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**Article (Accepted version)
(Refereed)**

Original citation:

Mladovsky, Philipa, Ndiaye, Pascal, Ndiaye, Alfred and Criel, Bart (2014) *The impact of stakeholder values and power relations on community-based health insurance coverage: qualitative evidence from three Senegalese case studies*. [Health Policy and Planning](#) . ISSN 0268-1080 (In Press) DOI: [10.1093/heapol/czu054](https://doi.org/10.1093/heapol/czu054)

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Available in LSE Research Online: August 2014

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

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Keywords:

Community-based health insurance, values, power, qualitative research, stakeholders, Senegal

Abbreviated running title:

Stakeholder values community health insurance Senegal

Key messages

- Values (voluntarism, trust and solidarity) and power relations inherent in social networks of CBHI stakeholders can explain levels of CBHI coverage
- Challenges facing CBHI in Senegal include: subsidising salaries for CBHI scheme staff; developing governance structures through CBHI federations; ensuring CBHI resonates with local values concerning four dimensions of solidarity; increased transparency in national policy; and increasing CBHI leaders' negotiating power vis-à-vis stakeholders who control resources needed for expanding CBHI coverage through federations and a social movement dynamic.
- Systematically addressing these challenges would represent a fundamental reform of the CBHI model and raises issues of feasibility of CBHI
- Studying values and power relations among stakeholders in multiple case studies is a useful complement to traditional health systems analysis

Acknowledgements

The authors would like to thank all national stakeholders for their useful contributions during the lifetime of the project, the team of fieldwork assistants and supervisors in Senegal, staff of the three CBHI schemes who gave up their time to facilitate the research, all the interviewees who also gave their time, the Stewart Halley Trust for providing part of the funding for the research, the Institute of Tropical Medicine, Antwerp, the *Cellule d'Appui au Financement de la Santé et au Partenariat* (CAFSP) and the *Programme d'Appui à la Micro Assurance Santé* (PAMAS) of the Senegalese Ministry of Health which funded the meeting for the authors to present preliminary results of the study to stakeholders in March 2011, and the two anonymous peer reviewers for their insightful comments. The content is solely the responsibility of the authors.

Word count:

7,959 words

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Abstract

Continued low rates of enrolment in community based health insurance (CBHI) suggest that strategies proposed for scaling up are unsuccessfully implemented or inadequately address underlying limitations of CBHI. One reason may be a lack of 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 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. First is the need to subsidise salaries for CBHI scheme staff. Second, is the need to develop more sustainable internal and external governance structures through CBHI federations. Third is ensuring that CBHI resonates with local values concerning four dimensions of solidarity (health risk, vertical equity, scale and source). Government subsidies is one of several potential strategies to achieve this. Fourth is the need for increased transparency in national policy. Fifth is the need for CBHI scheme leaders to increase their negotiating power vis-à-vis health service providers who control the resources needed for expanding CBHI coverage, through federations and a social movement dynamic. Systematically addressing all these challenges would represent a fundamental reform of the current CBHI model promoted in Senegal and in Africa more widely; this raises issues of feasibility in practice. 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.

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 et al. 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. The literature proposes the following strategies to address these obstacles: promoting increased revenue collection from the “healthy and wealthy” so as to enhance cross-subsidisation and risk pooling; improved CBHI management; improved purchasing to enhance quality of care; and public funding to subsidise premiums for the poor. Yet continued low rates of CBHI enrolment suggest that proposed strategies for scaling up are unsuccessfully implemented or inadequately address underlying limitations of CBHI. This study proposes that a systematic incorporation of social and political context into CBHI policy analysis is needed to understand the reasons for unsuccessful CBHI implementation or, possibly, the lack of feasibility of the CBHI model.

