UNIVERSITY OF RWANDA

COLLEGE OF BUSINESS AND ECONOMICS

A STUDY ON THE ENROLMENT TO THE COMMUNITY-BASED HEALTH INSURANCE, CBHI
CASE STUDY: NYARUGURU DISTRICT

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In partial fulfillment of the requirements for the Master's Degree in Business administration

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Gikondo, march 2021

DECLARATION

I, NZABANDORA Emmanuel hereby declare that this thesis entitled the " **A study on the enrolment to the community-based health insurance(CBHI)**" is my work and it has been submitted for any degree. All the sources I have used or quoted have been indicated and acknowledged by competent references.

Signature……………………………………Date…………………………………….

APPROVAL

This is to certify that this thesis entitled" **A study on the enrolment to the community based health insurance(CBHI)**" was conducted by NZABANDORA Emmanuel under my supervision guidance

Signature…………………………. Date……………………
Supervisor………………………………………………

DEDICATION

To

The almighty God

My Family members

My Lectures from all levels

My dissertation’s supervisor, and

my friend as well as my colleagues

ACKNOWLEDGEMENTS

My special gratitude goes to Almighty God for this enormous love, guidance, protection and blessing towards me while doing this study. My thanks are addressed to parents, wife, brothers and sisters for their encouragement and moral support while I was conducting this study.

My deep appreciation goes to my supervisor, for his vital professional guidance, sacrifice and careful supervision which had made this research project feat, Dear sir Prof.Bideri Ishuheli NYAMURINDA, I appreciate and recognize your kind support for my work.

I would like to appreciate all those who contributed, immaterial or moral support that leads me to the accomplishment of this study. I would also like to recognize all the staff of UR-CBE especially all my lecturers and classmates for their generous and bright encouragement given to me to overcome some hindrances through my studies.

Lastly, I also wish to extend my Sincere gratitude to my friends and classmates with whom I used to share materials and ideas and others. I also appreciate anyone who contributed to my academic success. For that thing, any contribution offered is valued.

NZABANDORA Emmanuel

ABSTRACT

Rwanda's key social security schemes, the Mutuelle de Sante health insurance scheme is facing lower coverage in some of the district of Rwanda. The study on the enrolment to the community-based health insurance scheme, Community based health insurance (CBHI) with a case study of NYARUGURU District was conducted in order to address the following five objectives: To find out the source of information for better enrollment in the CBHI Programme; to find the reasons for enrolling in CBHI programme; to find the trend of CBI enrolment in Nyaruguru District, to identify challenges faced by CBHI stakeholders in NYARUGURU District. The study design used a triangulation approach and the study population were 31987 through which Cochran (1977) formulas was used to select a sample of 384 respondents. The questionnaire and interviews were used to obtain the information from the people enrolled and unenrolled to CBHI. The study found that most people get CBHI information through radio advertisements as responded by 95 among 384 which corresponds to 25% against 54.2 % of the respondents that indicated the pressure or mobilization from local leaders. On the study on challenges that CBHI faces, the 'Poverty' was mentioned as the biggest factor as to why people don't contribute to CBHI scheme by 86 peoples out of 384 which corresponds to 22%, 'Poverty and non-harmonized Ubudehe categories' by 81 peoples corresponding to 21% and 'Lack of Ubudehe category' by 59 peoples corresponding to 15%. On the question about the difficulties in the management of CBHI in NYARUGURU district. The biggest difficulty mentioned by managers of CBHI was 'Ignorance of Beneficiaries' voted by 148 persons which corresponds to 39%. Hence, we recommend a continuous advertisement via radio and social mobilization in order to increase the number of people enrolled in CBHI. Again, increased involvement of people in Ubudehe would increase the money in the pocket of people in Nyaruguru District and would in return contribute to higher enrollment of people in CBHI and last, insure that prioritize premium payment is implemented during a follow up by mobilization committee' as well as providing motivation to CBHI staff by increasing the salary of the health workers.

Keywords

CBHIs enrollment, triangulation research, Ubudehe category

LIST OF ACRONYMS AND ABBREVIATIONS

AIDS: Acquired Immunodeficiency Syndrome

CBE: College of Business and Economics

CBHI: Community Based Health Insurance

CBHs: Constructing Better Health

CEDPA: Centre for Development and Population Activities

HIV: Human Immunodeficiency Virus

MMI: Military Medical Insurance

NGO: Non- Government Organization

RAMA: Rwanda d assurance Maladies

RSSB: Rwanda Social Security Board

RWF: Rwanda francs

SACCOs: Savings and Credit Cooperatives

U-R: University of Rwanda

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CHAPTER I: INTRODUCTION

1.1. Background of the Study

Due to the lack of access to health care to the large proportion of population on worldwide, policy options to deal with these disparities in accessing to health care has been introduced. Among them, alternate mechanisms of community financing based on pre-payment and on risk pooling, such as Community Based Health Insurance (CBHI) have proven to be strong options, reconciling an improvement in the financial accessibility to health care and the necessity to mobilize the internal resources necessary to ensure the financial viability of health services (Ahuja & Jütting, 2013)
Community-Based Health Insurance (CBHI) has been defined as a program that provide financial protection against the cost of illness and improving access to quality health services for low-income rural households who are excluded from formal insurance and it exist in many of African countries (Appiah Bernard, 2012)

In Rwanda, CBHI was identified as a privileged channel for the growth of financial accessibility to health services in both rural settings and in the informal sector. The introduction of a Community Based Health Insurance scheme began in 1999 and expanded to cover the majority of the Rwandan population by 2012 (RSSB, 2017)
From there CBHI Rwanda is much debated by authors as success story and a way used to provide access to health care for the poor without worsening the economic situation, but nobody touched CBHI stakeholders themselves and mobilization program as variable of effectiveness of CBHI operations. (RSSB, 2017)

Before reaching CBHI long run objectives, Practitioners must know the attitude towards CBHI, its vision, mission and how beneficial the program was initiated. According to the law governing CBHI in Rwanda "the community-based health insurance scheme management is responsible of public institution in charge of community-based health insurance scheme" (RSSB). Its principal mission is to offer health care to household members who have paid their respective contributions to the scheme. (Aubel, 2014) . However, there is a need to analyze why CBHI program continue to face the challenges like Insufficient funds at both district and national risk pooling level; weak pooling mechanisms; insufficient staff and limited management capabilities; possible abuse at

different levels in the system (beneficiaries and providers); large numbers of people in the informal sector with limited capacity to make contributions and who are difficult to identify and moral hazard

Instead of stay facing the above said challenges, researchers and academicians must react on this priority of life and come up with remedies, the reason why for this thesis.

1.2. Statement of problem

The problem of lower coverage CBHI scheme continues to be an impact to achieve health care sector goals which could be equitable to all Rwandan in consistency way, this continue to be a root of the financial burden of access to health services. The CBHI enrolment could be 100% , equity in access in a country were 81.6% for the year 2015 – 2016 was reported, 84.3% for the year 2016 -2017 , this a to RSSB failed to reach the target of 85% for the year 2017 – 2018 because only 82,6% contribution, the problem is not the same in all district (RSSB, 2017) .

The lower enrolment is observed in NYARUGURU district at 74.4% and covers only 6,028,150 of total active beneficiaries, also there is no research showing where people of Nyaruguru get information about CBHI while this could be a solution to this issues, deeply , this lower coverage may have a clear root cause but researchers are silent to acquire more insight and understanding in people's perception of CBHI in those lower enrolled districts (Criel, 2014) .

By analyzing the case, NYARUGURU district must have a good understanding and solve the problems in ability to pay the premium, poor quality of health care, the rigid design in terms of enrolment requirements and problems of trust which are other important reasons for people not to join the scheme.

To those problems, the research revealed that the success of a scheme is hindered by a number of challenges related to its design features such as small risk pools, underpricing, inadequate coverage, high start-up costs and weak management in Nyaruguru District. RSSB (2017) reported that the district failure to adequately manage insurance risks, the absence of a community business culture, low controls for fraud and limited coverage (and hence high risk of adverse selection).

This research focuses to search the unique and original way as a permanent solution to governance and development problems of CBHI in Nyaruguru District.

1.3. Objectives of the study

The major objective is to study the response to the community-based health insurance CBHI and its consequences in NYARUGURU District.

1.3.2. Specific objectives

1. To find the source of information for CBHI programme
2. To find the reasons for enrolling in CBHI programme
3. To find the trend of CBHI enrolment in Nyaruguru District
4. To identify challenges faced by CBHI stakeholders in NYARUGURU District.
5. To find the recommendations from CBI members about how the challenges can be alleviated.

1.4. Research Questions

1. What are the sources of information for CBHI programme in NYARUGURU District?
2. What are the reasons for enrolling in CBHI programme in NYARUGURU District?
3. What is the trend of CBI enrolment in NYARUGURU District?
4. What are the challenges faced by CBHI stakeholders in NYARUGURU District?
5. What are the recommendations to alleviate the challenges facing CBHI in Nyaruguru District?

1.5. Scope of the Study

The scope of the study includes the limits or the borders of the study. Thus, the following give light on the conceptual scope, time scope and geographical scope.

1.5.1. Conceptual scope

This study has been restricted on the response to the community-based health insurance CBHI and its consequences.

1.5.2. Geographical scope

The research takes a sample of data from NYARUGURU citizens, Nyaruguru district, one of eight districts of Southern Province with the area of 1,012 km², the district has 14 sectors with of 72 cells and 332 villages (Imidugudu). In the East, Nyaruguru District borders with the District of Huye. In North the District borders with Nyamagabe and Huye District. In the West, it shares its borders with the Western Province and the Republic of Burundi. In the South it borders with the Republic of Burundi. The landscape of the District of Nyaruguru is much diversified.

1.5.3. Time scope

The study covers the interval of four years from 2013 up to 2017 this period is chosen to assess the response to the community-based health insurance CBHI and its consequences. The reason why this scope is that all issues to be solved well identified in the years 2015 and 2016, the researcher used the data prior, during and after the problem happen for the purpose of knowing the roots causes and effects of the problems under CBHI in Nyaruguru district.

