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Research Article

Viability of Departmental Unions of Mutual Health Insurance (DUMHI) in the Thiès Region (SENEGAL) in 2023: ARTICLE

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Abstract

Introduction: The promotion of departmental health mutual units (DUMHI) is one of the priority areas advocated by the State of Senegal to access universal health coverage. The DUMHI is a departmental mutual, professionalized with a package of expanded covered services allowing early recourse of beneficiary patients to public health structures. After years of implementation (2017–2021) of this strategy, this work aims to study the viability of DUMHI in the Thiès region. *Methodology*: A quantitative evaluative study was conducted from August 15 to September 15, 2023 covering all the files of members (2017 to 2021) of the DUMHI of the three (3) departments of the Thiés region. Data collection was carried out using an observation grid developed by the ILO. The data were entered and analyzed using Excel 2010. *Results*: On the administrative level, the DUMHI of Thiés had a good overall quality score of monitoring of its operation of 85.7%, while the 2 DUMHI of Mbour and Tivaouane had a rate of 51% and 71% respectively. These rates reflect certain shortcomings noted in the operation. Functionally, the annual recovery rates were 38% for the Thiès DUMHI, 29% for the Mbour DUMHI and 93% for the Tivaouane DUMHI. Medium to low penetration rates were noted in the three DUMHI with percentages of 44%, 42% and 8% respectively for Thiès, Mbour and Tivaouane. Technically, DUMHI beneficiaries bore less of the costs of the services covered compared to non-beneficiaries. The 3 DUMHI were subject to the risks of abuse and adverse selection in 2021. Financially and economically, the loss ratios in 2021 were 209%, 166% and 70% respectively for the Mbour DUMHI, the Thiés DUMHI and the Tivaouane DUMHI. The DUMHI of Thiès and Mbour were unable to cover all of their expenses with their own funds, and the amount of contributions was very low to support the total expenses, with the DUMHI Tivaouane being an exception in 2021. The operating cost ratios were 12% for DUMHI Thiés, 19% for DUMHI Mbour and 18.5% for Tivaouane in 2021. The own financing rate was satisfactory for DUMHI Tivaouane with 143% compared to 94% for Thiés and 87% for Mbour in 2021. *Conclusion*: Apart from administrative and functional viability, the other dimensions of viability: technical, financial were threatened once the state subsidy stops and the partners withdraw. Thus, a revival of communications activities and the provision of additional and innovative financing will strengthen their functionality.

Keywords

Viability, Departmental Union, Members, Beneficiaries, Health Mutuals, Senegal

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1. Introduction

The 1980s saw a drop in population health, especially among the lowest segments of society, as economic conditions in emerging nations worsened. The population's access to and quality of treatment has suffered greatly as a result of the implementation of structural adjustment policies in a certain field, like health. [2, 3].

There were about 130 active health mutuals in Senegal in 2010. The National Economic and Social Development Strategy document (2013-2017) states that in 2012, 13.6% of the target population was covered by health micro-insurance. The development of collective health insurance in Senegal was influenced by several factors:

1) The deterioration of economic conditions and the significant deterioration in the health of the population;
2) About 80% of the population is not covered by the social protection system (the urban and rural informal sector)
3) About 7.8% of the population benefits from health insurance coverage provided by the State or linked to employment in the private sector.

Senegal's current health issues can be resolved with the creation of mutual health insurance as well as volunteer and community health insurance programs. [2, 3].

The Senegalese government placed a high priority on combating poverty and marginalization in 2011, according to the Poverty Reduction Strategy Paper (PRSP). By raising the percentage of Senegalese citizens with health insurance from 20% to 50%, the document (2011-2015) seeks to fortify and enlarge social protection resources by 2015 [4, 3].

The promotion of health mutuals is the focus of the second phase (1998-2007) of the National Health Development Plan (NHDP), which was created in 1993. A strategy plan for the growth of health mutuals was created in cooperation with social security system partners, and health mutuals were governed by legislation.

