ASSESSING THE EFFECT OF HEALTH INSURANCE TO SOCIAL DEVELOPMENT OF PEOPLE IN RUKOMO-NYAGATARE DISTRICT-RWANDA

BY

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AUGUST, 2014

Declaration

I, MUTESI Grace hereby declare that the contents of this research report are my original work

Signature ..... ~ Date: 26/09/2014

MUTESI Grace

Student

Approval

This is to certify that this Research report has been submitted for examination with approval

Signatur e	Dat e

KYEREERE FRANK

Dedication

This research report is heartedly dedicated to my beloved parents Mr Musonera Joseph Mrs Kanyana Margret, my sisters and brothers without forgetting my supervisor Mr Kyereere Frank. Thank you very much for supporting me in this hard exercise.

Acknowledgement

I wish to recognize the protection, mercy and good health God the Almighty blessed me with to have the accomplishment of this research work.

I also need to acknowledge my supervisor Mr. Kyereere Frank for the effort, commitment and advisory support he rendered to me for the good deliberations so far manifested in this work.

List of abbreviations

$	US dollar
CBH	Community Based Health insurance
CHI	Community Health Funds
CFH	Conditional Independence Assumption
CIA	Enquete Integral sur les Conditions des Vies des menages
EICV	Government of Rwanda
GoR	Household
Hh	Institut de Recherche, Sciences et Technologie
IRST	Millennium Development Goals
MDG	Military Medical Insurance
MMI	Ministry of Health
MoH	National Health Accounts
NHA	Non-Governmental Organisation
NGO	National Institute of Statistics of Rwanda
NISR	NearestNeighbour Matching
NNM	Ordinary Least Squares
OLS	Out Of Pocket
OOP	Propensity Score Matching
PSM	La Rwandaise d' Assurance Maladies
RAMA	Rwandan Francs (Rwandancurrency)
RWF	Standard errors
S.E	Vision 2020 Umurenge Program
VUP	World Health Organisation
WHO	

Abstract

This study was about assessing the effects of health insurance to the social development of people in Rukomo sector. Many theoretical models argued that health insurance protects households from health problems and associated costs. Using integrated household living condition survey data and qualitative data, i explored the effects of illness on households and whether they are prevented from impoverishment effects of health expenditure payments. In addition, i tested whether insured households were protected from dropping their children out of school as adjustment mechanisms when they face severe illness. The results suggested that health insurance has prevented consumptions disruption for insured people which would result from health problems. The findings are consistent with the impact of health insurance on poverty reduction and school dropping out whereby insured households were prevented from falling into poverty and dropping their children out of school following episodes of illness. These findings indicate that health insurance plays a crucial role in addressing issues preventing poor people to lead decent life.

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CHAPTER ONE

1.0lntroduction

This chapter reflects on the background of the study, statement of the problem, purpose of the study, objectives of the study, research questions, scope of the study, significance of the study and definition of key terms.

1.1 Background of the study

As a developing country, Rwanda is not spared from health care provision challenges. The National Institute of Statistics of Rwanda (NISR) and Macro International (2008) report reveals that after introducing the direct payment in 1996, after 1994 genocide, health care utilization decrease d considerably because more households were no longer able to pay medical care services. In an attempt to increase health care access, the government of Rwanda has witnessed an increase in health expenditures such that health expenditures per capita increased from US $12.68 in 1998 (Schneider et al 1998) to US $ 17 in 2003 (MoH 2006). Therefore, reconciling health care provision and internal resource mobilization in order to increase financial viability of health care services became a major challenge in Rwandan health system (NIS and Macro International 2008). In addressing such issues, the government of Rwanda initiated community based health insurance as a strategy of improving financial accessibility to health care services for poor people from rural and urban settings (Schneider and Diop 2001) Furthermore, Rwanda has integrated the development of community based health insurance in its priorities, basing on the fact that human capital investment is one off the poverty reduction strategy pillars that guide the country towards attainment of its vision 2020 objectives such as MDGs (MoH 2010). This therefore is an indication that CBH help in reducing health expenditures for poor households in Rwanda