1.6. Significance of the study

Given the context of the study the research will be useful on the scientific level, to the society of Rwanda and to the researcher himself.

1.6.1. Personal interests

This work has been conducted to fulfill academic requirements for the award of Master's Degree in Business administration, finance Option.

Furthermore, the study will help the researcher to get knowledge related to the response to the community-based health insurance CBHI and its consequences in Rwanda.

1.6.2. Community and Society interest

The research clarifies the response to the community-based health insurance CBHI and its consequences in Rwanda and will be the reference for RSSB in order to implement or maintain the response to the community-based health insurance CBHI and its consequences.

This particular study will assist students of University of Rwanda since after the accomplishment and compilation; it will be submitted to the institution's library. Other students that would need to carry out the similar topic or domain of the study in future shall use it as a reference.

1.6.3 NYARUGURU District

The study assists **NYARUGURU District** management and other government leaders who are attached to CBHI operations which have relationship with response to the community-based health insurance CBHI and its consequences to address the identified issues

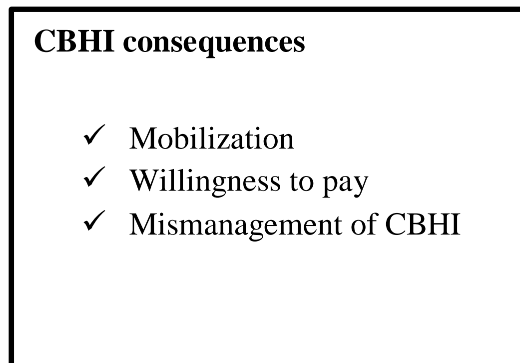
1.7. Conceptual framework.

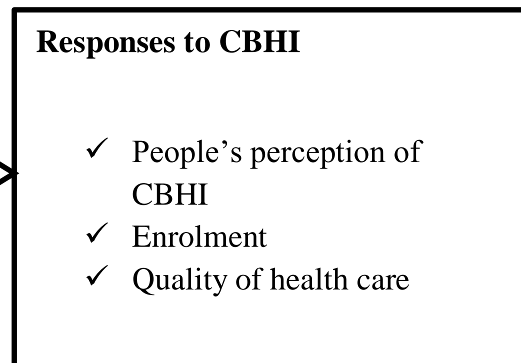
According to Colander (2003), a conceptual framework is an analytical tool with several variations and contexts. It is used to make conceptual distinctions and organize ideas. Likewise, conceptual frameworks are abstract representations, connected to the research project's goal that directs the collection and analysis of data (Shields & Rangarjan, 2013). For the best of our research, Figure

1.1 outlines the schematic presentation of the variables of concern in the study and their corresponding dimensions. The independent variable consists of CBHI consequences, while dependent variable is about responses to CBHI.

Figure 1.1 : Conceptual framework (Criel, 2014)

Independent variables **Dependent variables**





CHAPTER 2: LITTERATURE REVIEW

2.1 Introduction

This section explores existing theories and concepts related to the topic under the study. Theories are discussed respective to the proposed objectives in order to answer our research questions. It highlights the concepts behind the main indicator in the research and methods for evaluating our case study.

The majority of literature review will consist of the theory and the application of the methods used by different researchers to tackle problems similar to the ones we have in this research. We will begin with our main indicator.

2.2. Background of CBHI in Rwanda

2.2.1 Introduction on CBHI in Rwanda

Community based health insurance in Rwanda can be traced way back to associations like Muvandimwe de Kibugo and Umubano mubantu in 1966 de Butare in 1975 **,** However, with the tragedy of the 1994 genocide against the Tutsi, the health system was disrupted as infrastructures were destroyed (HABIYONIZEYE, 2013) With political stability after 1994, the government embarked on rebuilding the health system by putting much emphasis on decentralizing health management, constructing infrastructures and strengthening the role of the community in managing and co-financing health care **.**

The government made health services free for all the citizens. This was aimed at increasing the utilization of health services and affordability between the years 1994 to 1996. (World Health Organization, 2013) . However, this system was sustainable. There was lack of enough finances to give financial incentives to health providers to reach the poor population in the rural areas. It was also associated with poor health services.

The government then in 1996 re introduced the user fee to get enough money to better the health service provision. This was however, followed by a decrease in the use of the health care services. the health care utilization had fallen to 0.2 consultation per person per year below the recommended 1 consultation per person per year by World Health Organization (Vogel Lauren, 2013)

There was a new community based health insurance called Mutuelle de Sante which was introduced by the government of Rwanda under Ministry of Health. It's purpose was to increase health care utilization especially among poor people in the informal sector, expand health coverage and increase resource mobilization (Atim, 2008)

According to (Barr, Nicholas, 2012) , CBHI was started with pilot program in three districts. Kabgayi, Byumba and Kabutare after which, it was implemented to other districts of the country. Now it operates in all the 30 districts that make up Rwanda.

2.2.2. Organization and management of CBHI in Rwanda

CBHI in Rwanda works hand in hand with other private insurance companies operating in Rwanda. Apart from the private companies, there are other two government health insurance companies that operate in the country. They include La Rwandaise d'Assurance Maladie which is commonly identified by its abbreviation RAMA and Military Medical Insurance MMI (Bennett , Creese & Monasch, 2011)

MMI only insures members of the RDF and their dependents. RAMA is health insurance for public servants who work in the formal sector and their dependents. And community based health insurance commonly known as Mutuelle de Sante is meant for poor people who are employed in the informal sector. However, it is mandatory for any citizen of Rwanda who lives in Rwanda to be insured under CBHI if he or she is not insured in any of the health insurances mentioned above (Bennett , Creese & Monasch, 2011)

The government decentralized CBHI to ensure its success. The management and the rules that govern the scheme are espoused by the members of themselves.

Figure 2.2: The figure below shows how Mutuelle de Santé has been decentralized.

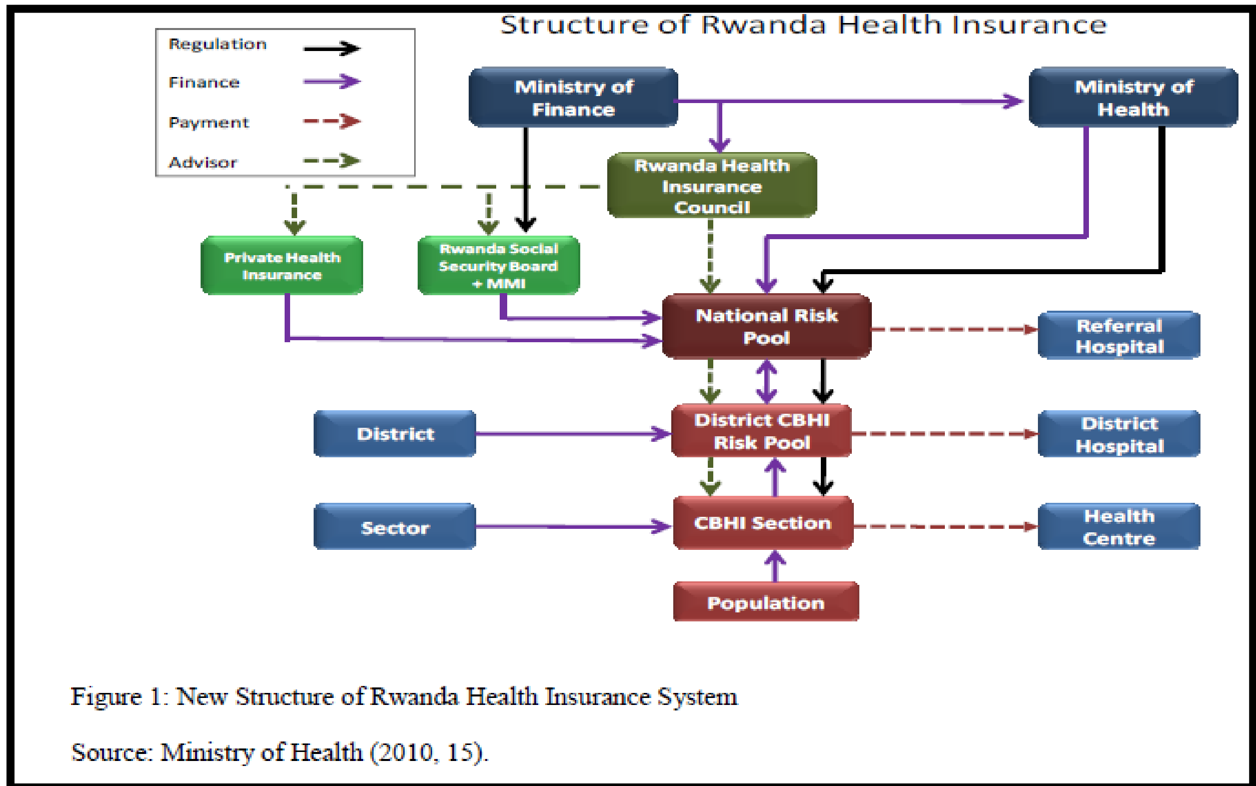


Figure 1: New Structure of Rwanda Health Insurance System

Source: Ministry of Health (2010, 15).

Co-ordination of the Mutuelle de Santé is done at the district level and it is managed by a director who is always appointed by current minister of health. At the sector level, there is a CBHI section which is comprised of the implementation unit is led by an administrator.

The residents in each village, cell and sector elect a mobilization committee. The committee serves a term of two years with possibility of renewing it. Apart from the committee getting involved in the management of the CBHI at the district and sector level, it plays a big role of sensitizing the population and collecting the contributions for the members. (Habiyonizeye, 2013).