The supervision of the health insurance policy must be ensured by a higher authority housed at the level of the supervisory ministry through the installation of universal health coverage (UHC), the mobilization of stakeholders at all levels (local, national and international), the establishment of mutual societies at the regional level in unions or coordination. [2]

According to estimates, there were 421,670 beneficiaries in Senegal's health microinsurance system in 2007, with an estimated 65,000 participants. It was a rapid development in comparison to other nations in the sub-region. This has happened rather fast in comparison to other nations in the subregion. [3]

Functionality of Departmental Unions of Mutuals

One of the fundamental concepts of mutual sustainability in this study is the operation of a mutual. It is therefore necessary to clarify its meaning.

The viability of an organization lies in its ability to provide sustainable service to its members.

The viability of a mutual health insurance scheme is based on its ability to ensure an adequate amount of own resources to meet the needs of beneficiaries over a prolonged period. The mutual health insurance scheme can only be used as a means of financing health if its viability as an organisation is ensured [6].

According to WHO, the lifespan of the mutual health insurance scheme is a relevant indicator of sustainability or viability. In addition, it is important to take into account the high number of people who are affiliated to the community health scheme in its final design. The following factors have been identified that have significant impacts on the sustainability of these schemes, namely: a lack of skills specific to community health insurance schemes, such as determining the services offered, marketing and communication, negotiating contracts with suppliers, managing information systems and financial accountability.

According to Hsiao W, sustainability refers to the ability of a health care financing system to be used adequately without requiring external contributions. A mutual insurance company is considered viable when its institutional framework and management allow it to maintain its financial and economic balance in a sustainable manner, that is, its resources and expenses adjust in a sustainable manner [7]

Financial and/or economic viability is the only one to be taken into account during the monitoring and evaluation of the practice, because it offers rather relevant indicators. Financial viability refers to the ability of the mutual to maintain a financial balance at least in the future. [8]

According to the ILO (2001), there are five aspects of sustainability: administrative, technical, functional, financial and economic. [9]

2. Methodology

2.1. Study Framework

The Thiés region, which is roughly 70 kilometers from Dakar and has an estimated population of 2,049,764 as of 2018, made up the research area. It is close to the capital and occupies 6,670 km^2, or 3.4% of the country's total area. Due to the region's mining and coastal location, tourism, quarrying, crafts, agriculture, and cattle have all contributed to its highly developed economy.

According to the evaluation of health insurance indicators in the Thiès Region, the percentage of functional mutualist organizations has decreased to 85.5% (77/90) from 2020 (92%) while the percentage of Equal Opportunities Card beneficiaries who are enrolled in health mutuals has remained steady at 47% since 2019 (2,334).

Nonetheless, the 5,460 equal chance card (ECC) holders that were planned for 2021 have been met. While the penetration rate of health mutuals changed in the same direction, from 46% to 41.8% for a regional aim of 95%, the health risk coverage

rate rose from 30% in 2020 to 26.6% for a target set at 45%. The Thiés region contains 90 health mutuals, distributed over the 03 DUMHI at the departmental level, according to the regional Universal Health Coverage (UHC) service. [1]

2.2. Type and Study Population

A quantitative study (normative evaluation) was conducted among the managers of the three (3) DUMHI, which took place from August 15 to September 30, 2023.

The study population consisted of all the files (registers and member files, activity reports) from the three (3) Departmental Unions of Mutual Health Insurance (DUMHI) in the Thiès region.

2.3. Selection Criteria

1) Inclusion Criteria

The files (registers and member files, activity reports) which belonged to the three (3) Departmental Unions of Mutual Health Insurance (DUMHI) in the Thiès region.

2) Exclusion Criteria

The files (registers, sheets and activity reports) belonging to the three (3) DUMHI and which were incorrectly completed.

2.4. Sampling

An exhaustive recruitment of files meeting the inclusion criteria was carried out.

