HEALTH SYSTEMS & REFORM
2024, VOL. 10, NO. 1, 2402084
https://doi.org/10.1080/23288604.2024.2402084

Taylor & Francis
Taylor & Francis Group

RESEARCH ARTICLE

OPEN ACCESS Check for updates

Scaling Up Departmental Health Insurance Units in Senegal: A Mixed-Method Study

Valéry Ridde[a,b], Mouhamadou Faly Ba[b], Babacar Kane[b], Anouk Chouaïd[a], and Adama Faye[b]

[a]IRD, INSERM, Ceped, Université Paris Cité, Paris, France; [b]Institute of Health and Development (ISED), Cheikh Anta Diop University, Fann-Dakar, Senegal

ABSTRACT

In response to the failure of community-based health insurance (CBHI) at the municipal level, some African countries are implementing district or departmental CBHIs to improve universal health coverage. After creating two CBHIs at the departmental level in 2014, Senegal launched a campaign to disseminate the model in 2022. This article presents the stakeholders' perspectives on the factors and challenges of scaling up CBHI departmentalization in Senegal. The study uses a mixed-methods approach, utilizing concept mapping and a focus group to examine scaling up departmentalization. The sample size consists of 22 individuals involved in the process. The quantitative analysis includes hierarchical cluster analysis, multidimensional scaling analysis, and the Pearson coefficient test. The qualitative analysis involves content analysis to triangulate the findings. Participants identified 125 factors to consider for the departmentalization of CBHI. They were categorized into nine clusters according to their degree of importance (I) and ease to organize (F): service package (I: 4.07; F: 2,26), communication (I: 4.05; F: 2.96), governance (I: 3.96; F: 2,94), human and logistical resources (I: 3.94; F: 2,82), financing (I: 3.90; F: 2,31), involvement of the authorities (I: 3.82; F: 2.75), community involvement (I: 3.81; F: 2.76), membership (I: 3.70; F: 2.24, strategic planning and implementation (I: 3.57; F: 2,62). The main challenges faced were a process perceived as precipitous and vertical and needing more negotiation and consultation. The conditions for accompaniment and public funding availability need to be sufficiently considered. The study proposes avenues for action to promote the scaling up of CBHI departmentalization in Senegal.

ARTICLE HISTORY
Received 9 February 2024
Revised 2 September 2024
Accepted 4 September 2024

KEYWORDS
Community-based health insurance; scalability; Senegal; universal health coverage

Introduction

Over 25 years ago, Bart Criel proposed organizing and scaling up district health mutuals[1] to improve access to care and protect people in sub-Saharan Africa from catastrophic health spending. He based his proposal on theoretical considerations and empirical studies in the Central African Republic, the Democratic Republic of the Congo (DRC), and Rwanda. Since then, numerous projects have aimed to establish Community-Based Health Insurance (CBHI) in Sub-Saharan Africa.[1] However, these CBHIs have remained at small risk-sharing scales (communes, villages), have been managed by volunteers from the communities, and are based on voluntary membership.[1,2] Although effective for their members, the coverage and penetration rates of these small CBHI have been very disappointing.[2–4] As a result, this financial instrument is no longer recommended for universal health coverage (UHC).[5,6]

Thus, only a few countries in sub-Saharan Africa (see the synthesis[7] or former experience in the DRC[8]) have attempted this reform proposal with district or departmental CBHI. Recently, Mali (2 districts, co-financed by France) and Chad (7 districts, co-financed by Switzerland and the European Union) organized district mutuals in French-speaking Africa.[9] However, they did not continue at the end of external funding. Niger has recently initiated a similar experiment in two districts in 2022, following the example of Senegal. Despite political interference in the health sector, insufficient public funding, and fragmentation of its instruments,[10,11] Senegal is now a pioneer in Francophone West Africa for the reforms of CBHI-based health financing at the district level.[12]

However, Senegal's national policy launched in 2013 with 676 CBHIs at the municipal level has not enabled more people to be covered for health risks. While in 2019, only 4.5% of household members in the national survey were covered by a communal CBHI,[13] the most recent study in 2023 reveals that the situation has not improved, with only 4.1% covered.[14] Moreover, the latest national health accounts (NHA) confirm the

CONTACT Valéry Ridde valery.ridde@ird.fr IRD, INSERM, Ceped, Université Paris Cité, Campus Saint-Germain, 45 rue des Saints-Pères, Paris 75006, France

failure. While voluntary prepayment (CBHI) represented only 6.8% of current expenditure in 2017, this has fallen to 5% in 2021, for an average of just 5.48% over this period.[15] In addition, the poorest have not improved their access to care and have not been protected from catastrophic expenditure.[16,17] The lack of professionals to manage the operation of CBHIs has been a very limiting factor.[18] Two national evaluations have demonstrated the failure of this policy and the need for reform.[19,20]

After this disappointing national experience, Senegal decided to dissolve CBHIs at the municipal level and organize CBHIs at the department level in 2022. The results of the experiments in two departments since 2014[21,22] fed the national evaluation in 2021[19] and allowed the scaling up process to be planned. By the end of 2021, four new departments launched their mutuals, 12 by the end of 2022, and four more in 2023 (Figure 1). The ambition of the Strategic Plan (2023–2027) of the National Agency for Universal Health Coverage (ANACMU) is for the 46 departments of the country to have a CBHI by 2024.[23]

However, conceptual and empirical writings on scale-up strategies show they are relatively understudied.[24–27] In Africa, studies have focused mainly on sexual and reproductive health and HIV and not yet on health financing reforms.[28–30] The challenges of scaling up need to be included in the debates on UHC.[28] To our knowledge, there is no study in West Africa on the challenges of scaling up departmental CBHI reforms.[7] Thus, this study highlights the factors and the challenges of scaling up departmental health mutuals in Senegal.

Methods

Study Setting

The study is in Senegal, with 14 regions, 46 departments, and 79 health districts. The departments that have dissolved their communal mutuals and organized a single departmental mutual are shown in Figure 1.

Study Design

The research falls within the scope of health systems studies[25] and uses a mixed methods approach with a triangulation design.[31] Quantitative and qualitative data are given equal weight in the parallel analysis. Theoretical frameworks were not used as *a priori* for data collection but were mobilized as *a posteriori* in the analysis. The research aims to report the stakeholders' points of view from an emic perspective, similar to the work carried out in Australia.[32] Therefore, an inductive approach was the most appropriate.[33]

Scaling up is an organized process to increase the impact of a previously tested innovative intervention intended to benefit more people.[25,26,34] The unit of analysis, the "scalable unit,"[27] corresponds to the departmental health CBHI, whose functioning is described elsewhere.[21,22] While the technical arrangements may differ depending on the department, the common points are the abolition of the communal CBHI and the creation of a single departmental mutual unit, the recruitment of professional staff managers, the maintenance of community governance, and the departmental portability of the healthcare services covered.

