MANAGEMENT AND SOCIAL FACTORS ON SUSTAINABILITY OF MUTUAL HEALTH INSURANCE IN Musanze District 2008 - 2011

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By:

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DECLARATION A

This thesis is my original work and has not been presented for a Degree or any other academic award in any University or Institution of higher Learning.

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DECLARATION B

I confirm that the work reported in this thesis was carried out by the candidate under my supervision.

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APPROVAL SHEET

This thesis entitled "**Management and social factors on sustainability of mutual health insurance** in Musanze district 2008-2011", prepared and submitted by SENZEYI BUKAMBIZA Desire in partial fulfillment of the requirements for the award of a Master of arts in Project planning and Management; has been examined and approved by the panel on oral examination.

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DEDICATION

To Almighty God who has guided me from birth up to now

To all entrepreneurs and those who hate injustice and ignorance

To my parents, my wife, brothers and sisters who not only funded me but also encouraged me to expand my horizons.

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ACRONYMS

CBHI:	Community Based Health Insurance
ILO:	International Labour Office
H.C:	Health Center
FARG:	Fonds d'Assistance aux Rescapes du Genocide
GTZ:	Deutsche Gesellschaft Fur Technische Zusammenarbeit
MINALOC:	Ministry of Local Government, Community Development and Social Affairs
MOH:	Ministry of Health
M.M.I:	Military Medical Insurance
MH:	Mutual Health
MHO:	Mutual Health Organization
NGO:	Non Governmental Organization
PHRplus:	Partners for Health Reformplus
RAMA:	Rwandaise d'Assurance Maladie
SMH:	Section of Mutual Health
USAID:	United States Agency for International Development
WHO:	World Health Organization

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ABSTRACT

Rwanda like other countries is facing the financial challenge for accessing health services. The Government has resorted to the promotion of mutual health organizations; however the sustainability of these deserves a particular attention.

The general objective is to assess the sustainability of mutual health insurance in Musanze district. Specifically this study aims at identifying the roles played by the management and social factors on sustainability of mutual health insurance in Musanze, assessing whether mutual health has improved the access to healthcare, and finally proposing solutions.

Different reports from sections of mutual health, interview with heads of sections and medical care providers, as well as a questionnaire addressed to heads of households served as a source of data. The choice of respondents at different levels was based upon a random sample. The sample size required number of 601 household heads.

The organs of Musanze mutual health organization are all operational. Membership amounted to 66.6% in 2010. The use of medical care services for adherents was the triple the one observed in non-adherents. The premium and the proportion of medical expenses payable are affordable for patients, according to 86% and 96.4% of respondents respectively. Only 46.9% adhere because they appreciate services provided by mutual health organizations, while 48.4% adhere following the interventionist approach. However, due to the growing advantage offered by mutual health organizations, 89.2% members of MH are willing to adhere without any pressure. The financial situation has proved to be frail. There is unbalance between incomes and expenses. 76.7% of respondents recognize the advantages offered by risk sharing. Unfortunately, members are less involved in Mutual health activities. 46.3% of respondents attended at least a half of the meetings organized by Mutual health organizations.

On the whole, the health risk- sharing policy in Rwanda is promising. The interventionist approach is only viewed an educational method which will ultimately end into members attitude change. Expenses incurred by mutual health organizations are superior to incomes. Competent authorities are recommended to gradually replace the interventionist approach with awareness campaign and marketing and to reduce the pooling risk rate. To other researchers, we suggest conducting a survey on the role that the involvement of prevention activities may play as a component of mutual health organizations.

CHAPTER ONE

THE PROBLEM AND ITS SCOPE

This chapter will provide an initial discussion covering the relevancy of this research including the problem statement, research objectives, research methodology, limitation of the project study and health mutual insurance institution profile etc. Based on this introductory discussion the theoretical background will be presented.

Back ground to the study

Different countries around the world have made the arrangements for the health care of their population seen the burden for the cost of the treatment. In different countries some arrangements were made for the solution of this crucial problem initiate the health insurance. The health insurance is an insurance against the risk of incurring medical expenses among individuals. By estimating the overall risk of health care expenses among a targeted group, an insurer can develop a routine finance structure, such as a monthly premium or payroll tax, to ensure that money is available to pay for the health care benefits specified in the insurance agreement. The benefit is administered by a central organization such as a government agency, private business, or not-for-profit entity.

In recent decades, African governments are faced with many challenges as they try to adapt their health systems to difficult economic and social environment. They face the double burden of demographic transition and epidemiologic challenges.
The great majority (> 90%) of the population in Low to Middle Income Countries does not benefit from any form of social security. Few people have working contracts or receive salaries. People from the so called informal sector living on an irregular and unstable income have to pay for medical care out of pocket and do not have access to health insurance systems. In case of catastrophic illness or accident, when urgent and specialized treatment in a hospital is required, the admission and treatment fees are beyond the reach of many individual households. In subsistence households, even

medical treatment for common illnesses is often unaffordable in certain periods of the year when cash is not available. The process of borrowing money in the extended family or neighborhood delays treatment and may cause deterioration of the illness or even death. Evidence of this situation are the low utilization rates of public hospitals and health centers of 0.2 – 0.3 (patient-provider contacts per person/year) (Knippenberg, 1997/MSP, 1997).

Certain segments of the population exhibit multiple concurrent characteristics (low income level, low level of education and location, low ethnic or professional status) that put them at a disadvantage to society at large, and make them particularly vulnerable to the consequences of illness. Their lack of access to health services is reflected in the high morbidity and mortality rate in relation to developed countries: Maternal Mortality Ratio 500 - 880, Infant Mortality Rate 65 - 129 (Peters, 1999). Because of their disempowerment within the system, these excluded groups have given up claiming access to and are under-utilizing health services despite their great needs (Dror, 1999).
For the past 15 years, governments in sub-Saharan Africa have sought new solutions to their problems and to achieve this, they have tried to reform their health systems. Generally, African policy makers have focused their reforms on two essential functions of the systems which are: the funding and organization of services.
In Rwanda, since the reintroduction of direct payment in 1996, data from routine health information system show that households are finding it more difficult to meet the costs of health care. In fact, the utilization of modern health services in Rwanda is on average 0.28 new cases per inhabitant per year (less than half of the World Health Organization standards, which are one new case per inhabitant per year in urban areas, and 0.5 to 0.6 new cases per inhabitant per year in rural areas in developing countries). Among the reasons for non-use mentioned, is the lack of satisfaction with health services and high costs. These are most frequently mentioned by the people. There are two types of financial exclusions: temporary financial exclusion due mainly to a lack of resources at a given time of the year on one hand and permanent financial exclusion

resulting in a total inability at any time to benefit from modern health care on the other. The exclusion of the first type can be reduced by the prepayment risk sharing.

Policy options to address the weakness of financial accessibility to health care, however, remain limited. Alternative mechanisms for funding community-based prepayment and pooling of risks, such as mutual health organizations, have proven to be strong options to balance improving financial access to health care and the need to mobilize internal resources to enhance the financial sustainability of health services.
Mutual Health Organizations (MHO) are one of the options that allow people not only to seek treatment on time and when necessary, but it is a strategy against poverty. Access to care will help improve the health and availability of people to work.

In Rwanda, the policy of developing Mutual health wants to strengthen its social potential so that the majority of the population can benefit.
In Musanze District the theories ruling health mutual insurance are the same as those regulating the health mutual insurance in Rwanda in general as it is described by the law implementing the health mutual insurance in Rwanda implemented in 2004.
At the beginning membership rate was low; it increases as the population had understanding of the well founded of the mutual health and the involvement of the political and administrative authorities. Throughout the district there are 11 sections of the mutual health each working with its health center? Here are some current health indicators of District:

- Rate of utilization of health services: 83%
- Rate of accession to the mutual health: 66%
- Birth-rate in health center:64.3%
- Immunization rate: 95%

Each section of the mutual health has a manager and an accountant.
Sections of mutual health have not the same capacity due to their membership and their management .That is the reason why they are not debt in the same way.

Statement of the Problem

Health system and health financing reforms in sub-Saharan Africa promoted by international donors since the 1970's have not resolved the problem of reduced access to health. Locally developed self-governing Mutual Health Organizations (MHOs) were seen to have great potential to enhance access to quality health care and contribute to the social and institutional development of society. Looking at the results of MHO development, it seems that the idea is implemented in a community only with great difficulty. The majority of schemes reaches only a fraction of the population, and does not solve the problem of access by the poorest segments of the population. The participatory character of MHOs and a management system based on benevolent work are their strength, but at the same time constitute a main weakness. Schemes are often poorly managed (low managerial competence) and poorly designed (poor design features) (Götz. H,et al, 2008).

In Rwanda, medical care systems are already strong, such as: Rwandaise d'Assurance Maladie (RAMA) for public servants and now business associates and Military Medical Insurance (MMI) for the military. However, the majority of the population more vulnerable is unfortunately not covered by this system. Referring to the pilot projects and experiences of other countries, to promote equity in access to health care, the approach of solidarity "mutual health insurance" was adopted as an effective solution that addresses the problem and is fortunately based on culture and becomes an extension of the structured traditional support system commonly called "tontine".

A recent analysis of health insurance schemes has learned valuable lessons on how to improve the chances of sustainability. It seems the main obstacles to sustainable mutual health are related to design errors, inexperienced management, inadequate collection of contributions and the lack of institutional development.

As in other districts of the country, mutual health have not yet reached their performance in Musanze district. The mains challenges are:

- The poverty of the population means that some households are not able to pay annual membership fees
- The ownership of the mutual health by the population remains very low.
- Management has not yet healthy
- The system of collection of contributions is not yet mastery
- The quality of care of health services is not at the desired level
- Contributions are always given after the intervention of the authorities

However, the hope of accelerating the development of mutual health successfully must be underlined by the understanding that in the absence of real commitment to community ownership, design and management authority, it is not possible to realize the full potential of mutual health.

Purpose of the study

The purpose of this study is to identify the role played by management and social factors on sustainability of mutual health insurance in the Musanze District.

Objectives of study

General objective

The global objective is to assess the sustainability of mutual health insurance in Musanze district.

Specific objectives

This study specifically aims at:

1. Identifying the roles played by the management and social factors on sustainability of mutual health insurance in Musanze.
2. Assessing whether mutual health has improved the access to healthcare and reduced the financial burden for its members in the case of illness;
3. Proposing solutions.

