Solidarity in community-based health insurance in Senegal: Rhetoric or reality?

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Community-based health insurance aims to provide financial protection from the cost of seeking health care through prepayment of premiums by community members. It is typically not-for-profit and aims to be community owned and controlled. In most low- and middle-income countries (LMIC), population coverage of CBHI remains low. Health systems literature proposes the following strategies to improve coverage: public funding to subsidize premiums for the poor; promoting increased revenue collection from the “healthy and wealthy” so as to enhance cross-subsidization and risk pooling; improved CBHI management; and improved purchasing to enhance quality of care. Yet continued low rates of CBHI enrolment suggest these strategies have not been successful. Mladovsky and Mossialos have argued that an underlying reason for poor CBHI policy design and implementation may be a lack of systematic incorporation of social and political contexts into analysis. This echoes a wider call for the greater incorporation of social science perspectives into health policy and systems research.

In this study two of the main strategies for expanding CBHI coverage (public funding to subsidize premiums for the poor; and increased revenue collection from the “healthy and wealthy” to enhance cross-subsidization and risk pooling) are analysed from a sociological perspective. Specifically, the following research questions are addressed: What are local definitions and perceptions of solidarity in CBHI? To what extent are these borne out in practice? Three case studies of Senegalese CBHI schemes using specific criteria were studied. Transcripts of interviews with 64 CBHI stakeholders were analysed using inductive coding. A conceptual framework of four dimensions of solidarity (health risk, vertical equity, scale and source) was developed to interpret the results. The results suggest that the concept of solidarity in CBHI is complex. Each dimension and source of solidarity was either not borne out in practice or highly contested, with views diverging between stakeholders and the target population. This suggests that policy-makers need to engage in a more rigorous public discussion of solidarity as regards CBHI and universal health coverage policy more widely, in order to move towards policies which both resonate with and meet the expectations of the people they aim to serve.
been evaluated.2 Initiatives have experienced difficulties at most.2 A policy of exemptions from user charges is also in place;10 but these initiatives have experienced difficulties with implementation and have hardly been evaluated.2

Methods

A multiple case study design was used. Three Senegalese regions (out of 10) were selected for inclusion in the study: Thies, Diourbel and Dakar. This ensured the inclusion of a range of geographic contexts in the study. The three regions had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high number of CBHI schemes (Table 1), meaning the study had a relatively high numbe

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). Only schemes which had achieved a basic measure of success (above average enrolment and duration) were included. This ensured that schemes were not experiencing fundamental and irreversible supply-side failures. Another objective was to select schemes with high drop-out. The rationale was to focus on contexts where there was potentially the most to gain from a policy intervention. Drop-out from CBHI is not only a major obstacle to increasing population coverage in Senegal but also elsewhere in sub-Saharan Africa.11 Soppante, Ndondol and Wer Ak Werle (WAW) were the three schemes selected (Table 2).

Fieldwork was conducted from March to August 2009. Stakeholders were identified using purposive snowball sampling.12 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 the authors and were of a focused, open-ended type. Each interview lasted one hour on average. The topic guide 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 (Table 3). The fieldwork and analysis were done in French. Quotations were translated into English for the purpose of this paper.

The interviews were 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 are published elsewhere.13–15

All interviews were recorded and transcribed using verbatim transcription. Inductive coding16 was performed in Nvivo.12 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. During the coding process, periodic meetings were held between 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 by presenting preliminary results to approximately 50 national and local Senegalese CBHI stakeholders in Dakar in 2011. Ethical approval for the research was obtained from the Senegalese Ministry of Health.