Recently CBHI has drawn attention of scholars in the study of development economies It is in this regard that many research works on CBHI in Rwanda were conducted to assess its impact on demand for modem health care, mitigation of out-of-pocket catastrophic health expenditures. Schneider and Diop (200 I) using household survey data from three pilot health districts in Rwanda, found that community-based health insurance has substantially reduced the out of pocket health payments following illness episodes and

improved the equity in health service delivery for members. Likewise, Saksena et al. (20 l 1) findings suggest that community based health insurance has considerably increased the health service utilization and has had high level of financial risk protection by reducing the catastrophic health expenditures. This study used data collected from 2005/2006 integrated household living conditions survey to estimate the program effects. Using the same data, Shimeles (2010) found that community based health insurance in Rwanda have effectively reduced catastrophic health expenditures.

However, little is known on how community-based health insurance prevents households from impoverishment and disruption of household consumption expenditures through prevention of catastrophic health expenditures emanating from health problems. This study, therefore analyses how Community based health insurance has mitigated the negative impact of health problems on food and non-food consumptions, education expenditures, school dropout, out of pocket health payment and prevented impoverishment among insured people. Considering that poor people, particularly in developing countries rely essentially on their labour productivity and on their assets in generating revenues (Jutting 2004).

This study uses both qualitative and quantitative data to achieve its objectives and get a deep understanding of community based health insurance effects in Rwanda. Combining qualitative and quantitative information is essential for the analysis of the effects of the program, considering that health insurance programmes involve some social economic issues. The quantitative data used was from the integrated household living condition survey, conducted in Rwanda covering the period of 2005/2006. Qualitative information was collected through interviews with individuals and groups of people from insured and non-insured households' members and government officials in charge of community-based health insurance from the Ministry of Health. This type of information was used to complement quantitative data by understanding the behaviour of people with and without community-based health insurance, mostly in the wake of health problems. This paper uses Propensity Score Matching (PSM) to estimate the effects of community-based health insurance on household consumption expenditures and preventing people from impoverishments effects resulting from ill -health and associated costs.

The remainder of the paper is structured as follows: Chapter two reviews the Literature related to the effects of illness on household consumptions and its implication for poverty and the effects of community-based health insurance in preventing these risks. Chapter 3 gives an overview of health system and community-based health insurance in Rwanda background. In chapter 4 the paper analyses the data and lay empirical strategy. A discussion of the results is in chapter 5 while the last chapter draws a conclusion.

The government of Rwanda through its Ministry of Health initiated in January 1999, 54 prepayment schemes on health insurance in 3 districts, in an attempt to improve financial accessibility and equity in access to health care and mobilize internal resources to increase the financial sustainability of health services.

The design and implementation of health insurance modalities and management features were discussed and agreed upon by community and health care representatives in a series of community gatherings with the local population. At district level the schemes formed federation, which was a partner to the district hospital as well as district authorities. Individuals and households, who would like to be insured, pay at the time of enrollment an annual premium of RWF 2,500 (US$ 4.5) per family up to seven persons to the CBHI affiliated with their preferred health center.

In case of sickness, members contact first their preferred health center, which is usually their nearest public or church-owned health center.

The hospital services are covered for members only if referred by their preferred health centers. This was done in order to discourage member from use of more expensive hospital services. Members are entitled to health care package covering all services and drugs after one month waiting period. In order to avoid adverse selection and moral hazard to causing health care costs to rise, the Ministry of health , the services providers and CBHIS managers decided to use capitation provider payment to the health center, as a measure to control cost caused by supply side induced increases in demand for health care. After realizing that the pilot CBHI witnessed success and the results from evaluation showing a positive impact on access to health services and a moderate financial impact on health facilities, CBHis have become very popular; the community and political

authorities tried to scale the up at national level, though there is still uncertainty over their long term sustainability.

In 2007 the annual CBHis subscription was raised to of R WF 1,000 (US$ l.8) per head per family. This was intended to increase internal resource mobilization for sustainable funding of the health sector and to expand by several folds to cover the basic package of curative services at health center and hospital level. This resulted in increasing the financial burden, especially for large families, as a family is only covered by a mutual once all of the family members' subscriptions have been paid in full. This annual subscription increment was seen as financial burden for covered people because most of them are poor and mostly likely to have large families.