Research questions

The study answered the following questions

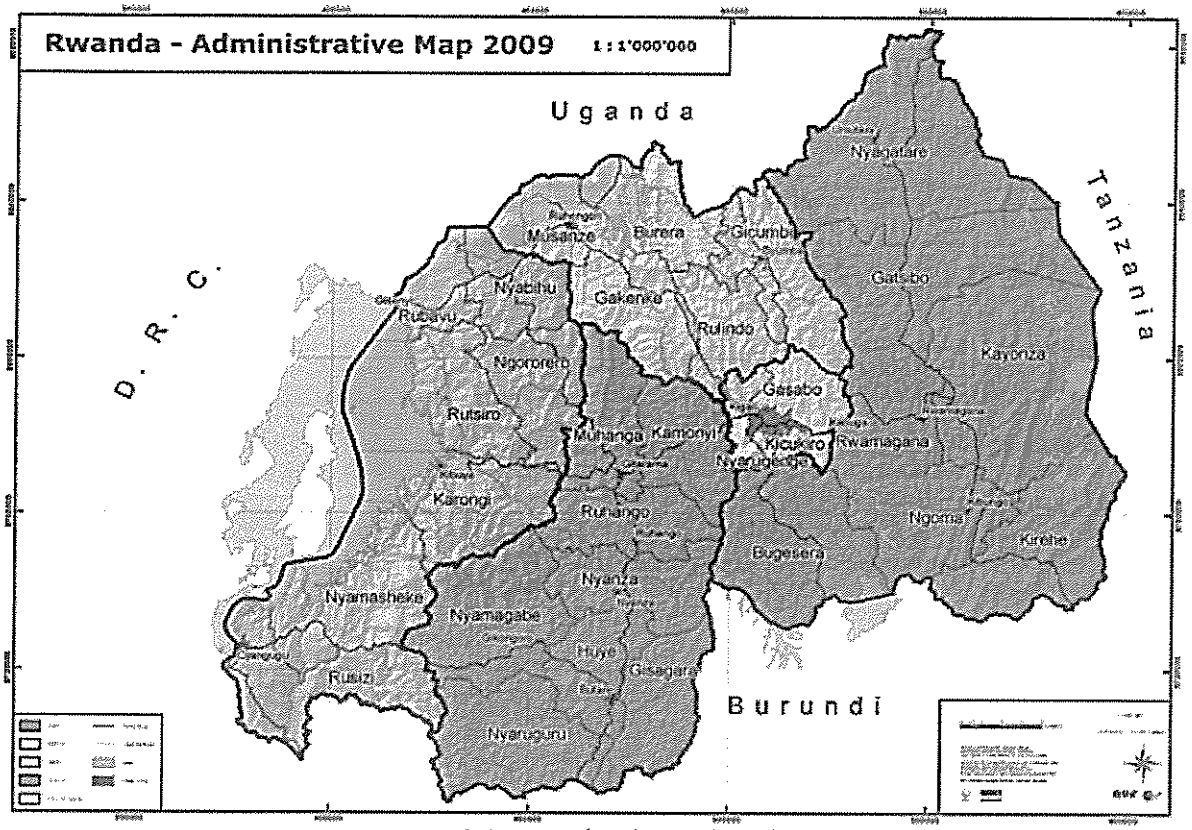
1. What are the roles played by the management and social factors on sustainability of mutual health insurance?
2. Has the mutual health improved the access to health care and reduced the financial burden for its members in the case of illness?
3. What can be done to improve mutual health insurance?

Scope of the study

Geographical scope

Located at 93 km from the capital Kigali, Musanze District is one of the thirty districts of Rwanda and is located in the Northern Province of Rwanda. With an area of 530.4 km2, the district has an estimated population of 314,616 inhabitants, a density of 600 inhabitants / km2. The total fertility rate is 8. The district is located on the edge of volcanoes Muhabura, Gahinga, Sabyinyo ,Bisoke and in an area of high mountains whose peak is between 1800-2200 m, volcanic soil, clay and swampy. Musanze District is an area for tourism. It borders the Republic of Uganda and DR Congo to the north, Gakenke District to the south, the District of Burera to the east Nyabihu and Rubavu districts to the west.

Musanze District on the Map of Rwanda



Map production: REMA

Content scope

This study focus on identifying various management and social factors that can hinder the sustainability of mutual health in Musanze distrct.

Theoretical scope

The study was carried out on Mutual health in Musanze district. The study was guided by the theory of health insurance.

Time scope

The time scope mainly covered the period from 2008 to June 2011.

Significance of the study

The results will lead to better planning. Thus, all the prerequisites that contribute to the success, stability and sustainability of the mutual health of Musanze will be galvanized. Results will be used more readily by the initiators and managers of mutual health of Musanze. The same results will also inform the MHOs across Rwanda and elsewhere. The study constitutes the documentation and should become the basis for further research on the same subject.

Definition of operational key terms

Mutuality: The Universal Dictionary (1988), defined the mutuality as a social solidarity system, based on mutual support of contributing members grouped within a non-profit association.

Sustainability: According Stephen Forsyth, sustainability is the things that are essential to a meaningful and happy existence, now and forever, for ourselves and for those for whom we care.

Maroochy Shire define sustainability as the principle of ensuring that our actions to day do not limit the range of, social, environment and economic options open to future generations.

A mutual health: According Ouatra O. a mutual health is a nonprofit association, based on the principles of solidarity and mutual support between individuals who adhere to its principles and rules freely and voluntary.

Mutual health organizations are health insurance or community-based socio-professional associations that are independently managed by their members and aim at mutual protection against financial risks associated with poor health.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Concepts, Ideas, Opinions from Authors/ Experts

This chapter includes the views of experts, theoretical perspectives and related studies.

Mutual health

Atim (1998) defines Mutual Health Organization (MHO) as a voluntary, non-profit insurance scheme, formed on the basis of an ethic of mutual aid, solidarity and the collective pooling of health risks. Members participate effectively in its management and functioning.

Law No. 62/2007 on the establishment, organization, operation and management of mutual health insurance in Rwanda defined the mutual health as a system of mutual aid between people by means of contributions paid for themselves and their families for prevention and for obtaining medical care. (Mutual health insurance policy in Rwanda:2004)

Mutual health organizations are health insurance or community-based socio-professional associations that are independently managed by their members and acceding freely for mutual protection against the financial risks associated with the disease

Demand side of mutual health

Assume that a health insurance scheme has been set up and that some people are willing to test the new financing option and demand health insurance, that is, they decide to pay the premium and become members for one year. A certain proportion of the insured will fall ill during that time and need care at the hospital or health post. Financial barriers to access are removed for them by the insurance: in spite of possibly lacking cash income at the time of illness and of user fees being relatively high with respect to their income, they can readily get treatment at the health facility. As a consequence, they do not have to search for credit or sell assets, and they recover

more quickly from their illness because there are no delays in seeking care. Considering the fact that people in rural areas rely mainly on their labour productivity and on assets like livestock for income generation, a serious decline of income can be prevented as productive assets are protected and people can return to work sooner. Income is stabilized or, taken the sum throughout the year, may be even increased. Consumption will be more stable and probably even higher, which consequently would have beneficial effects for the health of all household members. Both increased consumption and better health contribute to overall welfare. Furthermore, the positive experience of some households or community members with health insurance in terms of immediate access to care and benefits for their health may create trust in the new institution, and will convince people to prolong their membership and lead others to join the scheme (Garba and Cyr 1998).

Supply side of mutual health

Given the fact that people may be willing to spend more money on secure access to health care than they can actually pay as user fees at the time of illness for the reasons stated above, and that the healthy carry the financial burden of illness together with the sick via the insurance scheme, additional resources may be mobilized for health care provision. Utilization of health facilities will probably increase a desirable effect if one considers currently prevailing under-utilization in developing countries , therefore at least part of these resources could be used up for expanding access. (Dor and van der Gaag 1993, Müller et al. 1996).

Under the assumption that there is net revenue generation in spite of higher utilization rates, the hospitals or health facilities will utilize the financial means to improve quality of care for example, by increasing drug availability and purchasing more necessary medical equipment. Better quality of care will increase the expectations of people to get value for money in the case of illness and will again enhance demand for insurance. More demand for insurance and accordingly increased membership could drive down the administrative cost of insurance provision per member, and risk pooling is enhanced

as more people participate, consequently risks become more calculable. Though the idea of rising demand usually suggests rising prices, in this case it could result in reduced premiums due to "economies of scale" (McGuire et al. 1989).

Lower premiums will probably once again increase demand for insurance and coverage rates. Besides acting as an agency that expresses the interests and needs of its members, the mutual health can try to promote the use of preventive care and healthy behavior (Garba and Cyr 1998).

Health education and sensitization for health problems would improve public health outcomes and counteract cost escalation. The scenario presented here seems very promising, but it may be far too optimistic about what can be achieved by introducing health insurance alone as a new institution in rural areas. The benefits described here improved quality of care, increased access to health care, better health outcomes, higher and more stable incomes cannot be realized if some serious pitfalls are not taken into account in the scheme design, if the mutual health is badly managed or if impeding factors at the health facility or household level cannot be overcome.

Determinants of sustainable mutual health insurance

The ultimate benefit to be expected from mutual health insurance for the population is its potential positive impact on health and social security.

Mutual health design and management

The following points have to be considered in the design of a mutual health organization:

- Design of benefit package and premium
- General problems in insurance markets: moral hazard, adverse selection and covariant risks
- Accounting and management
- Community participation

Design of benefit package and premium

From the point of view of public policy, an important problem of local organizations providing insurance, health care or other services is their difficulties to prevent social exclusion. Whereas donor agencies and policy makers tend to take it for granted that with the help of these institutional innovations also the poor and the poorest are reached, empirical evidence question this assumption (Weinberger and Jütting 2000, 2001).

Hence, it is important that the benefit package of mutual health is affordable and include basic services tailored to the health care needs and preferences of the local population. Beside the total amount of the premium, a certain flexibility in the paying procedure has an influence on the targeting of the poor. In the case study of Rwanda the households who could not afford to pay the premium in one bit, were allowed to pay in installments to a tontine before joining a prepayment scheme. In addition, church based groups collected fees for the indigent, disabled, orphans etc (Jakab et al. 2001).

The paying of contribution by charitable organizations has also been reported in the Senegal study, which has given otherwise, excluded people the chance to participate in the mutuals. Some mutuals even start collective activities from which they use some of the earnings to pay membership fees (Jütting 2001).

Finally, premium collection should be performed during the season when cash income is highest.

Dealing with general problems of insurance markets

Moral hazard behavior of insured persons presents a permanent threat to the financial sustainability of the schemes: as insurance lowers the price of care at the point of use and removes barriers to access, utilization of health facilities will increase surely a desirable effect given the current under utilization of facilities in developing countries. (Manning et al. 1987)

But health care costs may grow far more rapidly than resources mobilized through premiums, an effect which can quickly jeopardize the scheme's financial viability. Furthermore, some provider-payment mechanisms like fee-for-service reimbursement give incentives for the provision of unnecessary and expensive treatment to insured patients (McGuire et al. 1989).
These problems can be tackled by appropriate provider-payment mechanisms and by levying small co-payments at the point of use (Criel 1998b).

Voluntary insurance is also prone to adverse selection problems: the people most likely to join a voluntary scheme are high-risk individuals such as the chronically ill, who anticipate a high need for care. Due to this self-selection, the claims made to the scheme will exceed its revenues by far if premiums are based on the average risks in the community. As a consequence, premiums would have be to raised and insured persons with a relatively lower risk than other members would drop out of the scheme, and would therefore again increase the health care cost per insurance member (Chollet and Lewis 1997).
To prevent insurance market failure induced by adverse selection, it should be required that people join as groups, e.g., that all household members are enrolled, to make sure that membership is composed of both healthy and sick people. Furthermore, waiting periods should be established to prevent people from joining just after they have fallen ill (Musau 1999).
A third problem of insurance markets is the dealing with covariant risks: mutual health organizations are usually of small size and cover only a limited area making them especially prone to this type of risks. A person's risk of needing care is not independent from his or her neighbor's health: the risks of falling ill are correlated especially in cases where natural disasters or epidemics hit a certain region or village. The fact that such disastrous events can rapidly deplete the financial reserves of the scheme calls for public-private partnership, either in the form of reinsurance contracts with private insurance companies or as an agreement with public institutions that can provide subsidies to minimize deficits (Jütting 2000).

For example, a malaria epidemic in south-western Uganda cost the Kisiizi Hospital Health Society around 8.5 million Ugandan shilling (about 6500 US$). As a consequence, from January to December 1998 no more than 64% of treatment expenditures were covered by the scheme's revenues without the epidemic the cost recovery rate would have amounted to nearly 90% (McGaugh 1999). Though no formal public-private partnership contract had been signed with the Ministry of Health, the ministry has implicitly accepted responsibility for losses due to epidemics and has reimbursed the associated expenses to the scheme (Musau 1999), acting as public reinsurance agency.

Accounting and management

Besides initial scheme design, management capacity is important to run the mutual health on a day-to-day basis and make necessary adjustments (Musau 1999).

Mutuals are often set up by voluntary, non-profit-oriented organizations. These organizations act as an insurance broker between the interest of a health care provider and the expectations and needs of their members. To deal with these ambiguities is of major importance and requires trained personal. In this context it must be stressed that the administrative procedure for handling claims should be as simple and transparent as possible. Various examples show that mutual insurance schemes are likely to perform better, when they are linked to an organization which already has experience in the field of financial services and social protection (Jakab et al. 2001).