2.2.3. CBHI financing

Funds for financing the services offered to community based health insurance are gathered from different sources. Part of the money is sourced from the government and other development partners while also the contributions of the members are used too (Creese & Bennett , 2007)

The contribution fee is paid according to the category of the Ubudehe level. The first group is of the vulnerable people. These are poor who cannot afford paying their premiums. They are charged a premium of 2000 RWF. This fee is paid by the government or other partners. The second group is comprised of the people in the third and fourth category of ubudehe level. They pay a yearly premium of 3000 RWF. While the third group is comprised of the fifth and sixth category of Ubudehe level have to pay fare is 7000RWF (Crookes Amanda, 2014).

The services provided at the referral hospitals are paid for using the money from the National risk pool while at the district level, services offered are paid using different sources of funds. Funds from the national risk pool and mutuelle de santé contributions from members enrolled and other private partners. At the sector level, all services offered are financed by the contribution of the population's premium (Davies & Carrin , 2011)

2.2.3.1 The reasons for enrollment in the Community Based Health Insurance

Community based health insurance has registered a very big success across the country because of its benefit to the community members. There are many reasons for which the members of the scheme are gratitude about and these are the reasons for their continuous enrollment every year. The advantages that come along with the insurance attract people to enroll in the scheme. Some of the reasons for the enrollment in the scheme are discussed below.

i. Access to health services across the whole country.

Subscribers of the Mutuelle de santé as commonly known in Rwanda, can access all the 368 health posts, 502 health centers, 42 district hospitals and 5 referral hospitals with ease around the country for any health services needed (Hope Magazine, 2015).

According to James Butare, a resident of Nyamata in Bugesera district Eastern province, community based health insurance makes business operations better. (Tumwebaze,2011). He says, as a business man he can now travel to different parts of the country doing business without getting worried about falling sick. Previously falling sick would mean going back to the home village for treatment. But with the new community based health insurance, he can get the treatment anywhere

in the country. He just has to move with his card on business trips as it is all that is required. Such benefits attract people to enroll in the scheme.

ii. Good service.

Though there are still some challenges with the quality of service provision at the health centers. There is no doubt that the services provided especially at the district hospital and referrals are excellent. Such good services provided attract people for enrollment in the scheme.

In case a person is not satisfied with the services he or she has received, there is a toll free helpline. A CBHI user can call 4044 to report his or her dissatisfaction about the service and the problem will be dealt with in the shortest time possible (De Allegri M et al , 2006)

iii. Variety of payment modes.

The users of the community-based health insurance find it easy to for their subscription premiums for the scheme. Members can pay their premiums in SACCOs or using banks. Others pay their subscription through e-payment platforms like Irembo. It is said that soon mobile money transfer will be introduced (Diop , Leighton & Butera , 2012)

iv. The affordability of the premium.

Community based health insurance is paid based on the level of income of the household. This makes it affordable and fair because poor people will pay what they can afford according to their income and the rich will also pay according to their income. With the CBHI, even the poor can afford to pay. The poorest do not even pay for the insurance since they cannot afford it depending on their income. The government of Rwanda pays their insurance premiums (Dror & Preker , 2002)

Table 1

New stratified premium system used by new community-based health insurance policy

CHBI category	Population coverage	Premium
Group 1: Very Poor category (Ubudehe category 1 and 2)	24.8%	RWF 2,000 (US$3.34)
Group 2: Poor category (Ubudehe category 3 and 4)	68.8%	RWF 3,000 (US$5)
Group 3: Rich category (Ubudehe category 5 and 6)	2.17%	RWF 7,000 (US$11.69)

Source: Rwanda CBHI Policy, 2010

(Drechsler & Jutting , 2010)

2.2.4. The trend of Community Based Health Insurance.

a) **Challenges faced by Community Based Health Insurance stake holders in NYARUGURU district.**

Community based health insurance has been a success on a large scale though with some challenges still hindering its perfection. The challenges faced by Community Based Health Insurance implementation relate to the insurance risk pool, design features or context. (RSSB, 2017)Just like most of the district in Rwanda, Nyaruguru district similarly encounters challenges during the implementation of Community Based Health Insurance. Though these challenges relate to specific aspect of community-based health insurance implementation, the discussion below is general without categorizing them.

✓ **High cost of financing CBHI due to Moral hazard**.

Individuals tend to change the way they behave after being insured. They behave in a way that increases the risk to which they have been insured. It is seen in two ways; some individuals reduce the health care to themselves when they join the community based health insurance. It is because they are sure of getting medical assistance in case they fall sick using their community based health insurance (Dror, DM et al , 2005)

Besides, other individuals increase the demand for health services. There is a tendency of individuals increasing the consumption of health services once they are insured. The increase in demand of health services maybe due to the patient's behavior or the provider of the health services Over charging of acts of providers and over prescription is one of the major challenges faced at the district (Ekman & Björn, 2004) . It has been that there is over utilization of health services by the insured members. It is simply because they do not all the cost of health services provided. This is evidenced by the increase in the hospital admission rates at the district compared to non-insured individuals.

For example, according to Musau,(1998), the admission rates in the hospital increased among the members of Mutualite du kanage by 141% compared to the non-insured which was at 6%. Therefore, the insured used the health service care 23 times more than their counterparts who were non-insured. Therefore, there is a tendency of the people increasing the consumption of the health service care once they are insured. This one of the challenges faced in Nyaruguru district (RSSB, 2017)

- ✓ **Mismanagement of community based health insurance funds**.

The fraud and embezzlement of CBHI money is a recorded challenge in Nyaruguru district just like many other districts in Rwanda. It is a crime which is committed by both the clients and the health service providers.

As it is in the whole of Rwanda, an individual has to for the subscription fee for the Community Health Based Insurance in advance. It is clearly stipulated that a new subscriber for the insurance has to wait for one month before using the insurance card. Many people however do not want to wait for this period and resort to bribing the providers so as to get the services immediately after subscription (Government of Rwanda, 2007)

At Muhima hospital, a manager of the community based health insurance was bribed by a patient to pay for the insurance and get treatment immediately. It was because he was very sick and he could not afford to pay for the medical services prescribed without the insurance package. The patient offered 100,000 RWF to the manager at the hospital which the manager decline to take. He claims. Such cases are also common in Nyaruguru district where the new subscribers to the insurance offer bribes to the managers for a favor (Government of Rwanda, 2007)

In Rwanda, community health based health insurance is paid according to the level of income. Some individuals bribe the service providers to be put in the low-level income earners so as to pay less insurance premium (Kayitesi, 2013)

Another similarly challenge is the dissatisfaction by the individuals about the level of income. They offer bribe to community-based health insurance providers to pay low income premium claiming they were put in a category where they do not fit. They want to belong to low income earners yet in the actual sense they earn more money. Individuals want to belong to low income earners section to avoid paying high premium (Kayonga & Caroline, 2007)

According to a news article in New Times by Vincent Sinduhunga (New Times, 2013), 27.3 per cent of the Mutuelle de Sante users were not satisfied with the category of the level of income they were put since it determines the premium to pay. Though the government has tried to revise this, it still remains a challenge.

The government realized a shortage of scheme funds and this forced it to carry out investigations about the use of the payment and the use of the premium. Government officials have been arrested in cases of fraud and embezzlement of the community-based health insurance scheme (Kayonga & Caroline, 2007)

According to the office of the Auditor General 2015, at least 96.4 million for CBHI was embezzled in five districts in the Eastern province. (Arts and Social Sciences Journal, 2017). This is however, a general problem in the country's districts including Nyaruguru district. And many officials have been put to justice and tried with cases of fraud and embezzlement of the community-based health insurance. (Arts and Social Sciences Journal, 2017).

- ✓ **Poverty**

Most of the people in Nyaruguru are low income earners. This is a big a challenge to the use of the community-based health insurance. A big percentage of the population is struggling to survive. This makes payment for the health services in advance difficult.

Just like majority of the non-subscribers in Nyaruguru, claim that the only reason they are not members is because they cannot afford to pay the premiums. "We do not refuse to pay, but we cannot afford to " (Ministry of Health, 2016)

The increase in the insurance fee from 1000 RWF to 3000RWF from the year 2012 is said to be responsible for the decrease in the subscription for the Community Health Based Insurance. (Kwibuka, 2014).

The community members say that the fee is high for them to pay. This is common in the villages where the households comprise of very many members. And yet the insurance premium is paid for the whole household at once. You find that some households have over 10 members. This means that the head of the household has to pay more than 33000RWF per year. This is a lot of money given the fact that such households are poor (Ministry of Health, 2004)

Dr. Alvera Mukabaramba, the former minister of state for community development and social affairs is quoted to have said that, an increase in the annual fare contributed to the decline in the number of subscribers as they may have found it too high for them (Ministry of Health, 2010).

The claim is also supported by the citizens who claim that on top of increasing the fee to 3000RWF, the premium is paid at the beginning of the civil year. This makes it challenging since this is a period also for paying school fees for their children (Morestin & Ridde , 2014)

This makes it challenging for both the subscribers to get money and also for the management to raise enough money from the premium since many people are poor and cannot afford to fee.

- ✓ **Poor treatment at the health centers.**

Clients of the community-based health insurance claim that they face a challenge of irritating welcome by the service providers. Bad language and insults are used by some of the health service providers to the CBHI clients. In some health centers, it is said that community-based health insurance users are treated with low dignity and given less care compared to their counterparts of other private insurance (Musau, 2009)

It is said that one user of the community-based health insurance claims that she was told by a nurse that, "You go away, if your baby dies, I will produce for you another one." (Arts and Social Sciences Journal, 2017). Unfortunately, the baby died and the Nurse is still serving at the health center. Such cases of poor treatment are common at the health centers. Poor treatment of the clients is still a challenge in the implementation of community-based health insurance.

As pointed out by (Overbye & Einar, 2005) though on a small scale, failure to get assistance is a challenge to the CBHI users. In some deep villages, patients find few health workers to attend to them or even and they leave without being attended to. Such cases happen in the rural areas where

the number of the vulnerable population is high coupled with few health centers. This makes it a big challenge still being faced with the implementation of the community-based health insurance.

- ✓ **Waiting queues without update information.**

Patients have to make long lines to receive the services they need. However, it has become a challenge since they have to wait for long hours without even being updated on how far they have to wait. Patients keep waiting on the queues without knowing whether they will even get the services.