Population, Data Collection, and Data Analysis

Following the sampling approach suggested by Patton,[35] the study participants were selected based on their knowledge and involvement in the scale-up process. In coordination with ANACMU and Lux-Dev, which are funding a project to support scale-up in eight departments, the Ministry of Health invited 22 experts to participate in the study. The selection criteria for the participants were based on their knowledge of CBHIs and the current scaling up process (Criterion sampling). It was essential to have the point of view of people involved and familiar with the issues to meet our research objective. In addition, we also sought to involve diverse stakeholders, including people we knew from our previous research who might have a critical viewpoint on scaling up. These people represented 11 departmental mutuals and two regional mutuals throughout the territory. For the sake of internal diversification of the sample, the participants are directors (employees; $N = 5$); board chairs of departmental mutuals (volunteers; $N = 8$); heads of regional services of the ANACMU ($n = 4$); the person in charge of the CBHI restructuring within the ANCMU ($n = 1$); an official from the Research Division of the Ministry of Health ($n = 1$); two national technical assistants of Lux-Dev ($n = 2$); and the President of the National Association of CBHI ($n = 1$). The presence of people from government stakeholders or donors was also significant, as they were involved in the impetus and support for scaling up. Their participation was acceptable for the CBHI participants during the data collection. The authors of this study brought these 22 people (age: 46.5 years ± 9.0; three women) together for a one-day workshop hosted in French and Wolof in November 2023. As the results show, our facilitation technique enabled everyone to express themselves freely, including critically. We did not perceive any

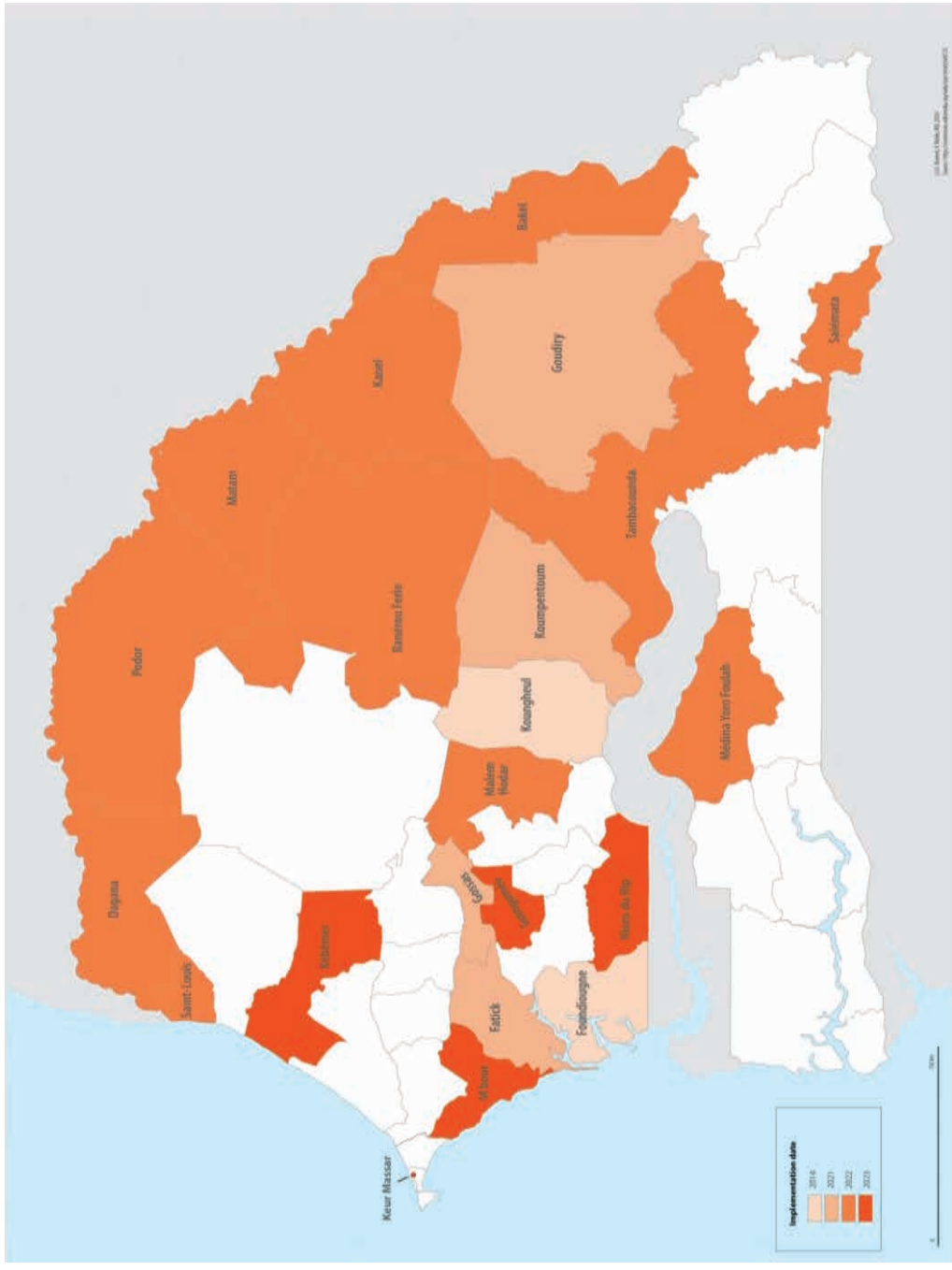

Figure 1. Diffusion over time of the departmental CBHI in Senegal since 2014.

social desirability bias during the data collection. We stressed to participants that the aim was not to evaluate their personal activities but to learn lessons and share ideas to support the process of scaling up.

We derived the empirical data from two group data collection techniques on the lessons learned from scaling up by examining the factors to consider and the challenges encountered.

The first technique is concept mapping—a method explained in detail elsewhere.[36] It allows for group consensus using a mixed methods approach to identify factors to consider when scaling up. We started by asking participants to brainstorm for about an hour to develop a list of statements (factors) to answer the following question: "If the departmentalization of health mutuals were to be done again, it would have to …" Then, the participants had to individually assign a score from 1 (minus) to 5 (plus) for each collectively produced factor for an importance and ease criterion. Each participant then had to group all the factors into clusters that made sense to them. Finally, after the data were entered into the CM Provalis® software, we performed a hierarchical analysis of the groups on the Euclidean distance between all the statements, followed by a multidimensional scale analysis on the similarity matrix. The authors chose the number of final clusters on a heuristic basis. We calculated Pearson's coefficient to measure the correlation between the two-factor rating scales. Finally, we named each cluster.