The Community based health insurance (CBHTs) are serving as a supplement to other existing health insurance systems; which include:

- RAMA (LaRwandaised'AssuranceMaladie) which currently covers civil servants and other Government agents, and is gradually expanding coverage to private sector workers involved in the formal economy;
- the health insurance program for servicemen (MMI) which started at the end of 2005 and;
- Other private insurances which are encouraged to develop insurance products in Rwanda.

1.3 Statement of the problem

Rwanda has integrated the development of community health system in *its* priorities; as investment in Human capital is one of the poverty reduction strategy pillars that guide the country towards attainment of the Vision 2020 objectives, as well as international development objectives, such as the MDGs.

Over the last years Rwanda has experienced an increase in its expenditure on health with total health expenditure per capita increasing from US$ 17 in 2003 to US$ 34 in 2006 (WHO: 2010). Reconciling the financial accessibility in access to health care and mobilization of internal resources to increase the financial viability of health services is

mobilization of internal resources to increase the financial viability of health services is the major problems in the Rwandan health care system. It is therefore in this regards that Community based health insurance has been considered as an important mechanism of addressing health care challenges facing especially rural poor people.

Recently, Community based health insurance has drawn attention of scholars in the study of development economies. It is in this regards that many researches on community-based health insurance in Rwanda were conducted to assess the impact on demand for modern health care, mitigation of out-of-pocket catastrophic health expenditure.

In 2001 Pia Schneider and Francois Diop evaluated the impact of prepayment schemes on access to health care for poor households, based on household survey data in 3 health districts. The findings presented in their paper show that insurance enrollment is determined by household characteristics such as the health district of household residence, education level of household head. The analysis further reveals that the program has significantly improved equity in health service use for members while at the same time out-of-pocket spending has gone down per episode of illness.

AbebeShimeles (2010) using traditional regression approach and matching estimator found that CBI-II have been successful in increasing utilization of modern health care services and reducing catastrophic health related expenditure. The study used data collected in 2005/06 which cover 6,900 households with about 35,000 individual histories. The data provide information on household demographics, educational attainment, health, consumption, income sources, migration, agriculture; labor market condition, household assets, living conditions and other variables were collected.

Little is known on how Health insurance prevents impoverishment and decline in food and non food spending through protection against catastrophic health expenditure. This study will therefore try to assess the effects of health insurance to social development of people in Rukomo sector.

I **.4 The purpose of the study** . The purpose of th is study was to assess the effects of health insurance to the social development of people in Rukomo sector Nyagatare district.

1.5 Objectives of the study

The main objective of this study was to assess the effects of health insurance to the social development of people in Rukomo sector Nyagatare district.

1.5 1 Specific objectives

To find out the effects of illness on households.

- To find out the challenges faced by rural people of Rukomo in accessing health facilities.
- To find out the extent to. which health insurance has prevented rural people of Rukomo sector from impoverishment

1.6 Research questions

1. What are the effects of illness on households in Rukomo sector?
2. What are the challenges faced by rural people of Rukomo in accessing health facilities?
3. To what extent has health insurance prevented rural people of Rukomo sector from impoverishment?

1. 7 .0 Scope of the study

The scope of the study mainly covers geographical, theoretical and time scope

1.7.1 Geographical scope

The research was conducted in Rukomo sector Nyagatare district in Rwanda.Rukomo sector has population of 30,892. Rukomo sector is composed of three villages which are Gashenyi, Nyamirambo and Kiyovu.

1.7.2 Theoretical scope

The study mainly focused on the effects of health insurance to social development of people in Rukomo sector.

1. 7 .3 Time scope

The study focused more on the recent period of 2008 to 2012.

1. 8 Significance of the study

The research will have several positive impacts at the end of the study and they include; The report was submitted to the university in partial fulfillment of the award of bachelor's degree in social work and social administration to the researcher.

The findings and recommendations will act as a guide in helping policy makers and analysts to identify the loopholes in the made policies and thus find strategies of improving it.

