante

According to some stakeholders, certain individuals characterised by social structures such as particular lineages, kinship groups and castes were traditionally

considered by local people as being highly trustworthy. According to a stakeholder the leaders of Soppante had this trusted social status which helped them to recruit members into the CBHI scheme (Box 5.3, S20).

Soppante was the only scheme studied to have made contracts with hospitals. The scheme had achieved a trusting relationship with the managers of the regional public hospital, which in turn had assisted in the successful negotiation of a contract (see Theme 5 for more details).

Ndondol

The Ndondol scheme was launched with the support of local Christian missionaries who were trusted by the (mostly Muslim) population (Box 5.3, N15). As mentioned, the Treasurer was a shopkeeper; he was well-known and highly trusted by people in all the villages in Ndondol district.

WAW

Through the development of the women's GMS groups (see above), the leaders of WAW had managed to systematically recruit field staff who were likely to be trusted by the population, due to the strong prior bonds of trust between the women (Box 5.3, W14). The previous President of WAW was also a member of the women's GMS groups. Trust in her leadership had inspired many women to enrol in WAW. However, several stakeholders observed that when she retired, many women dropped out of the CBHI scheme (Box 5.3, W11b).

Box 5.3: Selected stakeholder quotations on trust in CBHI

W11a: I have volunteered all my life ... you have to sacrifice yourself so that people trust you. (Former CBHI scheme leader and leader of local women's groups)

S7: ...there may be some delay (in payment from the scheme) ... Me, I can tolerate that, but others may not. They will immediately say, either you pay by such a date, or I leave and any member of the scheme who comes will not be treated (at the reduced rate under the contractual agreement) (Head of a nurse-led primary care post)

S20: ...there are certain types of people who are trusted. A community that is trusted is located in (name of village) ... People from that community have a social advantage. That's what makes people trust (the treasurer who comes from this community). (Provider of technical assistance to CBHI schemes)

N15: ... initially it was the Church that managed the money. We told ourselves, "these are people of the Church; they will not steal the money". (Local NGO worker)

W14: There are no thefts because we know each other very well, we live together ... you wouldn't harm your colleague because you know she has the same problems as you. (Local female GMS group leader)

W11b: people trust me… so when I take the lead on something (like CBHI) many people enrol and say "…she we will not steal our money"… but they tell me that since I retired, the scheme doesn't work anymore. (Former CBHI scheme leader and leader of local women's groups)

Theme 3: Solidarity

Common features

Most stakeholders in all three cases viewed the cross-subsidisation of resources from healthy to sick people to be not only a form of risk pooling but also an expression of solidarity (Box 5.4, S3). Several stakeholders said this solidarity contributed to fighting poverty and promoting community development. Many stakeholders viewed CBHI to be part of a wider social structure which promoted solidarity through local community associations (Box 5.4, N4). As such, a lack of solidarity was viewed by some stakeholders as the main reason for households dropping out of or failing to enrol in CBHI (Box 5.4, W8a). An alternative explanation that poverty was the main reason for drop-out and lack of enrolment, frequently put forward by households in the target population, was rejected by several stakeholders. These stakeholders argued that the CBHI premium was affordable and noted that poverty did not prevent the majority of the population from participating in various regular social events and local associations which had far higher fees than CBHI (Box 5.4, W7). Many of these stakeholders did, however, concede some very poor households would not be able to afford the premium and would need to be subsidised (see Theme 4).

Soppante

Soppante was founded by individuals who had previously been leaders of a local Catholic CBHI scheme. The Church mandated that only Catholics were eligible for membership of the Catholic scheme. The founders of Soppante had objected to the Church-based model of CBHI on the grounds that it prevented scaling up solidarity in CBHI by incorporating Muslims, who made up the majority of the wider population. They therefore left the Catholic scheme in order to create Soppante, which was open to all residents of a large geographic zone (Box 5.4, S19).

Ndondol

Ndondol did not have a particular strategy for mobilising solidarity in the target community. All people residing in the district of Ndondol were eligible for enrolment in the scheme.

WAW

As discussed, stakeholders in WAW had mobilised existing solidarity structures by integrating the scheme into a women's association through GMS groups. This was a deliberate strategy (Box 5.4, W12). However, a perceived disadvantage of the GMS system was that it excluded people who were not in GMS groups from the scheme (Box 5.4, W8b). In fact, men and women who were not in GMS groups were eligible to enrol in WAW but they had to pay premiums directly to the scheme staff rather than through the GMS system.

Box 5.4: Selected stakeholder quotations on solidarity in CBHI

S3: You see, it is a symbol of solidarity. Even if you don't receive health services in exchange for your money, somebody else does and that's a huge gesture. That's CBHI. (Local field staff member)

N4: Solidarity is ... rooted in our customs ... There are our women who have their groups; we have our dahiras. Now we need to interest people in this other form of solidarity, CBHI. (Provider of technical assistance to CBHI schemes)

W8a: Some people don't have much solidarity and so they say to themselves, "I'm not going to fall ill so why should I continue paying the premium? I am just paying for other people" (Local community association leader)

W7: Some tell me (their lack of enrolment) is because of the (financial) crisis ... I don't follow this, because they often contribute 1000 CFA per week for events, ceremonies and other things in the neighbourhood so why not 1000 CFA per month (for the CBHI premium)? (CBHI scheme leader)

S19: The Church CBHI schemes were quite restrictive; they were reserved for Catholics… which excludes a large part of the population. This principle is contrary to the philosophy CBHI. It is in this context that Soppante was born. (Provider of technical assistance to CBHI schemes)

W12: We experimented with several approaches. We moved from an individual prepayment system, to family enrolment in CBHI and over the last four years

this has evolved into CBHI based on (women's') groups ... When you adopt a family model, without realizing it you are breaking solidarity mechanisms at the community level. (Provider of technical assistance to CBHI schemes)

W8b: CBHI...must be there for everyone and not everybody is in a women's group... (Local community association leader)

Note: 1000 CFA (Central African Franc) is equivalent to around €1.50

Theme 4: Political engagement

Common features

In the three case studies, there were two main types of political engagement in CBHI. One type was lobbying local government for subsidies (due to the decentralised political system of Senegal, subsidies for CBHI schemes deriving from national government were not on the policy agenda). CBHI leaders requested local public subsidies to (a) pay salaries to CBHI staff in order to improve scheme management and (b) to cover the premiums of the poor in order to prevent drop-out and increase enrolment, as some households were perceived to be too poor to pay the CBHI premium themselves. In principle, some local politicians were in support of both types of subsidies (Box 5.5, W5). However, none of the schemes had been successful in obtaining such subsidies. Different stakeholders had different explanations for this. A local government official claimed it was because there were insufficient funds. However, several (non-governmental) stakeholders believed the real reason was rather the lack of political capital to be gained from supporting CBHI (Box 5.5, W7). There was also a belief among some stakeholders that the values embodied by CBHI (solidarity, trust, voluntarism and poverty alleviation) were not upheld by politicians. Another stakeholder expressed the opinion that the government had not fully taken responsibility for CBHI (Box 5.5, S22). A few stakeholders argued there was a more technical reason for the lack of subsidy, namely the absence of a decree to give legal recognition to CBHI schemes.

In all three case studies, the second type of political engagement constituted CBHI leaders running for election as local councillors. They campaigned to raise the

priority of health and other development issues on the local political agenda. One stakeholder observed that decentralisation of public budgets had led to increased competition and interest in these local government posts (Box 5.5, N1). As the local elections had not yet taken place at the time of fieldwork, this study cannot report whether the CBHI leaders were successful. However, a stakeholder expressed concerns about the entry of CBHI leaders into politics, fearing that the CBHI leaders would not be strong enough to resist the corrupting influence of political power (Box 5.5, W12).

Soppante

Soppante's President was running for election as an independent candidate. Soppante's leaders' rejection of mainstream political parties derived in part from a local political power struggle in the early 1990s. At that time, they had been the leaders of a Catholic CBHI scheme (see above), which had grown at a rapid rate and had attracted the interest of a local politician from a mainstream political party. The politician had tried to appropriate control of the scheme in order to use it to mobilise popular support in his electoral campaign (Box 5.5, S20). Soppante's leaders resisted the take-over but the experience had left them deeply mistrustful of mainstream politics parties.

Ndondol

In Ndondol, the CBHI leaders running for elections did so within the structure of mainstream political parties.

WAW

In WAW there was also a rejection of mainstream parties and the leaders ran for office under a new alternative grassroots political party. They said the rationale for creating a new party was that local politicians had failed to promote the development of their community (Box 5.5, W8).

Box 5.5: Selected stakeholder quotations on political engagement in CBHI

W5: …if there was a partnership (between local government and CBHI schemes), these (disadvantaged) people would join the CBHI scheme and we would subsidize them… the support could be in form of an annual subsidy, it could also be support for certain needs in relation to the CBHI scheme's functioning. (Local government official)

W7: (political) support of other (associations) is stronger because other associations mobilise more people, and politicians like a crowd... (CBHI scheme leader)

S22: The Ministry of Health has developed a strategy for health insurance. But is this really its mission? The other ministries are not interested... and the Ministry of Health does not have the resources to implement the strategic plan. (International donor)

N1: Suddenly it's interesting to be a… mayor, or a councillor, because suddenly there is money in vast sums compared to what there was before. So it has become very politicised.

W12: It's very difficult to find someone who is committed to CBHI and stops there. Associations are the way to access resources. So a leader who upholds a common cause always ends up being eaten by the political system. (Provider of technical assistance to CBHI schemes)

S20: He (the politician) tried to use the CBHI scheme, going as far as to say that he'd had the idea to create it, because he wanted to develop his political platform. He wanted to bring in changes and put his men in ... If he controlled the scheme, this became another political tool...to attract votes. (Provider of technical assistance to CBHI schemes)

W8: political parties, the largest in the country, have… done nothing tangible; people who should embody certain values, do not... In order to do something concrete, I have had to enter politics, but not party politics, the politics of development. (Local youth leader)

Theme 5: Social movements

Common features

In Soppante and WAW (but not in Ndondol), many stakeholders frequently discussed CBHI in the context of social movements. The movements were perceived to be founded on the shared values of voluntarism, trust and solidarity described above.

Soppante

In Soppante, the discourse around social movements focused around the theme of mutualism. Many stakeholders in Soppante described themselves as "mutualists" and claimed they were part of a "mutualist movement" (Box 5.6, S19). The movement included individuals working for the MoH, international donors and NGOs, academics, as well as local CBHI scheme leaders including those of Soppante. In the late 1990s, the shared values of the mutualists had provided the momentum and inspiration for the establishment of a regional union of the 39 CBHI schemes in Thiès and an additional structure, the *Groupe de Recherche et d'Appui aux Initiatives Mutualistes* (GRAIM) which delivered technical assistance to CBHI schemes and other projects. The leaders of Soppante had been among the founders of the regional CBHI union.

The regional union collected funds from each CBHI scheme to create a deposit which was used to guarantee a contract with the regional hospital. An important individual in the negotiation of the contract had been a hospital manager who had become a member of the mutualist movement and had passionately advocated on behalf of the CBHI schemes to the hospital Director (Box 6, S4). However, despite these successes, by the time of the fieldwork, several stakeholders were concerned that the mutualists' insularity threatened to stifle CBHI (Box 5.6, S17).

Ndondol

In contrast, in Ndondol, only one stakeholder spoke of social movements and the term "mutualist" was used infrequently. There was a regional union of CBHI schemes in Diourbel but it was deemed ineffective. A stakeholder expressed concern

that a repercussion of this was a lack of training and technical assistance for the Ndondol CBHI scheme staff. The lack of technical assistance resulted in poor management and governance of the CBHI scheme, indicated for example by the failure to hold an annual general meeting for over two years; this in turn contributed to perceptions of a lack of connection between the scheme staff and members. The CBHI scheme leaders themselves voiced these concerns (Box 5.6, N2). Another repercussion of the lack of coordination by the regional union was the absence of a contract with the regional hospital. Furthermore, as Ndondol was in a poor rural area where very few NGOs operated, there was little opportunity for the scheme to collaborate with other types of NGOs.

WAW

Through the women's GMS groups, WAW was part of a powerful local movement of women who held local political influence (Box 5.6, W11). In addition, many WAW leaders were members of the local branch of the national sports and cultural association (ASC) and through this, belonged to the "*navetane*" movement. The "*navetane"* movement organised activities such as sports, theatre and community development projects for young people during school holidays. The women's and youth "movements" were brought together under the roof of the *Centre de Coordination pour le Développement de Guinaw Rail* (CCDGR), a federation which was supported by international NGOs and regrouped 93 local NGOs and associations, including WAW. Membership of CCDGR brought many benefits to the management of WAW. For example, by providing an umbrella governance structure and opportunities for sharing best practices with other NGOs, it had led WAW to adopt a formal governance structure which provided opportunities for members to actively participate in the scheme through, for example, election of leaders, regular committee meetings and annual general meetings. It also provided a collective platform for negotiations on subsidies and the formation of the new alternative political party described above.

A union of CBHI schemes had been established in the Dakar region, but it was perceived to be weak, with insufficient funding and technical expertise. The union had been unable to make a contract with a hospital.

Box 5.6: Selected stakeholder quotations on social movements in CBHI

S19: ...there are even people who call themselves 'the mutualist group.' It's a nickname that has stuck. Through being on the ground, being constantly involved with mutualists, having been there at the various stages of evolution of the movement, they were converted. They are constantly looking to try to improve things, to detect faults and take corrective action. (Provider of technical assistance to CBHI schemes)

S4: ...because of frequently visiting (GRAIM), going to meetings, to seminars ... because they often invited me to come to the seminars.... I attended, I participated in the debates, the discussions, so when I came to meetings here (in the hospital), I spoke (about CBHI). I said to the Director (of the hospital) "we must integrate the mutuals (CBHI schemes)"! So eventually he called me "Mr. Mutuality"! (Hospital manager)

S17: You mustn't lock yourself up and ignore your environment. If you do, you will kill CBHI. The development of CBHI cannot be based solely on mutualists… for the development of CBHI you also need other actors… local authorities … the regional development agency ... medical authorities... not to mention the many actors in civil society. (International donor)

N2: as (CBHI) leaders, we complain about our lack of training and proficiency to communicate with the population. (CBHI scheme leader)

W11: ... politicians are afraid of strong movements, there are many people and many voices speaking together at the same time which could tarnish their image. If a mayor is against me... he risks having serious problems because I can mobilise half the women (in the community)... (Former CBHI scheme leader and leader of local women's groups)

5.4 Discussion

The results suggest that diverse stakeholders held or promoted similar values (voluntarism, trust, solidarity) across all three cases of CBHI. In all three schemes, CBHI scheme leaders were engaged in local politics which constituted an attempt to contest local power relations or to access existing local political power structures. In two cases CBHI was linked to "social movements". The following discussion explains how analysis of the five themes sheds light on the underlying causes of drop-out and low enrolment (low population coverage) and limitations of the benefit package (low scope of coverage) in CBHI.

Voluntarism and enrolment

There were two ways in which voluntarism was said by stakeholders to prevent drop-out and promote enrolment in CBHI. The first is that by not paying salaries to staff, CBHI schemes were able to reduce administrative costs in order to keep premium prices low. This principle is supported by the wider literature on private health insurance in LMIC which argues that reduced loading is needed to increase demand (Preker 2007). The second was the assertion that volunteering by CBHI staff built trust in CBHI among the target population. This idea is supported by studies from other contexts which find that the act of volunteering increases the perceived trustworthiness of people who volunteer (Wilson and Musick 1999). However, there were serious perceived disadvantages of voluntarism for scheme management (lack of time for collecting premiums, marketing and community outreach) which in turn were thought to cause low enrolment and high drop-out. The finding that voluntarism was unsustainable is supported by the literature which identifies virtually no evidence that volunteering by community health workers (CHWs) in low and middle-income countries can be sustained for long periods (Lehmann and Roth 1993). The recognition that on balance voluntarism was detrimental to enrolment led scheme leaders to lobby local government for subsidies to pay salaries to volunteers (see below). However some literature suggests that introducing salaries could also bring risks to CBHI. A review of international studies on motivation suggests that introducing extrinsic motivators (generated from external rewards such as money or training) may risk "crowding out" intrinsic motivators (aligned with personal motives and values) (Frey and Jegen 2001). However, studies of CHW in LMIC have

found that financial incentives *enhance* intrinsic motivation by allowing CHWs to increase commitment to their work (Greenspan et al. 2013, Bhattacharyya et al. 2001). Numerous other difficulties associated with introducing salaries for volunteers were identified though, including: inadequacy of the salary; lack of sustainability of the source of funding for the salary; inequity if volunteers are paid less than others doing similar work; and a shift in the source of volunteers' accountability, from the community to the government (if salaries are funded by the government). Thus while it seems CBHI schemes could benefit from enhancing extrinsic motivators for CBHI scheme staff, such an intervention would not be straightforward to implement. Taken together with the difficulty of obtaining subsidies to fund salaries (see below), the issue of shifting from voluntarism to remuneration presented a complex challenge for CBHI. Yet neither the Senegalese stakeholders nor the international literature have seriously addressed the pros and cons of voluntarism in CBHI in order to develop effective strategies to overcome its limitations. More research in this area is needed.