The second technique was a focus group to highlight the challenges of departmentalization. It allowed stakeholders to share and discuss together. We used a wide-ranging discussion guide to enable participants to give their views on the challenges and difficulties of implementing departmentalization, the resistance encountered, the ownership of the process, and, finally, the lessons learned. But people could discuss unplanned topics. The discussion lasted for two hours. We recorded and fully transcribed the debate in French (31 pages). Then, all the content was reread several times, and an inductive content analysis was carried out without software. Each extract of discourse corresponding to a theme was identified, and all the extracts were grouped by theme to make them easier to analyze. This qualitative data were also triangulated with the results of the concept mapping.

Ethics

The study was approved by the Senegalese National Ethics Committee for Health Research (SEN22/135) and administrative approval from the Ministry of Health (21041/MSAS/DPRS/DP). The collective discussion was recorded with the consent of the participants.

Results

Factors to Consider for Departmentalization

Participants suggested 125 factors to consider when departmentalizing CBHI in this scaling up process. The average importance of the factors is 3.85 ± 0.42, while the average ease of implementation was much lower (2.67 ± 0.51). The Pearson correlation between importance and ease is positive and moderate ($r = 0.45$ [0.30–0.58]).[37] Unsurprisingly, this shows that implementation is always more complex than planning.

Table 1 shows the 11 statements with the highest average scores (majority and ease). Availability of drugs and portability of care at the national level emerge as operational imperatives. For a long time, CBHI members have faced challenges when receiving drugs in public facilities. The reimbursement issue for drugs purchased in private pharmacies is a recurrent need for members and an ongoing debate. Addressing this challenge is an integral part of the departmentalization process. The same applies to healthcare portability between different healthcare structures outside the department. However, information about the population, appropriation, and government involvement are

Table 1. Average score of highest factors by criteria.

Importance	Score	Ease	Score
Availability of medicines	4,68	Have bylaws and internal regulations	4,18
Ensuring national portability of care	4,68	Ensuring transparency in the staff recruitment process	3,82
Guaranteeing continuity of service	4,64	Clearly defined specifications for technical staff	3,73
Consensus between all players	4,59	Greater involvement of mutual insurance bodies	3,64
Involving the State more closely to ensure sustainability	4,5	Hold meetings to monitor agreements between mutual insurers and service providers	3,64
Informing the public	4,5	Updating agreements between mutual insurers and service providers	3,5
Recruiting qualified and committed staff	4,5	Involving more of the mutual players who have already succeeded in the model	3,45
Providing human, technical, and logistical resources	4,5	Consolidating community roots	3,45
Ensuring transparency in the management of resources	4,45	Respect the different stages of implementation	3,45
Availability of an inclusive list of eligible medicines	4,45	Building on what already exists	3,45
Strengthening medical supervision	4,45	Harmonizing and popularizing management tools	3,45

also essential. Departmentalization involves significant political stakes, and the interplay of community and public actors means that the stakeholders must be well informed, and the conditions for a consensus on the process must be ensured. The insurance offer must be of high quality to facilitate scale-up because it is only possible to strengthen the protection of demand for care by guaranteeing the quality of the supply. Participants stated that the most accessible aspects of organizing are related to the organizational and communication plan. Involvement, participation, and transparency are at the heart of the positive factors. These elements help to build consensus and understanding of the issues involved in a significant reform, where resistance may emerge without the involvement of all stakeholders.

Looking at the statements with the lowest scores (Table 2), we noted that participants stated that it would have been more helpful to eliminate the original communal CBHI or to test other models in scaling up. The participants expressed their views on the issue of pilot projects and tests of the reform. They seem to think this is unnecessary and that the decisions should be applied with little hesitation or experimentation. Most participants, men, did not consider it worthwhile to include more women in CBHI management and governance or involve civil society. We are at the heart of social inclusion challenges in CBIH and the health system. The action deemed hardest to implement is the depoliticization of the mutualist milieu, which is no surprise since the CBHI policy was an election promise. However, the contemporary challenge of the mandatory nature of the contribution was raised as one of the least accessible. This is a recurring theme in analyses of health financing reforms in Senegal and one that is politically very difficult to tackle. However, technically, this is certainly a solution worth discussing. The participants refer to endogenous experiences of collective adhesion in villages (collective fields) or schools for children.

Beyond the individual statements, the statistical analysis suggested grouping the 125 factors into nine clusters (details Appendix 1) of dimensions to be considered (Figure 2). They must be understood as a complex set that forms a whole when one wishes to departmentalize mutual societies and disseminate their model. Most factors are grouped into strategic planning and implementation issues ($n = 24$) and the package of services offered by mutuals ($n = 22$). The participants, therefore, wish to draw attention to the imperative need to organize the processes in stages, plan the reform in detail, involve all the stakeholders by avoiding vertical approaches, and think about all the associated strategic elements. In addition, it is essential to define the service package that the new departmental CBHI will cover, as this gives a clear signal about the risks covered to members and the service offering and its portability to ensure continuity of care. The participants highlighted technical issues, such as the need for contractual agreements, organizing medical control, specifying the procedures for purchasing care and co-payment, involving the private sector, and guaranteeing the availability of drugs. The latter cluster is presented as the most important but not the easiest to organize, confirming the essential nature of the supply offered to mutual members. This is followed by communication and governance, all attributes associated with the responsiveness of insurance. Communication issues call for good preparation and informing local populations as clearly as possible about the reform and the new insurance offer. The governance issue highlights the need for transparent management, clear procedures and a supervisory body.

The comparison (pattern matching) of the importance and ease of implementation scores (Appendix 2) confirms the challenges of offering a package of services to mutualists with adequate

Table 2. Average score of lowest factors by criteria.

Importance	Score	Ease	Score
Take care of basic (communal) mutual insurance	3,32	Moving towards social mutuals	1,95
Study the feasibility of implementing it everywhere	3,32	Avoid volunteering	1,95
A risk mitigation plan	3,32	Involve civil society organizations through consumer protection organizations	1,91
Capitalize on the direct contribution bypass mechanism	3,32	Remunerate directors of mutuals	1,91
More women in governance bodies	3,27	Solve the problem of mutualist debt before starting up	1,91
A policy with clearer goals	3,24	Make membership compulsory for students	1,86
Start the process earlier	3,18	Involve mutualists on the boards of health facilities	1,86
Successful staff rotation	3,14	Avoid territorial inequalities caused by the technical and financial partners	1,82
Involve civil society organizations through consumer protection organizations	2,82	Make membership in mutuals compulsory	1,77
Define other implementation procedures	2,59	depoliticize the mutualist environment	1,68
Test several models	2,55		
Set up a mechanism to eliminate mutuals at the grassroots level	2,33		