Mutual managers are usually charged with financial control, i.e. investment of funds to prevent the erosion of resources by inflation, eventually with negotiations with providers (in case the mutual is not managed by a health facility), with keeping records of all members, received contributions and expenses. Proper book-keeping that provides essential information about the mutual's financial balance and accountability of mutual managers vis-a-vis the community have been found to be important (Creese and Bennett 1998).

Abuse of funds, a very detrimental type of mismanagement, can quickly erode confidence in the mutual.

Community participation

The degree of community participation in the design and running of the mutual health can vary widely and is usually greater if funds are owned and managed by the members themselves than if mutuals are run by health facilities. If members can identify themselves with "their" mutuals because they control the funds and have decision-making power, they will tend less to unnecessary use of health care services.

The findings from the Jakab et al. 2001 study suggest that creating a sense of ownership and trust is important to control moral hazard and for the acceptance and institutional stability of the mutual in general. To achieve this, regular community level meetings and workshops, where the members of the community express their views on the design of the scheme. Community participation in the design of the scheme can also facilitate health education and sensitization of members in order to promote healthy behavior and the use of preventive services, as the members share a common interest in keeping the costs of health care low. For example, the members of a self-governed mutual health comprising several villages in Benin realized that many cases of sickness and a considerable amount of health care costs reimbursed by the scheme originated from one distinct village. In consequence, mutual health members of that village and the local nurse organized sensitization sessions on water hygiene and vaccination (Garba and Cyr 1998).

Members of the Kisiizi Hospital Health Society in Uganda cited health education on preventive medicine as one of the main benefits of the scheme (Musau 1999).

Existence and behavior of health care providers

The success or failure of health insurance schemes is largely dependent on the existence of a viable health care providers, e.g. to the hospital that offers services to the insured. Decisions taken by the health care provider have an impact on mobilizing demand for the schemes as well as on the financial balance of the scheme.

The case study of Senegal was enlightening in that respect (Jütting 2000): From the beginning of the mutual health organization movement, it has been supported by the hospital St. Jean de Dieu. The administration of the hospital had recognized that their ultimate target group, the poor, couldn't pay their fees, but it was also not possible for the hospital to allow for a general exception of fees for the poor. The creation of mutual health organization allowed to directly targeting their clientele in a cost effective manner.

Beside the financial support which the hospital gives to the mutuals, an equal important point is the well recognized quality of care. The delivery of services with high quality is a very important point for mobilizing demand in the mid to long run. In some settings it will even not be possible to set up a viable insurance scheme and mobilize demand before quality of care is not improved, because if people feel that they will get no "value for money" at the hospitals or health posts, they would be unwilling to pay premiums. In some settings, it will not be possible to set up a viable insurance scheme and mobilize demand before the quality of care is not improved, because if people feel that they will get no "value for money" at the hospitals or health posts, they will be unwilling to pay premiums. Frequently, complaints are raised about shortage of drugs and other supplies, rude person, dirty hospitals, or poor security (Batusa 1999).

Therefore, such problems have to be addressed first, and quality improvement should not be expected as an outcome of resource mobilization via insurance, but has to be considered as a necessary precondition for successful implementation of mutual health.

Household and community characteristics

The demand for health insurance is a crucial factor if the benefits expected from community financing schemes are to be realized. The demand of households for health insurance depends not only on the quality of care offered by the healthcare provider, on the premium and benefit package, but also on socioeconomic and cultural characteristics of households and communities. Widespread absolute poverty among potential members can be a serious obstacle to the implementation of insurance. This

argument was frequently put forward from non-members in Senegal. If people are struggling for survival every day, they are less willing to pay insurance premiums in advance in order to use services at a later point in time. Social exclusion may persist even if barriers to access are reduced for part of the population, and exemption mechanisms for the poorest or sliding scales for premiums that might be a remedy are not easy to implement (Musau 1999, Jakab et al. 2001).

After or before the introduction of health insurance, rising incomes that may be brought about by development projects can be necessary to attract members and realize the potential benefits of the schemes.

The prevailing concepts of illness and risk are relevant to the decision of households whether to purchase health insurance or not. If people see illness as a somewhat random event that can hit anyone, they are surely more willing to purchase insurance than if they perceive it as punishment for misbehavior by magic powers. Cultural habits in dealing with the risk of illness can influence the demand for insurance.

In Senegal this has been frequently reported as one obstacle to buy health insurance as people were used to put money aside for unpredictable events like marriages and funerals, but they believed that saving money for eventual healthcare costs meant "wishing oneself the disease". If solidarity is strong, people will not worry so much if the benefits of the premiums they paid will accrue to themselves or other community members. For example, members of a Community Based Health Initiative (CBHI) scheme in Senegal expressed the opinion that if they would not need health care themselves, at least they had done something good for the community by contributing to the insurance fund. The degree of solidarity and mutual trust is probably higher in homogeneous, close-knit communities than in scattered and diverse populations comprising people of different ethnic origin, religion and culture.

In any case, initiators and managers of health insurance schemes should pay more attention to consumer satisfaction and to people's preferences and perceptions, because these are crucial factors for successful implementation of mutual health.

Sustainability of a mutual health

A mutual health is only sustainable if:

It is designed and organized to the satisfaction of its customers and partners:

- Awareness systems are effective and responsive; they stimulate the population to voluntarily join many;
- The cost of the premium and co-payments are affordable;
- Definitions of terms of payment (periods and deadlines) are adapted to the local financial realities;
- The mutual health has the human, material resources likely to provide quality services;
- Members are satisfied with health services they receive from health facilities and partners of the interest they earn from this system of prepayment and risk sharing;
- providers consider the mutual health insurance as financial support and a partner who supports them in achieving their objectives;
- Members are willing to remain loyal

2. The Mutual health is organized to have the guardrails that protect against the major risks include: adverse selection, moral hazard (risk of fraud and abuse), the risk of escalating costs,

3. It is able to finance itself.

Mutual health insurance in Rwanda

In Rwanda, since the early 60s, community based health insurance initiatives like the Association Muvandimwe Kibungo (1966) and the Association Umubano mu Bantu of Butare (1975) have started to reveal themselves. However, these community-based health insurance initiatives have further been developed since the reintroduction of the payment policy in 1996.

As part of promoting the affordability of health services among the poorest and most vulnerable groups of society in particular, the Government of Rwanda planed to increase the level of public funding of health services. It promoted funding mechanisms that strengthened community solidarity and risk sharing such as mutuals, prepayment

schemes and health insurance. The Government arranged financing of the sector in a rational and fair manner to take the benefit of limited resources. The Government set up monitoring mechanisms to ensure better use of funds, defined a policy for pricing of services and medicine to guide healthcare providers at the peripheral level, and fund essential services to ensure access to health services for vulnerable groups.

The development of community-based health insurance initiatives in the form of modern mutual health insurance has been on the increase during the past five years. In fact, the number of mutual health insurance increased from six (6) in 1998 to 76 in 2001 and 226 in November 2004. The geographical coverage of mutual health insurance was also extended: whereas initially in 1999, these mutual health insurance were mainly developed in the four provinces of the country, they have since August 2004, been established in virtually all the eleven provinces of the country, as well as in the City Hall of Kigali. They cover about 2,101,034 people, representing 27% of the population of Rwanda.

This rapid increase in the number of mutual health insurance, and beneficiaries testifies undoubtedly to the affirmation of community dynamics in the search for solutions to the problems of financial accessibility to health care and protection against financial risks associated with diseases.

Basic characteristics

Mutuals health insurance in Rwanda are autonomous organizations, administered freely by their members, in respect of the principles of democracy and freedom. In fact, the members adopt, in a general assembly, the Constitution and by-laws defining the organizational structure, the roles and functions of the different management organs, elect members of the management organs, and define their tasks.

Mutual health insurance determine their benefit packages, annual premiums and periodicity of the subscriptions; they establish conventions on care and health services, service providers and reimbursement modalities, according to the terms of the contract.

Besides, they sensitize the population and ensure the recruitment as well as development of customer loyalty among members, and collect membership contributions. Mutual health insurance ensure the day-to-day management of the resources collected and maintain transparency and traceability of the different bank and cash operations.

Current organization of Mutual health insurance

The organizational structure of mutual health insurance was adapted to the institutional framework put in place by the decentralization reforms. In fact, mutual health committees are set up at the unit, sector and district levels. Representation on all these mutual health organs is democratic, voluntary and acquired through elections.

At the unit level, the mutual health committee is composed of 4 members, namely a chairman, a vice-chairman, a secretary-treasurer and an auditor. The basic authorities, including the unit coordinator, the information officer and the elected member in charge of women's affairs play a support and counseling role for elected members of the mutual committee at the unit level. The committee performs the following tasks at the unit level: sensitization on subscription and re-subscription, conscientization on the principle of solidarity, identification of associations, identification of leaders, convocation of meetings of the general assembly, preparation of inventory of members and non-members, drafting of reports and collection of subscriptions.

At the sector level, the mutual health committee is composed of all the chairmen of the mutual health committees at the unit level, the unit coordinators and social affairs officers. Their tasks include: sensitization, monitoring and evaluation of the mutual health committees of the units, collaboration with the treasurer of the mutual health committee in the sphere of influence of the partner health centre.

At the level of the partner health centre, there is a management committee of the mutual health society composed of a chairman, a vice-chairman, a secretary-treasurer and an auditor, who are all elected. In addition, the chairman of the health committee

and the holder act as advisers. The committee is responsible for collecting subscriptions, managing subscriptions, drafting reports and organizing general assemblies. The secretary-accountant is paid by the mutual health insurance society and ensures, on permanent basis, the day-to-day administrative and financial management of the mutual health society.

At the District level, there is a committee composed as follows: the Mayor, the focal point of the mutual health insurance society, heads of health centres, assistant mayors for social affairs, chairmen of mutual health committees of zones of influence of health centres, and civil society representatives.

At the health district level, there is a federation of mutual health role is to provide technical assistance to the different mutual health in the Districts and manage the contractual relationships with district hospitals.

Health care and services covered by mutual health insurance

Healthcare and services covered by mutual health insurance comprise all services and drugs provided at the health centre (minimum package of activities "MPA") including care provided at health centers: Prenatal consultation, postnatal consultation, vaccination, family planning, nutritional service, curative consultations, nursing care, hospitalization, simple childbirth, essential and generic drugs, laboratory analyses, minor surgical operations, health information, education and communication, transportation of the patient to the district hospital., but also a limited number of services at the hospital (complementary package of activities "CPA") including care provided in district hospitals: consultation by a doctor, hospitalization in rooms, eutectic and distocic childbirth, caesarian operations, minor and major surgical operation, referred serious malaria, all diseases of children from 0 - 5 years, medical imaging, laboratory analyses.

Theoretical perspective

According to World Health Organization (WHO 2000), health insurance schemes are an increasingly recognized factor as a tool to finance healthcare provision in low-income countries.

Griffin (1992) argued that given the high latent demand from people for health care services of a good quality and the extreme underutilization of health services in several countries, it has been argued that social health insurance may improve access to acceptable quality healthcare.

Atim (1998) stressed that the option of insurance seems to be a promising alternative as it is a possibility to pool risks, thereby transferring unforeseeable health care costs to fixed premiums. These schemes are characterized by an ethic of mutual aid, solidarity, and collective pooling of health risks and they have the potential to increase access to healthcare.

Related studies

A study in this region of Senegal" offers four main factors influencing the sustainability of the mutual health. They are:

- Basic parameters of the design of the mutual health
- The effectiveness and success in the management of the mutual
- The household characteristics related to behavior towards the mutual health
- The environment in the supply of health care (including clinical practice and reputation on the quality of care Variables determining the viability of a mutual health insurance are: The appropriate design, good management of the mutual health, level of understanding of the maximum number of households with the interest to join and remain loyal to it (high penetration), the ability to pay premium and co-payments and healthcare quality determine the viability of a mutual community health.