Trust and enrolment

Many stakeholders asserted that trust in CBHI schemes was a central mechanism for mitigating the target population's fear of fraud and that increased population trust in CBHI was therefore likely to increase enrolment and prevent drop-out. This principle has been put forward in the theoretical literature on CBHI (Pauly et al. 2006) and is supported by empirical studies of CBHI (Criel and Waelkens 2003, Ozawa and Walker 2009, Schneider 2005). Another dimension of trust analysed in the CBHI literature (but not in this paper) is the impact of generalised trust (i.e. trust which is not related specifically to CBHI schemes) on enrolment (Zhang et al. 2006). In the management literature, consumers' trust in organizations has been linked to stronger purchase intentions and better customer satisfaction (Fulmer and Gelfand 2012). Trust has also been argued to underpin co-operation within health systems that is necessary to health production (Gilson 2003).

Yet the analysis of trust presented in this study suggests that perhaps surprisingly, high levels of trust in CBHI may at times have a counter-productive effect on population coverage by *reducing* enrolment and *increasing* drop-out. The main type of trust which linked all three CBHI schemes to the population was informal,

comprising interpersonal trust between friends and acquaintances and reputational trust based on social structures. However, relying on interpersonal and reputational trust to increase enrolment was unsustainable, as illustrated by drop-out from WAW thought to be caused by the retirement of the trusted scheme President. These results echo the literature on social capital, which finds that a high level of interpersonal trust based on affective relationships (a component of so-called "bonding social capital") can *constrain* economic action if it is not accompanied by trust based on formal rules or fair market competition (a component of so-called "bridging social capital") (Portes and Sensenbrenner 1993) (social capital is defined here as "the information, trust and norms of reciprocity inhering in one's social network" (Woolcock 1998, p. 153). This suggests that increased investment in formal structures to generate more sustainable levels of trust in CBHI may have been needed to increase enrolment and reduce drop out in the longer term. In NGO management, important mechanisms for developing this kind of formal trust are considered to be governance, accountability and user participation (Lewis 2007). A large Latin American study of NGOs conducted by Bebbington and Carroll (2000) points to possible mechanism for the CBHI schemes to develop these mechanisms. This study found that federations (defined as supra-communal organizations of the poor constituting a manifestation of social capital at the macro level) allow organisations to replace interpersonal trust with surrogate formal accountability mechanisms such as a professionalized bureaucracy inside the federation, relationships with external actors, and/or horizontal relationships between organizations. Trust built through these surrogate mechanisms could substitute inadequate trust between organizations and communities/households. At the same time, federations existed close enough to the community level to foster participatory processes of change. In the Senegalese cases, regional CBHI unions, GRAIM and the CCDGR can be seen a types of federations. Supporting the interpretation that federations had the potential to strengthen internal governance of individual CBHI schemes is the fact that Ndondol was a member of a weak federation and had no participatory elements in its internal governance structure at all, while Soppante and WAW were members of strong federations which had helped them to foster some participatory elements in their internal governance structures, such as annual general meetings. Yet at the time of fieldwork neither the federations nor the schemes had developed governance structures robust enough to replace interpersonal trust. It is therefore possible that

adopting a more nuanced understanding of the role of trust in CBHI which calls for less effort to build on existing interpersonal and reputational trust and more effort to develop formalised trust in CBHI through federations could serve to increase enrolment and reduce drop-out in Senegal. However, aside from the aforementioned Indian study of CBHI (Devadasan et al. 2006), these issues have hardly been addressed in the CBHI literature which in general does not distinguish between different types of trust (e.g. informal versus formal) and different mechanisms for generating trust at different levels of CBHI (e.g. scheme versus federation level), and the impact of this on CBHI population coverage.

Solidarity and enrolment

The CBHI literature rarely addresses the issue of solidarity. One study found that CBHI scheme members understand and approve of the re-distributive effects of CBHI (Criel and Waelkens 2003). It has also been suggested that emphasizing the solidarity benefits of health insurance in information disseminated to communities may help to increase coverage (Desmet, Chowdhury, and Islam 1999, Schneider 2005).

The idea that solidarity increases enrolment and reduces drop-out by motivating relatively healthier people to cross-subsidise those who are sicker, put forward by many CBHI stakeholders, ostensibly echoes the ethos of solidarity that is deeply rooted in social health insurance in western Europe (Saltman 2004) and its nineteenth century antecedent, mutual aid societies, on which the model of CBHI in West Africa is based (Criel and Van Dormael 1999). Indeed, international development agencies as well as Catholic missionaries were crucial to the transfer of the European model to CBHI in Senegal (and elsewhere) and it is likely that the Senegalese discourse around solidarity in CBHI partly has its roots in this process. The Senegalese discourse on solidarity in CBHI also appears to reflect the current broader international policy focus on strengthening solidarity in African health financing systems through social health protection (ILO 2007).

Yet there are various interpretations of the meaning of “solidarity” at play in the Senegalese case studies and the international health financing literature. These can be

divided into four dimensions of solidarity. A closer look at each dimension reveals that the idea that CBHI represents or promotes solidarity was not necessarily born out in practice. The first dimension constitutes Senegalese stakeholders' focus on cross-subsidisation of the sick by the healthy. This "health risk" dimension presents solidarity as a potential mechanism for overcoming a classic market failure in private health insurance, adverse selection (where high-risk sick individuals are more likely to buy health insurance than low-risk healthy individuals). Quantitative studies of CBHI in sub-Saharan Africa confirm that adverse selection is an issue in some contexts (Parmar et al. 2012, Noterman et al. 1995), although not in others (De Allegri, Kouyate, et al. 2006, Jütting 2004). Several stakeholders expressed concern that this type of solidarity was not present in the target population, as they observed that CBHI members often gave not falling sick as a reason for dropping out of CBHI. The second dimension of solidarity is the cross-subsidisation from wealthy to poor, termed "vertical equity" in the health financing literature (Oliver and Mossialos 2004). This type of solidarity is achieved in SHI and mutualities in Europe where contributions are either proportionate (people pay the same proportion of their income) or progressive (the proportion of income paid increases as income increases). In contrast, flat rate premiums in CBHI meant that the very design of CBHI was regressive (Mills et al. 2012). However, in general, increasing the progressivity of CBHI was not explicitly identified as an objective by the stakeholders, although it could be argued that those who sought government subsidies to cover the premiums of the poor did implicitly support the notion of vertical equity. It is important to note that studies from other sub-Saharan African countries have found that while progressive health financing has widespread support, large segments of the population (particularly the relatively wealthy) are not in favour of this principle (Goudge et al. 2012, McIntyre et al. 2009), suggesting that this type of solidarity in CBHI may be difficult to achieve in practice. Furthermore, crucially, as in many other LMIC the difficulty of identifying poor households was likely to pose a further challenge to achieving vertical equity through progressive premiums or subsidies (Mills et al. 2012). Also, evidence from other contexts suggests that the same level of access for the poor can be achieved with a lower subsidy if the subsidy is used as a direct reimbursement of user charges to the provider rather than through the CBHI scheme (Annear, Bigdeli, and Jacobs 2011). This raises the question of whether subsidising premiums of CBHI is advisable. The

third dimension of solidarity is the scale of risk pools. By design, CBHI promoted cross-subsidies within small groups. However, stakeholders in Senegal, echoing the international literature (Davies and Carrin 2001), recognised that small risk pools can be unappealing from the perspective of solidarity as larger and more diversified risk pools allow more effective cross-subsidisation of risk. This "scale" dimension undermined the ability of CBHI to promote solidarity. The fourth dimension relates to the source of solidarity. The sociological literature identifies the following main sources of solidarity: cultural similarity, concrete social networks, functional integration, and mutual engagement in the public sphere (Calhoun 2002). Risk pooling within separate communities defined by gender, religion, and/or geographic location, as per CBHI in Senegal, drew mainly on the first two sources of solidarity (cultural similarity and concrete social networks). However, these sources of solidarity in CBHI were seen by some stakeholders and community members to be unappealing, as they excluded people who did not fall into these categories. As such, in terms of the "source" dimension, the idea that CBHI promotes or constitutes solidarity was again problematized.

Given the ambiguity of CBHI as a mechanism for implementing solidarity, it is possible that CBHI schemes could decrease drop-out and increase enrolment by bringing CBHI more in line with local values. Government subsidies were an important and popular potential reform (discussed in more detail below), but others could also be considered. For example, it is possible that other informal mechanisms or social structures prevalent in Senegalese society such as religious community associations already provided the target population with a solidarity mechanism for giving support to the sick, suggesting that a marketing strategy which highlights the individual/household level benefits of CBHI for access to health care and financial protection may have resonated more with the target population than the focus on solidarity.

Power relations and coverage

The results point to two main ways in which power relations affected CBHI coverage. The first was through the attempt of CBHI schemes to access government subsidies. Many stakeholders argued that low enrolment was caused mainly by

poverty and that subsidies would therefore reduce drop-out and increase enrolment by funding premiums. It was also hoped that subsidies would reduce drop-out and increase enrolment indirectly, by funding salaries of CBHI staff and thereby improving scheme management. Due to political decentralisation in Senegal, subsidies for CBHI were the responsibility of local government. In order to obtain government subsidies CBHI scheme leaders needed to influence the allocation of local budgets; in practice this meant gaining access to local political power. This was attempted through lobbying and/or running as a candidate in local elections. In two cases (Soppante and WAW) this involved running as an independent candidate or under an alternative political party. In one case (WAW) this process was supported by a local social movement. However, at the time of fieldwork no CBHI leaders had won local government posts and no CBHI scheme had managed to gain subsidies. Various and conflicting reasons for the lack of subsidies were given by stakeholders, with no clear consensus emerging within or between case studies.

The second way in which power relations affected CBHI coverage was through the attempt of CBHI schemes to gain contracts with hospitals in order to expand the benefit package (the scope of coverage). However, many stakeholders observed that hospital directors were reluctant to sign contracts with CBHI schemes due to concerns that bills would not be paid in a timely manner. Underlying this explanation was arguably a more fundamental cause of the lack of contracts, an imbalance in power between CBHI schemes and hospitals. The wider literature suggests that in the hospital / insurer contracting process, power derives from the dependency one organization has on the resources controlled by the other, in terms its ability to attain key goals such as survival, growth, or increased margins (Devers et al. 2003). CBHI schemes were dependent on hospitals in terms of their goal of increasing coverage by expanding the benefit package, but hospitals were not dependent on CBHI schemes. This gave CBHI schemes very little negotiating power. Only one scheme (Soppante) had overcome this power imbalance by negotiating as part of the regional union of CBHI schemes supported by a social movement dynamic[22]. The federation increased

[22] A social movement has broadly been defined as organised collective action which is not normatively sanctioned and takes place outside of mainstream institutions with the purpose of achieving change over a period of time (Snow, Soule, and Kriesi 2004). The “social movements” described by stakeholders in this study partially fit this definition; although the social movements

the CBHI schemes' financial viability (by pooling their financial resources), while the social movement dynamic engaged senior individuals in the hospital with the values promoted by CBHI, such as voluntarism, trust and solidarity.

Steven Lukes' classic political sociological theory of the three dimensions of power (Lukes 2005) is useful for interpreting the implications of these results for CBHI policy. Lukes' first and second dimensions of power feature observable overt or covert conflict between persons or groups over either concrete policy issues, or over nondecision-making about potential policy issues. These dimensions of power are typically demonstrated through political participation or grievances. Taking this perspective, CBHI represented a struggle for empowerment of CBHI leaders standing in opposition to other local stakeholders; CBHI leaders sought to implement CBHI policy through lobbying, electioneering and social movements, while the other local stakeholders with control over the resources needed to expand CBHI coverage (funding and health services) either overtly or covertly blocked the expansion of CBHI by withholding these resources. Where the conflict was overt, CBHI schemes could potentially address the objections of the more powerful stakeholders by making reforms. For example, Ndondol and WAW needed to increase efforts to strengthen their regional unions and social movements which promoted key values in CBHI such as trust and solidarity, in order to facilitate contracts with hospitals. This suggestion is supported by the tentative findings of a previous study (Atim 1999) that a social movement component in CBHI (defined as participation, accountability and social control) could improve negotiations with health service providers. However, this also suggests that in contexts where there was a less enabling environment (i.e. there were few other CBHI schemes to federate with), CBHI schemes were at a disadvantage in hospital contracting.

Where conflict was covert, or where it was over nondecisions, one policy implication is the need for increased transparency in the policymaking process. For example, the confusion over the reasons for the lack of subsidies suggests that greater national

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were normatively sanctioned by national policy, at the local level they engendered opposition to mainstream political parties and (in the case of Soppante) the Catholic Church. They also appeared to be a form of collective action, bringing together the members of CBHI schemes and in some cases also other NGOs.

level government intervention was needed to clarify legal and policy parameters. In the absence of such an intervention, CBHI leaders' response was to persevere with or escalate their struggle to overcome local power imbalances. The strategies employed by some of the CBHI schemes are supported by the wider literature. Bebbington and Carroll (2000) found that in low-income countries, federations which encompassed links between different types of organizations had the potential to foster more strategic forms of collective action than isolated NGOs, with political organizations being more adept at lobbying and mobilization while economic organizations (which would include CBHI schemes) facilitated service delivery. The CCDGR was a form of strategic collective political and economic action, as it provided WAW and the other NGOs in the federation with a platform for political engagement aimed at obtaining subsidies. This tentatively suggests the other CBHI schemes may have increased their chances of gaining subsidies by also participating in federations which integrated political action with service delivery. Indeed, in the broader development literature it has been proposed that the idea that NGOs can function as apolitical development actors is unrealistic (Lewis 2010).

However, Steven Lukes' third dimension of power points to an alternative interpretation of the results. The third dimension is more radical than the previous two dimensions; it focuses on latent conflict where there are unobserved interests held by those excluded by the political and policy process. Analysis of this dimension of power calls for the researcher to look beyond people's subjective explanations of conflict and to seek a more objective perspective to reveal processes of domination. Lukes illustrates that a full critique of power should include both subjective and objective interests. Arguably, in the case of CBHI, those who were most excluded by political processes were CBHI members and non-members – i.e. the target population. Although CBHI leaders were ostensibly representing the target population via their engagement in local politics, several stakeholders pointed to a lack of community participation in scheme management. This raises doubt over whether, objectively, the target population's interests were in fact represented by CBHI leaders. Another indication of the target population's potential exclusion from the political process is one stakeholder's observation that even if CBHI leaders managed to gain political office, benefits for CBHI and other development projects were far from guaranteed, due to the danger of the CBHI leaders being "eaten" by

the political system. This observation resonates with Bayart's analysis of African "politics of the belly" (Bayart 2009) (the CBHI stakeholder even uses the same metaphor as Bayart). Through his wide-ranging and detailed analysis of African politics, Bayart finds that in Africa, as in many other societies, it is a person's position in the state apparatus that determines their social and economic status as well as their material power. He argues that interactions between political and civil society have typically tended to fuse a dominant class which straddles both spheres; those who have risen to this dominant class have typically refused to enhance popular movements. Following this line of argument, it is possible that by becoming involved with local politics by running for election, CBHI leaders were consciously or subconsciously participating in this kind of a hegemonic process. However, further research into power dynamics in CBHI, possibly involving a return to the field in order to study the outcomes of CBHI leaders' efforts to win elections, would be needed to evaluate whether this (perhaps controversial) interpretation is correct. Inspiration could be taken from Bent Flyvbjerg's phronetic research methodology (Flyvbjerg 2001) which seeks to employ social science to provide in-depth narratives of how power works and to suggest how power might be changed in specific domains of social action. If CBHI leaders were found to be subject to such hegemonic processes at the local level, stronger national governance structures may be needed to protect CBHI schemes and other NGOs from the negative repercussions of porous civil society / political boundaries at the local level. Or, if the power imbalance preventing expansion of CBHI is found to be insurmountable, revised national policy may be needed to develop an alternative financing mechanism which has the support of powerful stakeholders, in order to ensure financial protection from the cost of ill health.