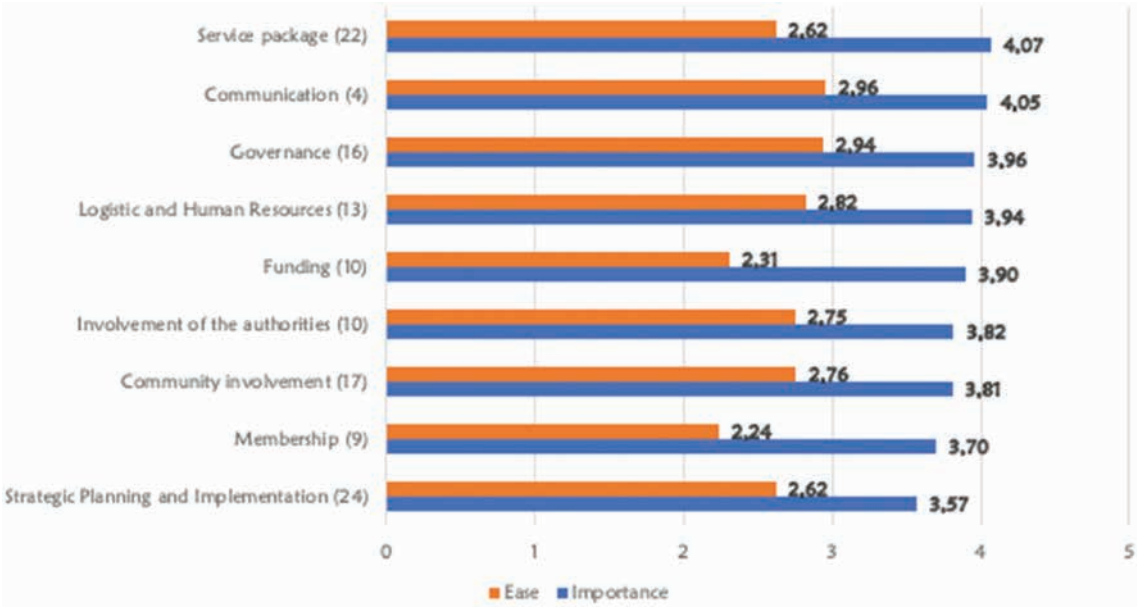

Figure 2. Average scores of importance and ease by cluster.

funding and appropriate membership. This last element is the least easy to organize, as population support is always challenging to obtain despite state subsidies. This question also concerns the membership of non-contributors (indigents, children) who are fully subsidized by the State but whose late payments can jeopardize the financial equilibrium of the CBHIs.

The Challenges of Departmentalization

The focus group analysis provides qualitative details on the main challenges encountered during the transition to departmentalization, often mirroring the factors identified during the concept mapping.

First, several participants questioned the process set up by ANACMU. Some feel that it has been rushed, organized too vertically, and without taking the time to consult with all stakeholders. Community officials say they think an imposed and unnegotiated transition: "*Decision-makers make decisions without consulting mutual organizations.*" These reflections align with the importance of concept mapping to consensus building, the need to involve CBHI managers and the various statements concerning strategic implementation. This lack of communication may have played a detrimental role in the acceptance of the new model and explains the reluctance of some community officials of the dissolved mutuals to sideline them in favor of professionals managing the new departmental mutuals. Power issues are, therefore, at the heart of the challenges posed by this process of departmentalization, as confirmed by the concept's mapping statements on community involvement and the involvement of the authorities. Stakeholders pointed out the lack of pedagogy and consultation over a relatively long period.

Moreover, the evidence behind the proposed model needed to be sufficiently convincing for everyone. A National Association of CBHI representative remembers saying, "*There is no convincing evidence, no document that tells you that this is the departmentalization, its advantages, and disadvantage.*" He complains about the lack of feasibility studies, risk analysis, and evidence of the effectiveness of the original model.

Secondly, the conditions for the transition to the departmentalization scale were not met everywhere. Some mutuals engaged in departmentalization because a donor project had promised them aid. This aid was not always granted as expected: "*We were told that XXX was going to accompany us . . . that's what we were sold, and I know it was gleaming,*" said a CBHI director. The administrative and accounting procedures (contracting, disbursement, etc.) of the technical and financial partners (TFP) are questioned. Two statements in the concept mapping perfectly reflect this challenge: "*avoiding territorial inequalities caused by TFPs*" and "*not being dependent on partners.*" They obtained shallow feasibility scores, thus confirming what was said during the focus group. Organizational challenges on the ANACMU side, which received funding from this TFP to support the scaling up, were also identified. In addition, other Departmental Health Insurance did not have the support of an external partner.

Senegal subsidizes 50% of the contribution rate for contributory mutualists and 100% for non-contributor (indigent) contributions to encourage membership. However, participants noted that the significant government reimbursement delays and the mutual debts to healthcare providers are immense challenges. This issue has not been sufficiently considered in the dissemination of the model. ANACMU even announced the upcoming end of these grants to mutuals. The mutuals would no longer manage the care costs provided to mutualists but would be reimbursed by the health facilities, which would request reimbursement of mutualists' benefits. These announced changes are of concern to the participants. Thus, "*the first challenge is the timely payment of State's counterpart*," explains the president of a mutual. The challenges in this second part correspond to the governance and financing issues raised in two clusters of the mapping concept, which rank 3rd and 5th in importance out of the 9 clusters.

The participants also explained that the law of large numbers is a significant challenge and that "*massification*" (i.e., many members) is essential for the success of risk sharing. To achieve this, they insist on the importance of communication to inform and convince people of their interest in joining and the need for strategies to move forward organized by mutualist leaders. Communication is the second most crucial cluster in concept mapping, although it has the fewest statements. Massification must not be done at the expense of "*community anchoring*," says another mutual president. The use of local antennae at the municipal level is also a challenge.

While departmentalization is a national program and scaling up is organized by ANACMU, participants argued that the involvement of local and regional authorities and their ownership of the model is a significant challenge. This is reflected in the ten statements on the importance of involving the authorities, in particular, the involvement of local and regional authorities. The decentralization of health is slow, and strategies need to involve these communities and ensure that scaling remains within their responsibility to care for the population of their territory.

Finally, beyond the challenges, participants wanted to return to important lessons learned, which are summarized in these critical points:

- Take time for negotiations and provide detailed and educational information to all stakeholders,
- Involve all those affected by the reform very early and regularly, including decentralized administrative authorities,
- Involve local leaders of former mutuals to build on the trust previously established with the communities,
- Scale up gradually in a flexible, agile, and inclusive way,
- Organize study tours, sharing and capitalization sessions between units moving to scale,
- Technical and financial support must be obtained from the state and its international partners.