2.5. Data Collection Tool and Technique

An observation grid (developed by ILO) provided information on the existence and use of management tools to assess administrative viability.

A data collection sheet was used to calculate technical, functional, financial and economic viability indicators.

A review of the files of the Departmental Union of Mutual Health Insurance Companies of Thiés, Mbour and Tivaouane (DUMHI) available from 2017 to 2021 was carried out.

2.6. Study Variables

The indicators were calculated according to the ILO document, STEP 2001.

3. Results

1) Administrative Viability Results

After examining the administrative viability, the 3 DUMHI revealed that the management and monitoring tools for operation have gaps in their use. Among the problems encountered, we can cite gaps in the control of membership rights, monitoring of support, accounting and financial monitoring.

The resolution of these gaps remains essential in order to guarantee the administrative viability of the 3 DUMHI of Thiès, Mbour and Tivaouane.

Table 1. *Results of the indicator on the overall quality of monitoring.*

No.	Indicators of good management	DUMHI Thiès		DUMHI Mbour		DUMHI Tivaouane		Standard
		2017	2021	2017	2021	2017	2021	
A.1	Membership tracking	1	1	1	1	1	1	1
A.2	Monitoring of contribution recovery	1	1	1	1	1	1	1
A.3	Control of rights to benefits	0	0	0	0	1	1	1
A.4	Monitoring of support	1	1	0	1	0	1	1
A.5	Risk portfolio monitoring	1	1	1	1	1	1	1
A.6	Accounting monitoring	1	1	0	0	0	0	1
A.7	Financial monitoring	1	1	0	0	0	0	1
Total score		6	6	6	3	4	4	7
		85.7%	85.7%	85.7%	57%	71%	57%	

2) Results of Functional Viability of DUMHI

The 3 DUMHI experienced a slight increase in the number of members and beneficiaries during the fourth quarter of 2021. Data not available in 2017 for all 3 DUMHI were not applicable to gross growth and member retention rates. In 2021, the penetration rate was satisfactory for the DUMH of

Thiès with 44% and the DUMHI of Mbour with 42%, with the exception of the DUMHI of Tivaouane with a penetration rate of 8%.

In 2021, the Thiès DUMHI posted annual collection rates of 38%, the Mbour DUMHI 29% and the Tivaouane DUMHI 93%. The preservation of these achievements and the slight increase in the capacity of the DUMHI in relation to members and beneficiaries, as well as the penetration and collection rates despite the covid-19 health crisis, suggest that the Thiès, Mbour and Tivaouane DUMHI are operational. It would be beneficial to actively relaunch the communication activities of the mutualists in order to improve these performances.

Table 2. *Summary of the Results of the Indicators of the Functional Viability of DUMHI.*

Indicators	DUMHI Thiès		DUMHI Mbour		DUMHI Tivaouane		Standards
	2017	2021	2017	2021	2017	2021	
Gross growth rate of members	-	-	-	-	-	-	> 0
Gross growth rate of beneficiaries	-	-	-	-	-	-	> 0
Retention rate	-	-	-	-	-	-	80%
Penetration rate	-	44%	-	42%	-	8%	***
Annual contribution recovery rates	-	38%	-	29%	-	93%	100%
Average invoice payment period (day)	-	>30d (Time limit Not respected)	-	>30d (Time limit Not respected)	-	<30d (Dead-lines met)	< 30 Days (after invoice submis-sion)

3) Results of the Technical Viability of DUMHI

DUMHI beneficiaries bore less of the costs of the services covered compared to non-beneficiaries. Apart from this advantage for the populations, DUMHI were subject to major risks such as cases of over-prescription, over-consumption and adverse selection. The technical viability of the 3 DUMHI is very threatened. (Table 3)

Table 3. *Summary of the results of the indicators of the technical viability of the DUMHI.*