The research is to benefit scholars especially researchers since it will act as a point of reference.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter highlights the main areas of research discussion. It describes the effects of illness on households, challengesfaced by rural people and the extent to which health insurance has prevented rural people from impoverishment.

There is a growing literature on health insurance in developing countries and its impacts on households living conditions (Hitting 2004, Msuya et al 2004, Ranson and John 2001 Chankova et al. 2008). health insurance schemes are deemed as "local initiative which is built on traditional coping mechanisms to provide small scale health insurance products specially designed to meet the needs of low-income households " (Carrin et al as cited in Mugisha and Mugumya 2010: 181). These schemes increase health care services of poor people by offering both preventive and curative health care (Hamid et al. 2011). It is further argued that health insurance help insured people to recover fast as they are not delayed in seeking health care (Jutting 2004). Given that better health status increases productivity and labour supply, which boost household income level (Hamid et al. 2011), community based health insurance is therefore considered as potential tool in improving standards of living of poor people.

2.1 Effects of illness on households.

The effects of illness on households have received a great deal of attention from many scholars for the last decades (Flores et al 2008, Gertler and Gruber 2002, Wagstaff 2007). It is argued that poor people in developing countries pay for their healthcare expenses mainly out of pocket. Health expenditures reduce household expenditures such as food, education, farming expenses and others (Wang et al 2006). Similarly, Gertler and Gruber (2002) revealed using a large set of the panel data that, Indonesian households are not able to protect consumption against costs associated with illness, particularly when the degree of illness is severe. In case of small health shocks, their findings reveal partial changes in household consumptions. Similarly, in his empirical analysis, Wagstaff (2007) suggests that households are not able to smooth their food consumption in the face of illness associated with long time hospitalization.

Moreover, it is argued that, when a household member falls sick; household may respond by reducing consumption due to the reduction oflabour supply of the i II person or health expenditures incurred because of health care services, in the absence of health insurance (World Bank 2001). This is because; excessive health expenditures substantially affect household ability to maintain the same level of consumption and force people to make use of income threatening coping mechanisms to deal with medical care expenses. In their study carried out in Burkina Faso, Sauerborn et al. (1996) found that medical expenditures are paid mostly from savings, livestock and other assets sales, contracting loans and labour substitution. Coping mechanisms which are used to maintain the same level of consumption disrupted by health problems and associated costs are argued also to have long term economic effects and undermine the future income earnings capacity (Rajeswari et al., Sen, Krishna van Damme, and Krishna et al., as cited in Flores et al 2008). When a household member faces severe illness, he is compelled to spend a big share of household budget on medical expenditures, which have implications on household consumption of other goods and services such as food, cloth, education and shelter.

Health problems, therefore constitute major hindrance to households' welfare not only on short term, but also in the long run, as assets and savings depletion due to health problems may serve as buffer stock for future household consumptions and investments. Following illness episodes, health expenditures amplify household expenditures, while the income level remains constant or even reduces. In this case, household income level is no longer enough to cover total expenditures.

Moreover, illness does not only involve household consumption disruption but also pushes many household into poverty as the latter is often consumption based. It is argued that poverty is one of the most vexing challenges that developing countries are faced with, with illness being among the main factors that push households to slip into deep poverty. This has raised concern among many development agencies and government authorities from different countries. It is further argued that "concern about link between ill-health and impoverishment has placed health at the centre of development agencies' poverty reduction targets and strategies" (World Bank and WHO as cited in Russell 2004:147).

This concern is based on the fact that health problems undermine household's income generating capacity by limiting household labour participation on one hand, and increase financial hardship emanating from catastrophic health expenditures on the other hand (World Bank 1997; Barnett et al. 2001). It is therefore clear that health problems and associated costs have severe implications on households' impoverishment especially in developing countries where health services payment is made out of pocket. According to WHO 2003 data (as cited in Scheil-Adlung et al. 2006), the share of out of pocket health payment stands at 1/3 of total health care expenditures in 2/3 of all developing countries. Similarly, Su et al (2006) added that out of pocket health payment is generally high in developing countries such that poor households are not able to cover them from the existing income, and households are forced to use income threatening coping mechanisms.