Discussion

This study is one of the few publications on the scale-up of a public health intervention in West Africa.[28,38]

Pragmatically, the results are interesting for countries that have chosen to engage in the broader dissemination of the district or departmental insurance model. The factors suggested and the challenges encountered are all operational advice that can guide action. In line with the analytical frameworks and empirical studies on scaling up,[25,26,30,32] we note the importance, beyond financial issues,[28,30] of communication and negotiation issues, and having a dedicated and competent support team to help disseminate the innovative model. Of course, these are not ready-made lessons. They must be adapted to local contexts and organized in a participatory and inclusive process.[26,39]

At the strategic level, the scaling up of these departmental mutuals in Senegal was taken in 2022 after several years of testing models, a national evaluation and studies showing the importance of management by professionals associated with ANACMU's national leadership.[12,18,21] Although the choice of model was delayed,[40] the decision and its organization were perceived as quick and top-down. This type of vertical process, often found in centralized contexts of scaling up,[24] is similar to the administrative organization of public health in Senegal.[41] In the case of CBHI, the power stakes are significant and old.[42] Mutual health insurance schemes are often places of local power, elite capture or influence for local politicians. They may use the CBHI schemes for personal gain or political careers, with the purchase of CBHI cards in the context of elections being a common practice. Social inclusion is a challenge in this context and recalls the essential nature of participatory approaches to health reforms.[43] This is all the more crucial in the context of the involvement of the political sector in the health sector, both in Senegal and elsewhere in the region,[11] particularly during the turbulent presidential elections (2023–24). The socio-political context is the second most crucial external factor influencing scaling up.[38] In addition, the classic dilemma in the region[9] is between the need for

public action and more vital state funding, which is not always the case in Senegal,[10] and the desire to give space to the mutualist community movement.[42]

The study confirms the challenges posed by dependence on external partners in choosing models.[11,28,40] As it happens, financing is the most important influencing element in the outer context of scaling up complex health interventions and the most frequently cited factors.[38] A recent scaling-up study in Ghana, Malawi and Uganda rightly asks this question: « W*hether one should embark on a scale-up process without first carrying out an estimate of ongoing running costs to support the scale-up and the assurance that future funding would be available.*"[44] Cost analysis is one of the 12 essential elements for studying the potential for scaling up, as proposed by a recently suggested self-analysis tool.[34]

As the participants explained, scaling up can be facilitated by reproducing an identical model, which may not be possible or desirable. The basic model in the departmental test insurance was not replicated in all dimensions as it was scaled up to adapt to regional contexts and cope with resource constraints. However, the actors have established minimum conditions for the effectiveness and viability of these assurances. These conditions align with state-of-the-art standards, such as quality of healthcare service, public funding, and state stewardship, bureaucracy efficiency, etc.[2,4,8] Efforts to scale up without meeting these prerequisites would be illogical. Not only would it jeopardize the possibilities of these departmental mutuals being seen as a step toward a national system (as was the case in Tanzania or Rwanda,[7] but it would also undermine the idea of the insurance principle. The State has been considering the systematic nature of membership for several years.[45]

Our study had no conceptual objective, but the results align well with scaling up science[26] and its conceptual frameworks,[24–26,32,39] including in Africa.[27,29] The five classic dimensions of scaling up (innovation, resource system, user organization, scale-up strategies, and environment[1,9,24]) combine well with the factors drawn from the experiences of the Senegalese actors. Similarly, the experiences shared in this article correspond to the eight pitfalls and seven factors favorable to scaling up: a top-down approach, adaptation to the context, involvement of users, temporality, governance, etc.[18,38] However, this study shows that the rational vision of a step-by-step process of scaling up is not what is empirically observed.[30] Instead, the processes consist of waves, currents, and windows of opportunity,[46] as explained by decision-makers in Australia.[32]

Limitations

One potential limitation of this study is social desirability biases among participants, as they are all invested in scaling up. The Ministry of Health representatives and a donor were also present during the data collection. However, the facilitation ensured everyone could express themselves freely, and the results show that criticism was not suppressed. The second limitation is temporal because the data collection occurred during the recent departmentalization scaling up. It will be interesting to replicate the analysis in the coming years and conduct in-depth individual interviews to understand better the challenges and power issues that may not easily be discussed in group meetings.

Conclusion

Since 2014, Senegal has been innovating its health system by testing a health mutual model in two departments. Due to the need for better UHC and the positive results of this model, it began being scaled up in 2022 to extend this insurance to 20 new departments. The individuals involved in this scaling up have highlighted many factors and challenges, providing recommendations to inform decision-makers in countries seeking to implement this reform. Only time will tell if it has been effective for UHC in Senegal.

Acknowledgments

The authors sincerely thank those who participated in the workshop, Heather Hickey, for editing the English and the two reviewers.

Disclosure Statement

The article's authors were paid as consultants, or the Lux-Dev grant covered their travel expenses. The workshop participants were not paid but were reimbursed for their participation costs (accommodation, travel, food).

Funding

This work was supported by a Lux-Dev Senegal grant (SEN/031.22 2771). Lux-Dev had no role in the design of this study, its execution, analyses, interpretation of the data, or decision to submit results.