This condition is the result of the following components:

- The design of the mutual health insurance;
- Attitudes and household behavior with respect to the mutual health;
- Geographical accessibility of health services;
- The cost of the premium and co-payments;
- Management of mutual health insurance;
- The ability of mutual self-financing;
- The quality of care provided to mutual;

There are several studies which have shown the importance of mutual health organizations. They revealed that importance in various aspects:

Resource mobilization capacity

Mutual health contributes significantly to the resources available for local health care systems, be it primary care, drugs or hospital care. Studies report the contribution of mutual health schemes to the operational revenue of local providers. Some schemes achieve as much as full financing of the current costs of their local health center, even some drug and referral expenditures. (Dave 1991).

Soucat et al.(1997) analyzed the impact of the Bamako Initiatives in Benin and Guinea. They showed that direct household expenditure (through user fees) contributed to 25 percent of the health centers' local operating costs in Benin and 40 percent in Guinea. The revenue was used to cover drug costs, outreach, local maintenance and replacing supplies, and preventive care is subsidized more than curative care thereby promoting utilization.

Bennet et al.(1998) recognize that prepaid premiums are important resource-generating instruments, but the authors conclude that there is little evidence that voluntary prepayment schemes for those outside the formal sector can be self-financing for anything other than the short term. They show that for most schemes the resources

collected from the combination of prepayment and user fees does not cover the recurrent costs of the schemes, and thus external funding is required.

Social inclusion

The Grameen Bank health scheme covered 57.8 percent of the poor in the areas while only 1.8 percent of the non-poor families signed up for the scheme. This suggests that the scheme effectively enlisted the membership of the local poor. (Desmet 19990).

In this district of Senegal, analyzing the membership characteristics of four mutual health organization, Jutting (2000) reports that the average income of members is three times that of non members. He concludes that the poorer people do not participate in mutual health organizations as they do not have the financial resources to pay the regular premium. At the same time, he suggests that this finding does not mean that mutual health organizations increase inequality for the population. On average it can be concluded that these mutual health organizations have helped poor rural populations cope with health risks, even though they have not been able to include the very poorest.

Financial protection

Soucat et al. (1997) have reported the increased utilization of health services after the introduction of the Bamako Initiative in Benin and Guinea. This study emphasized that improvements in quality, access to care, availability of drugs and community involvement play an important role of increasing utilization of schemes that rely on user fees as the predominant health financing mechanisms.

A pilot study by Diop (19959) conducted in Niger found that:

- People using improved services in the fee-for-service saved 40 percent of the amount they spent on healthcare for an episode of illness before the intervention;

- In the prepayment district, out-of-pocket health spending declined by 48 percent, and total health spending (including the tax component) declined by 36 percent.
- The number of initial visits to the health care facility increased by about 40 percent in the prepayment district. Utilization among the poorest quartile doubled;
- Even for short travel distances, utilization increased from 36 percent to 43 percent in prepayment district.

Challenges faced by mutual health insurance

According to the MHOs, although their operations have helped to improve access to and increased coverage, there are many challenges that still need to be addressed. These include:

- Low enrollment after many years of operation, skepticism (communities have a "wait and see" attitude), mistrust of scheme operators;
- Difficulty in identifying the genuinely poor for subsidies;
- Poverty and seasonal income of informal sector;
- Adverse selection is still on the increase, as households do not register all members but those who need healthcare services most;
- Lack of understanding of the principles that govern operations e.g. difficulty in understanding the difference between hospital detention and admission;
- Misconception on what health insurance is, thinks that HI means free care (paid for in total by government or other);
- Problem of logistics,
- Problem of equity and accessibility to the "hard core" poor still not answered.

CHAPTER THREE

METHODOLOGY

Research Design

This research is a survey study. It analyzed the dynamism of mutual health in Musanze District. This study was both quantitative and qualitative. The quantitative data was obtained using structured questionnaires, while the qualitative data was obtained from interviews and observations.

Research Population

The population of this study comprised managers of sections of mutual health, those responsible of health center and beneficiaries of mutual health (heads of households).

Table 1: Study population

Category of respondents	Study population	Sample size
Responsible of Health center	11	3
Managers of section of mutual health	11	3
Heads of household	15240	601
Total	**15262**	**607**

Sampling

Sampling for the survey of sections of the mutual

At the time of the study, the mutual in Musanze District was composed of 11 sections. They were all functioning during the year (2008-2011), period of our study. They all have a database that can provide trend analysis. They fulfill all the eligibility criteria. However, due the financial constraints, we have chosen three sections of the Mutual health. Among the techniques of randomization, we used the two-stage random sampling; especially stratified technique and then cluster.

Musanze district can be divided into three strata (three regions) including: the lower lying region so rich compared to the other two and has three SMH, the central region which has four SMH and finally the upper region alongside the volcanic mountains which has four sections of Mutual health. Considering that each stratum was composed by clusters that are SMH, we randomly selected a cluster for each stratum. Thus three sections were taken for the purpose of this study. These include Murandi section for the lower lying region, Muhoza section for the central region and finally Bisate section for the upper region.

Sampling for the survey of heads of households

Heads of households were selected as the target population of our study. In addition to the obligation to pay the premium for all members of his household. The head of household plays the role of spokesperson for it. He decides the membership or non membership in the Mutual Health for the family. Musanze District accounted 61,834 households during the period of our study. The sampling technique that was used is that of multi-stage sampling. It consists of a sample by combining different techniques of random sampling in a multi-step process.

To subdivide the population into more homogeneous subgroups (strata), two features were considered: source of income influencing the ease of paying the premium and the incidence of disease in the region stimulating the use of healthcare. Consideration of these two characteristics led us to divide the population into three strata:

1. The low-lying area with acidic less soil fertile land and where malaria is endemic;
2. The central region: volcanic soil, fertile, which is located in the town of Musanze. Its population has other sources of income in addition to agriculture and animal husbandry; Malaria is not very frequent compared to the lower region.
3. The region of high volcanic soil and fertile. Malaria is less frequent.

Within each stratum, there was section of mutual health (homogeneous units) where we have considered clusters. The first layer consists of five clusters, the 2nd, four clusters and the 3rd, 2 clusters. In order to maintain the representation we used the technique of systematic random sampling for each cluster chosen. They covered the

frame by selecting regularly at fixed intervals, the first element was chosen randomly. N / n = the sampling interval

Sample size

We calculated the sample size using the following data: N (target population) = 61 834 heads of households, p = expected prevalence = 66%, q = 1-p = 44%, d: accuracy 95% margin of error α = 0.05, bias = 2 cluster. The calculation using the software: Epi Info 6, recommended minimum sample of 589 heads of households, and we have rounded up 601 heads of households as sample size.

In the context of enabling all study subjects have the same chance to be part of the sample, in addition to the techniques of stratification and the cluster, the systematic technique was used. The three clusters retained were calculated as shown in the table below:

Table 2: Sample size

Stratum	Pop per strata	Households (n and %)	Selected cluster	Households per cluster	Sample (n and %)	Systematic step
Stratum Basse	45067	8842 (14,3)	Murandi	5112	88 (14.3)	59
Stratum centrale	140016	27331 (44,2)	Muhoza	16708	265 (44.2)	62
Stratum haute	131536	25661 (41,5)	Bisate	3898	248 (41.5)	15
Total	314616	61834 (100)			601	

Source: District report

Sampling Procedures

The sampling procedures used are stratified sampling to categorize the respondent, systematic sampling to give the same chance to each category to be selected.

Research instrument

A self-administered questionnaire was used to collect primary data. The researcher designed the questionnaire in such format where there were-closed and open-ended questions. For closed questions, respondents were supposed to pick responses from a list category of questions. For open-ended, respondents were requested to give their own responses and opinions. In order to get the backgrounds, the theoretical foundations of this study, and to collect appropriate data, reading books, published documents, reports, and policy papers related to the study were obviously crucial. This helped to get the background to the problem, as well as the literature related to the research topic.

The researcher organized and conducted face to face interviews with respondents and recorded the findings. Interview intended to add quality to the information provided by the questionnaire.

Validity and reliability of the research instruments

The research instruments that the researcher used are questionnaire and interviews. Questionnaires were cross examined for approval by the supervisor and two experts to ensure that the information they will generate was appropriate and reliable. The researcher carried out a pre-test of the questionnaire before using it in the research. The content validity method was used to assess the validity of the questionnaire and interview guide by using the formula below:

CVI= n/N

n: number of items declared valid in the questionnaire

N: total number of items

= 29/31 (0.93) for the questionnaire

=4/5 (0.8) for the interview guide

Since the CVIs of both instruments were greater than 0.7, both instruments were irrefutably valid as well as ready for data collection.

Data gathering procedures

Before the administration of the questionnaire

An introductory letter was obtained from Kampala International University requesting for permission to undertake this research. The researcher introduced himself to the targeted populations in the districts. The researcher then prepared the questionnaire and conducted pretest before administering it.

During the administration of the questionnaire

The respondents were requested to answer completely and not to leave any part of the questionnaire unanswered.

The researcher and assistants emphasized retrieval of the questionnaire within three days from the date of distribution.

On retrieval, all returned questionnaire were checked if all were answered.

After the administration of the questionnaires

The data gathered was collated, encoded into the computer and statistically treated using the Statistical Package for Social Sciences (SPSS).

After all these steps, the following crucial activity was that one of analyzing data and making conclusions and recommendations.

Data analysis

Data analysis method was quantitative in nature and involved using descriptive statistics in terms of tables. SPSS software was used as a tool for data analysis.

Ethical Considerations

There is a need for the researcher to use professional and ethical standards to plan, collect and process data. The researcher ensured that he was objective and used objective methods in data collection.

The data were interpreted according to general methodological standard and irrelevant elements were excluded from the report.

To ensure that ethics were followed in this study as well as utmost confidentiality for the respondents and data provided by them, the following was done (1) coding of all

questionnaires; (2) authors mentioned in this study were acknowledged within the text; (3) findings were presented in a generalized manner.

Limitations of the study

1. A major barrier to this study was the language because some of the respondents could not express themselves in English, it was necessary for the researcher to translate the questionnaire into Kinyarwanda;
2. Intervening or confounding variables which were beyond control such as honesty of the respondents and personal biases. To minimize such conditions, respondents were requested to be as honest as possible and to be impartial / unbiased when answering the questionnaires.
3. The other problem was that all the questionnaires were not returned completely answered.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

Introduction

This chapter explains how data collected during the research carried out in Musanze District were presented, analyzed and interpreted. During data collection, 607 respondents from different kinds of people were selected in consideration of level of education, gender, age, marital status, membership status; the questionnaires and interviews have been used to collect the needed information data were presented in statistical formats in tables and some theoretical part which explains the interview carried out with some respondents.

Demographic and socio-economic characteristics of heads of households surveyed

Table3: Distribution of respondents according to the Mutual Health and the membership status

	Frequency	Percent
Members		
Personal membership		
Murandi	56	11.3
Muhoza	176	35.4
Bisate	180	36.2
Total	**412**	**82.9**
Vulnerable		
Murandi	16	3.2
Muhoza	20	4.0
Bisate	18	3.6
Total	**54**	**10.9**
Voluntary		
Murandi	5	1

Muhoza	13	2.6
Bisate	13	2.6
Total	**31**	**6.2**
Grand Total	**497**	**100.0**
Non-members		
Murandi	11	10.6
Muhoza	56	53.8
Bisate	37	35.6
Total	**104**	**100.0**

Source: Primary data

By reading table 3, we find that depending on membership status, 82.9% of heads of household have paid the premium of the members of their households. 10.9% are vulnerable; they pay the premium through the intervention of local government and its partners. 6.2% are voluntary workers of the state; local government pays the premium for their households as part of the motivation to volunteer their services. Members of mutual are all 82.7% against 20.2% of respondent non members.