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 community 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 & Carrin 2001; Dror 2001; Schneider et al. 2001) or collectively contracting hospitals (Waelkens & 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 CBHI, which is thought to increase choice, accountability and negotiation and thereby improve quality of care (Criel et al. 2005; Michielsen et al. 2011). Drawing on such examples, a review of the CBHI literature conducted by Mladovsky and Mossialos (2008) 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 high levels of coverage. They argue that unlike the traditional health systems perspective based on a behavioral 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 networks¹ of CBHI stakeholders can help explain low levels of CBHI coverage, in terms of enrolment (population coverage) and the benefit package offered (the scope of coverage) (World Health Organization 2010). The objective of the study is to identify the causes of low coverage in order to either determine strategies for scaling up, or to better understand underlying limitations of the CBHI model

¹ As in the social capital literature, the term “social network” is used 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 (Mladovsky and Mossialos 2008).

so that alternative policies can be developed. 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-sharing through user charges. Private expenditure on health as a percentage of total health expenditure is 41.7; 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 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; Ministère de la Santé 2012). Senegal has witnessed a rapid increase in the number of CBHI schemes (termed "*mutuelles de santé*" in Francophone countries), reaching 139 by 2003 (Ministère de la Santé 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 barriers to expanding CBHI, or causes of the lack of feasibility of the CBHI model. `

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 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.

INSERT TABLE 1 HERE

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 1). Soppante, Ndongol and Wer Ak Werle (WAW) were the three schemes selected (Table 2). All three schemes were selected to have a high level of drop-out (Box 1). High drop-out is a major feature and limitation of CBHI in Senegal and elsewhere in sub-Saharan Africa (De Allegri et al. 2009).

INSERT BOX 1 HERE

INSERT TABLE 2 HERE

Fieldwork was conducted from March to August 2009. Stakeholders were identified using purposive snowball sampling, an approach where stakeholders help identify other stakeholders (Miles & Huberman 1994). In the study, “stakeholders” are defined as individuals who affected or could affect the CBHI scheme; this includes people living in the communities targeted by CBHI, such as community leaders. 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. Sixty-four interviews were conducted in total (Table 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. The results of the rest of the study will be published elsewhere. The case study selection criteria were the same for the broader study as for this paper (Box 1).

INSERT TABLE 3 HERE

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 (child codes are sub-codes which fall under the broader category of a parent code). 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.

3. Results

A total of 14 parent codes incorporating 88 child codes were identified in the coding analysis. 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. 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 from which scheme and stakeholder the quotation derives (S = Soppante, N = Ndongol, 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 (i.e. leaders and field 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 and premium prices. Voluntarism was therefore seen by many stakeholders as a means of reducing poverty and contributing to local development (Box 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 CBHI staff did not have time to perform essential tasks, since due to their need to generate an income 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 in scheme activities (e.g. attending meetings, information dissemination, voting) and a lack of time to manage the scheme (Box 2, S15). Many stakeholders saw this as a cause

of high drop-out. However, staff were difficult to replace due to a lack of capacity in the community (Box 2, W7). The combination of inadequate human and physical (e.g. vehicles) resources in CBHI meant that people in the target population often complained they did not feel the presence of the CBHI scheme in their community (Box 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 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 scheme 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 women 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.

INSERT BOX 2 AROUND HERE

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 or other development projects meant that recruiting staff who would be trusted by the target population was seen to be crucial. Several stakeholders expressed the view that CBHI staff 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 (as had been done by WAW). Several stakeholders also highlighted the importance of creating new mechanisms to create trust, such as 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 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. 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 also promote a degree of flexibility in the billing system which meant that delays in payment from the scheme to the health service provider were tolerated. 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 prevent people from dropping out of the scheme.

Soppante

According to some stakeholders, certain kinship groups and castes were traditionally considered by local people as being highly trustworthy. One stakeholder pointed out that the leaders of Soppante had this trusted social status which helped them to recruit members into the CBHI scheme (Box 3, S20).

Soppante was the only scheme studied to have made contracts with hospitals. The scheme had achieved a trusting relationship with the manager of the regional public hospital; this 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 3, N15). As mentioned, the Treasurer was a shopkeeper; he was well-known and highly trusted by people in Ndondol district.

WAW

Through the structure 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 3, W14). The previous President of WAW was 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 had dropped out of the CBHI scheme (Box 3, W11b).