ORCID

Valéry Ridde http://orcid.org/0000-0001-9299-8266

References

1. Waelkens M-P, Soors W, Criel B. Community health insurance in low- and middle-income countries. In: Quah, Stella R, editor. International encyclopedia of public health. 2nd ed. Cambridge, Massachusetts: Academic Press; 2017. p. 82–92. doi:10.1016/B978-0-12-803678-5.00082-5.
2. Dror DM, Hossain SAS, Majumdar A, Pérez Koehlmoos TL, John D, Panda PK, Weary D. What factors affect voluntary uptake of community-based health insurance schemes in low- and middle-income countries? A systematic review and meta-analysis. PLOS ONE. 2016;11(8):e0160479. doi:10.1371/journal.pone.0160479.
3. Artignan J, Bellanger M. Does community-based health insurance improve access to care in sub-saharan Africa? A rapid review. Health Policy Plan. 2021;36(4):572–84. doi:10.1093/heapol/czaa174.
4. Adebayo EF, Uthman OA, Wiysonge CS, Stern EA, Lamont KT, Ataguba JE. A systematic review of factors that affect uptake of community-based health insurance in low-income and middle-income countries. BMC Health Serv Res. 2015;15(1):543. doi:10.1186/s12913-015-1179-3.
5. Mathauer I, Mathivet B, Kutzin J. Community based health insurance: how can it contribute to progress towards UHC? Geneva, Switzerland: WHO; 2017.
6. Ridde V, Asomaning Antwi A, Boidin B, Chemouni B, Hane F, Touré L. Time to abandon amateurism and volunteerism: addressing tensions between the Alma-Ata principle of community participation and the effectiveness of community-based health insurance in Africa. BMJ Glob Health. 2018;3(Suppl 3):e001056. doi:10.1136/bmjgh-2018-001056.
7. Ly MS, Bassoum O, Faye A. Universal health insurance in Africa: a narrative review of the literature on institutional models. BMJ Glob Health. 2022;7(4):e008219. doi:10.1136/bmjgh-2021-008219.
8. Criel B, Kegels G. A health insurance scheme for hospital care in Bwamanda district, Zaïre: lessons and questions after 10 years of functionning. Trop Med Int Health. 1997;2(7):654–72. doi:10.1046/j.1365-3156.1997.d01-349.x.
9. Touré L, Boivin P, Diarra Y, Diabaté S, Ridde V. Innovations in mutuality: challenges and learnings for the universal health insurance plan in Mali. BMJ Glob Health. 2023;7(Suppl 9):e011055. doi:10.1136/bmjgh-2022-011055.
10. Paul E, Ndiaye Y, Sall FL, Fecher F, Porignon D. An assessment of the core capacities of the Senegalese health system to deliver universal health coverage. Health Policy Open. 2020;1:100012. doi:10.1016/j.hpopen.2020.100012.
11. Mladovsky P, Prince R, Hane F, Ridde V. The primacy of politics in neoliberal universal health coverage policy reform. A commentary on 'financing and provision of healthcare for two billion people in low-income nations: Is the cooperative healthcare model a solution?– by William C Hsiao and Winnie Yip. Soc Sci Med. 2024;345:115742. doi:10.1016/j.socscimed.2023.115742. PMID: 36775703.
12. Daff BM, Diouf S, Diop ESM, Mano Y, Nakamura R, Sy MM, Tobe M, Togawa S, Ngom M. Reforms for financial protection schemes towards universal health coverage, Senegal. Bull World Health Organ. 2020;98(2):100–08. doi:10.2471/BLT.19.239665.
13. Agence Nationale de la Statistique et de la Démographie, ICF. Sénégal: Enquête Démographique et de Santé Continue (EDS-Continue 2019)—Tableaux. Rockville (MD), USA: ANSD et ICF; 2020. https://www.dhsprogram.com/pubs/pdf/FR368/FR368.T.pdf.
14. ANSD, ICF. Enquête Démographique et de Santé Continue (EDS-Continue). Dakar: Agence Nationale de la Statistique et de la Démographie (ANSD), Dakar, Sénégal, and The DHS Program. Rockville (MD), USA: ICF; 2024.
15. MSAS. Rapport des comptes de la santé 2017–21. Ministere de la Santé et de l'Action Sociale. 2022;68.
16. Ly MS, Faye A, Ba MF. Impact of community-based health insurance on healthcare utilisation and out-of-pocket expenditures for the poor in Senegal. BMJ Open. 2022;12(12):e063035. doi:10.1136/bmjopen-2022-063035.
17. Bousmah M-Q, Diakhaté P, à D TG, Le Hesran J-Y, Lalou R. Effects of a free health insurance programme for the poor on health service utilisation and financial protection in Senegal. BMJ Glob Health. 2022;7(Suppl 9):e009977. doi:10.1136/bmjgh-2022-009977.
18. Rouyard T, Mano Y, Daff BM, Diouf S, Fall Dia K, Duval L, Thuilliez J, Nakamura R. Operational and structural factors influencing enrolment in community-based health insurance schemes: an observational study using 12 waves of nationwide panel data from Senegal. Health Policy Plan. 2022;37(7):858–71. doi:10.1093/heapol/czac033.
19. CRES. Les mutuelles de santé dans le système de la couverture maladie universelle du Sénégal. Dakar: ministère du développement communautaire, de l'équite sociale et territoriale. Dakar, Senegal: CRES; 2021.
20. Evaluation de la politique nationale de santé et du système de santé. Dakar: Commission d'évaluation et de suivi des politiques et programmes publics. Dakar, Senegal: CESPPP; 2023.
21. Ridde V, Kane B, Mbow NB, Senghor I, Faye A. The sustainability of two departmental health insurance units in Senegal: a qualitative study. SSM Health Syst. 2024;2:100006. doi:10.1016/j.ssmhs.2023.100006.
22. Mbow NB, Senghor I, Ridde V. The resilience of two professionalized departmental health insurance units during the COVID-19 pandemic in Senegal. J Glob Health. 2020;10(2):1–6. doi:10.7189/jogh.10.020394.
23. Ministère du développement communautaire, de l'équité sociale et territoriale, ANACMU. Plan stratégique de développement Agence CMU 2023–2027. 2023.
24. Côté-Boileau É, Denis J-L, Callery B, Sabean M. The unpredictable journeys of spreading, sustaining and scaling healthcare innovations: a scoping review. Health Res Policy Syst. 2019;17(1):84. doi:10.1186/s12961-019-0482-6.
25. Simmons R, Fajans P, Ghiron L. Scaling up health service delivery: from pilot innovations to policies and