Indicators	DUMHI Thiès		DUMHI Mbour		DUMHI Tivaouane		Standards
	2017	2021	2017	2021	2017	2021	
Membership by family and volunteer	2	2	2	2	2	2	0
Portfolio quality (absence of medical advisor)	Risks of abuse	Risks of abuse	Risks of abuse	Risks of abuse	Risks of abuse	Risks of abuse	
Comparison of the UDMS beneficiary co-payment (TMB) and the non-beneficiary co-payment (TMNB)	TMB/TMNB	TMB/TMNB	TMB/TMNB	TMB/TMNB	TMB/TMNB	TMB/TMNB	TMB/TMNB < 100%
Average cost with partner subsidies (GRAIM, JICA, ASAID/Abt RSS+) FCFA	-	5381	-	5797	-	4258	
Average cost without Partner subsidies (GRAIM, JICA, ASAID/Abt RSS+) FCFA	-	-	-	-	-	-	-

4) Results of the Financial Viability of the 3 UDMS

The DUMHI of Tivaouane did not report debts to public health establishments (hospitals or EPS type 1) in this department, unlike the 2 DUMHI of Thiés and Mbour which had reported debts to their reference establishments.

Only the costs of services for Tivaouane were covered by contributions with co-financing from members.

Without and with co-financing, the loss rates remained high for the two DUMHI of Mbour and Thiés, exceeding the threshold of 75%.

However, the Tivaouane DUMHI presented loss rates without and with co-financing below the threshold.

After the departure of the partner and the end of the State subsidy, the operating expenditure ratio will slightly exceed the 15% threshold for Mbour and Thiés, while that of Tivaouane remained lower.

These results show that the DUMHI of Mbour and Thiés are not financially profitable, while the DUMHI of Tivaouane was exceptional. (Table 4)

Table 4. *Summary of the results of the financial viability indicators of the 3 DUMHI.*

Summary Indicators	DUMHI Thiès		DUMHI Mbour		DUMHI Tivaouane		Standard
	2017	2021	2017	2021	2017	2021	
Liquidity ratio	Not applicable		Not applicable		Not applicable		> 1
Equity ratio	Not applicable		Not applicable		Not applicable		> 100%
Reserve rate (months)	-	0	-	0	-	1.5	6 – 9 months
Ratio of earned contributions to expenses	-	0.5	-	0.8	-	1.1	> 1
Loss ratio without co-financing	-	166%	-	209%	-	70%	Approximately 75%
Loss ratio with co-financing	-	216%	-	106%	-	35%	
Gross operating expense ratio	-	12%	-	19%	-	18.5%	< 15%

The late implementation of the Administrative and Financial Officer (AFO), the refusal of certain Board of Directors to collaborate and the lack of organization at the very beginning of the installation of the DUMHI had a negative impact on the availability of data in 2017.

5) Results of the Economic Viability of the 3 DUMHI

In summary, the DUMHI of Thiès and Mbour were unable to finance all their expenses from their own funds, just as the amount of contributions was too low to cover the total costs. The 2 DUMHI could be in danger if the state subsidy ceases or if the partners withdraw.

On the other hand, the DUMHI of Tivaouane could assume all its expenses from its own resources and the amount of contributions collected exceeded the total expenses. Thus, the DUMHI was economically profitable.

Table 5. *Summary of the results of the indicators of the economic viability of the DUMHI.*

Indicators	DUMHI Thiès		DUMHI Mbour		DUMHI Tivaouane		Standards
	2017	2021	2017	2021	2017	2021	
Clean Financing Rate	-	94%	-	87%	-	143%	> 100%
Ratio of earned contributions to total expenses	-	0.53	-	0.85	-	1.09	> 1

The late implementation of the Administrative and Financial Officer (AFO), the refusal of certain Board of Directors

(BD) to collaborate and the lack of organization at the very beginning of the installation of the DUMHI had a negative impact on the availability of data in 2017. The establishment of the Technical Management Units (TMU) made it possible to strengthen the technical organization and curb these underperformances of the DUMHI.