INSERT BOX 3 AROUND HERE

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 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 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 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 doubted 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 membership fees than CBHI (Box 4, W7). They were puzzled as to why CBHI was a less popular solidarity mechanism than these other types of community association. Many of these stakeholders did, however, concede that 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 local Church had 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 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

The women's GMS groups in WAW were based on existing solidarity structures. This was a deliberate strategy developed by an NGO providing technical assistance to WAW; the NGO had initially attempted to set up CBHI based on individual enrolment, and had then switched to an household enrolment model, but both approaches had failed to attract sufficient numbers of members. It was not until the NGO developed WAW in partnership with the women's GMS groups that sufficient people had enrolled to make the CBHI scheme viable. However, a perceived disadvantage of the GMS system was that it excluded people who were not in GMS groups from the scheme (Box 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.

INSERT BOX 4 AROUND HERE

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 deriving from national government were not on the policy agenda). CBHI leaders requested subsidies to (a) pay salaries to CBHI staff (i.e. leaders and field 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 premium. In principle, some local politicians were in support of both types of subsidies (Box 5, W5). However, in

practice 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, W7). There was also a belief among some stakeholders that the values which they saw CBHI to embody (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, 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 CBHI 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, 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, 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 (as explained 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, S20). Soppante's leaders resisted the take-over but the experience had left them deeply mistrustful of mainstream political 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 the party was that local politicians had failed to promote the development of their community (Box 5, W8).

INSERT BOX 5 AROUND HERE

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 shared values including those described above (voluntarism, trust and solidarity).

Soppante

In Soppante, the discourse around social movements focused around the concept of "mutualism". Many stakeholders in Soppante described themselves as "mutualists" and claimed they were part of a "mutualist movement" (Box 6, S19). The movement included individuals working for the MoH, international donor agencies 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).

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 perceived repercussion of the lack of coordination by the regional union was the absence of a contract with the regional hospital. Several stakeholders, including the scheme leaders, expressed concern that another repercussion was a lack of training and technical assistance for the Ndondol CBHI scheme staff. This was seen to result 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 a perceived lack of connection between the scheme staff and the target population (Box 6, N2).

WAW

Through the women’s GMS groups, WAW was part of a powerful local movement of women who held local political influence (Box 6, W11). In addition, the 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 leaders of WAW. For example, by providing an umbrella governance structure and opportunities for sharing best practices with other NGO leaders, the CCDGR had led WAW to adopt a formal internal 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 with politicians for 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 have insufficient funding and technical expertise. The union had been unable to make a contract with a hospital.

INSERT BOX 6 AROUND HERE

4. Discussion

The discussion explains how analysis of the five themes sheds light on the underlying causes of low population coverage (indicated by high drop-out and low enrolment) and low scope of coverage (indicated by limitations of the benefit package) in CBHI as well as more fundamental limitations of the CBHI model.

4.1 Voluntarism and population coverage

Voluntarism was said by stakeholders to prevent drop-out and promote enrolment in two ways. The first was that by not paying salaries to staff, CBHI schemes were able to minimise administrative

costs in order to keep premium prices low. This principle is supported by the 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 also supported by studies from other contexts which find that the act of volunteering increases the perceived trustworthiness of people who volunteer (Wilson & Musick 1999). However, there were also serious perceived disadvantages of voluntarism, specifically in terms of scheme management (e.g. lack of time for collecting premiums), which in turn were thought to cause low enrolment and high drop-out. Similarly, the literature identifies virtually no evidence that volunteering by community health workers (CHWs) in LMIC can be sustained for long periods (Lehmann & Roth 1993) and finds that financial incentives are needed to enhance CHWs' intrinsic motivation (i.e. motivation aligned with personal motives and values) (Bhattacharyya et al. 2001; Greenspan et al. 2013). The recognition that voluntarism was detrimental to enrolment led scheme leaders to lobby local government for subsidies to pay salaries to scheme staff. However, studies of CHW in LMIC (Bhattacharyya et al. 2001; Greenspan et al. 2013) point to difficulties of introducing salaries for volunteers such as: inadequacy of the salary; lack of sustainability of the funding source; and a shift in the source of volunteers' accountability, from the community to the government (if salaries are funded by the government). Thus, even if subsidies for salaries were obtained (see discussion of barriers below), the issue of remuneration was likely to present a complex challenge for CBHI schemes. More research and experimentation is needed to weigh up the pros and cons of voluntarism in CBHI in order to develop effective strategies to overcome its limitations.