To make matters worse, the health centers act as gatekeepers for the hospitals. This means that a patient cannot get to the referral hospital without a transfer from the health center. Some patients claim that, they have to get to the health center as early as 6:00am but reach mid-day without the hope of seeing a Nurse (Pauly , 20011)

Low coverage of the services offered by the community-based health insurance.

The community-based health insurance does not cover all the health services. Its package is selective. On addition to that, some drugs are not included in the service. This limitation is a challenge to the users and the providers of the insurance (Preker A. S. , 2014).

Over-crowding at the health centers.

Overcrowding at the health centers has been recorded as one of the challenges faced by the community-based health insurance users in most districts of Rwanda including Nyaruguru district. This big number of patients waiting at the health centers is caused by limited health workers at the health centers compared to the patients thus poor delivery of the services rendered (Preker, A, et al. , 2001)

Delayed subscription.

Payment for the subscription fee is done at the beginning of the civil year. However, some people do not pay for their insurance premium on time. Such delays and failure to pay at all are responsible for the fall in the number of subscribers. The figure fell from 73% in 2014 to 63% (Republic of Rwanda, Ministry of Local Government (MINALOC), 2013)

- ✓ **Lack of clear records**.

According to the New Times (2014), lack of clear records was identified by the RSSB as a challenge to the implementation of community-based health insurance. It was identified as a hindrance to the consolidation report.

- ✓ **Lack of self-sufficiency by the scheme.**

A review on the health scheme conducted in 2013 by the senate showed that the government over 2.3 billion RWF arrears to the district health centers, over 400 million to National referral hospitals and health centers. (Kwibuka, 2014). This study was done across all the Rwandan districts including Nyaruguru district. This shows that the scheme cannot sustain its self and need a lot of government funding. Such arrears are some of the challenges faced by Nyaruguru district. However, the government is solving the problem to take care of all the arrears in time. But that does not remove the fact that the scheme is not self-sufficient. The pool from the premium of the members' subscription is not enough to sustain the community-based health insurance scheme.

b) Community based health insurance as social protection and social risk management instrument

According to Yvone HABOYONITEZE, CBHIs as social protection is broadly and traditionally defined as public interventions to assist individuals, households and communities better manage risk and provide support to the critically poor (Holzmann and Jorgensen 2001,530).CBHs , as social risk management extend social protection as traditionally defined since it goes beyond public provision risk management instrument and draws attention to informal and market-based arrangement and their effectiveness (Holzmann and Jorgensen 2001) .

In fact, social protection has emerged to expand traditional social security measures protecting people within the formal structures of employment, to incorporate those people in poverty, operating outside of formal employment structures. According to the World Bank, the sector constitutes up to 80% of the work force in Africa (Coleridge 2005). The majority of people from informal sector are not covered by any kind of social security through are exposed to risk. It should be noted that social risk management (SRM) framework is based on two important assessments.

1.The poor population are practically most exposed to diverse rinks ranging from natural (such as earthquake and flooding) to manmade (such as war and inflation), from health (such as illness) to political risks (such as discrimination)

2. The poor people have the fewest instrument to deal with the risks (such as access to government) provided income support and market-based instrument like insurance (Holzman, 2003) As consequences, the poor population are the most vulnerable in society as shocks are likely to have

the strongest welfare consequences for them and the highly vulnerable or unwilling to engage in higher risk/ return activities.

Access to social risk management instruments would allow the poor people more risk taking and thus provide then an opportunity to gradually move out of poverty (Hlzmann and Jorgen2001). Thus, CBHIs is one of the instruments used to protect people, especially the poor people from informal sector against health risk. There are a number of ways in which the government can assist in the management of health risks of the poor. This includes improved provision and targeting of publicly provided health services to the poor, financing the inclusion of the poor in social or private insurance schemes and by investing in programs that are complementary to improve health standards such as clean driving water, sanitation and good nutrition in poor regions. Thus, CBHIs is deemed to be a better tool to deal with health risks for the poor than using coping mechanisms.

Several developing countries however, have opted to introduce specific regulations with the aim of scaling up CBHI as part their national health systems (Joint NGO, 2008,12). In Rwanda, the government has shown stewardship by stimulating improved in the health sector; the CBHIs are therefore invited to engage in transparent and participatory decision. According to Carin, the government plays four tasks:

-that adviser on the design of CBHIs, monitor of CBHI related activities, trainer and that of co-financier. Taking about the design of CBHIs, government should be seen to steer CBHIs in the direction of a national systems of universal coverage and financial protection.

- ✓ To be sustainable CBHIs depend on a lager risk pool because the small schemes do not constitute a solid risk pool capable of insuring its members adequately.
- ✓ Thus, the government has the task to scale up the CBHI at national level in order to avoid the problem of small risk pooling.
- ✓ The government has also to make sure that the package offered by CBHI reflects the health care needs of the population.

Next to the task adviser on the design of CBHI, government can offer to monitor the basic performance of each CBHIs, track progress across the different schemes through time; and performance comparative analysis. The government should enable to stimulate the establishment of CBHIs, to signal problems to existing CBHIs and to offer practical advice concerning these problems.

According to Yvone HABIYONIZEYE,2013 the number of CBHIs is rapidly growing, there are only a fault schemes in existence it is developing countries to day and these provide coverage to less than a decade old few have been rigorously evaluated and lessons of experience are still to be acquired.

2.3. THEORETICAL FRAMEWORK

This section explores two theories that are, in one way or another, relevant to the success of CBHIs. The first one is social capital theory and the second one is about social mobilization theory.

2.3.1 Social capital theory

Putnam (1993), the first scholar to popularize social capital theory, argues that social capital consists of "features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit" (Putnam, 1993). He asserts that informal networks of civic engagement build social capital which in turn facilitates improved governance. Michael Woolcock takes the theory a bit farther by breaking social capital into four categories: (i) bonding social capital inhering in micro level intra-community ties; (ii) bridging social capital inhering in micro level extra-community networks; (iii) bridging social capital inhering in relations between communities and macro-level state institutions; and (iv) bonding social capital inhering in macro level social relations within public institutions (Maldovsky and Mossialos , 2006).

According to Woolcock and Narayan (2000) social capital helps the poor to manage risk and vulnerability. Thus, CBHI which aims at managing risk and vulnerability may be well accepted by a community that possesses a high stock of social capital. A high level of social capital is associated with a high level of altruism among individuals; this makes it possible to take into consideration the well-being of other members of the group. The presence of social capital always has a positive effect on a community's welfare.

Fukuyama (1995) asserted that "social capital can be defined simply as the existence of a certain set of informal values or norms shared among the members of a group that permit cooperation among them". Sobel (2002) describes social capital as circumstances in which individuals can benefit from group membership. Thus, social capital refers to social life-networks, norms, and trust that enables households to act together more effectively to pursue shared objectives. This social capital in the community can be an asset for the breakthrough of CBHI, thus contributing to the demand for CBHI at the community level.

2.3.2 Social mobilization theory

Social mobilization theory has been proven as effective for health promotion especially when people are reluctant to respond positively to health program. In the case of CBHI, people need to be mobilized in order to understand and to adhere to the program given the fact that most of people do not see direct benefits of health insurance (time inconsistence problem). Hence, this section develops social mobilization theory and shows how it leads to social and behavior change through effective communication.

Social mobilization is a multi-level, dynamic approach that can be initiated either top-down or bottom-up. Community is perceived in its broadest sense to include all those who have a role and responsibility in effecting change. As information is made available and understandable to both experts and lay people, broad ownership and popular support are created (Russel &Levitt Dayal 2003).

Social mobilization refers to "the use of planned actions and processes to reach, influence, and involve all stakeholders across all relevant/pertinent/involved/concerned sectors, including the national and the community level to raise awareness, change behavior, change policy, demand a particular development program, or reallocate resources or services".

The social mobilization approach can be used in different health issues including safe motherhood, community-based health insurance, family planning, HIV/AIDS prevention, girls education and so on.

A community-based health insurance like any other health program, to be effective, needs a multi-pronged approach of social mobilization that encompassed communication through dialogue at multiple levels and among multiple audiences. It also requires broaden public support through community mobilization. Here Community mobilization refers to a process of problem identification and problem solving stimulated by a community itself or facilitated by others that involves local institutions, local leaders, community groups and members of the community (CEDPA ,2000). Community mobilization uses deliberate, participatory processes to involve local institutions, local leaders, community groups, and members of the community to organize for collective action toward a common purpose. Community mobilization is characterized by respect for the community and its needs.

For social mobilization to be successful and to build this base of popular support, communication needs to be a process of dialogue, information sharing, mutual understanding, and collective action. Standardized messages are used to promote a dialogue within the community as a whole (Aubel,2001).

It should also be noted that the CBHI to be sustainable needs mobilization for human and financial resources.

Neil McKee (1992) lists five main approaches to mobilizing human and financial resources: (1) political mobilization, (2) government mobilization, (3) community mobilization, (4) corporate mobilization, and (5) beneficiary mobilization. Social mobilization uses community events to attract the attention of policy makers, community members, and media representatives and motivate them to take action on a specific issue such as immunization, literacy, or family planning. Social mobilization amplifies advocacy activities, strengthens communication, and allows many more societal partners to participate in the program. To be successful a CBHI program needs to use all those approaches to mobilize human and financial resources.

Champions for change such as community health workers are concerned with building consensus and educating people to energize and empower them to take focused action. They share information and galvanize many stakeholders around an issue. The stakeholders then agree on a goal, develop key themes and messages, and exert political pressure for policy changes and increased recognition of a widely recognized problem. A sense of community is built around the issue, and more people join the movement. This bandwagon effect leads to increased resources and formation of new social norms, creating a climate that supports individual behavior change as well as social change (Russel and Levitt-Dayal ,2003).