programmes. Geneva: World Health Organization; 2007.
26. McLean R, Gargani J. Scaling impact: innovation for the public good. London; (NY): Ottawa: Routledge, Taylor & Francis Group; International Development Research Centre; 2019.
27. Barker PM, Reid A, Schall MW. A framework for scaling up health interventions: lessons from large-scale improvement initiatives in Africa. Implement Sci. 2016;11(1):12. doi:10.1186/s13012-016-0374-x.
28. Bulthuis SE, Kok MC, Raven J, Dieleman MA. Factors influencing the scale-up of public health interventions in low- and middle-income countries: a qualitative systematic literature review. Health Policy Plan. 2020;35(2):219–34. doi:10.1093/heapol/czz140.
29. Bulthuis S, Kok M, Onvlee O, O'Byrne T, Amon S, Namakula J, Chikaphupha K, Gerold J, Mansour W, Raven J, et al. How to scale-up: a comparative case study of scaling up a district health management strengthening intervention in Ghana, Malawi and Uganda. BMC Health Serv Res. 2023;23(1):35. doi:10.1186/s12913-023-09034-1.
30. Leeman J, Boisson A, Go V. Scaling up public health interventions: engaging partners across multiple levels. Annu Rev Public Health. 2022;43(1):155–71. doi:10.1146/annurev-publhealth-052020-113438.
31. De Allegri M, Sieleunou I, Abiiro GA, Ridde V. How far is mixed methods research in the field of health policy and systems in Africa? A scoping review. Health Policy Plan. 2018; published online Jan 19. 33(3):445–55. doi:10.1093/heapol/czx182.
32. Lee K, Van Nassau F, Grunseit A, Conte, K., Milat, A, Wolfenden, L, Bauman, A. Scaling up population health interventions from decision to sustainability – a window of opportunity? A qualitative view from policy-makers. Health Res Policy Syst. 2020;18(1):118. doi:10.1186/s12961-020-00636-3.
33. Gilson L. editor. Health policy and systems research. A methodology reader. Geneva: Alliance for Health Policy and Systems Research, World Health Organization; 2012.
34. Corôa RDC, Ben Charif A, Plourde K, Gogovor A, Légaré F. Questionnaire auto-administré sur le potentiel de mise à l'échelle des innovations en santé et en services sociaux. ISSaQ 4.0. Québec: Unité de Soutien SSA Québec; 2023.
35. Sampling PM. Qualitative (purposeful). In: Ritzer G. editor. The blackwell encyclopedia of sociology. John Wiley & Sons; 2015. doi:10.1002/9781405165518.wbeoss012.pub2.
36. Péladeau N, Dagenais C, Ridde V. Concept mapping internal validity: a case of misconceived mapping? Eval Program Plann. 2017;62:56–63. doi:10.1016/j.evalprogplan.2017.02.005.
37. Schober P, Boer C, Schwarte LA. Correlation coefficients: appropriate use and interpretation. Anesth Analg. 2018;126(5):1763–68. doi:10.1213/ANE.0000000000002864.
38. Sun L, Booth A, Adaptability SK. Scalability and sustainability (ASaS) of complex health interventions: a systematic review of theories, models and frameworks. Implement Sci. 2024;19(1):52. doi:10.1186/s13012-024-01375-7.
39. Lee K, Crane M, Grunseit A, O'Hara B, Milat A, Wolfenden L, Bauman A, van Nassau F. Development and application of the scale-up reflection guide (SRG). Int J Environ Res Public Health. 2023;20(11):6014. doi:10.3390/ijerph20116014.
40. Ridde V, Caffin J-H, Hane F. External influences over Senegalese health financing policy: delaying universal health coverage? Health Policy Plan. 2024;39(1):80–83. doi:10.1093/heapol/czad108.
41. Ridde V, Faye A. Policy response to COVID-19 in Senegal: power, politics, and the choice of policy instruments. Policy Des Pract. 2022;5(3):326–45. doi:10.1080/25741292.2022.2068400.
42. Alenda-Demoutiez J, Boidin B. Community-based mutual health organisations in Senegal: a specific form of social and solidarity economy? Rev Soc Econ. 2019;77(4):417–41. doi:10.1080/00346764.2018.1555646.
43. Gilson L. Trust and the development of health care as a social institution. Soc Sci Med. 2003;56(7):1453–68. doi:10.1016/S0277-9536(02)00142-9.
44. Raven J, Mansour W, Aikins M, Bulthuis, S, Chikaphupha, K, Dieleman, M, Kok, M, Martineau, T, Ssengooba, F, Wyss, K, Vallières, F. From PERFORM to PERFORM2Scale: lessons from scaling-up a health management strengthening intervention to support universal health coverage in three African countries. Health Policy Plan. 2024; czae063. doi:10.1093/heapol/czae063.
45. Ridde V, Gaye I, Ventelou B, Paul E, Faye A. Mandatory membership of community-based mutual health insurance in Senegal: a national survey. PloS Glob Public Health. 2023;3(9):e0001859. doi:10.1371/journal.pgph.0001859.
46. Agendas KJ. Alternatives and publics policies. 2nd ed. (NY): Harper Collins; 1995.

Appendices

Appendix 1: Statements (125) and clusters (9)

No.	Statements	Importance	Ease	Specificity	Cluster name
1	Authorities get involved	3,91	3	4,92	Involvement of the authorities
98	Involve administrative authorities throughout the process	4,05	3,36	4,04	
102	Strengthening the responsibility of local and regional authorities in management	3,55	2,14	4,71	
120	Involving local and regional authorities on mutual boards of directors	3,77	3,18	4,39	
76	A clear partnership framework with the State	3,95	2,36	5,3	
99	Better involve the State for sustainability	4,5	2,68	5	
110	Involving civil society organizations through consumer organizations	2,82	1,91	5,14	
105	Define relations between regional services and mutualist organizations	4	3,36	3,6	
31	Better Involve CDS (health committees)	3,5	2,86	3,82	
104	Involvement of MSAS	4,18	2,68	3,87	
	Average	3,82	2,75		
2	Consensus among all actors	4,59	2,41	3,82	Community involvement
13	Taking into account local realities	4,14	3,27	4,49	
10	Consensus of mutualist leaders	4,18	2,59	3,21	
70	Better involve mutualist actors who have already succeeded in the model	4	3,45	2,93	
35	Take care of basic mutuals	3,32	2,82	3,3	
86	Avoid bypassing mutualist actors through administrative authorities	3,59	2,68	2,7	
37	Consolidating community anchorage	4,05	3,45	3,02	
40	Highlight local leadership	3,68	2,77	3,27	
116	Involve all those involved in community dynamics	4	2,91	2,43	
29	Avoid power games	3,68	2,18	2,26	
83	Avoiding conflicts of interest	3,64	2,41	2	
41	Depoliticize the mutualist milieu	3,5	1,68	2,12	
47	A policy whose objectives are clearer	3,24	2,41	2,21	
25	Building on the existing	3,59	3,45	3,54	
63	Based on good mutualist practices	3,62	2,9	3,4	
109	Moving to social mutuals	3,64	1,95	2,07	
32	Better involve the bodies of mutual societies	4,33	3,64	2,22	
	Average	3,81	2,76		
46	Put in place a mechanism that would eliminate mutuals at the grassroots level	2,33	2,36	2,89	Planning and Strategic
49	Achieve national consensus	3,86	2	2,69	Implementation
3	Deadline for implementation	3,36	2,18	4,66	
6	Start the process very early	3,18	2,41	4,33	
12	Step by step in the implementation of the model	3,82	3,05	4,52	
21	Respect the different stages of implementation	4,14	3,45	4,16	
22	Scale by step	3,5	2,91	3,87	
9	Test multiple models	2,55	2,59	4,37	
101	Define other modalities for the implementation	2,59	2,09	4,39	
7	Plan implementation	3,91	3,32	3,03	
55	Carry out a feasibility study	3,73	2,64	3,98	
4	Harmonize the model	4,05	2,5	2,86	
58	Standardize the model	3,43	2,33	3,42	
8	Go to the end of the reform	3,86	2,68	3,19	
11	Avoid top-down	4,05	2,52	3,19	
85	Take the time of negotiation	3,75	2,6	3,34	
23	Assessing failure factors in implementation	4,09	2,59	2,84	
65	Assessing the functioning of existing mutuals	3,68	2,73	3,27	
111	Avoid simmering	3,91	2,86	2,45	
125	Study the feasibility of putting it in place everywhere	3,32	2	3,14	
81	Estimate the cost of setting up	3,59	2,77	2,55	
82	Estimate the cost of operation	3,95	3,09	1,61	
24	A risk mitigation plan	3,32	2,5	1,73	
36	Clarifying the institutional framework of mutual societies	3,68	2,82	2,04	
	Average	3,57	2,62		
15	Informing populations	4,5	3,18	8,71	Communication
16	A good communication plan	4,36	3,36	11,44	
28	A good social marketing plan	4	2,73	10,4	
38	Allocate a budget for communication and operation of the antennas	3,36	2,55	10,11	
	Average	4,05	2,96		

(*Continued*)

(Continued).