4.2 Trust and population coverage

Many stakeholders asserted that trust in CBHI schemes was a central mechanism for mitigating the target population's fear of fraud and that increasing the population's trust in CBHI was likely to increase enrolment and prevent drop-out. This principle is put forward in the theoretical literature

on CBHI (Pauly et al. 2006) and is supported by empirical studies (Criel & Waelkens 2003; Ozawa & Walker 2009; Schneider 2005). It is also supported by the management literature, which finds that consumers' trust in organizations strengthens purchase intentions and increases customer satisfaction (Fulmer & Gelfand 2012). Within health systems, trust has also been argued to underpin the co-operation that is necessary for 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 *reduced* enrolment and *increased* drop-out. The main type of trust promoted by CBHI schemes 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 may have been 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 & Sensenbrenner 1993) (social capital is defined here as "the information, trust and norms of reciprocity inhering in one's social network" (Woolcock 1998):153). This suggests that increased investment in formal structures to generate more sustainable levels of trust in CBHI was needed to increase enrolment and reduce drop-out in the longer term. In NGO management, mechanisms for developing formal trust are considered to be governance, accountability and user participation (Lewis 2007). A large Latin American study conducted by Bebbington and Carroll (2000) found that NGOs effectively developed these mechanisms by forming federations, defined as supra-communal organizations of the poor constituting a manifestation of social capital at the macro level. Federations allowed NGOs 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. At the same time, federations existed close enough

to the community level to foster participatory processes of change. In Senegal, regional CBHI unions, GRAIM and the CCDGR were federations which had the potential to play such a role. Indeed, stakeholders in Ndongol pointed to the need for a stronger regional union to improve governance within the scheme. This suggests CBHI leaders needed to focus less on strengthening interpersonal and reputational trust and more on developing formalised trust through CBHI federations, in order to increase enrolment and reduce drop-out. To date these issues have hardly been addressed in the CBHI literature which in general does not explicitly distinguish between different types of trust (e.g. informal versus formal), or between trust at different levels of CBHI (e.g. scheme versus federation level), when considering determinants of enrolment and drop-out.

4.3 Solidarity and population coverage

The idea that solidarity should increase enrolment and reduce 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 & 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. It also reflects the current broader international policy focus on social health protection (ILO 2007). Yet the few studies that have analysed solidarity in CBHI have not done so in depth. One study found that CBHI scheme members understand and approve of the re-distributive effects of CBHI (Criel & Waelkens 2003), while others suggest that emphasizing the solidarity benefits of health insurance in marketing may help to increase coverage (Desmet et al. 1999; Schneider 2005).

This study reveals that there are various interpretations of the meaning of “solidarity” at play in Senegalese CBHI and the international health financing literature. These can be categorised into four

dimensions of solidarity. Analysis of each dimension suggests that CBHI did not necessarily represent or promote solidarity in practice. The first dimension constitutes Senegalese stakeholders' aforementioned focus on cross-subsidisation of the sick by the healthy. This "health risk" dimension of solidarity potentially corrects a classic market failure in private health insurance, adverse selection (i.e. when high-risk sick individuals are more likely to buy health insurance than low-risk healthy individuals). However, several stakeholders expressed concern that in practice the "health risk" dimension of solidarity was not present in the target population, as ex-members of CBHI often gave "not falling sick" as the reason for dropping out of the scheme. Quantitative studies of CBHI in sub-Saharan Africa confirm that adverse selection is an issue in some contexts (Noterman et al. 1995; Parmar et al. 2012), although not in others (De Allegri et al. 2006; Jütting 2004).