It is therefore apparent that this draws back any effort made by poor people to lead a decent life and undermihes household's future ability to improve living standards. According to Ataguba et al. (2008), catastrophic health expenditures are argued to increase impoverishment risks and reduce people's welfare. Likewise, Scheil-Adlung et al. (2006) argued that catastrophic health expenditures lead households into poverty as they are forced to sell their productive assets and reduce their consumption so as to deal with such kind of expenditures. Catastrophic health expenditures therefore constitute one of key factors aggravating poverty by affecting negatively household consumption expenditures patterns (WHO 2000). It is argued that when a household is no longer able to meet basic needs such as food, clothing and shelter, due to excessive medical care costs, it is vulnerable and is forced to persist into poverty. Poverty therefore appears as linked with health problems so much that, in the absence of adequate financial markets poor people are considerably compelled to remain in poverty.

Furthermore, in addition to medical care expenses, illness does entail indirect costs also that drive into poverty. It is argued that following an occurrence of serious illness, household labour supply will drop not only because the ill person is not able to work but also because some household members are assigned to take care of sick person who also is unable to perform tasks (Asenso-Okyere and Dzator 1997). Household may also hire workers to deal with the loss of worker or contract loan to pay treatment and substitute the

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lost income in order to sustain household financial conditions threatened by illness and related costs (Russell 2004). From this point of view, health problems seem to be a driving force of household impoverishment that needs to be addressed in an effort to improving household living conditions in low-income countries. It sounds that the level of households' impoverishment will therefore depend on the means that are used to deal with health problems. That is why major illness is considered for developing countries as one of most challenging issue to economic development in the absence of health insurance for developing countries (Gertler 1997).

Additionally, illness affects also labour productivity and productive assets depletion in case household uses those coping mechanisms to deal with health problems and associated costs. Schultz and Tansel (1997) empirically assessed the effects of adult sickness on labour productivity using lost days and wages as measures. Their findings indicate that health problems affected productivity and the wages were lowered for each disabled day. Health problems constitute therefore an impediment to economic growth in generally as it affects individual's income earning capacity (Cole and Neumayer 2006) and Barro RJ (1996). Similarly, Claeson et al. (2001) stressed that illness is one of the main factors that influences households to slip into poverty as it affects the income earnings capacity and the ability to cope financially. In their study assessing indirect costs associated with illness in Ghana, Asenso-Okyere and Dzator (1997) found that, people spent more time on seeking malaria care and taking care of the sick persons. This involves also opportunity costs for lost days taking care of sick person or looking for treatments. Likewise (Babu et al. *2002)* found that illness affect working days and increases absenteeism among the sick persons, which pose burden not only to the family but also to the community.

However, it is worth noting that, despite many findings on economic consequences of illness and health care, most of them have devoted low attention to indirect costs of illness. Much is discussed on the effects of illness on out-of pocket health payments, or on household income, but the channels through which illness leads to poverty are less discussed. This paper will attempt to fill that gap based on Rwandan experience.

2.2 Challenges faced by rural people in accessing health care

Health care for poor people who work in informal sector, or live in rural areas is considered as one of the most difficult challenges that many developing countries are facing (Preker and Carrin 2004). Despite remarkable efforts in controlling these challenges by many development agents and states, they remain as severe barrier to economic growth (Sachs and World Health Organization (WHO) 2001) since illness does not only affect the welfare but also increases risks of impoverishment. This is because of high cost associated with health problems, especially in the absence of any form of health insurance. Subsequently, households may decide to leave illness untreated or opt for use of poor-quality health care or even self-administration medication (Ataguba et al. 2008).

It is argued that more than 150 million people face catastrophic health expenditures each year and most of them fall into poverty worldwide because of out of pocket health payments (Kawabata et al as cited in Saksena et al 2011). This is an indication that health problems and associated costs are main causes that drive people into poverty, especially in developing countries where the health care payment is still made out of pocket. The World Bank reports 1993 and 1995 (as cited in WHO 2002) reveal that illness, death, and injuries stand as the main causes that have led people into poverty. From this analysis it is evident that health problems can hold back any effort made by poor people to improve their standards of living, reason why poverty reduction policies should incorporate health facilities improvement, since health problems and poverty are much related. Poverty is also argued to be among root causes of many health problems, such that poor people can neither afford modern medical care nor decent living conditions.