5.5 Conclusions

The study suggests that the interconnected social values of voluntarism, trust and solidarity motivated many stakeholders to support CBHI schemes to expand population coverage (i.e. to reduce drop-out and increase enrolment). The stakeholders did this by working without a salary in order to increase trust and decrease the price of premiums; building on existing social structures such as social status or associations to evoke trust in CBHI; and drawing on notions of solidarity to

promote cross-subsidisation. The same social values underpinned CBHI leaders' efforts in political lobbying and electioneering and in their promotion of social movements and federations. These were essential mechanisms for overcoming conflicts with more powerful stakeholders in the effort to expand coverage, specifically in terms of: attempting to gain subsidies for staff salaries in order to improve scheme management and premium collection and thereby increase enrolment and reduce drop-out; attempting to gain subsidies in order to cover premiums and thereby address the concern that the population was too poor to pay the premium; and collective action in attempting to make contracts with hospitals to expand the benefit package. However, at the same time, in all three schemes there were contradictions and inconsistencies in how these values impacted CBHI. In practice, the four dimensions of solidarity (health risk, vertical equity, scale and source) were insufficiently or only partially mobilised in the context of CBHI, while voluntarism and trust seemed to have had unintended negative consequences (i.e. they were thought to sometimes decrease population coverage). Furthermore, CBHI leaders experienced serious difficulty in overcoming conflicts with more powerful stakeholders who controlled the resources needed to expand CBHI coverage. This was partly because of the power imbalance itself, but also because some important underlying causes of conflict were covert (for example reasons for lack of subsidies appeared to be unknown). It may also be because hegemonic political processes potentially prevented CBHI leaders from promoting the interests of CBHI's target population in local political fora. These contradictions, inconsistencies and conflicts explain the inability of CBHI to expand coverage, but they also explain the survival of CBHI schemes despite great adversity. There was considerable variation with some successes experienced in some case studies, suggesting the schemes could learn from each other. There was also scope for national government to address some of the local power imbalances.

As such, this study raises a number of previously overlooked policy and implementation challenges for expanding CBHI coverage in Senegal, and perhaps elsewhere. First is the need for subsidies to remunerate CBHI scheme staff while (a) retaining the potential benefits of voluntarism such as trust and (b) avoiding pitfalls such as inadequacy of the salary, lack of sustainability of the source of funding and a shift in the source of volunteers' accountability to the government (if salaries are

funded by the government). Second, although it seems trust in CBHI can be built by collaborating with existing community associations or trusted community leaders, there is also a need to develop more sustainable internal and external governance structures through CBHI and NGO federations. Third is reforming CBHI so that it becomes a coherent solidarity mechanism which both provides financial protection and resonates with local values concerning all four dimensions of solidarity (health risk, vertical equity, scale and source), by, for example, introducing (a) government subsidies to fully or partially cover premiums of all or of parts of the population, and (b) marketing strategies which highlight both the collective and the individual/household level benefits of CBHI. Fourth is the need for increased transparency in policy. For example, clarification from national level government was needed on legal and policy parameters for public subsidies for CBHI at the local level. Fifth is the need for CBHI schemes to increase their negotiating power vis-à-vis more powerful stakeholders who controlled the resources needed for expanding CBHI coverage. Potential mechanisms for achieving this included: engagement of CBHI scheme leaders in local politics in conjunction with national governance to protect and promote the interests of the population targeted by CBHI; federation of CBHI schemes with political NGOs; and a social movement dynamic based on shared values. However, systematically addressing all these challenges would represent a fundamental reform of the current CBHI model promoted in Senegal and in Africa more widely and could be difficult to achieve in practice. Furthermore, government subsidies for CBHI would not necessarily be a cost-effective approach to providing health services for the poor. Therefore, echoing previous analyses of market-oriented health sector reforms (Bennett, McPake, and Mills 1997) and consumer-led financing (Ensor 2004), alternative or complementary public sector and/or supply-side financing policies may be needed in order to ensure financial protection from the cost of ill health. These may include health financing mechanisms which are more integrated into government systems of social welfare (Devereux and White 2010).

The results suggest that studying values and power relations among stakeholders in multiple case studies can greatly enhance research into health financing. Adopting a similar methodological approach may be a useful complement to traditional health

systems analysis to understand the challenges faced by not only CBHI but other forms of health insurance currently being implemented in LMIC.

Chapter 6 Conclusions

6.1 Summary of findings

This section provides a summary of the main objectives and findings of the PhD. A fuller, integrative discussion is presented in the next section.

The overarching objective of this PhD is to understand the determinants of low enrolment and high drop-out in CBHI in Senegal. The PhD builds on the existing literature, which employs mainly economic and health system frameworks, by critically applying social capital theory to the analysis of CBHI. A mixed-methods multiple case study research design is used to investigate the relationship between CBHI, bonding and bridging social capital at micro and macro levels, and active community participation. The research questions set out for the PhD in chapter 1 are:

(i) What are the determinants of low enrolment and high drop-out in CBHI?

(ii) Can a critical engagement with social capital theory contribute to understanding why CBHI schemes do not appear on course to develop significant levels of population coverage in a sustainable way?

The overall PhD hypothesis proposed in chapter 1 is:

Increased bridging social capital at all levels of CBHI helps to increase enrolment in CBHI, but the benefits of this dynamic are likely to be unequally distributed and to favour individuals and groups who already hold other forms of capital and social power.

Chapters 2-5 seek to address the two research questions using different methodological approaches. Chapter 2 addresses the second research question, drawing on existing studies to show that a critical engagement with social capital theory can potentially contribute to understanding successes and failures of CBHI schemes. It outlines a research agenda which is pursued in the subsequent three empirical papers. Chapters 3-5 address both the first and second research questions. Chapter 3 finds that members of CBHI have higher levels of several variables

measuring different facets of micro level bridging social capital and social power, compared to non-members. The results point to the need for health financing strategies in Senegal to focus on removing social barriers to financial protection from the cost of ill health. Chapter 4 finds that those who drop out of CBHI are less likely to have actively participated in CBHI than those who remain enrolled in the scheme. It argues that active community participation may reduce the likelihood of drop-out by increasing CBHI members' social capital. It also suggests that those who already hold social capital may be more likely to actively participate in CBHI. Chapter 5 shows that values and power relations inherent in social networks of CBHI stakeholders (bridging social capital at the macro level) can explain low levels of CBHI enrolment and high levels of drop-out, as well as low scope of coverage.

Taken together, the evidence presented in the PhD suggests that as per the hypothesis, bridging social capital does seem to be associated with increased enrolment. There appear to be many nuances: different types of social capital play different roles; the mechanisms through which social capital increases enrolment are varied and complex; the dynamic favours those with increased economic capital and social power; and the relationship is not purely unidirectional, since enrolment in CBHI may also increase social capital of the few members who are able to access participatory activities within the schemes. These and other pertinent issues are discussed in the next section.

6.2 Integrative discussion

The integrative discussion brings together the findings of all four papers and is divided into two parts, reflecting the conceptual framework set out in chapter 2: the part first focuses on the micro level (relationships between CBHI members and CBHI leaders and staff), while the second focuses on the macro level (relationships between CBHI scheme leaders and other key institutional stakeholders such as politicians, donors and health care providers).

In each sub-section, the first part focuses on information, trust and solidarity. This is followed by an overview of the extent to which these were transmitted through the social networks of the stakeholders. In breaking down the analysis like this, the discussion seeks to unpack the ways in which social capital affects CBHI according

to the definition of social capital employed in this PhD, "the information, trust and norms of reciprocity inhering in one's social network" (Woolcock 1998, p. 153). Policy implications arising from the discussion follow, in section 6.4.

6.2.1 The role of micro level social capital in determining enrolment and drop out in CBHI

As already mentioned in previous chapters, proponents of CBHI have pointed to the advantages of schemes' smallness and participatory approach which are said to provide informal safeguards such as full information, social sanctions, trust and increased solidarity (Davies and Carrin 2001, Zweifel 2004, Pauly 2007, Zhang et al. 2006). This view echoes the argument of Coleman that social capital ''is productive, making possible the achievement of certain ends that in its absence would not be possible'' (Coleman 1988, p. S98). Bourdieu's theory of social capital (Bourdieu 1986) which informs the PhD via Portes and Woolcock (see chapter 2) provides a more nuanced view which takes power differentials into account, namely that individuals and families who do not have access to the various types of capital are from the outset in a disadvantaged position to accumulate it. Following Bourdieu, it can be expected that the benefits of CBHI will accrue only to those who already have access to social and other forms of capital and greater social power. In this section, evidence provided in the three empirical papers is discussed in light of these various theories of social capital.

The role of information, trust and solidarity at the micro level in CBHI

Availability of information is necessary for any market to operate, including CBHI. The target population may require information on the following issues in order to make decisions about enrolment in CBHI: the price of the premium; method and timing of paying premium; benefits offered by the scheme; performance of the scheme (e.g. financial reserves, number of members, number of claims, degree of financial protection offered by the schemes); mechanisms for preventing and addressing fraud; health information (information about the causes of ill health and the benefits of prevention and treatment); and information about health care providers such as levels of user charges and quality of care. Assuming this information is conducive to enrolment, one can expect that households with

increased access to information will be more likely to enrol and remain enrolled in CBHI. This is indeed borne out by the results of the PhD. In chapter 3 diversified access to information is a determinant of enrolment; the reason for this is explained by the qualitative interviews which suggest that information about the CBHI schemes was in general difficult to obtain. Furthermore, chapter 4 found that participation in awareness raising / information dissemination and being informed of mechanisms of controlling abuse / fraud were determinants of remaining enrolled. In other literature (Ridde et al. 2010) a lack of information is given by the target population as a reason for not joining the scheme. These results demonstrate that information flows are crucial to CBHI enrolment.

Trust

A previous Chinese study on CBHI (Zhang et al. 2006) found that willingness to join CBHI is positively correlated with increased general trust (i.e. general trust in institutions, in neighbours etc.). The PhD looked at actual enrolment rather than willingness to enrol and found that, in contrast to the Chinese study, a lack of general trust was not a barrier to enrolment (chapter 3). As well as studying general trust, the PhD also measured specific trust in the scheme management and/or scheme president. This was found to be a statistically significant determinant of drop-out: while nearly 70% of scheme members reported that the scheme managers or leaders were trustworthy, only around one third of ex-members did so (chapter 4). This suggests that the stakeholders' concerns with building trust in order to retain or increase CBHI membership levels identified in chapter 5 were well-founded; it also suggests that the current mechanisms employed by CBHI leaders were insufficient.

Solidarity

Chapter 5 reveals that many of the stakeholders in the three case studies viewed CBHI to be a solidarity mechanism, due to the potential cross-subsidisation of resources from healthy to sick people. They believed that this solidarity should be an important motivating factor for people to enrol in CBHI (chapter 5). A study in Guinea-Conarky demonstrating that scheme members understand and approve of the re-distributive effects of CBHI (Criel and Waelkens 2003) supports this view. Other studies have also suggested emphasizing the solidarity benefits of health insurance in

information disseminated to communities in order to increase enrolment (Desmet, Chowdhury, and Islam 1999, Schneider 2005). As argued in chapter 5, this ostensibly resonates with the ethos of solidarity that is deeply rooted in social health insurance in western Europe (Saltman 2004) and its nineteenth century antecedent, mutual aid societies, on which the model of CBHI in West Africa is based (Criel and Van Dormael 1999). Chapters 3 and 4 offer the possibility of understanding whether the target population subscribed to stakeholders' perceptions of solidarity. The results relating to this question are quite complex. CBHI members were more than two times as likely to perceive their community to have solidarity (measured by the belief that everyone would cooperate to solve a common problem) than non-members (chapter 3). Current members also reported having more solidarity than ex-members in relation to their views on whether the scheme should cover poorer households, being more likely to agree that: members of the scheme should sponsor families who are very poor; members should support families who are very poor by increasing the amount of their contribution; and families who are very poor should be members of the scheme without paying (chapter 4). These results suggest that people who report having greater levels of solidarity were more likely to enrol in and remain enrolled in CBHI.

As mentioned in chapter 3, the sociologist Durkheim's (1984) theory of solidarity can help interpret these results. Durkheim proposed that while kinship networks are the most fundamental and universal solidarity mechanism, solidarity changes as a society becomes more complex. In traditional societies, solidarity is based mainly on shared identity, social sanctions and authority of the collective and is typically organized around kinship affiliations (this is termed "mechanical solidarity" by Durkheim). In larger more complex industrialised societies, solidarity is instead based on integration of specialized economic and political organizations and emphasises equality among individuals, social interdependence and modern legal structures such as civil, commercial law (termed "organic solidarity" by Durkheim). CBHI has emerged in the context of a general increase in numbers of community associations in Senegal (Bernard et al. 2008), a trend which is arguably indicative of the social transition described by Durkheim. Indeed, studies of poor urban populations in Senegal find that high levels of social and cultural heterogeneity caused by large flows of rural to urban migration have resulted in a plethora of

associations emerging to replace traditional social safety nets (Niang 2000). These included ROSCAs (rotating credit associations) (Sorensen 2000) and *dahiras* (prayer groups which formed part of the Muslim brotherhoods) which primarily had a spiritual purpose but also bring many economic and political advantages to their members (Mbacke and Hunwick 2005, Niang 2000). The PhD results suggest that the more individuals experienced and presumably benefited from this type of modern associational "organic" solidarity, the more they were willing and able to invest in CBHI which was a similar solidarity structure, supporting Bourdieu's theory that people with existing social capital are in a relatively good position to accumulate more of it.

However, there were important limitations to the solidarity represented by CBHI. In practice, stakeholders' fears that the target population lacked solidarity in terms of the willingness of healthy people to cross-subsidise the sick seem to have been well-founded: in chapter 4, current member households were twice as likely to have had an illness, accident or injury, and nearly twice as likely to have a disability, than ex-member households. This supports stakeholders' observation that if households felt they did not sufficiently "benefit" from CBHI (by making an insurance claim), they dropped out of the scheme.

Further undermining the idea that CBHI is a solidarity mechanism is the result in chapter 4 that less than half of all current and ex-members of all three schemes state they believe "solidarity" is an advantage of the scheme (there are no significant differences between current and ex-members in terms of holding this view). A reason for this may be that cross subsidisation from wealthy to poor ("vertical equity") (Oliver and Mossialos 2004) was not realised in any of the schemes as there was a flat rate premium regardless of the household's wealth and there were no subsidies to cover the poor.

In sum, many stakeholders seemed to have expectations of solidarity that were in general not met by the target population in terms of the willingness of healthy people to cross-subsidise the sick through CBHI. There was general consensus among the target population and many stakeholders about the need for subsidies, which is arguably broadly commensurate with the desire to enhance vertical equity in CBHI.

However, unfortunately this desire had also not been realised in practice, as no subsidies had been secured. This suggests that in practice CBHI was not a coherent solidarity mechanism. Addressing this deficiency was necessary in order to increase enrolment and reduce drop-out.

The role of social networks at the micro level in CBHI

This sub-section discusses the channels that had (or had not) been established for the transmission of information, trust and solidarity in CBHI at the micro-level. This can be thought of as "structural" social capital (Uphoff 1999).

In the literature, proponents of CBHI recognise that the "smallness" of CBHI is a disadvantage in terms of risk pooling, but anticipate that supposed advantages of "smallness", such as full information, trust and solidarity, will compensate for this (Davies and Carrin 2001, Zweifel 2004, Pauly 2007, Zhang et al. 2006). The results of the PhD, however, suggest that the anticipated advantages of "smallness" are often not apparent in practice and where they are apparent, they do not seem to widely benefit CBHI in terms of translating into high levels of enrolment and low levels of drop-out. There were several reasons for this. Firstly, typically CBHI schemes were not "small" in the way that proponents envisage. Despite the fact that all three CBHI schemes were small in size, with the number of current members ranging from 130 to 280 households, only around 40% of current members across all three schemes reported knowing more than 50% of the members of their scheme. Even the scheme leaders were not widely known by the members of the scheme (chapter 4). As a result, the leaders were not in a position to build on bonding and bridging social capital by exploiting informal social relationships in order to exchange information and mobilise solidarity vis-à-vis the target population. In all three schemes there were important barriers to leaders interacting regularly with the target population, which were caused by voluntarism (chapter 5) and low levels of active participation of the target population in CBHI (chapter 4). It is important to note that these barriers were related to a lack of financial resources, suggesting that CBHI leaders needed economic capital in order to mobilise social capital in the context of CBHI. This supports the argument made by Bourdieu that the different forms of capital are

fungible, and that individuals who already possess one type of capital are more adept at accumulating another (Bourdieu 1986).

Secondly, even when the supposed advantages of "smallness" were partially achieved, they were unequally distributed in the community. Chapter 3 reveals that although there were on aggregate high levels of social capital in the target population (illustrated for example by a high proportion of households with associational membership or with privileged social relations among both members and non-members of CBHI), the target population was not socially homogenous, meaning that a sizeable minority of households did not have social capital (for example they had no associational membership or privileged social relations). Such social inequalities seemed to determine enrolment in CBHI, even when controlling for levels of household wealth and expenditure. Therefore, members of CBHI were not only wealthier than non-members, but they were more likely than non-members to have high levels of bonding and bridging social capital. Crucially, members of CBHI also seemed to have greater social power than non-members, pointing to serious social inequity in CBHI enrolment patterns. The wider development literature on the determinants of participation in community organizations in sub-Saharan Africa and elsewhere also finds that an existing social network is a precondition of enrolment (Weinberger and Jutting 2001). Furthermore, while there do not seem to be inequalities in wealth between members and ex-members, the results of chapter 4 suggest that the benefits of active participation in CBHI such as increased access to information about CBHI and trust of CBHI leaders may be skewed towards those who already have high levels of social capital. The findings of chapter 3 and 4 support Bourdieu's theory of social capital (Bourdieu 1986), as discussed above, which argues that those who already hold forms of capital are strategically adept at accumulating and transforming it, thereby reinforcing existing power structures in society. However, proponents of CBHI have failed to consider issues of power and domination at the local level and the implications of this for equity in financial protection.