The second dimension of solidarity is the cross-subsidisation of the poor by the wealthy, termed "vertical equity" in the literature (Oliver & Mossialos 2004). This type of solidarity is achieved (or at least not violated) in SHI and mutualities in Europe where contributions are either proportionate (i.e. people pay the same proportion of their income) or progressive (i.e. the proportion of income paid increases as income increases). In contrast, flat rate premiums in CBHI mean that the very design of CBHI is 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. 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). Furthermore, as in many other LMIC, the difficulty of identifying poor households was likely to pose a challenge to targeting progressive premiums or subsidies (Mills et al. 2012). Also, evidence from other contexts suggests that CBHI premium subsidies may not be cost-effective compared to direct reimbursement to the health service provider (Annear et al. 2011). These issues (in addition to the

political barriers to obtaining subsidies discussed below) suggest that vertical equity in CBHI may be difficult to achieve in practice.

The third dimension of solidarity is the “scale” of risk pools. By design, CBHI promoted cross-subsidies within small groups. However, echoing the international literature (Davies & Carrin 2001), stakeholders in Senegal recognised that small risk pools limited solidarity, as larger and more diversified risk pools allow more effective cross-subsidisation of risk. Linked to scale is the fourth dimension, the “source” of solidarity. The sociological literature identifies the following main sources of solidarity: cultural similarity, concrete social networks, functional integration (which in simple terms can be thought of as interdependence based on flows of goods or services), and mutual engagement in the public sphere (Calhoun 2002). Some stakeholders advocated CBHI risk pooling based on cultural similarity or concrete social networks (e.g. schemes for Catholic parishioners or networks of women as in the case of WAW), since this type of solidarity was already flourishing in Senegal through the proliferation of various types of local community associations focused around cultural, religious and economic life (Bernard et al. 2008; Niang 2000). These stakeholders hoped that by merging with these community associations, CBHI would tap into existing, popular, or even essential forms of solidarity. This argument is founded on the commonly held idea that cultural similarity or concrete social networks “trump” other sources of solidarity (Calhoun 2002). However, a counterargument was raised by other stakeholders and community members that providing health insurance through community associations promoted too narrow a form of solidarity and excluded people who did not belong to these groups. As such, the idea that CBHI promotes or constitutes solidarity was again problematized.

Given the ambiguity of CBHI as a mechanism for promoting 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 to promote vertical equity was one such potential (though challenging) reform, but others could also be considered. For example, a marketing strategy which

highlights the individual/household level benefits of CBHI enrolment may have resonated more with the target population than the focus on cross-subsidising the sick (i.e the “health risk” dimension of solidarity). Health insurance based on wider sources of solidarity would need to draw either on functional integration or on engagement in the public sphere. Examples might include national public insurance offered to informal sector workers, or a publicly funded national health system. These options, however, imply a fundamental departure from the CBHI model.

4.4 Power relations and scope of coverage

Power relations affected the scope of CBHI coverage through the attempt of CBHI schemes to gain contracts with hospitals in order to expand the benefit package. 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 of 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 a regional federation of CBHI schemes, supported by a social movement dynamic². The federation increased 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. This suggests that Ndongol and WAW needed to strengthen their regional federations and local social movements, in order to facilitate contracting with

² 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 et al. 2004). The “social movements” described by the CBHI stakeholders only partially fit this definition as CBHI was normatively sanctioned by national policy; however, in two of the cases CBHI engendered opposition to mainstream political parties at the local level and in one case opposition to the Catholic Church.

hospitals³. This interpretation is supported by the findings of a previous study that a social movement component in CBHI can improve negotiations with health service providers (Atim 1999).

4.5 Power relations and population coverage

Potentially, an important mechanism for expanding population coverage was government subsidies to fund (a) premiums of the poor and (b) salaries of CBHI staff, in order to improve premium collection and marketing. In order to obtain subsidies, CBHI scheme leaders believed they needed to influence the allocation of local government budgets by gaining access to local political power. They attempted to do this by lobbying, running as candidates in local elections, and/or forming a grassroots political party which promoted values such as voluntarism, trust and solidarity. However, CBHI leaders' political strategies had not come to fruition at the time of fieldwork (they had neither gained subsidies, nor been elected). Therefore, this study cannot draw conclusions about the impact of gaining access to local political power on population coverage.