2.4. Gap Analysis

A lot was discussed on CBHIs, CBHI is a not-for-profit type of health insurance that has been used by poor people to protect themselves against the high costs of seeking medical care and treatment for illness. In principle, CBHI schemes are designed for people who live and work in rural areas, or in the informal sector. Most often, these people are unable to access adequate public, private, or employer-sponsored health insurance. Significantly, by reaching those who would otherwise have no financial protection against the cost of illness, CBHIs also contribute to equity in the health sector. However, no was done to assess the attitude towards CBHI among citizens and explore the

reason why this scheme continue to declare problems search as financial burden and impact that stockholders are facing under CBHI implementation, may be people do not understand what is CBHI, how beneficial it and if there understand they have financial illiteracy that impact they opportunity cost or it is the inefficiency of mobilization committee that is the proximate cause of CBHI challenges, it is this line that we want to fill this Gap.

In additional, they could be a way to mobilize citizens and officials in Nyaruguru district to solve all issues under CBHI as mobilization theory say (Social mobilization theory has been proven as effective for health promotion especially when people are reluctant to respond positively to health program. In the case of CBHI, people need to be mobilized in order to understand and to adhere to the program given the fact that most of people do not see direct benefits of health insurance (time inconsistence problem). There also a gap under CBHI financing mechanism, social capital theory, argues that social capital consists of "features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit" (Putnam, 1993) but as one can see all listed issues could not happen but since we don't know the root causes , this research provides recommendation vis a vis how Social mobilization theory and social capital theory can be help is solving issues under CBHI in Nyaruguru District .

CHAPTER III: METHODOLOGY

This chapter explains the way the researcher will collect data from the field. It explains in detail the methodological aspects to complete this research work taking CBHI in Rwanda, NYARUGURU District. The main items dealt with include research design, sources of data, techniques of data collection, methodology, and processing and study limitation.

3.1 Research design

The research is quantitative and qualitative. We achieve our main objective using statistical data from the field. Qualitative analysis will only be done for personal understanding of the researcher and broad insight of problems to be solved in this research.

3.2 Study population

Target population is the group about which the researcher would like to make statements based on the conditions and concerns under the study (Henry, 1990). In line with this, the target population will be **319687** citizens of Nyaruguru District.

Table 1: Population composition

Population Category	Population	Sample Size
Non CBHI beneficiaries	69,969	84
CBHI beneficiaries	249683	120
CBHI mobilizers	180 = 5*36 at cell level	180
Total	**319,687**	**384**

Source: Researcher, basing on data from RSSB (2018).

3.3 Sampling design

Upon selecting the study's respondents, the researcher will use both universal sampling and Convenience Sampling strategies.

According to Richard & Margaret (1990), universal sampling refers to the selection of the samples where all the people in the population have the same probability of being included in the sample while convenience sampling as the name suggests, the elements of such a sample are picked only on the basis of convenience in terms of availability, reach and accessibility.

3.4. Sample size

According to article 20 of the CBHI law stated earlier, mobilization is conducted at village levels by committees of 5 members serving on voluntary basis. Mobilization committees at cell and

sector levels assume the coordination and those are the keys person to focus on under this research since they have full targeted information.

In additional to the above, due to the time and financial constraints, it is difficult to conduct research on every element of the research population.
we have calculated the sample size of the study in two phases:

- Sample size of sectors to be visited among the 14 sectors of NYARUGURU districts,
- Sample size of interviewees in each sector to be visited.

From a population of 14 sectors, the Cochran formula has been used to sample only 7 sectors as shown below.

Table 2: Cochran Formula implementation in Nyaruguru District

District/ Population	No of sectors	Sample/sectors & Citizens	Cells / Interviewees
NYARUGURU	14	14	36
Population	**319687**	384	384
Total		**14**	

Details on sample size calculations and factors influencing sample size are determined as follow:

- **The population size (N):** This is the number of all units in the target population. For this study N= **319687**
- **The tolerated margin of error or margin of error(d):** which is the error the researcher is willing to accept. The tolerated margin of error in this study is d=0.05 (5%) as suggested by **Cochran (1977).**
- **The alpha level (α):** The probability that differences revealed by statistical analysis really do not exist (also known as type I error). For our study, $\boldsymbol{\alpha = 0.05}$ **(5%)** and the corresponding value from the normal distribution is $Z_{\alpha/2}$=$Z_{0.025} = 1.96$.
- **The variance** is a measure of how a set of values are spread around the mean. Let p stand for the proportion of the success, and q, the proportion of failure. Then $\boldsymbol{Var(x) = p \times q}$.

Cochran (1977) suggest that for sample maximization and accuracy reasons, it is advisable to consider $p = 0.5$ and $q = 0.5$ yielding to the maximum possible variance of $\boldsymbol{Var(x) = 0.25}$.

Given the values of the above assumptions, the sample size (n) is then given by:

$$n = \frac{n_0}{1 + \frac{n_0}{N}}$$

Where $n_0 = \frac{Z^2_{\alpha/2} pq}{d^2}$ with $Z^2_{\alpha/2}, p, q$ *and* d are defined above.

Numerically, $n_0 = \frac{1.96^2 \times 0.5 \times 0.5}{0.05^2} = 384$ Then $n = \frac{384}{1+\frac{384}{319687}} = 384$

Thus, the required sample size is 384 citizens from 7 sectors to be selected among 14 total sectors of NYARUGURU district.

3.5 Data collection

According to Pannerlvan (2005), data are basic input to any decision-making process in a business. The processing of data gives statistics of importance of the study. In this study, both primary and secondary data will be used.

3.5.1 Instrument development

Primary data

Avdrey (1987) says that primary data comes straight from the people a researcher is researching from and is therefore the most kind of information a researcher can collect. The primary data is said to be the first-hand observation. In this research, the primary data will be composed of information got from questionnaires and interviews to be held with selected respondents.

Secondary data

Secondary data is usually extracted from the original data and often the examination of the study same one else has carried out on a subject or an evaluation of commentary or summary of primary material (Avdrey, 1987). The secondary data of this research will be extracted from different text books, journals, reports and other previous research documents in the same field.

3.5.2 Data collection techniques

In carrying out this study, primary data will be collected through structured interview and self-administered questionnaire. In designing questionnaires addressed to the CBHI practitioners in the specified categories, the researcher will use Likert scale to measure the staff's appreciation level on working the response to the community-based health insurance CBHI and its consequences and their appreciation in this line.

3.6. Validity and reliability

To ensure that the instrument measures what it is supposed to measure, the instrument is checked to insure validity. For further improvement, the questionnaires presented to my supervisor to solicit his opinion in order to guarantee correctness and relevance of the instrument.

3.7 Data analysis

After collecting data, the researcher continues to process, analyze and interpret the data. The researcher exercised good care to ensure that reliable data have been collected because all his efforts may end in vain if the data will not properly have processed and analyzed. Thus, the following task takes place during the process of data processing. Data edited by processing and examining errors and omission in the collected data and making necessary correction. After the process of editing the data, the researcher has to go through the coding stage. The researcher undertakes the task of establishing coding frames by use of his own code categories based on his research questions and responses while Tabulation comprises sorting of data into different categories and counting the number of cases that belong to each category.

The primary data have been analyzed using both descriptive and inferential statistical. The researcher used the Statistical Package for Social Sciences (SPSS) version 16 in coming up with the statistical analysis for the study. Naale et al. (2006) urged that SPSS is one of the most widely to be used available and powerful statistical software packages that covers a broad range of statistical procedures, which allows a researcher to summarize data (e.g. compute means and standard deviations), determine whether there are significant differences between groups, examine relationships among variables, and graph results. With the help of SPSS, the researcher applied Descriptive Statistics

3.8. Ethical considerations

This study must not contradict with ethical principles including the obligation to avoid hurting or embarrassing the respondents as well as respecting their privacy. The researcher asked himself the ethical relevance of the research with reference to the values and actions to undertake in order to complete it. For this purpose, the researcher will observe a set of measures to comply with ethical standards during the whole process of research. These were: A recommendation letter justifying the relevance of the research will be provided by the Dean of research CBE post graduate program to the researcher in order to get the information needed to the organization under study;

A formal consent will be requested from each interviewee before interviewing him/her or engaging in any kind of discussions; respondents will be informed that they have the right to refuse any participation in the study; respondents will be granted confidentiality regarding any information given and its use exclusively for the research purpose. Anonymity will be guaranteed; No interview will be done with children.

3.9. Limitations of the Study

A number of problems and limitations that are expected during the course of this research and they include the following:

Financial constraints; The researcher expect to face a limitation of a lot of costs while preparing this study that included transportation to the field fares, internet costs, refreshments, photocopying, and stationery.

Another limitation will be inadequate source of relevant literature from text books. Some respondents could be biased and suspicious to respond, which automatically might have affected the quality and quantity of data required.

Some of the respondents are expected to be too busy to get time to respond. Therefore, some of the respondents will never available as the researcher will be required hence a lot of time can be wasted while waiting for them.

However, despite the challenges to be encountered, the researcher's hard work, determination, commitment and assistance from researcher's friends will permit the successful completion of this.

CHAPTER IV: DATA ANALYSIS, FINDINGS AND RESULTS

4.1. Introduction

In this chapter we explored different findings and results drawn from different analysis made on our data set to answer our research questions.

The target population was 319,687 citizens of Nyaruguru District and this number includes the existing CBHI enrolled and unenrolled as well as the staff of CBHI at District level. A sample of 384 respondents was drawn and all of them were willing to participate in our interview.

A. Questionnaire analysis

Table 3: Distribution of household identification.