### Table 1. Number of CBHI schemes in Senegal by region

<table>
<thead>
<tr>
<th>Region</th>
<th>CBHI schemes in 2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dakar</td>
<td>44</td>
</tr>
<tr>
<td>Thies</td>
<td>39</td>
</tr>
<tr>
<td>Kaolack</td>
<td>11</td>
</tr>
<tr>
<td>Diourbel</td>
<td>10</td>
</tr>
<tr>
<td>St Louis</td>
<td>9</td>
</tr>
<tr>
<td>Louga</td>
<td>8</td>
</tr>
<tr>
<td>Tambaouden</td>
<td>5</td>
</tr>
<tr>
<td>Fallak</td>
<td>4</td>
</tr>
<tr>
<td>Kolda</td>
<td>1</td>
</tr>
<tr>
<td>Senegal total</td>
<td>139</td>
</tr>
</tbody>
</table>

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 in 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. This 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).

Table 2. Characteristics of the selected cases

<table>
<thead>
<tr>
<th>Scheme characteristics</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name of CBHI scheme</strong></td>
<td><strong>Number of households ever enrolled</strong></td>
</tr>
<tr>
<td>Soppante</td>
<td>986</td>
</tr>
<tr>
<td>Ndondol</td>
<td>464</td>
</tr>
<tr>
<td>Wer Ak Werle (WAW)</td>
<td>678</td>
</tr>
</tbody>
</table>

Table 3. Stakeholders interviewed

<table>
<thead>
<tr>
<th>Type of stakeholder</th>
<th>Number of individuals interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health service providers</strong></td>
<td>Soppante</td>
</tr>
<tr>
<td>Staff of the CBHI scheme</td>
<td>4</td>
</tr>
<tr>
<td>Local leaders (religious, traditional, political, associations, local NGOS)</td>
<td>3</td>
</tr>
<tr>
<td>Donors, international organizations</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>20</td>
</tr>
</tbody>
</table>

Results

A total of 88 codes were identified in the coding analysis. The codes pertaining to solidarity were selected for further analysis in this paper. Results pertaining to related codes, such as trust, voluntarism and altruism are noted in the coding analysis. The interviewee identifiers indicate which scheme and stakeholder the quotation derives from (S = Soppante, N = Ndondol, W = Wer Ak Werle (WAW)).

Most stakeholders in all three cases viewed the cross-subsidization of resources from healthy to sick people to be not only a form of risk pooling but also an expression of solidarity (Box 2, S3). Several stakeholders said the solidarity inherent in CBHI contributed to fighting poverty and promoting community development. Many stakeholders viewed CBHI to be part of a wider local community social structure of associations which promoted solidarity (Box 2, N4).

Each scheme sought to draw on different sources of solidarity. 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 objected to the church-based model of CBHI on the grounds that it prevented scaling up solidarity between different religious groups. They therefore left the Catholic scheme in order to create Soppante, which was open to all residents of a large geographic zone (Box 2, S19). Meanwhile, stakeholders in WAW had sought to mobilize existing solidarity structures by integrating the scheme into a women’s microfinance and income generation association (Box 2, W12). The scheme had enrolled a large number of women from this association and the collection of premiums from the women had been decentralized to groups known as groupement mutualiste de santé (GMS). In the GMS groups, field staff collected premiums from women they regularly worked and socialized with. Stakeholders said that the existing solidarity among the women encouraged them to enrol and remain enrolled in CBHI. The GMS served as an interface between the members and the central management of the CBHI. However, a perceived disadvantage of the GMS system was that it excluded people who were not in GMS groups from the scheme (Box 2, 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. Finally, in contrast, in the third case study (Ndondol), there was no particular strategy for mobilizing solidarity in the target community. All people residing in the district of Ndondol were eligible for enrolment in the scheme.

A lack of solidarity at the individual level was viewed by some stakeholders as the main reason for households dropping out of or failing to enrol in CBHI (Box 2, W8a). The 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 2, W7). However, other stakeholders pointed out that CBHI schemes were different to other community associations. They argued that CBHI lacked solidarity, due to the fact that members were only eligible for benefits if they paid the premium; in contrast, in other types of community associations, people could benefit even if they had not paid membership fees, as the association would contribute on their behalf using collective funds (Box 2, S10).