However, the wider international development literature does provide evidence related to this topic. It finds that in many contexts, NGO staff not only conduct lobbying and advocacy, but also follow career paths which eventually "cross over" into the government or opposition political parties (Lewis 2007; Lewis 2010). While lobbying and advocacy are widely deemed necessary for NGOs, it is often assumed that "crossing over" should be avoided as it can foster corruption. In many contexts, permeability of NGO / government boundaries is indeed found to be negative, fusing a dominant class which straddles both spheres and fails to promote wider development (Bayart 2009). However, there is also evidence that permeability of NGO / government boundaries enhances development outcomes (Evans 1996). Furthermore, it has been proposed that the idea that NGOs can function as apolitical development actors is unrealistic (Lewis 2010). These findings point to a need for further

³ This implies that in contexts where there was not an enabling environment (i.e. there were few other CBHI schemes to federate with), CBHI schemes were at a disadvantage in hospital contracting.

research into the impact of the permeability of CBHI / government boundaries on power relations, and the impact of this on CBHI coverage⁴.

5. Conclusions

This study found that the interconnected social values of voluntarism, trust and solidarity were employed by stakeholders to expand CBHI population coverage (i.e. to reduce drop-out and increase enrolment). For example, scheme staff worked without a salary, built on existing social structures to evoke trust in CBHI and drew on notions of solidarity to promote cross-subsidisation. These social values also underpinned negotiations between CBHI leaders, local politicians and hospital managers and directors in the effort to gain subsidies in order to expand population coverage and expand the benefit package. However, 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 contested or only partially mobilised in the context of CBHI, while voluntarism and high levels of trust had unintended negative consequences for population coverage. Furthermore, CBHI leaders experienced serious difficulty in overcoming conflicts with more powerful stakeholders who controlled resources needed to expand CBHI coverage. These contradictions, inconsistencies and conflicts blocked stakeholders from expanding CBHI coverage and undermined the CBHI model itself. There was, however, considerable variation with some success experienced in some case studies, suggesting the schemes could learn from each other.

The first policy and implementation challenge for expanding CBHI coverage in Senegal identified by this study is the need for government subsidies to remunerate CBHI scheme staff; however, there is a need to avoid 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. Second, there is a

⁴ Rwanda's success in achieving high levels of CBHI population coverage has already generated some debate on the permeability of CBHI / government boundaries, with commentators arguing that the government played a considerable role in CBHI delivery (Kalk 2008).

need to build trust by developing more sustainable internal and external CBHI governance structures through federations. Third is reforming CBHI so that it resonates with local values concerning all four dimensions of solidarity (health risk, vertical equity, scale and source). This implies government subsidies to fully or partially cover premiums of all or part of the population, but other strategies also need to be explored. Fourth is the need for increased transparency in policy, in particular regarding public subsidisation of CBHI. Fifth, CBHI schemes need to increase their negotiating power vis-à-vis health service providers. Potential mechanisms for achieving this include federation of CBHI schemes 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. Due to the need to challenge established power structures, this is likely to be difficult to achieve in practice. Furthermore, needed reforms require investment of government funds into CBHI, but this is likely to be difficult to implement and it may not be a cost-effective way for the government to pay for health services (Annear et al. 2011). These issues put into question the feasibility of the CBHI model. Therefore, echoing previous analyses of market-oriented health sector reforms (Bennett S et al. 1997) and consumer-led financing (Ensor 2004), the results of the study suggest that alternative or complementary public sector and/or supply-side financing policies are needed in order to reach universal health coverage in Senegal. These are likely to include health financing mechanisms which are more integrated into government systems of social welfare than CBHI (Devereux & 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 CBHI and other forms of health insurance currently being implemented in LMIC.

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Tables and boxes

Table 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

Box 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 for selection into the study:

- 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 enrolls 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 (this 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 2. Characteristics of the selected cases

Name of CBHI scheme	Scheme characteristics				Context		
	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

Table 3. Stakeholders interviewed

Type of stakeholder	Number of individuals interviewed		
	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

Box 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. If you want information about (Soppante), you must go to see (the leaders). (International donor)

Box 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)

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)

Box 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)

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

Box 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)

Box 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)

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)