Thirdly, again when the supposed advantages of "smallness" were partially achieved, this was insufficient to increase enrolment and reduce drop-out. This is illustrated by the case of WAW which had built on existing bonding and bridging social capital

through integration into an existing network of women's associations. However, as with the other schemes, WAW had not managed to enrol large numbers or to prevent drop-out. This might be explained by Woolcock's (Woolcock 1998, p. 186) argument that "all four dimensions (of social capital) must be present for optimal developmental outcomes. This successful interaction within and between bottom-up and top-down initiatives is the cumulative product of an ongoing process that entails "getting the social relations right"". It is possible that the supposed advantages of "smallness" (i.e. building on micro level social capital) were not realised in WAW due to a lack of social capital at the macro level. In order to investigate this, the next sub-section considers whether an analysis of social capital at the macro level may further contribute to understanding the determinants of low levels of enrolment and high drop-out in CBHI.

6.2.2 The role of macro level social capital in determining enrolment and drop out in CBHI

This section discusses the relationships between CBHI schemes and other organisations / institutions. The main institutional relationships analysed in the PhD research (chapter 5) are (a) between CBHI schemes (through regional federations) and (b) between CBHI schemes and health care providers and local government. Analysing social capital at the macro level brings to light mechanisms needed for scaling up CBHI by counteracting the negative implications of "smallness"; these have typically been overlooked by economic and traditional health systems analyses. As in the previous section, information, trust and solidarity are discussed first; there then follows a discussion of structural relationships between the various actors.

The role of information, trust and solidarity at the macro level in CBHI

Information

Chapter 5 points to an important blockage in information flow at the macro level, which seemed to prevent the expansion of CBHI coverage. The CBHI schemes wanted to subsidise premiums by raising funds from local government. However, no local governments had provided subsidies at the time of the research. Different stakeholders had different explanations for this. These explanations included: insufficient funds held by local government; the lack of political capital to be gained

from supporting CBHI; the values embodied by CBHI (solidarity, trust, voluntarism and poverty alleviation) were not upheld by politicians; and the absence of a decree to give legal recognition to CBHI schemes. It was unclear whether any of these explanations was accurate. Certainly, there was a need for information to clarify whether (a) CBHI schemes were legally eligible for subsidies and (b) funds were available. In the absence of this information, CBHI leaders' response was to persevere with or escalate their struggle to access political power through lobbying and electioneering.

Trust

Several stakeholders suggested that the reason Ndondol and WAW had not been able to contract hospitals was the lack of trust hospital managers and directors had in CBHI schemes' financial sustainability and financial management. In contrast, Soppante had managed to secure a contract, by engaging the hospital leadership through a social movement dynamic (chapter 5).

Another important area in which a lack of trust undermined CBHI was scheme leaders' mistrust of local politicians who were the potential source of subsidies but were feared to be predatory and corrupt (chapter 5).

Solidarity

Many stakeholders in CBHI described themselves as "mutualists" and claimed they were part of a "mutualist movement". This was particularly the case in the Soppante scheme (chapter 5). Mutualists said they shared the same values; central among these values was solidarity. The mutualists' shared vision acted as a social glue which held together a diverse range of actors representing donors, health care providers and others who promoted CBHI schemes through their everyday paid, professional work and also through voluntary activities.

However, as discussed above, chapters 4 and 5 suggest there was a disjuncture in the discourse around solidarity in CBHI. Stakeholders expected healthy people who rarely or never used health services to remain enrolled in the CBHI scheme as a form of solidarity (chapter 5), while in practice this often did not occur and people

dropped out of CBHI if they did not need to use health services (chapter 4). Furthermore, around 75% of members and ex-members did not agree that solidarity was an advantage of CBHI (chapter 4). This disjuncture arguably weakened the social movement dynamic in CBHI.

The role of social networks at the macro level in CBHI

The networks of relationships between CBHI scheme leaders and other institutional stakeholders facilitated the transmission of information and values which underpinned formal technical processes such as contracting or financing.

Federations

Soppante, Ndondol and WAW respectively were members of three different regional federations of CBHI schemes. The Thies regional federation, of which the Soppante scheme was a member, was particularly successful and had contracted two hospitals (chapter 5). In contrast, the other regional federations were not very active and had not managed to attain this important achievement. The relationship between federations and hospitals is discussed further below.

WAW was also a member of the CCDGR, a federation of local NGOs working in a variety of development sectors in addition to health (e.g. education, water and sanitation and income generation) (chapter 5). Integrating CBHI into a broader local developmental agenda strengthened the CBHI scheme; leaders of the different NGOs in the federation advised each other on good management practices, lobbied together for subsidies, developed joined-up local developmental policies and joined together in forming a local political party (see below). The experience of WAW echoes the findings of the development literature on federations. Bebbington and Carroll (2000) find that federations in various low income countries had the potential to foster regional and more strategic forms of collective action and engagement with government, civil society, and markets, and to build sustainable bridges between different types of organizations.

Local government

In Senegal, political decentralisation made local government a potentially important player in the development of CBHI. As discussed, many stakeholders believed that segments of the target population were too poor to pay the CBHI premium and hoped that CBHI schemes would be able to attract subsidies from local government (chapter 5). The social capital literature suggests that an engagement with civil society or the private sector in the form of day-to-day interactions of government officials can build its own positive norms and loyalties which can be conducive to development, a process termed "embeddedness" (Evans 1996) (chapter 2). The leaders of all three schemes had started to get actively involved in politics; this could be seen as an attempt to achieve this type of "embeddedness". However, a stakeholder expressed concerns about the entry of CBHI leaders into politics, fearing that the CBHI leaders would not be strong enough to resist the corrupting influence of political power (chapter 5). In Woolcock's conceptual framework of social capital (chapter 3), it is recognised that "embeddedness" can potentially be a vehicle for corruption and nepotism; it is argued that a professional ethos committed to pursuing collective goals, fostered by social relations between individual representatives of institutions, a form of bonding social capital at the macro level, is needed to facilitate positive state/civil society bridging relations (Evans 1996). However, critics of this theory point out that since coherent robust bureaucracies rarely exist in low-income countries, the advocacy for state/civil society bridging social capital is misguided (Harriss 2002). The PhD research cannot shed light on this debate, as the fieldwork took place at an early stage in the process of CBHI leaders' engagement with local politics: none of the CBHI leaders had gained political office and no subsidies had been secured. Also, the PhD research did not include an analysis of the robustness of local political institutions (macro level bonding social capital) making it difficult to predict the likely impact of corruption in local politics on CBHI. Therefore, it is difficult to evaluate whether an engagement with local politics was likely to be positive or negative for CBHI.

Health care providers

Although the MoH had developed a policy which encouraged hospitals to contract with CBHI schemes, many hospitals were reluctant to do so. As mentioned, Soppante

was the only CBHI which had managed to contract hospitals. The contract was secured via a regional federation of CBHI schemes. Federations were needed for contracting as they provided a governance structure, sizeable financial reserves, and a social movement dynamic based on shared values of solidarity and voluntarism, all of which served to inspire trust in hospital directors and managers and to strengthen CBHI schemes' negotiating power. There was a general perception among stakeholders that CBHI schemes acting alone (independently of a federation) were unable to achieve hospital contracts. This suggests that social capital may play as important a role as the technical aspects of contracting between insurers and providers. Contracting is crucial not only to expand the benefit package but also to negotiating reduced prices and including clauses regarding the quality of care (termed "strategic purchasing") (Ranson, Sinha, Gandhi, et al. 2006).

Summary of integrative discussion

In sum, it seems that bridging social capital was a mechanism by which CBHI scheme leaders were potentially able to engage politicians and health service providers in order to prepare the ground for and strengthen formal contractual modes of engagement. The leaders of the three schemes had different strengths in terms of developing bridging social capital, but none of them had been wholly successful; this partly accounts for their lack of success in creating the conditions needed to scale up CBHI; namely subsidies and coverage of hospital services. Subsidies were needed to directly increase enrolment by funding CBHI premiums for the poor. Subsidies were also needed to redress the limitations of "smallness" of CBHI at the micro level by funding (a) active participation of CBHI members, especially people with low levels of social capital, and (b) strong federations which could enhance trust in the population through improved governance. These findings suggest that scaling up CBHI was only likely to be viable with the development of strong macro level institutions which provided or facilitated subsidies and governance.

6.3 Strengths and limitations of the research and future research directions

There are several limitations of the research which are already discussed in the individual papers. These include the small sample size and "random route" methodology in the household survey; the possibility that the social capital variables

are picking up the effect of other omitted variables; the cross-sectional and non-experimental study design and resulting difficulty of attributing causality and the direction of causality; and the small number of case studies.

There are additional limitations of the PhD which also ought to be mentioned, as well as possible future research directions which could be developed to address them. One set of limitations relates to the possibility of alternative explanations for low enrolment that were not covered by the research. Since the research mostly employed a deductive approach (reviewing the literature, developing and testing a hypothesis), the research questions focused on a specific topic – social capital. In general, the results presented in the PhD support the hypothesis that increased bridging social capital at all levels of CBHI helps to increase enrolment in CBHI, but the benefits of this dynamic are likely to be unequally distributed and to favour individuals and groups who already hold other forms of capital and social power. Studies of social capital and community development have presented similar findings (Njuki et al. 2008, Campbell 2003, Titeca and Vervisch 2008, Weinberger and Jutting 2001, Porter and Lyon 2006, Adhikari and Goldey 2010, Cleaver 2005), supporting the validity of the study. Furthermore, this study is more robust that previous studies since it combines comparative case studies, quantitative and qualitative data, a focus on bonding and bridging social capital as well as positive and negative social capital, and analysis of the micro and macro level in one study; the previous studies have incorporated some, but never all, of these elements in order to understand the determinants of enrolment in groups. However, it is possible that using a more inductive approach would have brought other topics and themes to light. A mitigating factor against the deductive design of the overall research project was the use of open-ended interviews with stakeholders and the inductive approach to the coding of these interview transcripts. This gave rise to the possibility of issues affecting enrolment to emerge that did not relate to the specific hypotheses tested. Nevertheless, future research into CBHI would benefit from adopting a more inductive approach overall, by employing ethnography for example, in order to allow a broader set of determinants to come to light.

It is worth considering some of the other possible determinants of enrolment that were not covered. Among these there may be some determinants which fall within

the scope of social capital theory and some which fall outside of that scope. Caste is an important topic which could potentially be studied from the perspective of social capital but was not included in the research. As discussed in Chapter 1, caste in Senegal is a source of discrimination. As such it is possible that caste prevented some people from enrolling in the CBHI schemes. However, caste is a highly sensitive and taboo topic which has been hardly studied in Senegal. It was not mentioned by the interviewees and it was felt that the issue was too complex to tackle in the research. The two other main types of capital identified by Bourdieu, cultural and symbolic capital, were also not studied. Furthermore, as discussed, the final type of social capital in Woolcock's framework, bonding social capital in political institutions at the macro level (defined as horizontal ties within institutions and a professional ethos committed to pursuing collective goals, fostered by a social relations between individual representatives of institutions) was not studied, although possible corruption of politicians was mentioned by stakeholders. These issues may also have affected enrolment, but were beyond the scope of the research. There also may have been specific beliefs, values and norms other than trust and solidarity which are transmitted through social networks in the specific context studied and may have affected CBHI enrolment. For example, one potentially relevant set of beliefs relates to the efficacy of allopathic health care. In order to perceive the benefits of CBHI, a pre-requisite is that the target population believes in the efficacy of allopathic medicine and is in principle willing to access these services. However, traditional medicine is widely practised in Senegal (Fassin and Fassin 1988). This issue was studied in chapter 4 but not in-depth. The household survey revealed that many members of CBHI held a duality of beliefs (i.e. valuing both allopathic and traditional medicine), since in all schemes, around 50% of current and ex-members of CBHI had used traditional medicine in the last month. These figures suggest that beliefs about the lack of efficacy of allopathic health care were not a significant determinant of drop-out in the schemes. Similarly, the results of the qualitative interviews do not point to this as a barrier to enrolment. Another belief which may have affected enrolment is fatalism. It is possible that in a highly religious country like Senegal, it may be believed that purchasing insurance to protect oneself from the financial risk of future ill health is pointless, since the outcome of ill health is ultimately pre-determined and/or in the hands of God. However, the household survey did not cover this topic and the qualitative interviews did not find evidence of

fatalism in the target population, although there were no specific questions in the interview topic guides about this subject.

There are also potential explanatory factors which fall outside of social capital theory. In particular, health systems and economics approaches which are more commonly used in CBHI research (as discussed in chapter 2) are needed to evaluate the impact of CBHI, such as: whether in practice the schemes were successful in improving financial protection from the cost of ill health (i.e. whether CBHI members had lower levels of out-of-pocket expenditure than non-members); whether CBHI improved people's access to needed health care; and whether the schemes had managed to improve health service quality by purchasing health services strategically. Understanding the impact of CBHI is important, since if the CBHI schemes provided little or no benefit to their members, this may explain the low levels of enrolment. Furthermore, national level policymaking was not studied directly, although stakeholders interviewed at the local level did mention some of its limitations. The issue of national level policy is discussed briefly below.

Another potential limitation of the study relates to Ben Fine's argument that the concept of social capital is flawed due to its underlying methodological individualism (Fine 2010). Social capital theory is based on the premise that social phenomena are the result of individual action. It adopts a Weberian view of institutions which are seen as "collectivities (which) must be treated as solely the resultants and modes of organization of the particular acts of individual persons, since these alone can be treated as agents in a course of subjectively understandable action" (Weber et al. 1968, p. 13). Fine's main accusation is that Coleman and Putnam, as well as the social capital studies inspired by them, employ methodological individualism in order to propose rational choice theory as the primary explanation for social phenomena, thereby ignoring social structures such as hierarchies and class. Measures of "collective" social capital, such as the number of social clubs present in a given community, and "individual" social capital, such as the number of social clubs an individual belongs to, both take as their foundation the principle of methodological individualism and rational choice, as it is assumed that this social capital is a product of the actions of individuals consciously seeking to attain certain productive goals, and structural social constraints on this individual

action are not considered. However, while this PhD does employ methodological individualism, it does not adopt rational choice theory as its underlying premise. Rather, as discussed (chapter 2), the PhD takes Woolcock's conceptual framework of social capital as its main influence for developing research questions and for organising and interpreting the results of the fieldwork. Woolcock's framework draws heavily on the work of Portes, an economic sociologist who does employ methodological individualism but is not a rational choice theorist. Portes' (and subsequently Woolcock's) interpretation of social capital theory seeks to study the impact of social and cultural relations, power and unintended consequences of individual rational action on economic outcomes (chapter 2) (Portes 2010). By adopting Portes and Woolcock's view of social capital, the PhD challenges Fine's critique that social capital studies are informed by rational choice theory.

Portes' work is greatly influenced by Pierre Bourdieu (Bourdieu also employed methodological individualism but not rational choice theory). The PhD, in turn, is also informed by Bourdieu, in particular the theory that different types of capital are fungible and a source of social power (Bourdieu 1986) (chapter 2). However, the PhD research only partially explores Bourdieu's theory, as it only focuses only two of the four types of capital (social and economic capital are studied, but cultural and symbolic capital are not) and only tentatively explores fungibility and the relationship between capitals and power. The fungibility of social and economic capital is explored in chapter 3 which finds that people with increased social capital are more likely to purchase a CBHI premium (as a form of financial protection from the cost of ill health, CBHI is interpreted to be a potential source of economic capital). Additionally, chapter 4 suggests that people with increased social capital are more likely to remain enrolled in CBHI and that membership of CBHI may also increase peoples' social capital through active participation (e.g. attending training or meetings). However, since the results in chapters 3 and 4 demonstrate correlation rather than causal relationships, they only tentatively point to the fungibility of social and economic capital and reasons for this fungibility (e.g. it is tentatively argued that social capital may increase the likelihood of enrolling and remaining enrolled in CBHI by providing people with access to information). Furthermore, while chapter 3 suggests that social capital determines membership of CBHI, chapter 4 raises the possibility that the opposite is also true, as being a member of CBHI may increase

social capital, albeit only for the minority of members who actively participate in the scheme. Again, the study design did not permit exploration of these cyclical processes. The theory that social and economic capital are a source of social power is tentatively illustrated by chapter 3 which finds that CBHI members are more likely to have increased levels of social power compared to non-members. However, causal links between increased social and economic capital and increased social power in the contexts studied are not explored. Chapter 5, on the other hand, is able to provide some insights into how and why increased social capital potentially translates into social power, and how and why this social power potentially increases economic capital. The chapter finds that CBHI scheme leaders attempted to mobilise social capital (represented as values inherent in social networks) in order to develop social power (through participation in social movements and engagement in local politics), which in turn was used as a strategy to gain economic capital (i.e. local government subsidies). The chapter points to limitations at each of these steps (e.g. inconsistent and contradictory values; weak social movements and conflicts in local politics) that may explain CBHI leaders' inability to increase their economic capital (represented by the lack of subsidies). However, from the perspective of Bourdieu's theory, these explanations are only partial and tentative. A more comprehensive study of the ways in which social, economic, cultural and symbolic capital are transformed into each other and how this relates to social power in the context of CBHI in Senegal would have required intensive research into local cultural and social life, through ethnography or through longitudinal quantitative studies for example, that was beyond the scope of the PhD. Future research in this vein would be useful in order to better understand how the different types of capital interact with each other and are transformed into social power and social class, and how this in turn affects enrolment in CBHI.