Table 4: The socioeconomic variables and membership status

Profile	**Frequency**	**Percent**
Gender for members		
Female	36	7.2
Male	461	92.8
Total	**497**	**100.0**
Gender for non members		
Female	74	71.2
Male	30	28.8
Total	**104**	**100.0**
Age for members		

Below 20	14	2.8
21-40	188	37.8
41-60	260	52.3
61 and above	35	7.0
Total	**497**	**100.0**
Age for non members		
below 20	14	13.5
21-40	26	25.0
41-60	63	60.5
61 and above	1	1.0
Total	**104**	**100.0**
Marital status for members		
Married	480	96.6
Single	11	2.2
Widow	6	1.2
Total	**497**	**100.0**
Marital status for members non members		
Married	86	82.7
Single	11	10.6
Widow	4	3.8
Divorced	3	2.9
Total	**104**	**100.0**
Level of education for members		
Illiterate	205	41.2
Know to read and write	247	49.7

High school	38	7.6
University	7	1.4
Total	**497**	**100.0**
Level of education for non members		
Illiterate	87	83.7
High school	17	16.3
Total	**104**	**100.0**
Professional status for members		
Farmers	274	55.1
Others	207	41.6
Unemployment	16	3.2
Total	**497**	**100.0**
Professional status for non members		
Farmers	72	69.2
Others	17	16.3
Unemployment	15	14.4
Total	**104**	**100.0**
Size of household for members		
Below 5	253	50.9
5 and above	244	49.1
Total	**497**	**100.0**
Size of house hold for non members		
Below 5	87	83.7
5 and above	17	16.3
Total	**104**	**100.0**

Family income hold for members		
Indigent	82	16.5
Poor	276	55.5
Less poor	112	22.5
Rich	27	5.4
Total	**497**	**100.0**
Family income hold for non members		
Poor	87	83.7
Less poor	17	16.3
Total	**104**	**100.0**
Distance from the HC to the dwelling for members		
less than 30 min	89	17.9
30-1 hr	222	44.7
1-1 30 min	155	31.2
1hr 30min	31	6.2
Total	**497**	**100.0**
Distance from the HC to the dwelling for non members		
less than 30 min	31	29.8
30-1 hr	16	15.4
1-1 30 min	21	20.2
1hr 30min	36	34.6
Total	**104**	**100.0**
Religious profession for members		
Catholic	250	50.3
Protestant	102	20.5
Adventist	132	26.6

Muslims	6	1.2
Jehovah's witness	7	1.4
Total	**497**	**100.0**
Religious profession for non members		
Catholic	84	80.8
Protestant	5	4.8
Adventist	13	12.5
Jehovah's witness	2	1.9
Total	**104**	**100.0**

Source: Primary data

The distribution by sex, age, marital status, educational level, employment status, size of the household, family income, and distance from the health center to the household and religious affiliation differs significantly between members and non members.

Services covered by the Mutual Health insurance

The services provided are included in the box below:

Services covered mutual health	
➢ Immunization	➢ examination of radiology and scaner;
➢ Surgery	➢ Pharmaceuticals based on an agreed list by the mutual health
➢ consultation,	➢ antenatal, perinatal and postnatal;
➢ Examination laboratory Hospitalization	➢ Reimbursement for ambulance;
➢ Kinesitherapy Care and dental surgery	Access to prostheses and orthoses whose value does not exceed the ceiling determined

FACTORS OF THE SUSTAINABILITY OF MUSANZE MUTUAL HEALTH

We are going now to assess the sustainability based on the determinants related to the management and social factors.

A. MANAGEMENT FACTORS ON SUSTAINABILITY OF MUSANZE MUTUAL HEALTH

a. Factors of sustainability of the mutual health related to the design

Factors that may affect the sustainability of mutual health in its conception are:

- The package of benefits as defined by the mutual health should reflect and meet the main needs of members in health services;
- Premium and user fees should be affordable to the target population;
- The techniques of risk management should be effective;
- The interventionist approach of forcing households to join by force would result both in the understanding of the benefits of the product and the voluntary;

Package of benefits of members of mutual health

According to the product design, the mutual health organization is organized to allow members to access to all essential healthcares.

The beneficiary patient first passes through the health center, when it is determined that the illness requires care at this level, the patient is transferred to the district hospital; and when it turns out that his case can be improved through consultation by specialists, it is then transferred to a national referral hospital. Our target population was composed mainly by agro-pastoralists, they benefited from the healthcare they sought. The heads of households surveyed said they were satisfied with their benefits package provided by the Mutual Health. However, officials of sections reported that some mutualists requested circumcision, and were not served because it is counted among the beauty treatments which are not covered by the mutual health insurance

Premium and co-payments (user fee)

Table5: Assessing the cost of the premium and co-payments

	Frequency	Percent
Appreciation of the cost of the premium		
Not affordable		
Indigent	40	6.7
Poor	33	5.5
Rich	7	1.2
Least poor	4	.7
Total	**84**	**14**
Hardly affordable		
Indigent	34	5.7
Poor	265	44.1
Rich	63	10.5
Least poor	12	2.0
Total	**374**	**62.2**
Affordable		
Indigent	8	1.3
Poor	65	10.8
Rich	58	9.7
Least poor	11	1.8
Total	**142**	**23.6**
Grand Total	**601**	**100.0**
Appreciation of the user fees		
Not affordable		
Indigent	3	0.5

Poor	13	2.2
Rich	6	1.0
Least poor	1	.2
Total	**23**	**3.8**
Hardly affordable		
Indigent	21	3.5
Poor	89	14.8
Rich	24	4.0
Least poor	3	.5
Total	**137**	**22.8**
Affordable		
Indigent	58	9.7
Poor	261	43.4
Rich	98	16.3
Least poor	23	3.8
Total	**440**	**73.2**
Grand Total	**601**	**100.0**

Source: Primary data

According to the above table, the appreciation of the cost of the premium and co-payments shows that there is a significant difference according to socio-economic classes as defined by the approach "ubudehe". Only 13.9% of respondents feel that the cost of the premium is not affordable. For 62.3% of respondents, it is hardly affordable and affordable for 23.7%.

The same table shows that only 3.8% of the respondents may not access healthcare due to the inaccessibility of the co-payment. This is affordable for 73.2% and hardly affordable for 22.8% of heads of households surveyed.

Techniques of Risk Management

Concerning the control, at health Center level, the beneficiary of the Mutual Health who is seeking care goes to the service Section of Mutual Health and the agent checks the membership card and allows the recipient to access care.

Two cases of fraud have been identified in the section of Murandi during 2008. Even if such cases exist, they are isolated and rare. Even if they are not many, we cannot deny the existence of abuse.

If you are not sick they say, you can use the membership to pass examinations of intestinal worms. The responsible of Health Center and the managers of Section of Mutual Health have all confirmed the existence of the attitude of the people to come to the Health Center in order to consume their contribution to the Mutual Health. Fraud cases identified are not many but sporadic cases have been identified. Two cases of mothers who brought non member children by using membership cards of others children in Murandi health Center.

Interventionist approach

Table 6: Distribution of members depending on the reason of membership and the current attitude

1st reason for membership	**Frequency**	**Percent**
I appreciate the service of the mutual health		
Intend to join	209	42.1
Do not	24	4.8
Total	**233**	**46.9**
Forced by local authorities		
Intend to join	214	43.1
Do not	26	5.2
Total	**240**	**48.3**

Imitate others		
Intend to join	6	1.2
Total	**6**	**1.2**
Other reason (third party payer)		
I do not know yet	18	3.6
Total	**18**	**3.6**
Grand Total	**497**	**100.0**

Source: Primary data

This table shows that 233 (46.9%) had adhered to the understanding of the role of Mutual Health, whereas 240 (48.3%) have adhered because there was pressure from local authorities and only 6 (1.2%) imitated others.

It appears from the same table that only 50 (10%) of members did not intended to re-join in 2012 if they were not forced. Among the members forced, 89.2% understood after adherence, the importance of the product, and they were willing to remain faithful to the Mutual Health in 2012.

Prevention as a strategy to reduce the cost of healthcare for members

Considering the crucial role that prevention can play in reducing illness and in promoting mutual health insurance, we wanted to see if this strategy was considered.

A lot of complaints by the members were related to non-conformity of the immunization schedule, inaccessibility to clean water, poor housing and lack of hygiene of food and environment. Thus, advocacy, awareness, involvement and popular control can help to significantly reduce the frequency of care and costs related thereto. In addition to the policy of illness risk sharing of members, the Mutual Health should think about the approach to reduce the risk of developing the disease by promoting prevention among members. Nothing is planned in this area.

b. Factors of sustainability of the mutual health related to the management

The factors related to the management that may affect the sustainability of Mutual Health are:

- Human Resource Management
- Financial Management
- Management of relationships with healthcare providers
- Promotion and marketing of Mutual Health to its adherence

Motivations for permanent staff and volunteers

Table 7: Motivations of the work

Motivation	Permanent staff of the MH	Volunteers from the MH
Salary	2 permanent staff by section	Are paid per day between 1000 - 1500 frw
Free medical care	The workers of the section are also insured	They adhere to the MH under the same conditions as others
Telephone expenses	Between 2500 and 5000 frw / month	0
Transport	4000frw per trip (mission) for the MH Murandi	0
other motivation	Training	No training

Source: Section Mutual Health

Apart from the salary which equals to salaries of district employees of the same status, the other benefits of the agents of Section of the Mutual Health are determined by the committee of the Section of the Mutual Health. In this context the telephone expenses are 2500fr for Bisate and 5000frw for Murandi. Transport is 4000fr for Murandi while Bisate gets nothing. The volunteers receive 1000frw per day at Murandi and 1500frw at Bisate.

Training of the different staff of the Section of the Mutual health of Musanze

Table 8: Training of agents of the Mutual Health according to the different activities of the Section of Mutual Health.

Activity of the Section of Mutual Health	Murandi	Muhoza	Bisate	Total
Accounting	1	1	1	3/3 (100)
Marketing	0	0	0	0
Administrative and financial management	1	1	1	3/3(100)
Control (audit)	0	0	0	0
Evaluation of the quality of health care	0	0	0	0
Information Technology	1	1	1	3/3 (100)
Animation techniques	0	0	0	0

Source: Section of MH

The table shows that the permanent staff of Section of Mutual Health received training in only three of seven main activities of the Section of Mutual Health that they must ensure a regular basis. Volunteers of Section of Mutual Health did not receive training, whereas some of them conducted meetings and made decisions relating to the Section of Mutual Health and others animated in their respective villages to boost the membership of the community in mutual health.

Financial management of sections of Mutual health of Musanze

Use of financial tools by the Section of Mutual Health

During the field visit, it was found that all sections have management tools including: the register of members, register of contributions, purchase orders, minutes of meetings, books of banks, bank book, budget projections, income statement and others.

Financial Results

Table 9: Accounts of results and key indicators (2008-2010)

Account of results (2008-2010)	Frequency	Percent
Net earned contributions		
Murandi	43240689	24.4
Muhoza	100452887	56.6
Bisate	33661242	19.0
Total	**177354818**	**100.0**
Contribution to guarantee fund (risk pooling)		
Murandi	6775290	34.4
Muhoza	12022900	61.0
Bisate	921400	4.7
Total	**19720590**	**100.0**
Charges in benefits		
Murandi	30316385	23.8
Muhoza	77449997	60.7
Bisate	19869668	15.6
Total	**127636050**	**100.0**
Operating expenses(management expense ratio)		
Murandi	9662240	32.7
Muhoza	9216930	31.2
Bisate	10683468	36.1
Total	**29562638**	**100.0**

Total expenses		
Murandi	46754915	26.4
Muhoza	98689827	55.8
Bisate	31474536	17.8
Total	**176919278**	**100.0**
Balance		
Murandi	-3514226	-806.9
Muhoza	1763060	404.8
Bisate	2186706	502.1
Total	**435540**	**100.0**

Source: Reports of SMH

The risk pooling should be paid by Section of Mutual Health to Mutual Health to provide healthcare at the district hospital. It has been growing during the three years of the study. In 2008, it required nothing; in 2009 it required 10% of revenues and in 2010 20%. According to the standards of the management of Mutual Health, the service charges should not exceed 70% of revenue, those of operating revenue 10% and 20% for risk pooling. Only the Section of Mutual Health of Bisate failed to honor this obligation in 2008 due to the huge expense for the construction of its own building. Charges for delivery, Section of Mutual Health Muhoza exceeded standards by paying 77.1% instead of 70%. Operating expenses for only the Section of Mutual Health is in Muhoza standards while Murandi spent more than double and Section of Mutual Health Bisate spent more than triple of the standards.