SECTORS	NUMBER	%
Busanze	25	6.5
Cyahinda	26	6.7
Kibeho	28	7.3
Kivu	27	7.0
Mata	31	8.1
Muganza	25	6.5
Munini	31	8.1
Ngera	29	7.6
Ngoma	29	7.6
Nyabimata	24	6.3
Nyagisozi	25	6.5
Ruheru	26	6.7
Ruramba	30	7.8
Rusenge	28	7.3
Total	**384**	**100%**

Source: Research completion (2018)

In the interviews, 25 households were interviewed from each of the sectors of Busanze, Muganza and Nyagisozi at the rates of 25%. In Cyahinda and Ruheru 26 (6.7%) were interviewed from each. Of 384, 28 were from each of Kibeho and Rusenge, that is 7.3%. Kivu and Nyabimata participated by 7.0% and 6.3% which is 27 and 64 households respectively. Mata and Munini households were interviewed at the highest number of 31 each, that is at 8.1% while Ngera and Ngoma became first runners up with 29 interviewees which is 7.6%. The reasons for the highest participation was the fact that we found and interviewed the households of Mata, Munini, Ngera and Ngoma after

community services (Umuganda) whereas the rest were interviewed from their homes hence the low turn up.

Distribution of Household roster

Table 4: Interviewees' identification

		AGE LEVEL							
	Age intervals	**<21**	**21-30**	**31-40**	**41-50**	**51-60**	**>61**	**TOTAL**	**%**
Sex	Male	11	37	42	29	49	10	178	46
	Female	19	43	49	47	37	11	206	54
	Total	30	80	91	76	86	21	384	100
MARITAL STATUS	Single	27	40	34	2	0	1	104	27
	Married	3	39	54	69	54	9	228	59
	Widow	0	1	3	5	32	11	52	14
	Total	30	80	91	76	86	21	384	100

Source: Research completion (2018)

As per the table above, 178 males which is 46% of the sample size were interviewed with 11 under 21, 37 between 21 and 30, 42 between 31 and 40, 29 between 41 and 50, 49 between 51 and 60, and 60 were from 61 and above of age.

On the other hand, 206 females participated in our interviews whereby 19 were below 21, 43 were between 21 and 30, 49 were between 31 and 40, 47 were between 41 and 50, 37 were between 51 and 60, and 11 were above 60 of age.

Among the below 21 age level, 27 households were single, 3 married, and 0 widows. In the between 21-30 bracket, 40 were single, 39 married and 1 widow. In that of 31-40, 3 were single, 54 married and 3 widows. Among the 41-50, 2 were single, 69 married and 5 widows. The age level of 51-60 consisted of 0 singles, 54 married and 32 widows. Least but not last, the age level of 61 and above comprised of 1 single, 9 married and 11 widows.

The above figures summed up to 178 males, 206 females by 46% and 54%. They were 104 singles, 228 married and 52 widows at respective percentages of 27, 59 and 14 as well. Therefore, most of our interviewees were female and this is because most of the males had gone to work by the interview time.

Table 5: Relationship to head of household

SECTORS	NUMBER	%
Household head (HH)	145	37.8
Spouse of HH	98	25.5
Son / daughter of HH	43	11.2
Step child / adopted/	7	1.8
Foster child of HH	30	7.8
Father / mother of HH	17	4.4
Brother /sister of HH	15	3.9
Grandchild of HH	13	3.4
Parent in law to HH	2	0.5
Brother /sister in law to HH	6	1.6
Other relationship to HH	4	1.0
No relationship to the HH	3	0.8
Domestic worker	1	0.3
Total	**384**	**100**

Source: Research completion (2018)

The above Table shows that the relationship of the respondents to the household head varied from the household heads themselves of 145 at 37.8% to spouses of 98 at 25.5%, sons/daughters of 43 at 11.2%, step child, foster child, father/mother, brother/sister, grandchild, parent in law, brother/sister in law, other relationship, no relationship, and domestic worker. Therefore, we expect to have relatively right answers to our questions below because most of our respondents were household heads, that's 145 respondents at 37.8%.

Table 6: Ubudehe categories vs education level

		UBUDEHE CATEGORIES						
		CAT. 1	**CAT . 2**	**CA T.3**	**CAT .4**	**NO CAT.**	**TOT**	**%**
EDUCATIO N LEVEL	No formal education	8	34	30	22	0	94	24.5
	Pre-primary	0	13	10	7	0	30	7.8
	Primary	1	27	24	7	0	59	15.4
	Post primary / vocational	0	18	14	15	0	50	13.0
	Secondary	0	46	29	30	0	105	27.3
	Tertiary	0	16	14	16	0	46	12.0
	TOTAL	**61**	**81**	**76**	**86**	**00**	**384**	**100**

Source: Research completion (2018)

As per the table above, we noticed that most of the respondents are in category 4 of Ubudehe (86) and the least are in category 1 (61), none of the respondents are uncategorized for Ubudehe. The interviewees level of education ranged from 'No formal education' equaling to 94 at the rate of 24.5%, 'Pre-primary' equaling to 30 at 7.8% rate, 'Primary' are 59 (15.4%), 'Post primary/ Vocational' are 50 (13.0%), 'Secondary' are 105 (27.3%) and 'Tertiary' equal to 46 which is 12.0%. This means that most of the interviewees have secondary level of education which implies our respondents quite understand well the questions they were being asked and answered appropriately.

Table 7: Ubudehe categories Vs Source of your income

	UBUDEHE CATEG.						
	CAT 1	**CAT 2**	**CAT 3**	**CAT 4**	**NO CAT**	**TOT**	%
Farming and livestock activities	14	86	110	40	0	250	65.1
An employee of government or private company	0	4	16	32	0	52	13.5
VUP	29	11	2	1	0	43	11.2
Small business (specify)	7	3	3	12	0	25	6.5
Other sources (specify	2	1	5	6	0	14	3.6
TOTALS	**52**	**105**	**136**	**91**	**0**	**384**	**100**

Source: Research completion (2018)

We can see from the table 4.5. that the biggest number of the interviewees are farmers (Farming and livestock activities) by 250 at the rate of 65.1%, the first runners up are government or private companies' employees by 52 at 13.5%, the second runners up are 43 rating 11.2% and are VUP workers followed by Small business runners (25) at 6.5%. The smallest number of their income sources is unspecified and account for 14 and 3.6% of the 384-sample size. Their Ubudehe categories account for 52,105, 136, 91, and 0 for Category 1, 2,3,4 and No Category respectively. Therefore, CBHI is an affordable scheme since almost all the population has a known occupation. In our flowing questions, we shall see how they set priorities as health insurance must be one their life priorities.

Table 8: Income generation by time

Respondent	NUMBER	%
Daily	150	39.1
Weekly	33	8.6
After two weeks	17	4.4
Monthly	84	21.9
Unpredictable	100	26.0
Total	**384**	**100.0**

Source: Research completion (2018)

From the income pattern above, we can conclude that 39.1% get daily incomes, 8.6% get it weekly, 4.4% fortnightly, 21.9% get it monthly and 26.0% their income pattern is not predictable. From our analysis, Nyaruguru citizens may be lacking financial literacy since on average many of them earn some income yet they still don't enroll and or contribute to CBHI.

Objective one: The source of information for CBHI programme

Table 9: Sources of information about the CBHI in NYARUGURU district.

Sources	Totals	%
Advertisement on radio	95	25
In meetings held after monthly Umuganda	63	16.4
Village community health volunteer	31	8
A community health worker visited me	80	21
RSSB CBHI mobilization campaign	62	16.1
Via social media (like WhatsApp, Facebook or Messenger …...)	18	5
Other village meetings organized by the local leaders	35	9
Totals	**384**	**100**

Source: Research completion (2018)

CBHI information is seen to be flowing to people in various ways as depicted above. Most people get to know about CBHI through radio advertisements by 95 at 25%, secondly by 80 at 21% a community health worker visited me, thirdly by 63 at 16.4% In meetings held after monthly Umuganda, next by 62 at the rate of 16.1% RSSB CBHI mobilization campaign, followed by 35 at 9%, the second last is 31 at 8% and lastly 18 respondents at the rate of 5% Via social media (like WhatsApp, Facebook or Messenger …...).

Therefore, most information channel for CBHI in Nyaruguru district is Radio and the least one is social media since Nyaruguru people don't have as many smart phones as radios.

Objective two: Reasons for enrolling in CBHI programme

Table 10: Reasons attached to CBHI programme enrolment.

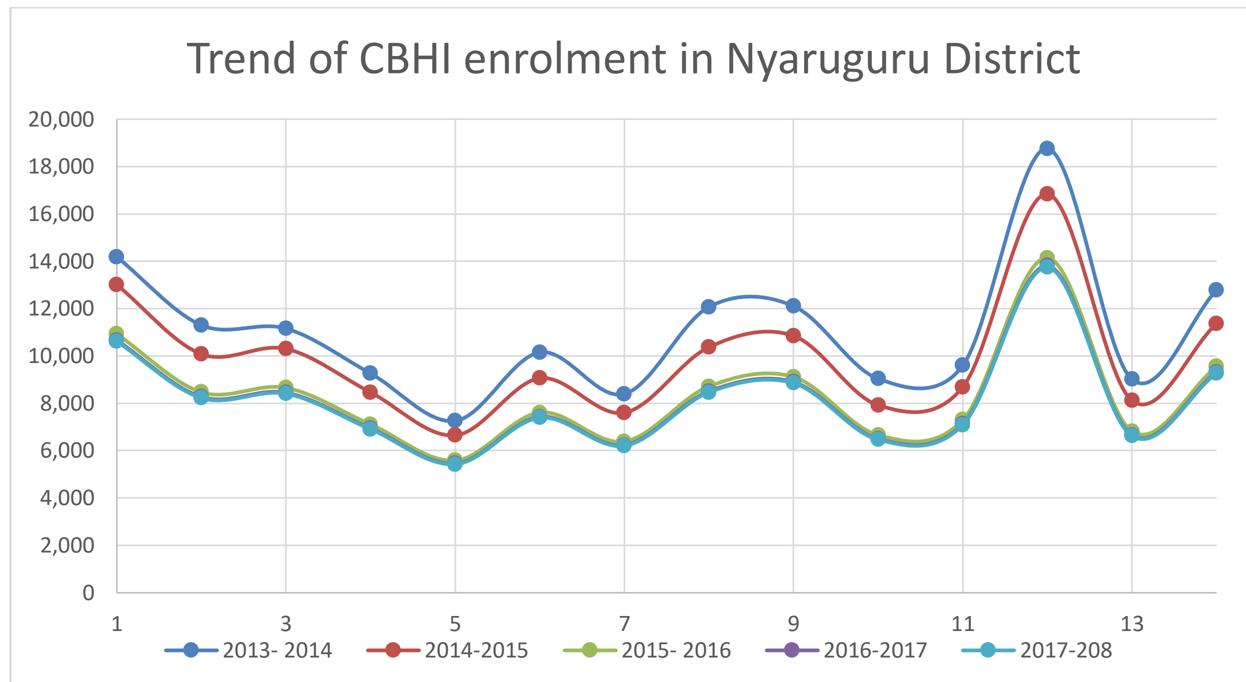
Reasons	Totals	%
To ensure that all my family members get affordable health services once any of them falls sick	102	26.6,
I joined because of the pressure from local leaders	208	54.2
I joined the CBHI programme because my friends have enrolled as well.	44	11.5
I joined the CBHI because of good care in health services	30	7.8
others (please specify)	0	0.0
Total's	**384**	**100**