In sum, it seems that employing case studies, a household survey and qualitative interviews in a cross-sectional deductive research design, as was done in the PhD, can produce meaningful results about the relationship between the causes of low CBHI enrolment and social capital which resonate with and build on the findings of other studies from various areas of research in international development, and broader social theory. The results of this study apply to the three schemes studied, but it is likely that other CBHI schemes in Senegal, perhaps West Africa and even

more widely face similar difficulties. More research is needed to understand if this is the case. It is also possible that these findings may be relevant to other types of health insurance schemes and other types of groups and associations which are currently being implemented by development projects in low income contexts. Again, more research is needed to assess whether this might be the case. However, any future research in this field would benefit from an inductive research design which also includes ethnography and longitudinal surveys to strengthen and enrich the results, if sufficient resources are available.

6.4 Policy implications

Social capital theory has been critiqued as a rationale for development agencies to conduct social engineering (Fine 2001). It is accused of broadening the scope of justifiable intervention from the economic to the social, in order to rectify market imperfections in order, in turn, to ensure that market-oriented policies are successful, whilst obscuring a critique of those policies (Fine 2001). CBHI, as a form of private, voluntary health insurance, is a market-oriented policy, but this PhD does not aim to build a case for, or against, social interventions to ensure it is successful. Rather, as outlined in Chapter 1, the PhD aims to demonstrate the potential utility of social capital research in unpacking complex social relationships in CBHI and making their importance to policy and programming intelligible. The evidence could be used support policies to scale up CBHI; some suggestions are made below. However it should be noted that the main objective of the PhD was not to develop CBHI policy, but rather to study the role of social capital in CBHI. As such, only specific policy recommendations flowing from the research conducted on social capital are proposed. Broader policies for operationalising CBHI are not discussed as they fall outside of the scope of the PhD. Broadly, the scenario proposed is one of voluntary enrolment of the population into multiple small community-based schemes which are staffed by remunerated workers and governed by federations of CBHI schemes which pool financial resources, conduct joint purchasing of hospital (but not primary) services, provide governance, support social movements which promote values underpinning CBHI and engage with local government. Funding would be provided both by the population through premiums and by local government through subsidies; the government would as a result need to take a stronger regulatory role.

However, echoing critical analyses of other market-oriented health sector reforms (Bennett, McPake, and Mills 1997), it is recognised that the evidence could also be interpreted in such a way so as to conclude that policies to improve CBHI would require local institutions to develop new capacities such that the market-oriented reforms become more demanding on these local institutions than alternative, public sector policies.

The following sections present policy implications of the PhD at the micro and macro level. These may be of interest to the three CBHI schemes studied, other CBHI schemes, federations of CBHI schemes, international organisations providing technical assistance to CBHI schemes, and local and national governments seeking to promote CBHI, in Senegal and possibly in other countries pursuing a policy of CBHI.

Policy implications at the micro level: build mechanisms to increase bonding and bridging social capital between the staff of CBHI schemes and the target population

Given the challenges outlined in section 6.2, the scheme staff needed to achieve the following objectives, which together can be thought of as increasing bonding and bridging social capital among the scheme staff (both leaders and local staff) and the target population:

- facilitate the flow of information between the target population, local scheme staff and scheme leaders,
- systematically develop a more trusting relationship with the target population,
- and facilitate an on-going dialogue with the target population on the values and norms underpinning the scheme.

The following mechanisms could be considered for achieving these goals:

Mechanisms affecting scheme leaders

- Create a stronger and better resourced central administration of schemes. In particular, the leaders needed to be paid a salary. However, there was a need to develop a strategy which was reliably financed (see discussion on subsidies

below) and would remunerate CBHI scheme staff while retaining the "spirit" of voluntarism which was a motivational factor (chapter 5).

- Encourage members to elect leaders with wide social networks.
- Introduce incentives to generate increased active participation of members in the scheme, particularly among those with low social capital.

Since the schemes did not generate sufficient revenue to finance any of these activities, external sources of funding were needed (see below).

Mechanisms affecting local scheme staff

There was a need to develop strategies to mobilise existing social capital at the grassroots level through the recruitment of local staff members. There was a need to build the capacity of local staff by providing:

- appropriate financial incentives,
- resources to hold local meetings and marketing of CBHI,
- and training in financial management, leadership, social networks, communication, community development and community participation.

In terms of enrolling new members into the CBHI schemes and retaining members, local staff needed to:

- identify ways of systematically enrolling people en mass, for example by utilising social networks and associations,
- at the same time identify ways of enrolling households with low levels of economic and social capital,
- collect premiums by integrating payment into an existing community-level payment systems,
- reduce drop-out by creating more opportunities for more active participation.

The GMS system of women's income generation groups in WAW (chapter 5) provides an example of such a strategy. A similar model could be explored with other community organisations, unions, collectives, Muslim brotherhoods, extended

families (these could be very large) and so on, as well as schools and any informal professional group that might already collect fees, such as taxi drivers and market sellers. However, following this model, CBHI schemes could become vulnerable to the internal politics and power struggles of existing associations. Furthermore, crucially, as there was already a tendency for households with more economic and social capital and social power to have a higher level of enrolment (chapter 3), this model was likely to reinforce this tendency, increasing the exclusion of socially marginalised groups and inequity in the scheme. Similarly, chapter 5 suggests that if CBHI schemes uncritically fund and promote participation activities, individuals who are already more empowered or who already have higher levels of social capital may be more likely to access these resources and remain enrolled in the scheme, while others may be more likely to drop out. Funding this type of active participation could thereby indirectly further increase inequity in health coverage.

It was therefore important to develop a complementary strategy to engage households with low levels of economic and social capital in CBHI, in order to promote solidarity and equity in the schemes. In order to achieve this, the scheme staff needed to work with local communities in order to: identify socially excluded households in the community which had not enrolled in CBHI; develop an outreach mechanism for engaging these households and understanding the barriers to their enrolment in CBHI; and develop a way of implementing strategies to overcome the barriers identified, for example by subsidising premiums. Such a process is likely to be extremely challenging. Lessons could be learnt from other countries experimenting with such approaches, such as Ghana where policymakers and researchers are seeking to identify a mechanism for targeting subsidies to cover the premium of the National Health Insurance Scheme for indigents. Researchers have developed a qualitative participatory wealth ranking tool for the exploration of community concepts, identification and ranking of households into socioeconomic groups. The tool defines indicators of poverty according to themes related to type of employment, educational attainment of children, food availability, physical appearance, housing conditions, asset ownership, health seeking behaviour, social exclusion and marginalization (Aryeetey et al. 2013). A similar approach which incorporates social capital indicators could be developed by CBHI schemes in Senegal. However, as already mentioned, the schemes did not generate sufficient

revenue to finance such activities and provide subsidies; external sources of funding for subsidies were therefore needed.

On the other hand, as mentioned in chapter 5, government subsidies for CBHI are not necessarily a cost-effective approach to providing health services for the poor; it has been found in Cambodia and Lao that the same level of access for the poor could have been achieved with a lower subsidy if the subsidy was used as a direct reimbursement of user charges to the provider rather than through the CBHI scheme (Annear, Bigdeli, and Jacobs 2011), raising the question whether subsidising premiums of CBHI is advisable from an efficiency perspective. This question is however beyond the scope of the PhD.

Policy implications at the macro level: strengthen mechanisms to increase bridging social capital between the staff of CBHI schemes and other stakeholders

Federations (supra-communal organizations of the poor constituting a special manifestation of social capital) in low income countries have been found to have the potential to foster strategic forms of collective action and engagement with government, civil society, and markets, and to build sustainable bridges between different types of organizations (Bebbington and Carroll 2000). By developing bridges between political and economic organizations, successful federations were able to benefit from each other's strengths (Bebbington and Carroll 2000) (chapters 2 and 5). Among the case studies two types of federation were identified: specialist federations which brought together CBHI schemes only and intersectoral federations which brought together a wide variety of development organisations and projects (chapter 5). The results and the wider literature (Bebbington and Carroll 2000) suggest that the scaling up of CBHI was enhanced by both types of federations. Specialist federations were needed to:

- analyse common problems and best practices;
- develop a formal and accountable governance structure;
- monitor CBHI implementation;
- engage important stakeholders such as health service providers, local government and international donors;

- and collectively negotiate contracts with hospitals on behalf of all CBHI schemes in the federation.

CBHI schemes also needed to join federations of local NGOs working in a variety of development sectors in order to gain:

- new perspectives from diverse NGO leaders;
- strategic direction, such as identifying highly organised and strong social networks for enrolment and premium collection en mass, and socially excluded groups which may require extra support in terms of enrolment and subsidies;
- a social movement dynamic through collective action which challenges established power structures and promotes local social values;
- collective negotiating power in lobbying for subsidies;
- a formal and accountable governance structure which oversees the activities of the member NGOs;
- and a platform for NGO (including CBHI) leaders' political electoral campaigns which promote community development.

Taken together, the proposed reforms represent a formidable challenge for CBHI schemes; while each of the schemes studied had managed to build or strengthen some of these mechanisms for increasing social capital, much remained to be done both at the micro and macro levels. It is difficult to envisage CBHI schemes achieving these reforms without support from central government, particularly in terms of preventing corruption in local government and promoting transparency in CBHI policy. It remains to be seen whether the new government which continues to place CBHI at the centre of its health financing policy (Ministère de la Santé 2012) would be willing and able to provide this kind of support to the CBHI system. Furthermore, even if the schemes managed to successfully build social capital in the ways suggested, it is of course not guaranteed that this would result in local government subsidies, contracts with hospitals and ultimately increased enrolment and reduced drop-out. Again, increased central government intervention could help, for example by mandating certain aspects of CBHI policy such as enrolment, hospital

contracts or subsidies. Also of concern is the possibility that reforms to strengthen CBHI in Senegal by building social capital may not be cost-effective when compared to alternative supply-side policies for increasing financial protection. Indeed, it may be the case that the needed reforms would require local institutions to develop new capacities that are so demanding that alternative public sector policies (such as national social health insurance or stepped-up user fee removal) emerge as preferable alternatives. Answering questions regarding national level policy alternatives to CBHI in Senegal would, however, require further research that is beyond the scope of the PhD.

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Appendices

Table of Appendices

Appendix 1. Further details on the role of the MUCAPS project in the relation to the PhD

Details of the PhD author's role in the MUCAPS project and the relationship between the PhD and the project are explained below.

Hypotheses

The PhD hypothesis, *increased bridging social capital at all levels of CBHI helps to increase enrolment in CBHI, but the benefits of this dynamic are likely to be unequally distributed and to favour individuals and groups who already hold other forms of capital and social power,* is underpinned by the conceptual framework presented in Chapter 2. Chapter 2 was written by the PhD author before the MUCAPS project began; as such it was produced entirely independently of the project.

MUCAPS tested the following research hypotheses:

Hypothesis 1: The social capital of the community and the individual members of a CBHI scheme are major factors in the development of CBHI;

Hypothesis 2: Beyond its contribution to facilitate access to care, CBHI schemes produce social capital for members of CBHI schemes and the communities in which the schemes operate.

There are several important differences between the PhD and MUCAPS hypotheses. The MUCAPS hypotheses focus on the development of CBHI in general, while the PhD hypothesis is narrower, focusing on enrolment. The MUCAPS hypotheses view CBHI as a mechanism for producing social capital which benefits not only the scheme but also the wider community. As such, they were influenced by literature which argues that social capital might be an outcome of participatory development projects and that creating social capital through development is potentially beneficial for the sustainability of interventions (Turner 1999). In contrast, the PhD hypothesis focuses on structural barriers to obtaining social capital and the detrimental effects of

lacking social capital. In this sense, the PhD takes a more critical perspective than the MUCAPS hypotheses. Furthermore, the PhD hypothesis distinguishes between bonding and bridging social capital, whereas the MUCAPS hypotheses do not.

Design of research protocol and tools

MUCAPS and the PhD both employed the same research protocol (mixed-methods multiple case study design), sampling method (random sample of households and purposive and snowball samples of individuals for qualitative interviews) and research tools (household questionnaire and interview guides). The PhD author led on the design of these, with inputs from the project team, and both the MUCAPS hypotheses and the PhD hypothesis were incorporated. Details of the research methods are presented in the PhD empirical papers in chapters 3-5.

Data collection

The PhD draws on the data collected under the MUCAPS project. The following four types of data collection were conducted under the project: household survey, semi-structured interviews and focus groups with members, ex-members and non-members of CBHI; and stakeholder interviews. Data were collected by the PhD author, the project team and a team of 10 Senegalese professional quantitative and qualitative interviewers. The PhD author trained the interviewers and managed data collection on the ground, in partnership with the project team. The PhD author personally conducted 34 of the 64 stakeholder interviews.

The household survey data and stakeholder interview data are the primary data sources for the empirical chapters of the PhD (chapters 3, 4 and 5). Additionally, the semi-structured interview data are used as a supplementary data source in Chapter 3. The focus group data are not used in the PhD. All data are available on request.

Data analysis and writing up

The logistic regression analysis of the household survey data was done by the PhD author only and used only for the PhD (not for the MUCAPS project). The results are presented in chapters 3 and 4.

The stakeholder interview qualitative data were analysed by the PhD author only, using inductive coding, and used for the PhD and the MUCAPS project. The author received feedback on the coding from the project team in periodic meetings. The results are presented in chapter 5.

Due to the large volume of data, the coding of the member / non-member / ex member semi-structured interview and focus group qualitative data was done by a team of research assistants based at CREPOS in Senegal. Deductive coding was done using a coding frame collaboratively designed by the project team including the PhD author, based on the interview guides and the research questions. The results were used primarily for the MUCAPS project. However, the author drew on this analysis to identify quotations from the semi-structured interview data in order to triangulate and interpret the findings of the regressions in chapter 3. Further details on data analysis used in the PhD are provided in chapters 3-5. Drafting of the entire PhD was done solely by the PhD author.

Appendix 2: Household questionnaire (WAW case study)

ITM, Antwerp **CREPOS, Dakar** **LSE Health, London**

ENQUÊTE SUR LA CAPITAL SOCIAL DES MUTUELLES DE SANTE

République du Sénégal

(JUILLET 2009)

QUESTIONNAIRE MENAGE

** TYPES DE REPONDANT: ADHERENT, EX ADHERENT, NON ADHERENT **

IDENTIFICATION

NOM DE LA MUTUELLE……WER-AK-WERLE…….

NUMÉRO DU MENAGE | | | |

GMS ……

Quartier ……

TYPE DE MENAGE 'OFFICIEL' : 1= adhérent, 2= ex adhérent (ne pas a jour), 3= non adhérent | |

Statut du répondant _____

Nom du répondant _____

1. chef de ménage
2. conjoint
3. autre membre (à préciser)

DATE DE L'ENQUETE

Jour		
Mois		

HEURE DE DEBUT | | | | |

ENQUETEUR | | |

CONTROLEUR		SUPERVISEUR					
Numéro		Numéro					
Paraphe		Paraphe					
Jour		Jour					
mois		mois					

Bonjour, je m'appelle XXX.

Je mène une enquête sur la vie sociale et la santé dans votre communauté. Cette enquête est commanditée par CREPOS (Centre de Recherche sur les Politiques Sociales), Dakar ; ITM (Institut de Médecine Tropicale), Belgique ; et LSE (l'Ecole d'Economie Londres) ; en collaboration avec le Ministère de la Santé, La Coordination des Mutuelles de Santé de Thiès, et L'Union des Mutuelles de Santé de Dakar. Elle a pour objectif de connaître la vie sociale des populations afin d'améliorer l'accessibilité aux soins et santé.