Table 10: Example of price change of healthcare and drugs

Product	**Price 2008**	**Price 2009**	**Price 2010**
Ambulance	3888fwr	6400frw	9700frw
Simple dressing	150frw	150frw	250frw
Dressing complex	250Frw	250frw	500frw
Aspirin	3frw	3.3frw	3.3frw
Amoxicillin Syrup (100ml)	372frw	480frw	480frw

Source: Health centers surveyed

By reading this table, we find that the cost of ambulance increases each year by 74.7%, the simple dressing increased the cost by 66.6% and 100% for the period 2009 to 2010.

The amoxyciline increased the cost by 29% for the period 2008-2010. This change affected spending while revenues were fixed during the same period.

Table 11: Average cost of care (2010) for the beneficiaries according to Health Center

Health center	Total cost of care paid by SMH	Number of new cases treated	Average of unitary cost of care
Murandi	11972242	15412	776.8frw
Muhoza	32995233	42972	767.8frw
Bisate	9848019	12138	811frw
Total	54815494	70522	777frw

Source: Sections of MH surveyed

The above table shows that the average cost per patient of the mutual health insurance beneficiary is 777frw. It appears from the same table that the cost is higher for Bisate health centre compared than others.

B. SOCIAL FACTORS ON SUSTAINABILITY OF MUSANZE MUTUAL HEALTH

This section provides a summary of the results obtained from the heads of the households surveyed.

a. Factors of sustainability related to socio economic status and behavior of beneficiaries:

The socio economic status and behavior of beneficiaries can have an important impact on sustainability of mutual health. Below is some factors that may affect the sustainability of musanze mutual health:

- Level of knowledge of the members about the benefits of adhering to the mutual health insurance;
- Household participation and ownership of the mutual health;
- Financial capacity to pay the premium and co-payments;
- Mode of payment of the premium of the mutual health.

Level of knowledge of the benefits related to membership in the mutual health insurance.

Table 12: Status of membership or non membership by knowledge of the advantages of Mutual Health

Benefits of membership in the mutual health	**Frequency**	**Percent**
Joining a mutual health insurance improves financial accessibility to health care		
Members	467	77.7
Non members	47	7.8
Total	**514**	**85.5**

Joining a mutual health protects households against the financial risk associated with the disease		
Members	385	64.1
Non members	59	9.8
Total	**444**	**73.9**
Joining a mutual health strengthens social inclusion in health		
Members	395	65.7
Non members	17	2.8
Total	**412**	**68.6**
Joining a mutual health contributes to the quality of community health		
Members	458	76.2
Non members	17	2.8
Total	**475**	**79.0**

Source: Primary data

It is clear from this table that the members know the benefits of risk pooling. The four roles of risk sharing are known, respectively, 85.5% of respondents to affordability, 79% for the contribution to the quality of community health, 73.9% of households to protect against the financial risk associated with the disease and finally 68.5% for strengthening social inclusion.

Financial capacity and household participation in the promotion of mutual health insurance

The concept of participation is beyond the adherence to the mutual health, the payment of contributions and compliance with regulations. It should lead to ownership

of mutual health by its members. And it is materialized through the instances of management and decision making in the mutual health. The community will feel involved in the management of mutual health when it is represented in the organs of decision-making.

Ownership of the mutual health

Table 13: Responsibility and membership as beneficiaries or not

Who is responsible for the mutual health?	**Frequency**	**Percent**
Members		
The government	21	4.2
The population	18	3.6
Government and population	458	92.2
Total	**497**	**100.0**
Non members		
The government	85	81,7
The population	0	.0
Government and population	19	18.3
Total	**104**	**100.0**
Who benefits from mutual health		
Members		
Government	44	8.9
The population	452	90.9
Those responsible for the mutual health	1	.2

Total	**497**	**100.0**
Non members		
Government	81	77.9
The population	23	22.1
Those responsible for the mutual health	0	.0
Total	**104**	**100.0**

Source: Primary data

From the table above, the members of the mutual health insurance are more aware of their role in the management of mutual health compared to non-mutual members surveyed, 92,2% respectively against 18.3%. The same table shows that over 90.9% of the members know that the population is the first beneficiary of the mutual health against 22.1% for non-members. Non-members believe that the government gets more profit in the mutual health than the population.

Participation in various meetings of the Mutual health

When people understand that an organization belongs to them, they re stimulated to participate in its various meetings.

Table 14: Involvement of the population in the meeting of mutual health insurance

Frequency in the meeting of the mutual health	Frequency	Percent
Invited but always absent	28	5.6
I have been invited or present	1	0.2
I have attended at least half of the times	238	47.9
I have attended more than half times	230	46.3
Total	**497**	**100.0**

Source: Primary data

The table shows that more than half of members are not involved in the activities of the mutual health because they are not sufficiently invited to the meetings. Only 46.3% of members surveyed participated in meetings of the mutual health to more than half the time.

Table 15: Reasons for non use of the health center (2011) by patients according to the membership or not

	Frequency	Percent
Patients Members		
Inaccessibility to the premium	0	0.0
Inaccessible to user fees	12	38.0
Geographical inaccessibility	11	34.0
Use traditional healers	9	28.0
Total	**32**	**100.0**
Patients non members		
Inaccessibility to the premium	61	79.0
Inaccessible to user fees	0	0.0
Geographical inaccessibility	6	8.0
Use traditional healers	10	13.0
Total	***77***	**100.0**

Source: Primary data

From Table above, only 32 of respondents from families of members did not use health facilities. Various reasons have prevented them: inaccessibility to user fees, geographical inaccessibility and the use of traditional healers. For non-members, 77 of respondents did not use the health facilities. The reasons explaining these behaviors are: financial constraints, the use of traditional healers and geographical inaccessibility.

Table 16: Payment mode of the premium most favorable

	Frequency	Percent
Pay full amount at the beginning of the year		
Agro pastoralists	31	5.2
Other (traders, employees	30	5.0
Unemployed	4	.7
Total	**65**	**10.8**
Pay during harvest period		
Agro pastoralists	35	5.8
Other (traders, employees	17	2.8
Unemployed	2	.3
Total	**54**	**9.0**
Gradually pay during the year preceding the year to insure		
Agro pastoralists	267	44.4
Other (traders, employees	200	33.3
Unemployed	15	2.3
Total	**482**	**80.2**
Grand Total	**601**	**100.0**

Source: Primary data

The method of payment of the premium that would be suitable for 80.2% of respondents to pay is gradually depending on availability of funds. 9% proposes to pay during the harvest period, while 10.8% would pay at the beginning of the year.

b. Factors of sustainability of the mutual health related to environment of healthcare service providers

The nature of the relationship between mutual and health services providers can have a significant impact on the sustainability of the mutual health. Below is the outline of the relationship:

- The geographical accessibility to health services;
- Level of satisfaction with the quality of health care services and reputation of the providers;
- Level of satisfaction depending on various services offered;

Table 17: Geographic accessibility and membership status

Time of walking between the dwelling and the HC	**Frequency**	**Percent**
Members		
less than 30min	89	17.9
31min-1hr	222	44.7
1hr-1hr 30min	155	31.2
1hr 30 and above	31	6.2
Total	**497**	**100.0**
Non-members		
less than 30min	31	29.8
31min-1hr	16	15.4
1hr-1hr 30min	21	20.2
1hr 30 and above	36	34.6
Total	**104**	**100.0**

Source: Primary data

From table above, the proportion of non -members surveyed is higher due to the distance between households and the health center. This is particularly evident for the distance of 1h30' of walking, 34.6% of this group have not joined the mutual health insurance and 6.2% of members joined.

Quality of healthcare and reputation of health facilities

Table 18: Appreciation of the quality of healthcare services

	Frequency	Percent
High quality		
Murandi	8	1.3
Muhoza	2	.3
Bisate	12	2.0
Total	**22**	**3.7**
Good quality		
Murandi	56	9.3
Muhoza	168	28.0
Bisate	185	30.8
Total	**409**	**68.1**
Poor quality		
Murandi	21	3.5
Muhoza	88	14.6
Bisate	48	8.0
Total	**157**	**26.1**
Very poor quality		
Murandi	3	0.5
Muhoza	7	1.2

Bisate	3	.5
Total	**13**	**2.2**
Grand Total	**601**	**100.0**

Source: Primary data

This table shows that 3.7% of our respondents found that the quality was very good. 68% found that the services of health centers are good, 26.1% of our sample reported that the quality of the health center was poor and 2.2% said the services of health center were of very poor quality.

Table19: Wish to improve quality of services and acts of care

quality of services	**Frequency**	**Percent**
Reception		
Murandi	14	20.9
Muhoza	25	37.3
Bisate	28	41.8
Total	**67**	**11.1**
Waiting time		
Murandi	29	9.6
Muhoza	185	61.1
Bisate	89	29.4
Total	**303**	**50.4**
Generic drugs		
Murandi	13	10.1
Muhoza	65	50.4
Bisate	51	39.5
Total	**129**	**21.5**
Transfer time		

Murandi	15	29.4
Muhoza	24	47.1
Bisate	12	23.5
Total	**51**	**8.5**
Grand total	**550**	**91.5**

Source: Primary data

The question of identifying the need to improve services to promote quality has helped us to identify services that require special attention for improvement. The results presented in the above table show the services that respondents were more sensitive to. They include: waiting period (50.4% of respondents), generic drugs (21.5% of respondents), reception (11.1% of respondents) and transfer (8.5% of respondents).

Table 20: Distribution of respondents according to the attachment to the health center

	Frequency	**Percent**
Stay faithful		
Murandi	49	8.1
Muhoza	151	25.0
Bisate	145	24.1
Total	**344**	**57.2**
I can change		
Murandi	23	3.8
Muhoza	69	11.5
Bisate	71	11.8
Total	**163**	**27.1**
I don't know		
Murandi	16	2.7

Muhoza	49	8.1
Bisate	32	5.3
Total	**94**	**15.7**
Grand total	**601**	**100.0**

Source: Primary data

This table shows that 57.2% were satisfied with the services provided by the health center and they were confident in the health center and in the mutual health insurance. 27.1% of respondents were not satisfied with the services they received from health facilities. They said that if opportunity arises they could seek treatment elsewhere. 15.7% have no position on this issue.

Relationship between section of mutual health and health center partner

For health center and Section of mutual health of Murandi; the relationship between managers and section of mutual health workers is good. They work as true partners. Health centers agents have confirmed that so far, the section of mutual health pays regularly their contributions.

For the health center and section of mutual health of Muhoza, the relationship between managers and mutual health workers is very good. They see themselves as good partners. Each side knows the role and contribution of the other so that the agents of health center contribute to the awareness of non-mutual members to join the mutual health insurance.

During the interview, the people responsible of Muhoza health center showed the determination of the health center agents to support the section of mutual health in these words "If section of mutual health fails, we will have to treat patients, even those who have no financial means as medical ethics require. We have interest to support the section of mutual health because it helps us to achieve our main goal, the good health of the population.

For health centre and section of mutual health of Bisate, the understanding is different. Since the section of mutual health could not pay the bill due to the construction project of its own building, the relationship between the two partners is not very good. They know they must work together, but the health center sees section of mutual health as a burden rather than a support.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

This chapter gives the summary of findings, conclusion and recommendation based on the results collected during our research. The study was made and the results obtained enabled us to identify the role played by management and social factors on sustainability of in mutual health insurance, it further enabled us to assess whether mutual health has improved the access to health care and reduced the financial burden for its members in the case of illness.