4. Discussions

1) Administrative Viability

To improve the performance of health mutuals, the State of Senegal has established departmental unions of health mutuals (DUHM) as part of its Decentralization of Health Insurance Coverage (DHIC) strategy. Since 2015, the DUMHI has been an association of community and socio-professional health mutuals, which provides a set of additional benefits within contract hospitals (sharing of major risks). These results were comparable to those of the survey carried out in Koungheul (Senegal) in 2016, which demonstrates that the existence of the DUHI as a federative structure of health mutuals with a wide range of care has made it possible to meet the needs of beneficiaries in terms of health services. [4]

Furthermore, according to Ndiaye M. (2012), the unifying nature of a mutual such as the Union has provided considerable assistance in terms of process management, training policy and training of basic branches. In general, this assistance aims to improve the mastery of business processes, improve profitability and make services viable in terms of sustainability and diversification. [12]

In our study, the three UDMS had weaknesses in the use of certain tools: these included weaknesses in the control of membership fees, monitoring of coverage, accounting monitoring and financial monitoring. Failure to update the contributions of DUMHI members will compromise its smooth running. The 2016 Koungheul (Senegal) survey revealed that the DUHI identified shortcomings in the application of specific management and operational monitoring methods. The DUHI's assumption of members' unexpected medical bills puts the mutual insurance company at risk of going bankrupt. [4]

Another study carried out in Madagascar in 2015 revealed that in order to establish a fund that will enable them to assist beneficiaries through the DUHI, members must consistently make donations. Unlike the financial contributions of users in direct payment exclusively for patients, this will foster solidarity between patients and non-ill people. [13]

2) Functional Viability

In our research, membership was voluntary (2), per family and the risk of adverse selection was medium for the cities of Thiès, Mbour and Tivaouane. Adverse selection occurs when individuals at high risk related to their health status register in large numbers for the mutual insurance, while for healthy individuals, it is common not to register. Thus, there is a lack of communication within the populations.

These findings align with the Senegalese study, which demonstrated that DUHI membership is family-based and voluntary. The DUHI score indicates that there is a medium chance of unfavorable selection. Mutual health insurance does not have the option to choose its beneficiaries or require them to pay premiums based on their individual risk, in contrast to commercial private insurance. [4]

According to Buter JD and associates, a mutual health insurance plan is feasible in other parts of Rwanda if it is planned and organized to satisfy the requirements of its partners and customers. It can be self-financing and is protected from significant risks like adverse selection and cost rises by control rules. [14].

However, to minimize the risk of adverse selection, the DUHI required the minimum membership unit, i.e. the family, and established a two (2) month observation or waiting period for any new registrant, depending on whether the payment is monthly, half-yearly or annual. This mandatory nature causes the absence of membership, especially since members do not make a link between such a formula and the need for the mutual to counter adverse risk selection (which occurs if the head of household only affiliates the most vulnerable members of his family, which obviously unbalances the insurance system) [10, 15].

Numerous investigations have demonstrated how knowledge and awareness of populations affect their membership in the mutual, particularly by strengthening their trust in the mutual (De Allegri M, Sanon M, Sauerborn R, 2006a). The lack of understanding would have a detrimental effect on membership and strengthen the public' mistrust of the mutual, according to De Allegri and his colleagues [15]. A Faye and his colleagues claim that increasing knowledge of mutuals is one way to guarantee the long-term viability of mutualist organizations. [5]

According to studies conducted in Burkina Faso, Kagambega MT shows that populations may foster the values that support insurance in order to sustainably adhere to health risk pooling systems through the use of a suitable and focused communication approach. [16].

In our research, people who benefited from the DUMHI of Thiès, Mbour and Tivaouane were less responsible for the costs of the covered services than those who were not beneficiaries. The three UDMS presented dangers of abuse and adverse selection. In addition to these steps to reduce the mutual's risk of bankruptcy, the average cost of services went raised without a partner's assistance, claims MM. Leye (2016). To avoid misuse or fraud, the DUHI will need a medical advisor to confirm specific services provided to DUHI beneficiaries. [4].