Source: Research completion (2018)

A number of factors account for CBHI enrolment like the in the figure above and most compelling one is 'To ensure that all my family members get affordable health services once any of them falls sick' by, 102 (26.6%) with that of 208 at 54.2% rate being the first runners up reason, thirdly is the one for 44 at 11.5% and lastly 'I joined the CBHI because of good care in health services' which attracted 30 at 7.8% rate. The good thing is that no was found to have enrolled for CBHI in Nyaruguru for no specific reason.

Objective three: Trend of CBHI enrolment in Nyaruguru District based on sector level Data

Figure 3: Trend of CBHI enrolment in Nyaruguru District



As one can see from the above figure 4.1, the trend of CBHI enrolment in Nyaruguru District was fractured, the lower enrolment happens in the year 2016-2017,2017, 2015 – 2016, 2014-2015 and 2013- 2014 respectively. this found to be problematic since the enrolment to CBHI enrolment in Nyaruguru District was diminishing. The reasons behind this diminishing can be linked to the theories said in this thesis (Social mobilization theory and social capital theory) we shall present findings vis a vis those roots causes.

Objective 4: Challenges faced by CBHI stakeholders in NYARUGURU District

Table 11: Mains reasons behind not contributing to CBHI

Mains reasons behind not contributing	**CAT 1**	**CAT 2**	**CAT 3**	**CAT 4**	**NO.CAT**	**Totals**	**%**
Lack of awareness	11	7	9	4	0	31	8
Poverty	20	27	22	16	1	86	22
Lack of awareness	8	13	15	23	0	59	15
Harmonized Ubudehe category	0	5	3	5	0	13	3
Poverty and non-harmonized Ubudehe categories	17	24	21	17	2	81	21
Lack of awareness, poverty and non-harmonized Ubudehe category and non-harmonized Ubudehe category	7	14	13	5	1	40	10
Lack of Ubudehe category	2	2	0	1	0	5	1
Not applicable.	25	14	17	13	0	69	18
Total	**90**	**106**	**100**	**84**	**4**	**384**	**100**

Source: Research completion (2018)

'Poverty' pauses as the biggest factor as to why people don't contribute to CBHI scheme by 86 people at 22% rate, 'Poverty and non-harmonized Ubudehe categories' by 81 at 21%, 'Not applicable' by 69 at 18%, 'Lack of Ubudehe category' by 59 at 15%, 'Lack of awareness, poverty and non-harmonized Ubudehe category and non-harmonized Ubudehe category' by 40 at 10%, 'Lack of awareness' by 31 at 8%, 'Harmonized Ubudehe category' by 13 at 3% and 'Lack of Ubudehe category' by 5 at 1% in that order. Therefore, more effort should be dedicated to the occupation structure so as to improve people's contribution to the scheme.

Table 12: Extra co-payments

ADDITIONAL PAYMENT BESIDE CBHI CO-PAYMENTS (FRW 200)			
FRW	**Number**	**Percent (%)**	**Cumulative Percent**
50	5	2,6	2,6
100	116	60,7	63,4
150	51	26,7	90,1
200	7	3,7	93,7
230	1	0,5	94,2
250	2	1	95,3
300	4	2,1	97,4
400	3	1,6	99
450	1	0,5	99,5
800	1	0,5	100
Total	**191**	**100**	

Source: Research completion (2018)

Regarding payments of additional money besides the schemes pay which ranges from Rwf 50 to Rwf 800, most people that is 116 (60.7%) pay Rwf 100 whereby the number i.e. 1 (0.5%) pay Rwf 450 and Rwf 800 at a draw. Therefore, extra payments besides CBHI co-payments should be reduced as much as possible if not eliminated for good so as to attract more contributions to the scheme.

Objective 5: Recommendations from CBHI members about how the challenges can be alleviated.

Table 13: Measures that respondents suggest in orders to solve the CBHI challenges.

Advice for improvement	CHWs	%
To revise Ubudehe category basing on CBHI member income	109	28
To strengthen capacity of HC, to establish mobilize committees	3	1
To reduce CBHI contribution	31	8
Training members of mobilization committee	5	1
Train staff on customer service	9	2
To revise Ubudehe category, trainings of mobilization committee	5	1
To revise Ubudehe category, train staff on customer service	5	1
Train staff on customer service, increase staff	3	1
To revise Ubudehe category, strengthen HC capacity, increase staff	5	1
To revise Ubudehe category, train staff on customer service delivery	4	1
To increase number of CBHI staff	21	5
To revise Ubudehe category, to reduce CBHI contribution	11	3
To revise Ubudehe category, to improve quality of service delivery	3	1
Advocacy on Ubudehe category	8	2
To strengthen capacity of h c: medical products	21	5
To establish mobilization committees	4	1
To revise ubudehe category, to increase number of CBHI staff	4	1
To revise ubudehe category, to strengthen capacity of health centers	13	3
To revise ubudehe category, to establish mobilization committee	11	3
To increase number of CBHI staff, to strengthen capacity of health centers	5	1
To increase CBHI staff number, to establish mobilization committee.	1	0
Other	103	27
Total's	**384**	**100**

Source: Research completion (2018)

The most recommended measure by the respondents is that 'To revise Ubudehe category basing on CBHI member income' voted by 109 at the rate 28%, followed by 'Other' by 103 at 27% and the least recommended measure is 'To increase CBHI staff number, to establish mobilization committee' by 1 vote and at 0.3% rate of the 384-sample size. Therefore, 'To revise Ubudehe

category basing on CBHI member income' measure should be employed first and 'To increase CBHI staff number, to establish mobilization committee' the last in this regard.

B. Interview analysis

The first interview question was about the difficulties, face when managing CBHI in NYARUGURU district. Conclusively, the biggest difficulty faced while managing CBHI on a sector level is 'Ignorance of Beneficiaries' voted by 148 at 39%, followed by 'Lack of financial motivation' 95 at 25%, then 'Many have other insurances' by 51 at 13%, followed by 'Lack of training materials' which is 36 at 9% with 'Lack of support from others' and 'Lack of trainings' tying at 7% which is 36.

During the interview , the information about what could be done to remove the existing barriers in CBHI scheme, in their word , NYARUGURU citizens say that , the barriers can be removed by addressing one by one to overcome them, for instance providing training materials, trainings and so forth. Also , they appraise the value of CBHI at sector level in the way that , the researcher , I would rate 4/5 because it is doing a great job by subsidizing health care and medical costs for everyone especially those of category 1 and 2 hence making health care affordable and accessible by everyone.

Regarding the level about how CBHI services affect Nyaruguru stockholders, on average the respondents say that , the service is improving customers health standards as well as of those of living, for example CBHI customers access quality affordable health care services hence improved standards of living.

CHAPTER V: CONCLUSION, RECOMMENDATION AND FUTURE RESEARCH

5.1. Major findings

The following are the major findings from this study.

- Nyaruguru District has 14 sectors, Mata and Munini Sectors each contributed 8.1% of the respondent's number and Nyabimata has the lowest number of respondents corresponding to 6.3%.54% of the respondents were female and 59% of the respondents were married while 27% are single and 14% widows.

- Among the respondents, 145 out of 384 corresponding to 37.8% of respondents were the heads of households followed by 98 spouses corresponding to 25.5%
- 27.3% had completed secondary school closely followed by those without formal education at 24.5%. Only 12% of the respondents had tertiary education.

- 250 out of 384 corresponding to 65.1% of the respondents, Farming and Livestock is their main economic activity followed by 13.5% government or private companies' worker. Only 11.2% of the respondents are involved in VUP Programme. In terms of the income, 150 out of 384 corresponding to 39.1% has daily income activity; 84 out of 384 corresponding to 21.9% respondents has monthly income source while 100 out of 384 (26.0%) live from unpredictable source of income.

- 95 out of 384 respondents corresponding to 25% receive information on CBHI via advertisement on Radio while 63 out of 384 (16.4%) receive it in meetings held after monthly Umuganda activities; 80 out of 384 (21%) receive it through a community health worker visit (Abajyanama b'ubuzima) and 62 out of 384 (16.1%) from RSSB CBHI mobilization campaign.

- 102 out of 384 (26.6%) enroll into CBHI programme to ensure that all his/her family member get affordable health services once any of them fall sick while 208 out of 384 (54.2%) enroll due to pressure from local leaders. Only 30 out of 384 (7.8%) enroll because of good care in health services.
- There is an increasing number of people enrolling into CBHI in Nyaruguru District based on each sector. There is only one sector out of 14 with a remarkable increase in number of people enrolling into CBHI.

- 86 out of 384 (22%) of respondents indicated that poverty is their main reason of not contributing to CBHI and 69 out of 384 (18%) responds that CBHI is not applicable or they have another insurance scheme while 81 out of 384 said poverty and non-harmonized ubudehe category as their reason.