The various components, on which we focused our research, emphasize on total positive effects even if certain components have revealed that there are still some weak points that need to be attentively managed. The objective of the study was to assess the sustainability of mutual health in Musanze District whereby the researcher aimed at finding out the sustainability of mutual health as well as identifying the factors determining the mutual health insurance in Musanze District. The researcher has found that the mutual health section collaborates well with the health centers they are related to. He went further and analyzed the results he got and found out that the people have a good understanding of health insurance, appreciated the interventions of the government of Rwanda in the health sector and suggests some points to administrative authorities especially those of Ministry of Health and Musanze District on how the services delivered in health mutual insurance can be improved.

SUMMARY OF KEY FINDINGS

Along with the study, the results revealed the degree of sustainability, thanks to the socio-economic status and behavior of mutual members or beneficiaries, as well as the benefits they enjoy related to their accession to mutual health membership.

The researcher has found that there is knowledge of information on the average of 85.7% among members who have subscribed for health insurance; against 33.6%, among those

who have not subscribed for health insurance. 79.4% of respondents believe that the responsibility of the MH is shared by members and the government. 79% think that the mutual health benefits to more people than the State. 46.3% of members have participated in more than half of the meetings of MH and 6.6% have never participated. The four roles of risk pooling are known respectively by 85.5% of respondents to affordability, 79% for the contribution to the quality of community health, 73.9% for the protection of households against the financial risk associated with illness and finally 68.5% for the strengthening of social relationship among managers of the mutual health and health workers. They work as true partners.

During the collection of the data it was revealed that collaboration between the health center workers and mutual health managers in Muhoza is very good and that it is also an essential issue in the delivering of the services to the members of health mutual insurance; this factor encourages good management of the health services. The people consider the Mutual Health managers as good partners. Each service collaborates and respects the role and contribution of the other partner in the service so that the agents of health centers contribute to the sensitization of those who have not yet enrolled.

About the payment of the premium, the researcher went further and has found that 80.2% is gradually paying according to availability of funds. 9% of respondents propose to pay during the harvest period, while 10.8% would like to pay at the beginning of the year. The difference across occupations is not statistically significant. The researcher has found that the rate of enrollment in mutual health insurance is increasing where the rate of adherence has been increased as illustrated by the data.

CONCLUSIONS AND RECOMMENDATIONS

The chapter serves to embrace the integrity of the research, moving from the formulated research problem to the main results of the research in terms of four sub-questions, giving the answer on the main research question.

Therefore, the researcher tries to give answer to the questions such as:

What is the role of the management and social factors on the sustainability of mutual health insurance?

Has the mutual health improved the access to healthcare and reduced the financial burden for its members in the case of illness?

Furthermore, the researcher has found that the members beneficiaries may affect the sustainability of the Mutual Health, the factors which are determinants of sustainability of mutual insurance in Musanze which rely on socio-economic status and behavior of members of mutual health, educational level, and appreciation of care services by the members.

Comparing the importance of membership to the Mutual Health status membership or non membership, however, the members know the benefits of risk pooling that the non-mutual don't enjoy. This knowledge of information is on 85.7% among people members against 33.6% for those who have not been enrolled in mutual health. The four roles of the risk pool are known respectively by 85.5% of respondents to affordability, 79% for the contribution to the quality of community health; 73.9% for the protection of households against the financial risk associated with the disease and finally 68.5% for the strengthening of social inclusion.

For the affordability and household participation in the promotion of Mutual Health, the notion of participation goes beyond adherence to the mutual payment of dues and compliance with regulations. It should lead to ownership of the Mutual Health insurance by its members. It occurs through the bodies of management and decision making of Mutual Health.

The community will feel involved in the management of Mutual Health when it is effectively represented in the decision making organs which contribute in the management of mutual insurance as mentioned above, the district level, there should be a representative Board whose members come from the committees of the community.

At the section level, the Committee in charge of sensitization and mobilization is composed by the members elected by the beneficiary community, one of the factors of viability in the

mutual health insurance. Note that the tasks of this organization are all binding; it does not contribute much to the design

The researcher has found the good organization and understanding among the people in mutual insurance. From village level, cells and sectors, the mobilization committees' consist of members from the local community. Elected representatives of the community are responsible for outreach, and identification of the needy. Overall, the structure as organized is called to sensitize the community to participate in many enforcement activities and less in those of design.

CONCLUSIONS

The question of whether the Mutual Health Musanze is sustainable was justified in this study. To test the sustainability of mutual insurance, we systematically analyzed the factors that could hinder the achievement of key objectives. Even though the sustainability is not perfect because of weak management, the socio-economic and not suitable unattractive care environment that can each be the basis of non perfect-sustainability. Overall, the results showed that the sustainability of the Mutual Health Musanze is promising. It is encouraging that the step taken is crucial. However, some indicators still showing the gaps and show that the performance of sustainability is not yet effective.

The design of the mutual health Musanze

Apart from a small number of beneficiaries who did not receive circumcision, which has been classified as beauty treatments not covered by MS, if not all mutual access to the treatment sought. The use of care services is 3 times higher among members of the MS than non-members. These results correspond to those of Rwanda in general. Kagubare in his study found that the average attendance at services was 30% before the introduction of MS and is currently 60%. Premium and co-payments are affordable and 86% sequentially to 96.4%. The risk of adverse selection has been mastered; in addition to members volunteer interventionist approach significantly increased the number of members

in reducing this risk. Moral hazard is not common only a few isolated cases of fraud have been identified. By against the tendency of many patients in December and the attitude of some mutual benefit to want a bit of their contribution can push people to think of the existence of abuse in the solicitation of care. Higher prices of medicines, health care and ambulance drive to the risk of cost escalation.

The interventionist approach, specialty health mutual Rwanda, is adapted to the country context and is not bad as one might imagine. It is an eloquent teacher. 48% of respondents confirmed that their mutual membership was first constraint on the local authorities. After mutual experiences, 89.2% of the group, say they not expect more pressure from the authorities to pay, they will provide efforts to re-join without any constraint.

Like other mutual, Musanze mutual health has no prevention strategy, while it can help reduce the incidence of preventable diseases. The easy access to healthcare services by people is three times higher in the mutual organizations compared to non-mutual.

Management of mutual health Musanze

Researcher has deeper with the management of Mutual Health in Musanze District where analysis showed the good management of human resource. Mutual Health insurance has already hired two permanent staff in each of the sections, a nurse and an accountant. They are governed by the same contract as other district officers with the same qualifications. When these agents are overwhelmed, casual labor is recruited and paid per day. In regard to training on activities of mutual, volunteers have not yet been trained. Permanent staff has received training in three of seven areas related to their tasks. Collection of fees is guaranteed, even on downhill in the community, the team of permanent staff, volunteers and local authorities descended. The Section staff collects money and guarantees the cards. To collect premium Mutual Health on the spot, reach at the destination without going into the hands of many people. This helps to avoid the risk of loss. Relations between officers and mutual service are generally good. Moreover, for two out of three couples surveyed (Mutual health and Health Center partners), the cooperation is very good. By constraints, the relationship of the other services has been hampered by the fact that

mutual health has not paid the due bill at due time for care at convenient time. This has reduced the confidence of the provider partner. Obliged to continue treating members of MH, it does not find the equivalent of the treatment he will have spent on the mutual. The results from our study show that the majority of members of MH know the benefits of the Mutual Health insurance and this is promising for the viability and success. They have in addition, joined in large numbers. However, neither the knowledge nor the membership does emanate from marketing efforts, knowledge of information emanates mainly from the experience of care services. When the member of mutual health gets sick and goes for treatment as he is already insured, it doesn't cost so much for care services, whereas for people who are not members pay a lot of money for treatment whenever they get sick. In addition to the experience of care services, membership enrolment comes from the pressure of local authorities.

Financial viability

The findings from the data collected during our research show that the increasing in prices of products and services has influenced spending and resulted in a fiscal imbalance.The payment of risk pooling in the mutual health account, equivalent to 10% of revenues for 2009 and 20% of revenues for 2010 have worsened the situation. Data analysis in 2010 revealed that on average, each beneficiary of the mutual health is being treated using Rwf 777 once a year at the HC and Rwf 200 per beneficiary at the pooling risk (it is involved in the payment of mutual care and beneficiaries at the district hospital and the operation of the Fund Mutual health at the district level). Operating costs of the Mutual health with permanent staff salaries were Rwf 220 per beneficiary. General expenses of the year 2010 reached Rwf1197 per beneficiary against Rwf 1000 premium in return. This imbalance has forced sections to empty the reserves they had received prior to withdrawal of pooling risk and higher benefit costs. On three sections of the Mutual Health insurance, only one section was not able to pay its care bill for 2010, two other sections are also worried because their financial power is already staggering.

ocio-economic situation and behavior of householders

.7% of respondents know the benefits relating to the accession of Mutual Health, hereas 92.2% of respondents believe that local government and people share sponsibility for their mutual health.

eanwhile, 90.9% of respondents believe that the population is the first to enjoy the lutual Health whereas 54.5% of respondents are not sufficiently involved in the meetings. hey do not feel responsible for the mutual health and are not sufficiently involved because f lack of information. 10% of respondents have no access due to poverty, while 42% of espondents reveal their delay in the payment of the premium due to the financial problem nd 13.6% expect the risk premium from the outside.

Musanze District is a good breeding ground for the establishment of Mutual Health, thanks o a background on cooperative systems already active and operational in this District, at east a solidarity organization; in addition, they know and love this practice of community outreach and its control as well.

The care environment

11.1% of respondents have more than one and a half hour walk on foot to come to CS, 71.8% of respondents were satisfied with the overall quality of care. 57.1% of respondents can always remain faithful to their HC even if other facilities to seek treatment in other HC are given. However, 11.1% of participants complained about the quality of reception, 50.4 %complain about the waiting period, 21.5% complained of generic drugs and 8.5% complained of transfer delay. Sections of the mutual health contributed to the financing of HC around 35.5% of revenues in 2010. This shows that they are important partners in care providers.This study related to the sustainability of Mutual Health Musanze was limited by two factors: short period and smallness space of the territory.

Aware that the mutual health Musanze is not identical to all mutual health Rwanda, this study involved only mutual health Musanze.

The research found that the sustainability of mutual health in Musanze is promising. Related to the socio-economic background of the area is the intervention from the local governments, and the management by the staff who are regularly trained. The main key to

onsider was also the increase of the rate to accession of membership which increased at ıcreasing rate from 2010 up to now.

ŁECOMMENDATIONS

This research aimed to assess the sustainability of the program of risk pooling healthcare in he administrative district of Musanze. To increase its chances of success, we suggest the ollowing:

To the Ministry of health (MOH)

1. Decentralization of the information concerning the Mutual Health so that members and non-members can understand well the law, necessity and importance of the mutual insurance as seen by the majority of decision makers at all decision-making bodies in the community. However, a prerogative to name some people according to their competence is left to the responsibility of the Minister of Health to inform decisions and maintain their quality.

2. Considering the possible role of circumcision in the prevention of infections, it is good to readjust the list of treatments that could be supported by the mutual insurance and adding that treatment on the list of preventive care that may accrue to the mutual if necessary.

3. Strengthen marketing and awareness techniques adapted to the level of understanding by members.

4. Reduce the rate of amount SMH must pay to the mutual health District and stabilize the cost of care to ease the burden of the expense.

5. Promote prevention strategy in the politics of mutual health to reduce the incidence of preventable diseases and corresponding cost of care.

6. Promote the policy of use of generic drugs to replace those specific all with the same active ingredients. This will reduce unnecessary frustration of members of mutual health and their dependents.

7. It is better to interest all the health actors to be involved in sensitization.

To the authorities of Musanze District:

1. Organize training on the Mutual Health insurance for the benefit of stakeholders within their respective tasks and avoid as far as possible to deploy permanent staff of the health insurance scheme to promote good management.