No.	Statements	Importance	Ease	Specificity	Cluster name
19	Capacity building	4,05	2,82	6,85	Human resources and logistics
34	Respect the rights of technical staff	3,68	3,41	8,12	
78	Recruit qualified and engaged staff	4,5	3,36	7,77	
123	Provide continuous training of staff	4,18	2,68	8,82	
94	Well define specifications for technical staff	4,36	3,73	6,95	
95	Successful staff rotation	3,14	2,18	12,28	
80	An assessment of the personnel required for management	3,73	2,77	11,39	
26	Provide human, technical, and logistical resources	4,5	2,68	5,84	
93	Ensure transparency in the staff recruitment process	4,32	3,82	5,04	
43	Avoid volunteering	3,64	1,95	2,33	
44	Remunerate the administrators of mutual societies	3,41	1,91	4,12	
27	Expertise	3,5	2,59	2,9	
39	Have a functional and attractive seat	4,27	2,82	2,48	
	Average	3,94	2,82		
33	Improving the governance of the process	4	3	2,92	Governance
52	Ensuring transparency in resource management	4,45	3,1	3,77	
75	More women in governance bodies	3,27	2,32	2,56	
64	Develop Manuals of Procedures	4,41	3,36	2,6	
66	Have statutes and rules of procedure	4,27	4,18	1,77	
61	Strengthening citizen control	3,5	2,32	2,61	
42	Develop and implement mutual performance contracts	3,77	2,95	2,49	
56	Maintain regular monitoring and coordination bodies	4,14	3,18	3,68	
112	Set up a national monitoring committee	3,5	2,5	1,9	
117	A monitoring and evaluation system	3,91	2,82	3,53	
106	Instituting refunds at Community level	4	2,82	2,62	
53	Have mutual tracking software	4,09	2,95	4,85	
121	Have good management software	4,27	3,05	3,31	
54	Have a good information system	3,95	2,86	3,13	
119	Dematerialize all procedures	3,76	2,24	3,1	
96	Harmonize and popularize management tools	4,05	3,45	2,62	
	Average	3,96	2,94		
5	Technical and financial support by partners	4	3,36	4,44	Funding
48	Avoiding territorial inequalities caused by technical and financing partners	3,59	1,82	2,49	
100	Do not depend on partners	4,09	2	5,46	
17	Solve the debt problem of mutualists before startup	3,91	1,91	4,81	
20	Ensuring the financial sustainability of mutual societies	3,77	2,23	5,26	
73	Capturing innovative financing	3,77	2,14	9,74	
91	Set up a national guarantee fund	4,36	2,18	4,73	
45	Shorten repayment periods	3,59	2,18	6,12	
77	Contribution and operating subsidy	4	2,32	4,92	
88	Pooling resources	3,95	2,95	3,76	
	Average	3,9	2,31		
18	Making it compulsory to join mutual societies	3,5	1,77	6,34	Membership
84	Making membership mandatory for students	3,73	1,86	5,27	
87	Subjecting the benefit of certain services to membership of departmental mutuals	3,73	2,32	5,45	
67	Strengthening endogenous group membership mechanisms	4,09	3,05	5,05	
69	Capitalizing on the direct contribution circumvention mechanism	3,32	2,09	4	
122	Diversifying contribution methods	3,64	2,36	6,71	
79	Reinstatement of OSB care	3,64	2,36	3,41	
113	Review the care of noncontributory beneficiaries	3,95	2,1	3,58	
124	Integrate all free initiatives	3,73	2,27	3,82	
	Average	3,7	2,24		
14	Involve service providers from the start	4,36	3,18	2,61	Service package
68	Involving the private health sector	3,48	2,23	4,25	
30	Organizing the offer of care	3,91	2,05	14,45	
107	Availability of medicines	4,68	2,18	17,5	
50	Review the service package	3,86	3,18	8,35	
90	Expanding the Basic Package to Emergencies	3,86	2,5	18,65	
74	Better supervision of the management of specialty medicines by mutuals	4,18	2,68	10,69	
108	Availability of the inclusive list of eligible medicines	4,45	2,5	13,4	
51	Integrate large risks into service packages	3,64	2,14	7,32	
114	Define the support of the supplementary package in hospitals	3,82	2,91	8,18	
103	Define a package of essential and guaranteed services for all beneficiaries	3,95	2,5	6,31	
92	Ensuring continuity of services	4,64	2,91	11,81	
72	Promote strategic purchasing	3,5	2,36	5,98	
71	Set up flat-rate pricing	3,64	2,05	5,29	
89	Ensuring national portability of care	4,68	2,41	6,34	
60	Have a medical officer	4	2,23	6,07	
62	Strengthening the medical checkup	4,45	2,82	6,01	
57	Organize periodic meetings with health care providers	4,14	2,77	4,7	
59	Update the agreements between mutual societies and service providers	4,14	3,5	8,49	
97	Conventions covering all health structures	4,05	3	5,02	
115	Hold meetings to monitor agreements between mutual societies and service providers	4,18	3,64	2,07	
118	Involving mutualists on EPS (health institutions) Boards of Directors	3,82	1,86	2,69	
	Average	4,07	2,62		

Appendix 2: Comparison (Pattern Matching) of average scores of importance and ease by cluster

#	CLUSTERS	Importance	Ease	CLUSTERS	#
1	Service package (22)	4,07	2,96	Communication (4)	1
2	Communication (4)	4,05	2,94	Governance (16)	2
3	Governance (16)	3,96	2,82	Human resources and logistics (13)	3
4	Human resources and logistics (13)	3,94	2,76	Community involvement (17)	4
5	Funding (10)	3,9	2,75	Involvement of the authorities (10)	5
6	Involvement of the authorities (10)	3,82	2,62	Service package (22)	6
7	Community involvement (17)	3,81	2,62	Strategic Planning and Implementation (24)	7
8	Membership (9)	3,7	2,31	Funding (10)	8
9	Strategic Planning and Implementation (24)	3,57	2,24	Membership (9)	9