SECTION 1 : CARACTERISTIQUE DU CHEF DE MENAGE

Numéro	Libellé de la question	REPONSES	ALLER A
	Avez-vous fréquenté l'école ou participé à un programme d'alphabétisation?	☐ oui ☐ non	 M104
	Quel est le plus haut niveau d'études que vous avez atteint : primaire, secondaire ou supérieur?	☐ ALPHABÉTISÉ ☐ PRIMAIRE ☐ SECONDAIRE 1ER CYCLE ☐ SECONDAIRE 2EME CYCLE ☐ SUPÉRIEUR ☐ AUTRE (PRÉCISER) _____	M103
	En quels langages êtes-vous été alphabétisé ? *Plusieurs réponses possibles*	☐ FRANÇAIS ☐ ARABE ☐ WOLOF ☐ POULAR ☐ SERER ☐ AUTRES LANGUES (PRÉCISER) _____	
	Quelle est votre religion ?	☐ MUSULMANS ☐ CHRETIENS ☐ RELIGION TRADITIONNELLE ☐ AUTRE RELIGION (PRÉCISER) _____	

Numéro	Libellé de la question	REPONSES	ALLER A
	Quelle est votre confrérie / confession ?	☐ MOURIDE ☐ TIDIANE ☐ KHADRE ☐ AUTRES MUSULMANS ☐ CATHOLIQUE ☐ PROTESTANT ☐ AUTRES CHRETIENS ☐ AUTRE (PRÉCISER) _____	
	Quelle est votre nationalité ?	☐ SÉNÉGALAISE ☐ AUTRE (PRÉCISER) _____	M108
	Quelle est votre ethnie ?	☐ WOLOF ☐ POULAR ☐ SÉRER ☐ MANDINGUE ☐ DIOLA ☐ SONINKÉ ☐ AUTRE (PRÉCISER) _____	
	Avez-vous actuellement une activité professionnelle ?	☐ Oui ☐ Non	M113
	Dans quel domaine exercez-vous votre activité principale ?	☐ Agriculture ☐ Elevage ☐ Pêche ☐ Commerce ☐ Industrie ☐ Administration ☐ Services (transport, restauration etc) ☐ AUTRE (PRÉCISER) _____	
	Quel est votre statut dans cette activité	☐ Propre compte ☐ Pour le compte de la famille ☐ Employé ☐ Pour un parent ☐ Apprenti	
	Quelle est la périodicité de votre activité ?	☐ Permanent ☐ Temporaire ☐ Occasionnel ☐ Autre (préciser)……	

<table>
<tr><th>Numéro</th><th>Libellé de la question</th><th>REPONSES</th><th>ALLER A</th></tr>
<tr><td></td><td>Avez-vous une activité annexe ?</td><td>☐ Non
☐ Agriculture
☐ Elevage
☐ Pêche
☐ Commerce
☐ Industrie
☐ Administration
☐ Services (transport, restauration etc)
☐ Autre (préciser) .....</td><td></td></tr>
<tr><td></td><td>Quelles sont les trois principales sources de revenus financiers de votre ménage par ordre d'importance?

Il faut ranger les rubriques selon l'importance de leur contribution dans la formation du revenu du ménage.</td><td><table><tr><th></th><th>Rang (1-3)</th></tr><tr><td>a. Agriculture</td><td></td></tr><tr><td>b. Elevage</td><td></td></tr><tr><td>c. Pêche/chasse</td><td></td></tr><tr><td>d. Commerce</td><td></td></tr><tr><td>e. Industrie/artisanat</td><td></td></tr><tr><td>f. Administration</td><td></td></tr><tr><td>g. Services (transport, restauration etc.)</td><td></td></tr><tr><td>h. Transfert d'argent</td><td></td></tr><tr><td>i. Pension</td><td></td></tr><tr><td>j. Crédit / emprunts</td><td></td></tr><tr><td>k. Autres</td><td></td></tr></table>(préciser)</td><td></td></tr>
<tr><td></td><td>Quel est en moyenne le montant du revenu mensuel du ménage ?</td><td>☐ Moins de 25.000 F
☐ 25.000 à 50.000 F
☐ 50.000 à 75.000 F
☐ 75.000 à 100.000 F
☐ 100.000 à 150.000 F
☐ Plus de 150.000 F
☐ Ne sait pas</td><td></td></tr>
</table>

SECTION 2 : CARACTERISTIQUES DES MEMBRES DU MENAGE

Inscrire les membres qui habitent ou dorment régulièrement dans le ménage pendant le dernier an, y inclus le répondant.

Numéro Ordre	Prénom et Nom	Statut dans le ménage	Sexe	Age	Résidence	Situation vis-à-vis de la mutuelle	Instruction (Personnes âgées de 10 ans et plus)	Handicap	**Maladie Chronique**	Maladie Récente	Perception
		1/Chef de ménage 2/ Conjoint/e 3/Fils ou fille 4/ Autre	**1/ Masculin** 2/ Féminin	**Quel est l'âge de..**	1 Résident permanant 2. Résident temporaire 3. Visiteur	**1. Actuellement bénéficiaire** 2. N'est plus bénéficiaire 3. N'a jamais été bénéficiaire 4. Pas concerné (visiteur)	**0/ Aucun** 1/alphabétisé 2/Primaire 3/secondaire 4/ Supérieur	Souffre d'un handicap 1/Oui 0/ Non	Souffre d'une maladie chronique 1/Oui 0/ Non	**A eu maladie, accident, blessure etc. au cours des 15 derniers jours** 1//Oui 0/ Non	Selon vous, quel est l'état de votre/sa santé ? 1/ Très bonne 2/Bonne 3/Moyenne 4/Mauvaise 5/ Très mauvaise

Numéro Ordre	Prénom et Nom	Statut dans le ménage	Sexe	Age	Résidence	Situation vis-à-vis de la mutuelle	Instruction (Personnes âgées de 10 ans et plus)	Handicap	**Maladie Chronique**	Maladie Récente	Perception
		1/Chef de ménage 2/ Conjoint/e 3/Fils ou fille 4/ Autre	1/ Masculin 2/ Féminin	Quel est l'âge de..	1 Résident permanant 2. Résident temporaire 3. Visiteur	1. Actuellement bénéficiaire 2. N'est plus bénéficiaire 3. N'a jamais été bénéficiaire 4. Pas concerné (visiteur)	0/ Aucun 1/alphabétisé 2/Primaire 3/secondaire 4/ Supérieur	Souffre d'un handicap 1/Oui 0/ Non	Souffre d'une maladie chronique 1/Oui 0/ Non	A eu maladie, accident, blessure etc. au cours des 15 derniers jours 1//Oui 0/ Non	Selon vous, quel est l'état de votre/sa santé ? 1/ Très bonne 2/Bonne 3/Moyenne 4/Mauvaise 5/ Très mauvaise

SECTION 3 : CARACTERISTIQUE DE L'HABITAT

Numéro	Libellé de la question	REPONSES	ALLER A
	Le type d'habitation du ménage est principalement :	☐ Paille ☐ Terre ☐ Ciment ☐ Autres (préciser)_____	
	Quelle est la principale source d'eau potable du ménage ?	ROBINET RACCORDÉ RÉSEAU OU FORAGE ☐ Dans la concession ☐ Extérieur de la concession Puits protégé ☐ Dans la concession ☐ Extérieur de la concession Puits non protégé ☐ Dans la concession ☐ Extérieur de la concession ☐ Rivière, fleuve, pluie ☐ Autre (préciser)_____	
	Quel mode principal d'éclairage est utilisé dans le ménage ?	☐ Électricité ☐ Gaz ☐ Pétrole ☐ Bougie ☐ Bois ☐ Autre (préciser)_____	
	Quelle énergie utilisez-vous principalement pour la cuisson ?	☐ Électricité ☐ Gaz ☐ Pétrole ☐ Bois ou charbon ☐ Autre (préciser)_____	
	Dans votre ménage y-a-t-il :	☐ Radio ☐ télévision ☐ téléphone ☐ réfrigérateur ☐ cuisinière ☐ Aucun	

Numéro	Libellé de la question	REPONSES	ALLER A
	Votre ménage possède t-il :	☐ Bicyclette ☐ mobylette ☐ Voiture ☐ Charrette ☐ Aucun	
	De combien dispose votre ménage pour chacun des biens suivants : Chevaux ? Bœufs ? ânes ? Porcs ? Moutons et chèvres ? SI AUCUN, ENREGISTRER « 000 ». SI NE SAIT PAS LE NOMBRE, ENREGISTRER « NSP ».	CHEVAUX ☐☐☐ BŒUFS ☐☐☐ ANES ☐☐☐ PORCS ☐☐☐ MOUTONS ET CHEVRES ☐☐☐ VOLAILLES ☐☐☐	

<table>
<tr><th>Numéro</th><th>Libellé de la question</th><th>REPONSES</th><th>ALLER A</th></tr>
<tr><td></td><td>Quels sont, par mois, les postes de dépenses et les montants par poste ?

SI AUCUN, ENREGISTRER « 00 ». SI NE SAIT PAS LE MONTANT, ENREGISTRER « NSP ».</td><td>
<table>
<tr><th></th><th>Montant dépensé (CFA)</th></tr>
<tr><td>Transport</td><td></td></tr>
<tr><td>Scolarité</td><td></td></tr>
<tr><td>Energie (électricité, gaz, bois, charbon, pétrole etc.)</td><td></td></tr>
<tr><td>Eau</td><td></td></tr>
<tr><td>Téléphone</td><td></td></tr>
<tr><td>Habits, cheveux</td><td></td></tr>
<tr><td>Santé</td><td></td></tr>
<tr><td>Nourriture</td><td></td></tr>
<tr><td>Transfert d’argent</td><td></td></tr>
<tr><td>Loyer</td><td></td></tr>
<tr><td>Cadeaux pour des événements sociaux (mariages, baptêmes etc.) (sinon par moi, dans le dernier mois)</td><td></td></tr>
<tr><td>Les groupes, associations</td><td></td></tr>
<tr><td>Taxes</td><td></td></tr>
<tr><td>Autres</td><td></td></tr>
</table>
</td><td></td></tr>
<tr><td></td><td>A combien estimez vous les dépenses mensuelles du ménage ?</td><td>Montant dépensé (CFA)
_____</td><td></td></tr>
</table>

SECTION 4: LE CAPITAL SOCIAL

<table>
<tr><th>Numéro</th><th>Libellé de la question</th><th>REPONSES</th><th>ALLER A</th></tr>
<tr><td></td><td>Les membres de votre ménage sont …</td><td>
<table>
<tr><td></td><td>1</td><td>2</td></tr>
<tr><td></td><td>Oui</td><td>Non</td></tr>
<tr><td>tous de la même ethnie</td><td>☐</td><td>☐</td></tr>
<tr><td>tous de la même religion</td><td>☐</td><td>☐</td></tr>
<tr><td>Autres différences</td><td>☐</td><td>☐</td></tr>
</table>
Préciser autres différences _____</td><td></td></tr>
<tr><td></td><td>Avez-vous des types de relations privilégiées avec d’autres personnes</td><td>☐ Oui
☐ Non</td><td></td></tr>
<tr><td></td><td>Précisez les formes de relations</td><td>
<table>
<tr><td></td><td>0</td><td>1-5</td><td>6-10</td><td>11-15</td><td>16 ou plus</td></tr>
<tr><td>Parrain / marraine</td><td>☐</td><td>☐</td><td>☐</td><td>☐</td><td>☐</td></tr>
<tr><td>Homonyme</td><td>☐</td><td>☐</td><td>☐</td><td>☐</td><td>☐</td></tr>
<tr><td>Njeuké</td><td>☐</td><td>☐</td><td>☐</td><td>☐</td><td>☐</td></tr>
<tr><td>Ndeye diké</td><td>☐</td><td>☐</td><td>☐</td><td>☐</td><td>☐</td></tr>
<tr><td>Sani jamra</td><td>☐</td><td>☐</td><td>☐</td><td>☐</td><td>☐</td></tr>
<tr><td>Autre (préciser)</td><td colspan="5"></td></tr>
</table>
</td><td></td></tr>
<tr><td></td><td>Êtes-vous membre d’une association (autre association que la mutuelle de santé)?</td><td>1 oui ☐
2 non ☐</td><td>M406</td></tr>
</table>

	De quel type d'association êtes-vous membre ? *Plusieurs réponses possibles*	☐ Coopérative de cultivateur, éleveur ou de pêcheur ☐ Groupement de promotion féminine (GPF) ☐ Groupe de commerçants, entrepreneurs, GIE ☐ Association professionnelle (médecins, enseignants, artisan, etc.) ☐ Syndicats ☐ Association de village (ex. tour, ressortissants de …) ☐ Groupe religieux (dahira, chorale, et autres) ☐ Groupe ou mouvement politique ☐ Groupe culturel (Arts, musique, théâtre) ☐ Groupement d'épargne et de crédit ou tontine ☐ Association pour l'éducation (parents d'élèves, autres comités scolaires) ☐ Association sportive (ex. ASC) ☐ Mouvement de jeunesse ☐ Association basée sur l'ethnie, la langue ou le lien familiale, tour de famille / génération, ndeye diké ☐ ONG ☐ Service civique ☐ Comité de quartier, village … ex. Eau, forage, santé, vigilance, etc. ☐Autres ……..…… ……. ……..…	
	Est-ce que les membres de votre ménage sont aussi membres d'associations (autre association que la mutuelle de santé)?	1 oui ☐ 2 non ☐ → 3 Ne sais pas ☐ →	M408

	De quel type d'association ? *Plusieurs réponses possibles*	☐ Coopérative de cultivateur, éleveur ou de pêcheur ☐ Groupement de promotion féminine (GPF) ☐ Groupe de commerçants, entrepreneurs, GIE ☐ Association professionnelle (médecins, enseignants, artisan, etc.) ☐ Syndicats ☐ Association de village (ex. tour, ressortissants de …) ☐ Groupe religieux (dahira, chorale, et autres) ☐ Groupe ou mouvement politique ☐ Groupe culturel (Arts, musique, théâtre) ☐ Groupement d'épargne et de crédit ou tontine ☐ Association pour l'éducation (parents d'élèves, autres comités scolaires) ☐ Association sportive (ex. ASC) ☐ Mouvement de jeunesse ☐ Association basée sur l'ethnie, la langue ou le lien familiale, tour de famille / génération, ndeye diké ☐ ONG ☐ Service civique ☐ Comité de quartier, village … ex. Eau, forage, santé, vigilance, etc. ☐ Autres …… …… …… …… ……	
	Est-ce que le nombre d'associations auxquelles vous avez adhéré (vous et les membres de votre ménage) a augmenté, est stable ou a diminué dans les 5 dernières années ?	☐ Augmenté ☐ Stable ☐ Diminué	
	Pouvez-vous estimer le nombre d'associations dans lesquelles vous et votre ménage êtes membres ? SI AUCUN, ENREGISTRER « 00 » ET	☐☐ →	M417

	De toutes ces associations dont vous ou les membres de votre ménage êtes membres (autre association que la mutuelle de santé), citez-en deux qui vous paraissent les plus bénéfiques pour votre ménage ? *[Enquêteur: écrire le nom des associations]*	Association A _____ Association B _____	
	Comment votre ménage est devenu membre de ces deux associations ?		

	Association	
Motivation à l'adhésion	A	B
Initiateur / membre fondateur	☐	☐
Natif/ve	☐	☐
Volontaire	☐	☐
Sollicité par d'autres personnes	☐	☐
Invité	☐	☐
6. Autre (spécifier) Association A _____ Association B _____		

	Lorsqu'il y a une décision à prendre dans ces deux associations, quel est le poids de votre ménage pour influencer la décision ?		

	Association	
	A	B
Jamais	☐	☐
Peu	☐	☐
Beaucoup	☐	☐

	Quelle est la fréquence de participation des membres de votre ménage aux activités de ces deux associations ?		

	Association	
	A	B
Rarement ou très occasionnellement	☐	☐
Parfois (mais au moins une fois par semaine)	☐	☐
Très souvent (plus de deux fois par semaine)	☐	☐

	Quelle est la contribution mensuelle de votre ménage dans ces deux associations (argent) ?		

	Association	
CFA	A	B
≤ 1.000	☐	☐
>1.000 - ≤5.000	☐	☐
>5.000- ≤10.000	☐	☐
>10.000 - ≤15.000	☐	☐
>15.000 - ≤ 20.000	☐	☐
Plus de 20.000	☐	☐

	Après votre adhésion à ces deux associations, quels sont les avantages que vous y avez trouvés ? *Plusieurs réponses possibles*			

	Association A	Association B
Avantage matériel (argent, nourriture, crédit, etc.)	☐	☐
Accès aux services	☐	☐
Important dans le futur, en cas d'urgence	☐	☐
Avantage pour toute la communauté	☐	☐
Loisir et activités récréatives	☐	☐
Spirituel	☐	☐
Statut social, réputation	☐	☐
8. Autres (spécifier) Association A _____ Association B _____		

	Qu'est-ce que vous avez en commun avec les membres de ces associations? *Plusieurs réponses possibles*			

	Association A	Association B
Voisins ou du même village	☐	☐
Même famille ou parents proches	☐	☐
Religion	☐	☐
Genre	☐	☐
Groupe d'âge	☐	☐
Ethnie ou langue	☐	☐
Caste	☐	☐
Niveau d'éducation	☐	☐
Profession	☐	☐
Affiliation politique	☐	☐
Statut économique	☐	☐
Autres (spécifier) Association A _____ Association B _____		

	Lorsqu'il y a un problème dans la communauté (par exemple l'accès à l'eau), est-il probable que tout le monde coopère pour résoudre le problème ?	☐ Pas du tout probable ☐ Très peu probable ☐ Probable ☐ Très probable		
	Prêteriez-vous de l'argent à votre voisin pour aller voir le docteur ?	☐ oui ☐ non		

	Au cours des 12 derniers mois, avez-vous emprunté de l'argent ou avez-vous une dette en cours ?	☐ oui ☐ non →	M422
	Pour quelles raisons aviez-vous emprunté cette somme ?		
	De qui aviez-vous emprunté cette somme ?	☐ famille proche ☐ parents ☐ amis ☐ membre d'une association ☐ usurier ☐ groupe de crédit (épargne/crédit) ☐ banque ☐ autre …… …….	