3) Technical Viability

In our research, we found a slight increase in the number of members and beneficiaries for the 3 UDMS during the quarters of 2021 in the region. The incidence of covid-19, the retention of information from health mutuals due to the strike for two years and delays in the reimbursement of state

subsidies explain this situation. In Rwanda, on the other hand, according to Messrs. According to Leye (2016) and Schneider P. (2005), the DUHI's membership and beneficiaries grew in 2015 as compared to 2014. Because it was only established in 2014, the population was reluctant to join and mistrusted the DUHI managers, which is the cause of this predicament. [4, 17].

Low annual collection rates were observed in the study, ranging from 29% to 38% in Mbour and Thies respectively, while Tivaouane was exceptional (93%). It is evident that the DUMHI of Thies and Mbour were unable to cover a large portion of members' contributions due to the cessation of benefits caused by the delay in reimbursement by the State, the covid-19 health crisis and the withholding of information by the managers of the mutual societies in the Thies region.

With the exception of the DUMHI of Tivaouane, the UDMS of Thiés and Mbour were also accused of unpaid debts to hospitals during 2022. However, the research conducted by MM. Leye (2016) demonstrates that the members paid the contributions. In fact, the DUHI's monthly contribution collection rates were around 100%, and an examination of these statistics shows that the DUHI utilized all of its available funds. The UDAM controls healthcare invoicing from vendors, preventing late or unpaid bills. These components strengthen the mutual confidence that DUHI managers and suppliers have in the services provided to these beneficiaries. [4].

Furthermore, it was determined that one of the reasons for Ghana's drop in the mutual health insurance registration rate from 8.3 points in 2007–2008 to 6.5 points in 2008–2009 was the high contribution premium [18].

An active revival of communication activities and the resumption of management of mutualists would improve these performances. The gross growth rates and loyalty of its members were not applicable due to the data not available in 2017 for all 3 DUMHI. Indeed, data management was initially provided by the Regional Union of Health Mutuals of Thiés (RUMHI).

The study revealed that the DUMHI of Tivaouane did not have any debts to public health facilities (hospitals or EPS type 1) at the level of the said department, unlike the 2 UDMS of Thiés and Mbour which had incurred debts at the level of their reference structures. A acceptable loyalty rate of 100% was achieved because no withdrawals were reported by members, according to MM. Leye (2016) and Musango L et al. (2004). When combined with flat-rate pricing, DUHI's high loyalty ratings (over 80%) indicate that the people of the Kabutare district and Koungheul department find the organization to be adequately appealing.. [4, 19].

According to our study, the penetration rate was satisfactory for the DUMHI of Thiès with a rate of 44% and the DUMHI of Mbour with a rate of 42%, with the exception of the DUMHI of Tivaouane with a rate of 8%. This is due to a lack of appropriate information for rural populations and the context of the covid-19 health crisis. These results were comparable to those of the study carried out in Koungheul, where the penetration rate increased from 2% to 8% and was very low compared to the national target of 45% [4].

In contrast, J. Kanyeshuli (2010) found that the health mutual fund in Musanze district, Rwanda, had a penetration rate of 66.3%. The government has enacted a law mandating that all Rwandans have health insurance in order to facilitate their access to medical care, which is the basis for this distinction. [11].

4) Financial and Economic Viability

In our study, the loss ratios were 216% and 106%, respectively for the DUMHI of Thiés and Mbour, while that of Tivaouane was 35% with the support of partners and the State in the form of subsidies. Despite the financial support of donors, members were unable to cover the costs of services for the 2 DUMHI of Thiés and Mbour, while Tivaouane was the exception. The low recovery rates observed at the level of the DUMHI of Thiés 38% and Mbour 29%, against Tivaouane 93%, explain this situation. Membership in a mutual health insurance company reduces the costs of services to health services. According to MM. Leye's study, the loss rates rose from 52% to 55% with grants from the State and the Project to Improve the Supply and Demand of Care (PISDC).