Most CBHI stakeholders, however, did concede some very poor households
Discussion

The following discussion uses sociological theory to analyse the stakeholders’ discourse on the role of solidarity in CBHI. Furthermore, quantitative data from the same field site published elsewhere are contrasted with stakeholders’ perceptions of solidarity. It is argued that incoherence on the issue of solidarity was an important source of the underlying weakness of CBHI and prevented the development of clear strategies to increase population coverage.

Overall, the results reveal that in general, most stakeholders in the three case studies viewed CBHI to be a solidarity mechanism. The idea that solidarity increases population coverage ostensibly echoes the ethos of solidarity that is deeply rooted in social health insurance in western Europe and its 19th-century antecedent, mutual aid societies, on which the model of CBHI in West Africa is based. 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.

Yet quantitative data from the studies suggest that scheme members did not view CBHI as a solidarity mechanism,
as less than half of all current and ex-members of all three schemes stated 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). The divergence in opinion may indicate a lack of understanding among the target population of the redistributive principles of CBHI. It may also indicate that stakeholders understand solidarity differently to the target population, as there may have been a variety of interpretations of “solidarity” at play in the Senegalese case studies. In order to understand these issues better, we developed a conceptual framework consisting of four dimensions of solidarity in CBHI that emerged from the study: health risk, vertical equity, scale and source.

Health risk

The first dimension constitutes Senegalese stakeholders’ focus on cross-subsidization of the sick by the healthy. They believed that this solidarity should be an important motivating factor for people to enrol in CBHI. 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,20,21 although not in others.22,23

The results of this study reveal that several stakeholders expressed concern that “health risk” solidarity was weak in the target population, observing that CBHI members often gave not falling sick as a reason for dropping out of CBHI. In practice, stakeholders’ fears seem to have been well-founded: 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.13 This undermines the idea that CBHI drew on high levels of solidarity in terms of the cross-subsidization of the sick by the healthy.

Vertical equity

The second dimension of solidarity identified in the results of this study is the cross-subsidization from wealthy to poor; this is termed “vertical equity” in the health economics literature.24 In practice, vertical equity is likely to overlap with the “health risk” dimension of solidarity (because poor health is associated with poverty) but in the interviews, people clearly distinguished between these two dimensions of solidarity. Vertical equity is achieved in some social health insurance and mutualities in Europe where contributions are 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. This is typical of CBHI more widely.3 The regressivity of CBHI made it more likely for wealthier households to enrol in CBHI compared with poorer households (because wealthier households paid a relatively smaller premium than poorer households, in terms of payment as a percentage of total household wealth, income or expenditure), both in the present study15 and more widely in Senegal and elsewhere.25

A policy of progressive CBHI premiums was not an explicit objective of the stakeholders. However, the stakeholders who sought government subsidies to cover the premiums of the poor did implicitly support the notion of vertical equity. Current CBHI members also seemed to support this dimension of solidarity: they 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.13

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,26,27 suggesting that this dimension of solidarity in CBHI may be difficult to achieve in practice in these contexts. Furthermore, crucially, as in many other LMIC, the difficulty of identifying poor households due to inadequate targeting mechanisms and the large size of the informal sector is likely to pose a further challenge to achieving vertical equity through progressive premiums or subsidies.3

Another issue is whether establishing progressive premiums payment and/or government subsidies for CBHI would be cost-effective; a study from Cambodia and the Lao People’s Democratic Republic suggests not, since it found 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.28 Taking a political perspective, however, the efforts of CBHI leaders to gain demand-side subsidies may have had the advantage of mobilizing users’ participation and possibly empowerment.29

Scale

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,30 recognized that small risk pools are unappealing from the perspective of solidarity as larger and more diversified risk pools allow more effective cross-subsidization of risk. This limited “scale” dimension undermined the ability of CBHI to promote solidarity. This is discussed further below.