To better address the problem, community-based health insurance schemes (CBHI) are therefore considered to be potential instruments mitigating the impoverishment effects associated with health expenditures, especially in developing countries. The effectiveness of community-based health insurance resides in the facts that it can reach a big number of poor people, who would not have been able to insure themselves against health problems and associated costs (Dror and Acquire as cited in Jutting 2004). By pooling illness risks, unpredictable medical expenditures are therefore reassigned to premiums. This will result in increasing access to health care that may mitigate the adverse impact related to health

problems on poor households and improve the access to quality health care. Consequently, good health status resulting from access to health will improve productivity, which in turn will increase income leading to good living conditions for insured households (Asfaw and Jutting: 2007). Strategies that households adopt to finance health care in the absence of health insurance involve financial risks. Due to high health expenditures, households are forced to reduce their basic needs' spending or sell their assets in order to cope with financial losses incurred (Flores et al. 2008). Besides direct costs associated with illness, it also affects household productivity and labour supply (Asfaw and Jutting 2007). Under such circumstances, households facing health problems are not even able to hire out labour for casual work during illness period which eventually affects households' income level.

2.3 The extent to which health insurance has prevented rural people from impoverishment

Health insurance schemes play important role in curbing negative effects of illness on poor people in developing countries. This was underlined by Scheil-Adlung et al (2006) stressing that health insurance play a crucial role in reducing household impoverishment through reducing the shortfall in generating income resulting from illness, and protect households from risky and wealth-threatening health coping strategies in order to cover medical care expenses.

The role of health insurance in preventing negative effects associated with health problems in developing countries is increasingly being noticed and esteemed (Hitting 2005, Schneider and Diop 2001). While health problems constitute one of major barriers to economic growth in these countries, community based health insurance schemes are featuring among prominent poverty reduction strategies. Tabor (2005:8) argued that "improving access to affordable health care is central to boosting growth and help to break the vicious cycle of poverty and ill health". This is an indication that population health insurance play a crucial role in a country's economic development, as they are interrelated. In addition, by investing in human capital and particularly in health, developing countries will get through persistent poverty status that has characterised them for long. Therefore, community-based health insurance seems to play an important role in

alleviating health problems impoverishment effects for poor people in developing countries.

The effects of community-based health insurance in improving household welfare. By making their pre-payment premiums, households share risks and are prevented from catastrophic health expenditures which may lead to household impoverishment. Health insurance schemes help insured members to take advantage of economic opportunities through reducing the uncertainty resulting from health expenditures (Hamid et al. 2011). As poor people rely mainly on labour productivity in generating income, access to health care resulting from community-based health insurance will improve health status and decrease the lost working days due to illness and consequently household production output will increase. In addition, as household are no longer exposed to catastrophic health expenditures, their consumption patterns will increase. Increasing household consumption and improving health status of household members will considerably increase income. Community based health insurance schemes are therefore considered as potential instruments which reduce uncertainty of health expenditures, improve health care utilization and enhance income through high productivity and labour supply (Ibid).

Based on these views, community based health insurance has drawn attention of many scholars such that many empirical studies were conducted to investigate its impacts in developing countries. According to Jutting (2004) the Senegalese community based health insurance schemes have increased the access to health care for insured members compared to non-member, and health expenditures have substantially reduced for beneficiaries' members. Similarly, Shimeles (2010) using matching estimator technique and traditional regression found that community based health insurance in Rwanda has successfully increased the utilization of modern health care and significantly reduced catastrophic health expenditures. This study used data collected from 2005/2006 Integrated Households Living Conditions Survey, which data cover 6 900 and with about 35 000 individual information. Community based health insurance does not only increase access to health care but also reduces uncertainty that may result from health problems and associated costs .. Moreover, health insurance was found protecting households from catastrophic out-of- pocket health payment and its impoverishment effects (Asfaw and