Transport	☐
Scolarité	☐
Energie (électricité, gaz, bois, charbon, pétrole etc.)	☐
Eau	☐
Téléphone	☐
Habits	☐
Santé	☐
Nourriture	☐
Transfert d'argent	☐
Initier ou renforcer une activité génératrice de revenus	☐
Autre (préciser)	

	En général, quel est votre degré d'accord avec les énoncés suivants ? 1 – PAS DU TOUT D'ACCORD 2 – PAS D'ACCORD 3 – NE SAIS PAS 4 – ASSEZ D'ACCORD 5 – TOUT À FAIT D'ACCORD		Pas d'accord→D'accord				
		Enoncés	1	2	3	4	5
		A. On peut faire confiance à des personnes d'autres groupes ethniques ou linguistiques.	☐	☐	☐	☐	☐
		B. On peut faire confiance aux étrangers	☐	☐	☐	☐	☐
		C. On peut faire confiance aux personnes d'autres religions / confréries / confessions	☐	☐	☐	☐	☐
		D. On peut faire confiance aux gouvernants locaux.	☐	☐	☐	☐	☐
		E. On peut faire confiance aux imams et prêtres.	☐	☐	☐	☐	☐
		F. On peut faire confiance aux chefs traditionnels.	☐	☐	☐	☐	☐
		G. On peut faire confiance aux enseignants.	☐	☐	☐	☐	☐
		H. On peut faire confiance au staff médical.	☐	☐	☐	☐	☐
		I. On peut faire confiance aux corps de sécurité (police, gendarmerie).	☐	☐	☐	☐	☐
		J. On peut faire confiance à la justice.	☐	☐	☐	☐	☐
		K. On peut faire confiance à mes amis et ma famille.	☐	☐	☐	☐	☐
		L. On peut faire confiance à la plupart des personnes vivant dans notre communauté.	☐	☐	☐	☐	☐
		M. On peut faire confiance aux personnes d'autres castes	☐	☐	☐	☐	☐

	En général, d'où recevez-vous les informations sur la politique ou la communauté ? *Plusieurs réponses possibles*		
		Parents, amis et voisins	☐
		Affiches	☐
		Marché local	☐
		Journal de la communauté ou local	☐
		Journaux nationaux	☐
		Radio	☐
		Télévision	☐
		Dans des groupes (arbre à palabres, puits, damier,) ou associations	☐
		Dans des lieux lies au travail	☐
		Groupes politiques	☐
		Chez les leaders locaux	☐
		Chez un fonctionnaire	☐
		Par les ONGS	☐
		Par Internet	☐

	Comment appréciez-vous votre proximité (relations) avec les personnes du village	☐ Très distant ☐ Assez distant ☐ Ne sais pas ☐ Assez proche ☐ Très proche	
	Combien de temps habitez vous dans le village / quartier ?	☐ 0-5 ans ☐ 6-10 ans ☐ 11-15 ans ☐ 16-20 ans ☐ Plus que 20 ans / toute la vie	
	Y a t-il des activités de la communauté auxquelles vous ne pouvez pas (n'êtes pas autorisé à) participer ?	☐ oui ☐ non, je peux participer à toutes ⟶	M428
	Si oui lesquelles ?	A_____ B_____ C_____	
	Comment appréciez-vous votre contrôle des décisions prises dans votre communauté ou par votre voisin et qui affecte votre vie quotidienne ?	☐ Pas de contrôle ☐ Contrôle très peu de décisions ☐ Ne sais pas ☐ Contrôle la plupart des décisions ☐ Contrôle toutes les décisions	
	Avez-vous voté aux dernières élections locales ?	☐ oui ☐ non	

SECTION 5: LA MUTUELLE DE SANTE

Numéro	LIBELLÉ DE LA QUESTION	REPONSES	**ALLER A**
	Quel est votre statut dans la mutuelle Wer-Ak-Werle?	☐ adhérent a la mutuelle ☐ ex- adhérent ☐ n'a jamais adhéré	→ M505 → M504
	Avez-vous déjà entendu parler de la mutuelle de santé Wer-Ak-Werle ?	☐ oui ☐ non	 SECTION 6
	Pourquoi n'avez-vous jamais adhéré à la mutuelle ? *Plusieurs réponses possibles*	☐ Pas assez d'information ☐ Cotisation trop chère ☐ Pas assez des ressources financières ☐ Services trop réduits ☐ Pas confiance de la gestion ☐ Pas confiance aux prestataires conventionnés ☐ Pas confiance aux autres bénéficiaires ☐ Période d'attente longue ☐ Pris en charge par ailleurs ☐ Autre	M518 ↓
	Depuis combien de temps vous n'êtes-plus adhérent à la mutuelle ? EN MOIS SI MOINS DE 2 ANS ET EN ANNÉES SI 2 ANS ET PLUS	mois…….1 ☐☐ années…….2 ☐☐	→ M506 *Questions en italiques*
	Payez-vous régulièrement les cotisations à la mutuelle ?	☐ TOUJOURS ☐ FRÉQUEMMENT ☐ RAREMENT	→ M507
	Pourquoi vous ne payez pas régulièrement les cotisations ? *Ex-Membre : Pourquoi vous avez arrêté de payer la cotisation ?* *Plusieurs réponses possibles*	☐ Cotisation trop chère ☐ Pas assez des ressources financières ☐ Services trop réduits ☐ Pas confiance de la gestion ☐ Pas confiance aux prestataires conventionnés ☐ Pas confiance aux autres bénéficiaires ☐ Période d'attente longue ☐ Pris en charge par ailleurs ☐ Autre	
	D'où provient l'argent avec lequel vous payez votre cotisation ? *Ex-Membre : D'où provenait l'argent avec lequel vous payiez votre cotisation ?*	1 SALAIRE / SUR LE REVENUE ☐ 2 VENTE RÉCOLTE ☐ 3 EPARGNE ☐ 4 CREDIT / EMPRUNTS ☐ 5 VENTE EXCEPTIONNELLE DE BIENS ☐ 6 TRANSFERT ARGENT ☐ 7 AUTRE (PRÉCISER) ☐ ……	

Numéro	LIBELLÉ DE LA QUESTION	REPONSES	ALLER A
	Etes-vous satisfait de la qualité des services des prestataires conventionnés par la mutuelle ? *Ex-Membre : Est-ce que vous avez été satisfait de la qualité des services des prestataires conventionnés par la mutuelle ?*	<table><tr><th></th><th></th><th>OUI</th><th>NON</th></tr><tr><td>1</td><td>CENTRE DE SANTE</td><td>☐</td><td>☐</td></tr><tr><td>2</td><td>POSTE DE SANTÉ MILITAIRE</td><td>☐</td><td>☐</td></tr><tr><td>3</td><td>POSTE DE SANTÉ PUBLIC</td><td>☐</td><td>☐</td></tr><tr><td>4</td><td>N'A PAS UTILISE DES PRESTATAIRES</td><td>☐</td><td>☐</td></tr><tr><td>5</td><td>AUTRE (PRÉCISER) .....</td><td>☐</td><td>☐</td></tr></table>	→ SI 'OUI' POUR TOUS ALLEZ A M510
	Quelles sont les raisons de non satisfaction ? *Ex-Membre : Quelles étaient les raisons de non satisfaction ?*	<table><tr><td>1</td><td>COMPÉTENCE DU PERSONNEL</td><td>☐</td></tr><tr><td>2</td><td>PERSONNEL PEU DISPONIBLE</td><td>☐</td></tr><tr><td>3</td><td>DISPONIBILITÉ DES MÉDICAMENTS</td><td>☐</td></tr><tr><td>4</td><td>MAUVAIS PRISE EN CHARGE / SERVICES TROP REDUITS</td><td>☐</td></tr><tr><td>5</td><td>MAUVAIS ACCUEIL</td><td>☐</td></tr><tr><td>6</td><td>HEURES D'OUVERTURE NE CONVIENT PAS</td><td>☐</td></tr><tr><td>7</td><td>PRESTATIONS COUTS TROP CHERS</td><td>☐</td></tr><tr><td>8</td><td>PROBLEMS DE TRANSPORT</td><td>☐</td></tr><tr><td>9</td><td>AUTRE (PRÉCISER) .....</td><td>☐</td></tr></table>	
	Quelles sont les raisons de satisfaction ? *Ex-Membre : Quelles étaient les raisons de satisfaction ?*	<table><tr><td>1</td><td>COMPÉTENCE DU PERSONNEL</td><td>☐</td></tr><tr><td>2</td><td>PERSONNEL DISPONIBLE</td><td>☐</td></tr><tr><td>3</td><td>DISPONIBILITÉ DES MÉDICAMENTS</td><td>☐</td></tr><tr><td>4</td><td>BON PRISE EN CHARGE</td><td>☐</td></tr><tr><td>5</td><td>BON ACCUEIL</td><td>☐</td></tr><tr><td>6</td><td>HEURES D'OUVERTURE CONVENABLES</td><td>☐</td></tr><tr><td>7</td><td>PRESTATIONS NE COUTS PAS CHERS</td><td>☐</td></tr><tr><td>8</td><td>BON EMPLACEMENT</td><td>☐</td></tr><tr><td>9</td><td>AUTRE (PRÉCISER) .....</td><td>☐</td></tr></table>	
	Occupez-vous une fonction dans la mutuelle ? *Ex-Membre : Aviez-vous occupé une fonction dans la mutuelle ?*	☐ oui ☐ non	
	Avez-vous déjà spontanément aidé la mutuelle ?	☐ Fréquemment ☐ Quelque fois ☐ Rarement ☐ Jamais	

Numéro	LIBELLÉ DE LA QUESTION	REPONSES	**ALLER A**
	Le fonctionnement de la mutuelle vous paraît-il : *Ex-Membre : Le fonctionnement de la mutuelle vous paraissait-il :*	☐ Excellent ☐ Satisfaisant ☐ Moyen ☐ Mauvais ☐ Très mauvais	M515
	Quelles sont les raisons de non satisfaction ? *Ex-Membre : Quelles étaient les raisons de non satisfaction ?*	☐ PAS CONFIANCE DE LA GESTION ☐ PAS CONFIANCE DU PRESIDENT ☐ PAS SATISFAIT DES PRESTATAIRES CONVENTIONNÉS ☐ COTISATION TROP CHÈRE ☐ SERVICES TROP RÉDUITS ☐ MANQUE DE POSSIBILITÉ DE PARTICIPER ☐ PROCESSUS DE CHOIX DES DIRIGEANT PAS SATISFAISANT ☐ MANQUE D'INFORMATION ☐ AMENDES TROP GRANDES ☐ AUTRE (PRÉCISER). ….	
	Quelles sont les raisons de satisfaction ? *Ex-Membre : Quelles étaient les raisons de satisfaction ?*	☐ CONFIANCE DE LA GESTION ☐ CONFIANCE DU PRESIDENT ☐ SATISFAIT DES PRESTATAIRES CONVENTIONNÉS ☐ COTISATION ACCESSIBLE ☐ SERVICES ADÉQUATS ☐ POSSIBILITÉ DE PARTICIPATION ☐ PROCESSUS DE CHOIX DES DIRIGEANTS SATISFAISANT ☐ SATISFAIT D'INFORMATION ☐ AMENDES EQUITABLES ☐ AUTRE (PRÉCISER). ….	
	Pensez-vous être en mesure d'influencer le fonctionnement de la mutuelle? *Ex-Membre : Pensez-vous que vous étiez en mesure d'influencer le fonctionnement de la mutuelle?*	☐ oui ☐ non	

Numéro	LIBELLÉ DE LA QUESTION	REPONSES	ALLER A
	Avez-vous participé aux activités suivantes de la mutuelle ?		

		OUI	NON
	UNE ASSEMBLÉE GÉNÉRALE	☐	☐
	ÉLECTION DES ORGANES	☐	☐
	SESSIONS DE FORMATION	☐	☐
	ACTIVITÉS DE SENSIBILISATION	☐	☐
	INFORMATION SUR LE FONCTIONNEMENT DE LA MUTUELLE	☐	☐
	DISCUSSIONS INFORMELLES SUR LA GESTION SUR LE FONCTIONNEMENT DE LA MUTUELLE	☐	☐
	AUTRE (PRECISER)	☐	☐

Comment êtes-vous informé de l'existence de la mutuelle?	D'un membre de la famille	☐
	D'un ami	☐
	Du prestataire de soins	☐
	Du staff de la mutuelle	☐
	D'une association	☐
	D'un leader de la communauté	☐
	Des media	☐
	D'un autre membre de la mutuelle	☐
	Autre ……..……..	☐

Etes-vous informé des <u>mécanismes de contrôle institués par la mutuelle</u> ? (pour des comportements abusifs ou de fraude, que ce soit des gérants, prestataires et bénéficiaires)		OUI	NON
	PRESTATAIRES	☐	☐
	BÉNÉFICIAIRE	☐	☐
	RESPONSABLES	☐	☐

Connaissez-vous les responsables de la mutuelle de santé ?		OUI	NON
	1. PRÉSIDENT	☐	☐
	2. SECRÉTAIRE	☐	☐
	3. GESTIONNAIRE	☐	☐
	4. AUTRES	☐	☐

Connaissez-vous plusieurs personnes membres de la mutuelle ?	☐ Je ne connais aucun membre →	M523
	☐ Je connais peu de membres	
	☐ Je connais à peu près la moitié des membres	
	☐ Je connais presque tous les membres	

Numéro	LIBELLÉ DE LA QUESTION	REPONSES	ALLER A
	Que pensez-vous avoir en commun avec les autres membres de la mutuelle ? *Plusieurs réponses possibles*	☐ Voisins ou du même village ☐ Même famille ou parents proches ☐ Religion ☐ Genre ☐ Groupe d'âge ☐ Ethnie ou langue ☐ Caste ☐ Niveau d'éducation ☐ Profession ☐ Affiliation politique ☐ Statut économique ☐ Même vision sur les valeurs / solidarité ☐ Membres d'une autre association ☐ Rien ☐ Autres (spécifier)	
	Pensez-vous que certains membres de la communauté sont exclus de la mutuelle ?	☐ oui ☐ non ☐ NSP	M525
	Pour quelles raisons pensez-vous qu'ils sont exclus ? *Plusieurs réponses possibles*	☐ Voisins ou du même village ☐ Même famille ou parents proches ☐ Religion ☐ Genre ☐ Groupe d'âge ☐ Ethnie ou langue ☐ Caste ☐ Niveau d'éducation ☐ Profession ☐ Affiliation politique ☐ Statut économique ☐ Autres (spécifier)	
	Quels sont les avantages pour votre ménage d'être membre de la mutuelle? *Plusieurs réponses possibles*	☐ Avantage matériel (argent, nourriture, crédit, etc.) ☐ Accès aux services de santé ☐ Important dans futur, en cas d'urgence ☐ Solidarité avec les autres membres de la communauté ☐ Statut Social, réputation ☐ Aucun ☐ Autres (spécifier)	

Numéro	LIBELLÉ DE LA QUESTION	REPONSES						ALLER A
	En général, quel est votre degré d'accord avec les énoncés suivants… 1 – PAS DU TOUT D'ACCORD 2 – PAS D'ACCORD 3 – NE SAIS PAS 4 – ASSEZ D'ACCORD 5 – TOUT À FAIT D'ACCORD		Pas d'accord→D'accord					
			1	**2**	**3**	**4**	**5**	
		A. Il est acceptable pour quelqu'un de payer la cotisation à la mutuelle de santé même s'il ne bénéficie pas encore des services de la mutuelle.	☐	☐	☐	☐	☐	
		B. Il est acceptable que les bénéficiaires de la mutuelle de santé qui tombent malade bénéficient plus des services de la mutuelle de santé?	☐	☐	☐	☐	☐	
		C. Les familles qui sont très pauvres devraient être membres de la mutuelle de santé sans payer	☐	☐	☐	☐	☐	
		D. Les membres de la mutuelle devraient prendre les familles qui sont très pauvres en augmentant le montant de leur cotisation.	☐	☐	☐	☐	☐	
		E. Les membres de la mutuelle devraient parrainer les familles qui sont très pauvres.	☐	☐	☐	☐	☐	
		F. Les familles qui n'ont pas les moyens de cotiser doivent être prises en charge par le gouvernement	☐	☐	☐	☐	☐	
		G. La mutuelle doit fusionner avec autres mutuelles dans la région	☐	☐	☐	☐	☐	