The financial involvement of the partner reduces the share of financing to cover the costs of services. This result demonstrates the ability of the DUHI to meet the costs. This situation is partly explained by the good indicators recorded, namely the monthly recovery rates and the loyalty rate of around 100%. Joining the DUHI reduces the costs borne by beneficiaries for care [4].

Therefore, membership in the mutual insurance company enables a significant reduction in the cost of medical services, according to Kagambega MT in Burkina Faso. [21]. Therefore, membership in the mutual insurance company enables a significant reduction in the cost of medical services, according to Kagambega MT in Burkina Faso. [20].

The study revealed that without co-financing, the loss ratios were high (>75%) for the DUMHI of Thiés and Mbour, on the other hand that of Tivaouane was below the threshold. These findings are consistent with research conducted by J. Kanyeshuli on the mutual of Musanze, which was equal to 72%, and MM. Leye in Koungheul, which had a loss ratio without co-finance greater than 75%. [4]. In our study, the DUMHI of Thiès and Mbour were unable to cover all of their expenses with their own funds, and the amount of contributions remained very low to support the total expenses. The economic viability of the 2 DUMHI Thiés and Mbour would be threatened once the State subsidy is stopped or the partner withdraws.

On the other hand, the DUMHI of Tivaouane was able to bear all of its expenses from its own funds and the amount of contributions acquired was higher than the total expenses. Consequently, with the exception of the DUMHI of Tivaouane, the viability of the DUMHI of Thiés and Mbour was threatened. This finding, which is similar to that of the

Koungheul study by MM. Leye (2016), showed that if the financial partner leaves, economic sustainability is jeopardized because the latter was responsible for the DUHI's running and investment expenses.

Actually, there wasn't enough money on hand to pay for everything. In order to avoid misuses that lead to extra costs, efforts must be taken to gather donations and identify ways to achieve financial independence with the departmental council's help. Hiring a medical adviser is also necessary [4]. In order to provide effective care, the Universal Health Coverage Agency (UHCA) must also work with the DUHI to organize free programs like those aimed at the elderly. [22].

5. Conclusion

As part of improving access to care, mutual health insurance companies are an alternative to the high health expenses of the population. With the political commitment and the means put in place by the State of Senegal, strategies for accelerating universal health coverage (UHC) are being developed through the establishment of departmental unions of mutual health insurance companies in the Thiés region.

Despite this level of commitment and the support of partners, penetration rates often remain quite low and the functionality of mutuals does not leave this situation behind. This is how this study made it possible to evaluate the level of functionality of the Departmental Unions of Health Mutuals (DUMHI) and to propose areas of solutions in order to strengthen the operation of health mutuals.

Abbreviations

UHC	Universal Health Coverage
DUMHI	Departmental Union of Mutual Health Insurance
DUHI	Departmental Union of Health Insurance
TMU	Technical Management Unit
DHIC	Decentralization of Health Insurance Coverage
RUMHI	Regional Union of Mutual Health Insurance
UHCA	Universal Health Coverage Agency
AFO	Administrative and Financial Officer
BD	Board of Directors
ILO	International Labor Office
PISDC	Project to Improve the Supply and Demand of Care
ECC	Equal Chance Card

Ethical Considerations

The quantitative and qualitative information was collected anonymously, which means that only those responsible for the study (investigator and supervisors) were able to consult it. They are preserved from any disclosure. Previously, the National Ethics Committee of the Ministry of Health and Social Action (MSAS) examined this protocol No. SEN23/44 and approved it under number 0000201/MSAS/CNERS/SP on June 26, 2023.

Conflicts of Interest

The authors declare no conflicts of interest.

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