2. Readjust for the mutual health reports and compile data on mutual health to facilitate analysis of data.

3. Gradually reduce the membership by interventionist approach. Enhancing the quality of the awareness message "and increase in purchasing power will help people to make a priority use of the premium.

4. Strengthen the mechanism for gradually paying the premium at any time of the year preceding the year to insure. At any time that the responsible of household finds ways, remit all or part of its contribution in the account of the mutual health.

5. The sustainability of the mutual health insurance will be effective only when the purchasing power of the population will be high. The mutual health can reduce as much as possible spending on operating expenses not to exceed the upper barrier of 15% of revenues where the policy is to fight against poverty as the district began to be strengthened.

6. The workers of mutual health insurance should be well trained not only in accounting and management but also in the marketing and customer care.

7. To continue supporting mutual health insurance in the management of funds.

To the section of Mutual Health

1. Reduce expenditures for operating expenses do not exceed the upper barrier of 15% of revenues.

For the Future researcher:

We suggest to the future researchers to continue with a concern for the success of Mutual Health organizations to conduct study on the impact of mutual involvement in prevention of some diseases. This can reduce the incidence of diseases and the attendant costs. Knowing that the cost of prevention is far below the cost of treatment

and seeing that common diseases in the rural and the informal sector can be prevented in the interest to the Mutual Health insurance cost, it is good to start a strategy of prevention involving members to reduce the cost of treatment, that most of the time the cost equals the contribution from premium. This prevention strategy can be a solution for the reduction of the cost of getting an excess instead of spending much on treatment that is becoming a high burden to the health mutual insurance organizations. In this case sensitization on prevention should go with the campaign of health insurance premium collection and continually meeting on the issue should be undertaken by the staff.

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APPENDIX I: TRANSIMITAL LETTER FOR THE RESPONDENTS

Dear respondent,

I am a student of Kampala International University, School of Postgraduate Studies and Research. I am conducting an academic research entitled "Management and social factors on sustainability of Mutual health in Musanze district". You have been indiscriminately selected to take part in the study and as a result kindly requested to provide a correct answer by using the instructions given.

The answers provided will only be used for academic purposes and will be treated with utmost confidentiality.

May I retrieve the questionnaires 3 days after you receive them?

Yours sincerely,

SENZEYI BUKAMBIZA Desire

QUESTIONNAIRES

A. Questionnaire related to the profile of the Respondent

a. village

b. Cell

c. Sector

d. Health Center

Gender: a. Male

b. Female

Age: a. ≤20

b. 21-40

c. 41-60

d. ≥61

Membership status

a. Personal membership

b. Membership member FARG

c. Membership or member of gacaca conciliation committee

d. Non Member

Marital status

a. Single

b. Married

c. Widow

d. Divorced

Occupation

a. Agriculture

b. Others (traders, employees, craft,...)

c. unemployed

Level of education

a. None
b. Primary
c. Secondary
d. University

Size of the family

a. ≤ 5
b. ≥ 6

Category of family income according "UBUDEHE"

a. Indigent
b. Poor
c. Least poor
d. Rich

Religious profession

a. Catholic
b. Protestant
c. Adventist
d. Muslim
e. Jehovah's Witness

B. Questionnaire related on Mutual health

1. Are you member of mutual health?
   a. Yes
   b.No
2. If yes what were the main reasons for you to join the mutual health?
   a. I was motivated by the knowledge of its benefits to members
   b. I was forced by local authorities
   c. I found that it is good to be supportive

d. Other reasons, specify

3. How much time can you make from your household to reach the nearest health facility?
4. Among these factors which ones best explain the benefits of membership in a mutual health?
    a. The improvement of financial accessibility to health care;
    b. Protection of households against the financial risks associated with illness
    c. Strengthening social inclusion in health
    d. Improvement of quality of care and health of the community.
    e. Other factors, which
5. If you are not a member of insurance without any constraints, will you join (new members) or re-join to the mutual health insurance?
    a.Yes
    b. no
    c. I don't know
6. If it happens that for a year, you pay the contribution of mutual health and no family member became ill, while those responsible explain to you that all your money has treated others in solidarity, which can be your reaction?
    a. This would be a loss to me likely to discourage
    b. There is no advantage or loss, however, may decrease motivation
    c. This can rejoice as it allows me to contribute to the health of others
    d. I regret a little bit but I can pay another year to prevent
    e. Other reaction, which one
7. If in 2010 you were a member of the mutual, how often have you participated in various meetings?
    a. I was invited but I have never been available
    b. I attended less than half of the meetings
    c. I have participated in more than half of the meetings
    d. I was never invited
8. What do you think would be the most appropriate way to recover the premium?

a. Pay the full amount at the beginning of the year
b. Pay during the harvest period depending on the situation of each region
c. Pay per semester or quarter or month (choose the statement considered more accurate
d. Pay progressively depending on availability of resources during the year preceding the one insured
e. Other modality (specify)

9. In your opinion, who manages the Mutual Health
   a. Government
   b. The community
   c. NGOs
   d. Community in collaboration with government
   e. I don't Know
10. In your opinion who benefits more from the mutual health
   a. Government
   b. Community
   c. NGOS
   d. Responsible of mutual health
   e. Others

C. Questionnaire related to the satisfaction of mutual health members

11. How do you appreciate the way your health facility receive the sick?
   a. They are very welcomed
   b. They are well welcomed
   c. They are welcomed in a tolerable way
   d. They are badly received
   e. They are very badly received
12. How do you assess the cost of premium of mutual health?
   a. Very high and not affordable
   b. high and hardly affordable

c. Moderately high and affordable

d. Lower and affordable

13. How do you assess the cost of user fees of mutual health?

a. Very high and not affordable

b. high and hardly affordable

c. Moderately high and affordable

d. Lower and affordable

14. If there is among the members of your family, those who did not access to care which of the factors below explain the inaccessibility?

a. Inaccessibility to the premium

b. Inaccessibility due to the unavailability of co-payments

c. Household living far from health facilities hence geographic inaccessibility

d. Other factors (specify)

15. By comparing the annual costs of healthcare in your household before accession to the mutual health and those from accession, the financial risks associated with diseases have they been reduced?

a. Strongly agree

b. Agree

c. Disagree

d. Strongly disagree

16. In your opinion, what is the level of quality of services provided by your health center, particularly with regard to the care of the sick?

a. Services are at high quality

b. Services are at good quality

c. Services are at poor quality

d. Services are at very poor quality

17. Among the practices of health facility below, what are those for which you would

like to improve urgently?

a. The reception of patients and parturient
b. Reduce the waiting period
c. Prescribe the same drugs like non-mutual
d. Give the transfer when the member of MH desire it

18. What is degree of attachment to your habitual health center?
    a. I stay faithful
    b. I can change at a moment
    c. I do not know

INTERVIEW GUIDE SCHEDULE FOR HEALTH CARE PROVIDERS

1. Do you think that mutual health has contributed to the access of health care?
2. What is the proportion of mutual health compared to the total revenue of the health center?
3. Did mutual health insurance increase the financial viability of the health center?
4. Do you think that your Section Mutual Health is your good financial partner?
5. Does mutual health pay the costs of its beneficiaries in regular time?
6. Is there any case of stock out of medicine in the health center? If it occurs, how do you treat members of MH?
7. What do you recommend for a better functioning of mutual health insurance?

INTERVIEW GUIDE SCHEDULE FOR MUTUAL HEALTH MANAGERS

1. Who initiated the mutual health?
2. Do you think that mutual health meets the needs of the community?
3. Do you have trained personnel to sensitize people to join mutual health?
4. Do you pay at regular time the costs of healthcare of the members?
5. Is there any case of embezzlement in funds collection?
6. Are mutual health members satisfied for the services they receive?
7. What do you recommend for a better functioning of mutual health?
8. How many cases of fraud in each year from 2008?

APPENDIX 2: INTRODUCTORY LETTER

KAMPALA
INTERNATIONAL
UNIVERSITY
EXPLORING THE HEIGHTS

Ggaba Road - Kansanga
P.O. Box 20000, Kampala, Uganda
Tel: +256- 41- 266813 / +256- 41-267634
Fax: +256- 41- 501974
E- mail: admin@kiu.ac.ug,
Website: www.kiu.ac.ug

OFFICE OF THE HEAD OF DEPARTMENT, ECONOMICS AND MANAGEMENT SCIENCES
COLLEGE OF HIGHER DEGREES AND RESEARCH (CHDR)

DISTRICT DE MUSANZE
ACCUSE RECEPTION
DATE D'ENTREE 05/07/2012
SIGNATURE. .....

Date: 8th May, 2012

RE: REQUEST SENZEYI BUKANBIZA MPP/31366/102/DF TO CONDUCT RESEARCH IN YOUR ORGANIZATION

The above mentioned is a bonafide student of Kampala International University pursuing Masters of Arts in Project Planning.

He is currently conducting a research entitled **"Assessing The Viability Of Mutual Health In Musanze District From 2006-2011 in Rwanda."**

Your organization has been identified as a valuable source of information pertaining to his research project. The purpose of this letter is to request you to avail him with the pertinent information he may need.

Any information shared with him from your organization shall be treated with utmost confidentiality.

Any assistance rendered to him will be highly appreciated.

Yours truly,

Mr. Malinga Ramadhan
Head of Department,
Economics and Management Sciences, (CHDR)

NOTED BY:
Dr. Sofia Sol T. Gaite
Principal-CHDR

KAMPALA INTERNATIONAL UNIVERSITY
PRINCIPAL
CHDR
P.O. BOX 20000, KAMPALA

APPENDIX 3: APPOINTMENT LETTER

REPUBLIC OF RWANDA

Musanze, on 7th July 2012

NORTHERN PROVINCE
MUSANZE DISTRICT
EMAIL:musanzedistrict@yahoo.fr
PO BOX 03 MUSANZE

N°3154/07.04.03

Mr. SENZEYI BUKAMBIZA
C/O Kampala International University

RE: Your request to conduct a research

Dear Sir,

We acknowledge receipt of your letter requesting to conduct a research for your final project;

In this regard, we are glad to inform you that you can be hosted in MUSANZE DISTRICT, Mutual Health Insurance Department.

Regards.

MPEMBYEMUNGU Winifrida
Mayor of MUSANZE District

CC

- Director of Mutual Health Insurance
- Managers of Mutual Health Insurance Sections(All).

APPENDIX 4: CURRICULUM VITAE

I. PERSONAL DETAILS

Mr. SENZEYI BUKAMBIZA Desire is a son of NYANDAGAZI JOSEPH and NYIRANKURI Alivera, married, father of five children, born on 2th February 1967 at Rutshuru, Northern Kivu in Democratic Republic of Congo. He is Rwandan by Nationality. His address is: Musanze District/Rwanda, available on the following phone number: **+250788482139**, E-mail address: **senzeyid@yahoo.fr.**

II. EDUCATION BACKGROUND

Period	Institution	Award	Course
From May 2010 to July 2012	Kampala International University/Uganda	Masters of Project Planning and Management (in progress)	Project Planning and Management
2004-2007	Institut d'enseignement Supérieur de Ruhengeri	Bachelor's degree	Public Administration
2003-2004	Universite Ouverte de GOMA/RDC	Bachelor's degree	Public Health
1991-1994	Universite de Goma	Technical diploma	Nursing care
1981-1987	Institut de Kanyatsi/DRC	Secondary School Certificate	Mathematics & physics
1973-1980	Kihondo Primary School/DRC	Primary leaving Certificate	

III. WORKING EXPERIENCE

From Mai 2006 up to now: Monitoring and evaluation officer at Ruhengeri Hospital in Rwanda.

Major tasks and responsibilities:

- Planning,
- Budget preparation
- Setting up mid and long term strategic plan of the institution,
- Supervision,
- Monitor and evaluate program activities of the institution.

From April 1996 up to 2006: Supervisor of health facilities in Ruhengeri province

From December 1994 up to March 1996: Nurse in Ruhengeri Hospital