- ❖ 109 out of 384 (28%) of respondents believe that the revision of Ubudehe category would allow them more to contribute to CBHI programme because they claim to be charged more money than they earn and 31 out of 384 (8%) suggested the reduction of CBHI contribution.

5.2 Conclusions to the study

The results of the study show on the enrolment to the community-based health insurance CBHI in Nyaruguru district show that, community-based health insurance is impacted by many problems threaten the performance of CBHIs; some of them are related to the insurance risk, others are linked to the scheme design while others are related to the context in which CBHI is offered.
By making inferences, the conclusion extends to say that, different CBHIs at NYARUGURU district services providers claim that major challenges they face include over prescription and over charging of acts by providers, as well as the misapplication of fund in some selection of CBHI to distinguish ex-post moral hazard, persecuted through above.

The last argument we can't forget is based on the fact that the poor population are the most vulnerable in society and shocks are likely to have the strongest welfare consequences for them, furthermore, high vulnerability makes them risk averse and thus unable or unwilling to engage in higher return activities. Once insured the consumers especially the poor population may reduce efforts required to keep them health.
Finally, the weak CBHI management capacity includes a failure to adequately manage insurance risks. Unrealistic copayment, the absence of community business culture, low controls for fraud, limited coverage (and hence high risk of adverse selection), absence of qualified staff trained in insurance, poor data handling and management capacities and stiff competition from high subsided RSSB stakeholders.

5.3. Recommendation and future research

The researcher recommends the below:

- ❖ Upscale the research to the country level
- ❖ Investigate the relationship between good care health services and the CBHI enrollement
- ❖ Investigate the effect of new ubudehe categories on CBHI enrollment

Since our statistics about the way information about CBHI is shared to citizen, advertisement, publicity via radio can be increased to help in CBHI enrolment .A parts of the them Umuganda and community health workers must be used expressing massages health insurance (CBHI) by prioritizing it in their entire daily life because health measures scheme awareness is not full covered and people are misusing this awareness tool.

In line with what other recommendation Ubudehe category, the monitor and evaluation of those Categories are recommended and somewhere 'To revise Ubudehe category basing on CBHI member income' measure should be employed first and 'To increase CBHI staff number, to establish mobilization committee' the last in this regard.

Since some of the RSSB reports show that, CBHI Nyaruguru users face challenges of overcrowding at the health centers. The blame for this congestion is put on the small size or space for the health centers. They are small in size compared to the rural population. Expanding the health centers will enable them accommodate a big number of patients at a time.
On addition to expanding the health premises, there should be increase in the number of health workers like Nurses. Subscribers of the community based health insurance believe that the lack of enough medical workers is the reason for long hours of waiting. Increasing the Nurses will solve the problem of waiting queues at the health centers.

While some of the health workers and other CBHI staff lack the motivation, we recommend increase the salary of the health workers. Financial incentives like raising the workers' salaries and other benefits should be provided to the health workers. Using harsh language and being rude to the user members by the health centers is partly because of low salary. Health workers feel over worked by the big population of patients yet the payment does not much with the work they do. Increasing their salaries can motivate them to handle their patient well.

The payment of the premiums at the beginning of the civil year is unfavorable. This is because it is during the same time they pay school fees for the children. This is bad timing and makes subscription difficult the users of the scheme. Also good timing like during harvesting season would make it easy since the users have the money to subscribe. Good timing can reduce the delay

in subscriptions and a fall in number of users; this is in line with to time Nyaruguru citizens generate the income but the ability to save still lower.
To alleviate the challenge of poor record keeping that we identified in our literature review, we recommend RSSB to have a continuous training of workers of the scheme to be done. Workers should be updated with new skills like computing skills to better the management of data. During training, workers should be equipped with accounting skills as well management skills. All these skills help to better the management system of the insurance scheme thus improving record keeping which is a challenge.

Community based health insurance providers should not give services which are not insured to users. They should give only those services that are covered by the insurance. They should also deny services non-member users of the insurance. Going against the laws that govern the use of the CBHI is illegal and it is punishable by law. Service providers should be aware of it.
Proper record keeping and accounting should also be used. Using computerized data management system and computerized accounting can help better record keeping. This alleviates the challenge of fraud in the CBHI implementation. (Habiyonizeye, 2013).

Hospital referrals increase the cost of insurance scheme. This threatens the sustainability of the scheme and has led many community based health insurance schemes to collapse. However, controlling hospital referrals is one way to cut the costs. Members should be given transfers when it is needed to avoid over consumption of the health services by the user members. A manager of the CBHI at Muhima hospital asserted that they use controlled referral management system to reduce the over use of health services by the CBHI members. (Habiyonizeye, 2013).

Future researchers are recommended:

To assess the effect of other home growth solution (VUP) to CBHI performance
To make a comparative analysis of medical insurances in health insurance service delivery and customer satisfaction
To make analysis and economic modeling of CBHI and demographic perspectives of Rwandans

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Appendix

Appendix A: Questionnaire & Interview

A QUESTIONNAIRE ADDRESSED TO THE STAKEHOLDERS OF COMMUNITY BASED HEALTH INSURANCE IN NYARUGURU DISTRICT

Hello.

My name is NZABANDORA EMMANUEL and I am from University of Rwanda, college of Business and Economics `. I am here today to conduct a study on the enrolment to the community-based health insurance CBHI; your household has been randomly selected to participate in this research. If you are interested to participate in this research I would like to ask you some questions on your households, its members and characteristics in regard to CBHI's aspects. The interview will take approximately 60 minutes. The information you will provide us will be confidential and will only be used for improving the Implementing of Community-Based Health Insurance schemes. You may also choose not to answer any questions. You will not have to pay to participate in this survey, nor will I pay you. You will not directly benefit from this survey.

A.1	Do you want to participate in our survey	Yes ………………………1 No……………………….. 2 If no , end Interview

B. Identification of household: ☐
B1. District: **(Nyaruguru district)**
B2.Sector ☐
B3.Cell: ☐
B4.Village: ☐
B5.Household ☐

Survey information

C.1 Interviewer	Name ____code Signature ____________________________________
c.2 Date of interview	Day [ ][ ] Month [ ][ ] Year
c.3 Interview start time	In 24 hours format _____:_____
c.4 Supervisor	Name ______________________________________code Signature ____________________________________
C.5 Data editor	Name ______________________________________code

D. Household roster

The researcher will list the people who usually live in your household and their ages, startin

No/ID	**D1. Sex** M 01 F 02	**D1. What is "___" relationship to head of household?** Household head (HH)………………..…..01 Spouse of HH……………………….………02 Son / daughter of HH…………………..03 Step child / adopted/ Foster child of HH………………………...04 Father / mother of HH…………………05 Brother /sister of HH…………………...06 Grandchild of HH……………..……….07 Parent in law to…………………………...08 Brother /sister in law to HH…………..09 Other relationship to HHH……..……..10 No relationship to the HH………………11 domestic worker ……………….12	**D3. What is "_____"** In years If age is less <1 pleas 00 Don't know 998
01			
02			
03			

Q. Select from the following which is the source of your income:
i) Farming and livestock activities
ii) An employee of government or private company
iii) VUP
iv) Small business (specify)
v) Other sources (specify)
Q. How often do you get your income?
i) Daily
ii) Weekly
iii) After two weeks
iv) Monthly
v) Unpredictable

G. Attitudes / CBHI in NYARUGURU district

G2. Which of the following were the sources of information about the CBHI?	
Advertisement in radio	
In meetings held after monthly Umuganda	
Other village meetings organized by the local leaders	
Village community health volunteer	
A community health worker visited me	
RSSB CBHI mobilization campaign	
Via social media (like WhatsApp , facebook or messenger …..)	
Other village meetings organized by the local leaders	

G.4. which of the following reasons attracted you to enroll in CBHI programme:

G41	**Reasons**	**Pick were the respondent chooses**
O1	To ensure that all my family members get affordable health services once any of them falls sick	
02	I joined because of the pressure form local leaders	
03	I joined the CBHI programme because my friends have enrolled as well.	
04	I joined the CBHI because of good care in health services	
05	others (please specify)	

G.5. What is the main reason why you do not enrolling in CBHI programme ?

____

____

____

____

H. Please explain the challenges facing CBHI services provision in Nyaruguru District.

____

____

____

____

I. Which measures would you recommend to solve the above challenges?

____

____

____

____

Interview

1. What difficulties do you face when manage CBHI (or valuating) in your sector?

2 . What could be done to remove these barriers?

3. How do you appraise the value of CBHI in your sector?

4. How does a CBHI services affect your customers?

5 Are there clear guidelines that help assess to CBHI?

6. What factors would you need to better appraise the value of CBHI (system age, gender, original/ existing government cost, etc.)?

7. Do you evaluate and monitor the services offering of CBHI on regularly basis ?

8. Do RSSB highlight CBHI as a value added feature on health care market?

	CBI enrolment in Nyaruguru District from 2013 -2018				
SECTORS	**2013- 2014**	**2014-2015**	**2015- 2016**	**2016-2017**	**2017-208**
Busanze	14,184	13,006	10925.04	10664.92	10,612.9
Cyahinda	11,299	10,078	8465.52	8263.96	8,223.6
Kibeho	11,156	10,300	8652	8446	8,404.8
Kivu	9,259	8,460	7106.4	6937.2	6,903.4
Mata	7,256	6,644	5580.96	5448.08	5,421.5
Muganza	10,151	9,057	7607.88	7426.74	7,390.5
Munini	8,394	7,600	6384	6232	6,201.6
Ngera	12,069	10,371	8711.64	8504.22	8,462.7
Ngoma	12,103	10,847	9111.48	8894.54	8,851.2
Nyabimata	9,035	7,918	6651.12	6492.76	6,461.1
Nyagisozi	9,593	8,682	7292.88	7119.24	7,084.5
Ruheru	18,762	16,837	14143.08	13806.34	13,739.0
Ruramba	9,013	8,113	6814.92	6652.66	6,620.2
Rusenge	12,781	11,366	9547.44	9320.12	9,274.7

Source : RSSB databae (2018)