Numéro	LIBELLÉ DE LA QUESTION	REPONSES	ALLER A
	En général, quel est votre degré d'accord avec les énoncés suivants… 1 – PAS DU TOUT D'ACCORD 2 – PAS D'ACCORD 3 – NE SAIS PAS 4 – ASSEZ D'ACCORD 5 – TOUT À FAIT D'ACCORD		

La mutuelle doit accepter des membres de divers ….						
	Pas d'accord→D'accord					
	1	2	3	4	5
A. Voisinage et village	☐	☐	☐	☐	☐
B. Famille ou parents	☐	☐	☐	☐	☐
C. Religion	☐	☐	☐	☐	☐
D. Genre	☐	☐	☐	☐	☐
E. Groupe d'âge	☐	☐	☐	☐	☐
F. Ethnie ou langue	☐	☐	☐	☐	☐
G. Caste	☐	☐	☐	☐	☐
H. Niveau d'éducation	☐	☐	☐	☐	☐
I. Profession	☐	☐	☐	☐	☐
J. Affiliation politique	☐	☐	☐	☐	☐
K. Statut économique	☐	☐	☐	☐	☐

SECTION 6: LA SANTE ET ACCES AUX SOINS

Numéro	LIBELLÉ DE LA QUESTION	REPONSES	**ALLER A**
	A quelle distance de la localité se trouve la structure sanitaire la plus proche	Distance en Km……. ☐☐	
	Quel moyen de transport utilisez-vous pour vous rendre à cette structure sanitaire	☐ A PIEDS ☐ CHARRETTE ☐ VOITURE ☐ AUTRE	
	Y a t-il un membre du ménage qui a reçu des médicaments/soins traditionnel au cours du mois dernier ?	☐ oui ☐ non	
	Y-a-t-il un membre du ménage qui a été hospitalisé au cours des deux dernières années ?	☐ oui ☐ non	
	Y a t-il un membre du ménage qui a reçu des soins ambulatoires au cours du mois dernier ?	☐ oui ☐ non →	M614

	Numéro d'ordre	☐☐☐	☐☐☐	☐☐☐	☐☐☐
	Type d'événement	1. Hospitalisation ☐ 2. Soins ambulatoires ☐	1. Hospitalisation ☐ 2. Soins ambulatoire ☐	1. Hospitalisation ☐ 2. Soins ambulatoire ☐	1. Hospitalisation ☐ 2. Soins ambulatoire ☐
	Quel coût des prestations avez-vous payé? (CFA)	Montant ☐☐☐☐☐	Montant ☐☐☐☐☐	Montant ☐☐☐☐☐	Montant ☐☐☐☐☐
	Quel coût des médicaments avez-vous payé? (CFA)	Montant ☐☐☐☐☐	Montant ☐☐☐☐☐	Montant ☐☐☐☐☐	Montant ☐☐☐☐☐
	Quels autres coûts avez-vous payé (transport, séjour accompagnant, etc.) ? (CFA)	Montant ☐☐☐☐☐	Montant ☐☐☐☐☐	Montant ☐☐☐☐☐	Montant ☐☐☐☐☐

	Provenance de l'argent	Sur le revenu. ☐ Epargne ☐ Emprunt ☐ Vente exceptionnelle ☐ Dons ☐ Autre ☐	Sur le revenu. ☐ Epargne ☐ Emprunt ☐ Vente exceptionnelle ☐ Dons ☐ Autre ☐	Sur le revenu. ☐ Epargne ☐ Emprunt ☐ Vente exceptionnelle ☐ Dons ☐ Autre ☐	Sur le revenu. ☐ Epargne ☐ Emprunt ☐ Vente exceptionnelle ☐ Dons ☐ Autre ☐
	Est-ce que la mutuelle a contribué au paiement du coût global?	☐ oui ☐ non	☐ oui ☐ non	☐ oui ☐ non	☐ oui ☐ non
	Comment appréciez-vous les soins reçus ?	☐ Très satisfaisant ☐ satisfaisant ☐ Moyenne ☐ Mauvais ☐ Très mauvaise	☐ Très satisfaisant ☐ satisfaisant ☐ Moyenne ☐ Mauvais ☐ Très mauvaise	☐ Très satisfaisant ☐ satisfaisant ☐ Moyenne ☐ Mauvais ☐ Très mauvaise	☐ Très satisfaisant ☐ satisfaisant ☐ Moyenne ☐ Mauvais ☐ Très mauvaise

	Au cours des deux dernières années, y-a-t-il un membre du ménage qui a votre avis devrait être hospitalisé mais ne l'a pas été par manque de ressources ?	☐ oui ☐ non	
	Au cours du mois dernier, y-a-t-il un membre du ménage qui a votre avis devrait bénéficier de soins ambulatoires mais ne l'a pas été par manque de ressources ?	☐ oui ☐ non	**FIN INTERVIEW**

Merci d'avoir consacré du temps pour répondre aux questions.

Nous souhaitons vous contacter ainsi que des membres de votre ménage pour une interview sur leurs expériences dans l'utilisation des services de santé ou les inviter à participer à un focus groupe. Pourrons-nous vous appeler à ce sujet ?

Contact du répondant : **Adresse :** **……** **……..** **Tel: …….**		
Fin de l'Interview		
Indiquez l'heure de la fin de l'interview	***Heure_____***	

Appendix 3: Semi-structured interview topic guide

ENQUÊTE SUR LE CAPITAL SOCIAL DES MUTUELLES DE SANTE

République du Sénégal

(MARS – AVRIL 2009)

Guide d'Entretien semi structuré

1. Motivations profondes de l'adhésion (capital social et décision d'adhérer / de ne plus / de ne pas adhérer)

ES01 **Décrivez-moi s'il vous plaît quand et comment votre ménage a pris la décision D'ADHERER / DE NE PLUS / DE NE PAS ADHERER à la mutuelle :**

a. *Comment avez-vous entendu parler de la mutuelle de santé la première fois / avant votre adhésion ?*

Spécifiez les contextes – travail, amis, associations, sensibilisations etc.

b. *Avez-vous discuté votre décision de (non) adhésion avec la famille, les amis, les gestionnaires de la mutuelle, autres membres de la mutuelle, ou d'autres personnes ? Si oui, quelles étaient leurs opinions ?*

c. *Y a t il une personne ou un événement qui a été déterminant dans la prise de décision (adhésion, non adhésion, démission)*

d. *Comment aviez vous décidé qui dans la famille doit / ne doit pas être inscrit ? (Dans les ménages polygames - quels femmes doit / ne doit pas être inscrites ?)*

2. Comparaison entre la mutuelle et les autres structures de capital social

ES02 **Selon vous, en quoi la mutuelle de santé ressemblent aux autres types d'associations dont vous ou votre ménage sont membres, (tontines, tours de village, groupements féminins, dahira, etc) En quoi la mutuelle de santé est-elle différentes des autres associations ?**

a. *Notamment, en termes de :*

i. *modalité d'adhésion*

ii. *solidarité / réciprocité*

iii. *relations entre les membres*

iv. *réseaux sociaux*

v. *coûts et bénéfices*

vi. *fonctionnement*

vii. *gestion*

b. *A votre avis, quel type d'association est le plus important (la mutuelle ou les autres)? Pourquoi?*

c. *Souvent, on trouve que l'adhésion autres types d'associations est plus élevée qu'aux des mutuelles. A votre avis, pourquoi ?*

d. *Est-ce que les associations du village/quartier sont liées à la mutuelle ? Comment ?*

3. Effet de l'adhésion à la mutuelle sur le capital social des membres (uniquement pour les adhérents, ex-adhérents, bénéficiaires, ex-bénéficiaires)

ES03 **Parlez-moi de votre participation à la vie de votre mutuelle ? (Par exemple une assemblée générale, élections des organes, sessions de formation, activités de sensibilisation etc.) ?**

a. *Quelles sont les justifications de votre participation ou non ?*

b. *Pensez vous être (avoir été) en mesure d'influencer le fonctionnement de la mutuelle? Comment ?*

c. *Est-ce que ces expériences de participation aux activités de la mutuelle ont changé votre manière de participer ou de communiquer dans d'autres contextes ? Expliquez*

ES04 **Comment appréciez-vous le fonctionnement de la mutuelle ?**

a. *Comment appréciez-vous la circulation de l'information dans la mutuelle?*

b. *Est-ce que le mode de fonctionnement de la mutuelle peut être un exemple pour la communauté?*

c. *Les leaders de votre communauté jouent ils un rôle important dans le fonctionnement de la mutuelle ?*

d. *Dans votre communauté, y a t il des gens qui sont exclus des associations et de la mutuelle ? Pourquoi ?*

e. *La mutuelle vous a-t-il permis de développer de nouvelles amitiés ?*

ES05 **Que pensez vous de l'idée d'une fusion entre les mutuelles ? Expliquez**

ES06 **Est-ce que les politiciens ont parlé de la mutuelle au cours de leur campagne électorale ?**

a. *Avez-vous plus d'intérêt dans les affaires politique locales depuis votre adhésion à la mutuelle ?*

4. Le recours aux prestations de la mutuelle

ES07 **Décrivez s'il vous plaît comment votre ménage prend les décisions lorsque quelqu'un membre du ménage tombe malade. Parlez nous de ce processus avant votre adhésion à la mutuelle ? Et après l'adhésion du ménage à la mutuelle ?**

- *a. Quels étaient les sujets de la discussion ? (Recours, délais de recours, préférence sur le prestataire, etc.)*
- *b. D'où provient l'argent avec lequel vous payez pour les soins / les cotisations ?*
- *c. Comment résolvez-vous les conflits éventuels sur les décisions liées à la santé ?*

ES08 **Est-ce que la provenance de l'argent pour les soins de santé avait une influence sur le choix du recours ?**

- *a. Est-ce que cette influence a été modifiée depuis l'avènement de la mutuelle ?*
- *b. Depuis que vous êtes membre de la mutuelle, est-ce que votre rapport avec les individus qui donnent l'argent avec lequel vous payez pour le soin / les cotisations a changé ?*

ES09 **Depuis que vous êtes membre de la mutuelle, est-ce que votre rapport avec les prestataires a changé ? Comment ?**

- *a. Si oui, est-ce que votre rapport avec des autres prestataires a aussi changé (par exemple d'éducation ?)*
- *b. Est-ce que vous utilisez plus les services de santé depuis que vous êtes / était membre de la mutuelle ?*
- *c. Est-ce que les soins que vous recevez ont été améliorés depuis votre adhésion à la mutuelle ? Comment ?*

5. Les effets de la mutuelle

ES10 **Depuis que la mutuelle a démarré qu'est-ce qui a changé sur le plan de la santé et autres secteurs sociaux de la communauté?**

- *a. Depuis que vous êtes membre de la mutuelle, quels bénéfices en avez-vous tirés ?*
- *b. Est-ce que la mutuelle a créé des divergences / conflits dans la communauté ? A quel moment et dans quels domaines ?*

ES11 **Parlez nous des forces et faiblesses de votre mutuelle ? Pensez-vous qu'elle st viable ?**

FIN INTERVIEW

Appendix 4: Stakeholder interview guide (Soppante case study)

1. Gestionnaires du système de santé

- **Es ce que vous connaissez Soppante ? Dans un contexte formel :**
- Es ce que vous etes implique dans la mutuelle / avez-vous un rôle ?
- Combien d'information avez-vous sur la mutuelle ?
- Perception :
    - aces au soin
    - management
    - effet sur le system de santé
    - effet sur la performance des prestataires
    - viabilité de la mutuelle
    - effet sur la demande au soin
- Opinion sur comment aller a l'échelle / créer un plus grand réseaux
- Avez-vous suivi des réunions de la mutuelle – ex AG ?
- Avez-vous confiance à la gestion de Soppante ?
- Es ce que vous conseiller votre collèges / prestataires a soutenir le mouvement mutualiste / Soppante ?
- Quels sont les topiques prioritaires pour la santé a Thies ?
- Où est la mouvement mutualiste dans cette liste des prioritaires ? – Comparaison avec SIDA, paludisme, etc
- **Es ce que vous connaissez Soppante ? Personnellement :**
- Es ce que vous conseiller votre amis a adhérer ?
- Es ce que vous connaissez les gérants de la mutuelle ?
- Es ce que vous connaissez des membres de la mutuelle ?

2. Prestataires

- Voir section 1
- Perceptions des membres et non membres – comparaison sur leurs connaissances, attitudes, comportement dans le contexte de aces aux soins
- Perceptions des membres et non membres – les relations entre eux
- Es ce que vous conseiller non membres a adhérer ?
- Es ce que ses superieurs soutient le mouvement mutualiste / Soppante?

3. Responsables

- Histoire de vie
- Comment il a commencé les relations avec Soppante ?
- Perception de Soppante – positif et négatif
- Relations avec les autres responsables, gérants, membres, prestataires, structures d'appui etc
- Relations avec autres associations, groupes etc
- A votre avis, quel est l'avenir pour Soppante ?

4. Structures d'appui

- Voir section 1

- Voir section 2
- Des que vous parler des mutuelles dans les reunions etc, es ce que vous parlez au Soppante ? Qu'es que vous dissez ? Pour vous, Soppante est un exemple de… ?
- Perception du Soppante dans le contexte régional
- Perception des réseaux du Soppante – comment développer ?

5. Associations, leaders locaux

- Voir section 3

Appendix 5: Parent and child codes (stakeholder interviews)

Parent code = Actors		
Child codes	**Sources[23]**	**References[24]**
History of involvement with CBHI	23	32
Leaders of Soppante	16	28
Actors personal membership of CBHI	5	6
Francois Diop	2	6
Assane Guèye	5	5
Mbaye Sene	4	5

Parent code = CBHI scheme operation		
Child codes	**Sources**	**References**
Human resources of CBHI	48	96
Information dissemination	38	78
Types of CBHI	27	53
Participation in CBHI	28	50
Scaling up coverage	20	46
Premiums	28	43
Training and workshops	18	34
Rationale for joining CBHI	20	27
Enrolling new members	19	25
Dropping out of CBHI	10	17
Studies on CBHI	12	16
Competition between CBHI schemes	9	12
First encounter with Soppante	9	9
Requests for CBHI	7	9

[23] "Sources" refers to the total number of stakeholders/interviewees who mentioned the child code.
[24] "References" refers to the aggregate number of times the child code was mentioned by all stakeholders/interviewees.

Parent code = CBHI scheme operation		
Child codes	**Sources**	**References**
Guarantee letter	7	8
Family enrolment	5	6
CBHI headquarters	5	6
Solvency	3	5
Soppante model	4	5
Record keeping	3	4
IT	3	3
Evaluation of CBHI	1	2
Legal status of CBHI	2	2
Risk perception	2	2

Parent code = Development		
Child codes	**Sources**	**References**
Development	22	34
Microcredit	14	20
Education	6	7
Economic & financial activity	5	5
Civil society groups	3	3

Parent code = Federations		
Child codes	**Sources**	**References**
GRAIM	13	27
PROMUSAF	8	11
Pikine CBHI network	5	8
National union of CBHI	2	3

Parent code = Geography		
Child codes	**Sources**	**References**
Thies	16	40
Fandene	17	25
Dakar	9	14
Diourbel	7	8
Flooding	6	6
Ndondol	3	4
Urban vs rural	3	4

Parent code = Health system		
Child codes	**Sources**	**References**
Health care providers	40	86
Access to health care	32	66
Contracting	28	53
Subsidies	25	34
Hospitals	17	32
Payment of providers	16	20
Prevention	14	19
Pharmaceuticals	11	16
Comite de sante	9	13
Quality of care	11	13
Ambulance	5	5
Traditional medicine	1	1

Parent code = Irregularities		
Child codes	**Sources**	**References**
Corruption	17	28
Waiving fees	11	13
Under the table payments	1	1

Parent code = Non-governmental institutions		
Child codes	**Sources**	**References**
Donors and technical assistance	40	87
Catholic Church	21	42
Islam, marabouts and imams	24	38
Media	1	1

Parent code = Power		
Child codes	**Sources**	**References**
Political engagement	39	87
Social movements	23	42

Parent code = Social inclusion / exclusion		
Child codes	**Sources**	**References**
Financial determinants of membership	20	28
Women	20	26
Poverty	13	22
Ethnicity	6	11
Social integration	8	10
Teachers	8	8
Means testing	3	3

Parent code = Social networks		
Child codes	**Sources**	**References**
Associations	44	72
Local leaders	24	37
Migration & travel	9	11
Privileged social relations	5	5
Neighbours	5	5
Cooperatives	1	1

Parent code = Values		
Child codes	**Sources**	**References**
Solidarity	30	43
Voluntarism	25	37
Trust	20	30
Altruism	2	2