Source

The fourth dimension relates to the source of solidarity. The sociologist Durkheim31 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 industrialized societies, solidarity is instead based on integration
of specialized economic and political organizations and emphasizes equality among individuals, social interdependence and modern legal structures such as civil, commercial law (termed “organic solidarity” by Durkheim). Since CBHI extends cross-subsidization beyond kinship ties, it should be interpreted as a mechanism for promoting “organic solidarity”. Supporting this idea is the fact that CBHI has emerged in the context of a general increase in numbers of community associations in Senegal, a trend which is arguably indicative of the social transition described by Durkheim. Indeed, the results of 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. These include rotating credit associations (ROSCAs) and dahiras (groups which form part of the Muslim brotherhoods) which primarily have a spiritual purpose but also bring many economic and political advantages to their members. The quantitative results of this study 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 further in similar solidarity structures, as members of CBHI were statistically significantly more likely to be enrolled in another community association than non-members, controlling for wealth and other socioeconomic variables.

More recent sociological literature can be used to further distinguish between four different sources of organic solidarity: cultural similarity, concrete social networks, functional integration (i.e. interdependence based on flows of goods or services), and mutual engagement in the public sphere. Most 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, as discussed, this type of solidarity was already flourishing in Senegal. These stakeholders hoped that by merging with other community associations, CBHI would tap into existing, popular, essential forms of solidarity. This argument is founded on the commonly held idea that cultural similarity and concrete social networks “trump” other sources of solidarity.

However, a counter argument 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 already belong to any community groups. As such, the idea that CBHI promotes or constitutes solidarity was again problematized. The alternative approach would be an increased focus on functional integration. This could include promoting social health insurance in the formal sector and national professional associations in the informal sector at the national level, with alternative financing arrangements for those who belong to neither group. This could be enhanced by mutual engagement in the public sphere, for example by launching national public campaigns promoting risk pooling and cross-subsidization. This would be similar to the approach taken in Ghana where CBHI was replaced with a national health insurance scheme (NHIS) with premium subsidies for certain vulnerable groups.

In sum, the concept of solidarity in CBHI was complex, with stakeholders’ discourse incorporating four dimensions and four sources of solidarity. Each dimension and source of solidarity was either viewed as desirable but not borne out in practice, or highly contested with views diverging between stakeholders and the target population. Furthermore, although the research used an open-ended interview technique and an inductive approach to coding the interview transcripts, it is possible that other dimensions of solidarity were at play that were not captured by the interviews. Future research would benefit from considering ethnography in order to allow a more
comprehensive understanding of solidarity in CBHI. Implications of the study for CBHI policy and for universal health coverage more widely are discussed in the next section.

Conclusions

In all three schemes there were serious contradictions and inconsistencies within stakeholders’ discourse about solidarity; and between stakeholders’ discourse about solidarity on one hand and the target population’s views and behaviours as regards solidarity on the other. In practice, the four dimensions of solidarity (health risk, vertical equity, scale and source) were at best only partially mobilized in the context of CBHI. These contradictions, inconsistencies and conflicts help explain the inability of CBHI to expand coverage. Because solidarity was used as a catch-all phrase, rarely unpacked in the way we have done in this paper, stakeholders were able to continue using the rhetoric of solidarity, despite the lack of implementation on the ground.

As such, this study raises a number of previously overlooked policy and implementation challenges for expanding CBHI coverage in Senegal, and perhaps elsewhere. Policy-makers need to engage in a more rigorous public discussion of solidarity as regards CBHI and universal health coverage policy more widely, in order to move towards policies which both resonate with and meet the expectations of the people they aim to serve.

There is a need to reform CBHI so that it becomes a coherent solidarity mechanism, which both provides financial protection and resonates with local power relations on community-based health insurance. To do this we need to move towards policies which both provide targeted subsides. Policy-makers need to engage in a more rigorous public discussion of solidarity as regards CBHI and universal health coverage policy more widely, in order to move towards policies which both resonate with and meet the expectations of the people they aim to serve.

From a methodological perspective, the results suggest that studying values 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 universal health coverage policies more widely.

References


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