Jutting 2007). It is therefore suggested that by preventing households from catastrophic health expenditures, CHBI allow insured people to allocate resources to other household needs. Likewise, Ranson and John (2001) found that CBHI in rural Gujarat plays a crucial role in improving access to modern health care, and preventing indebtedness and impoverishment for insured poor people. Furthermore, using Probit model Msuya et al (2004) found that CHF have improved the access to health care and prevented insured households from relying on risk coping mechanisms such as selling assets and children school dropout following episodes of sickness. Similarly, Chankova et al. (2008) in their study on Mali, Ghana and Senegal found community based health insurance to be an effective tool in protecting households from catastrophic health expenditures, particularly in the area where health care is mostly made out-of-pocket payment. Additionally, findings from Uganda revealed that insured people were protected from selling their assets and financial risks that lead to impoverishment in the wake of illness (Dekker and Wilms 2010). *lt* is therefore clear from all the above findings that, community based health insurance schemes, play a substantial role in improving access to health care which leads to improved health care status in particular and stimulates economic development in general.

However, despite many empirical studies, there is still little empirical evidence on the impact of community based health insurance in countries like Rwanda on households. As mentioned previously, most studies focused on directs effects of illness on households income and the impact of community based health insurance in mitigating these negative consequences. But little attention was devoted on mechanisms through which illness affects households and the role of health insurance in preventing households. In the presence of health problems, poor households cope by adjusting their expenditures such that, some households may reduce education expenditures by dropping children out of school; others may reduce their food and non-food consumption while other may contract credit so as to deal with health expenditures resulting from illness. This has implications on poor households not only in the short run through disrupting households' consumption expenditures, but also in the long run through impeding future income generating capacity. Nevertheless, community based health insurance is one of the mechanisms of reducing negative effects associated with health problems. Referring to Rwandan CBHIL,

this paper tries to shed light on health insurance role in preventing poor people from resorting to welfare threatening coping mechanisms. Given that insured households will be able to sustain their level of income in the presence of health problems; this will prevent them from selling productive assets and contracting loans so as to meet health needs (Hamid et al. 201 I). As a result, income uncertainty will reduce and allow households to increase their human

CHAPTER THREE

3.0 Introduction

This chapter was developed basing on the principle of logical sequence with a goal to define a system to achieve the goals of the research project. It was designed to best suite with the research topic.

3.1.0 Research Design

The study adopted a cross sectional survey design since the data was collected at one point in time. This design was preferred because it saves time and other resources and this study being academic the time within which it was needed to be completed was short and hence the choice of this design. Both qualitative and quantitative approaches were used during data collection and analysis. This was aimed at capturing adequate data as well as improving its quality hence increasing both the internal and external validity of the study as well as its reliability.

3.1.1 Study Population

The target population was 40(forty) respondents. These included community members and community leaders in Rukomo sector Nyagatare District, from where respondents were interviewed. In order to capture more data about the effects of health insurance to the social development of people in Rukomo sector. Rukomo sector was purposively selected because of two reasons; one being its proximity to the researcher from which it was easy in the data collection process thus enabling the completion of study to meet the set deadline by the University and the other reason being observable presence of hospitals and health centers that provide health care to the people.

3.1.2 Study area

The research study was carried out in Rukomo sector due to observable presence of hospitals and health centers that provide health care to the people.

3.2.0 Sample size and Sampling Procedure

Sample size and procedure shows how the sample size was determined and explains how the population interviewed was selected

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Sample size and procedure shows how the sample size was determined and explains how the population interviewed was selected

3.2.l Sample size

A sample size of 40 respondents was selected using Kralje and Morgan (1970) table for determining sample size. These consisted of 5 opinion leaders, 30 household heads and 5 technocrats from the health centers.

3.2.2 Sampling procedure

Purposive sampling method was used because it was convenient and time saving. The respondents were purposively selected depending on their ability to easily analyze and understand the problem of study. Also a fair representation from each village was considered when sampling. Simple random sampling was used to limit on the biasness of purposive sampling.

FGD was used to enable cross validation of data and give room for probing. Interviews helped individuals to express their views and perceptions while key informants helped in handling sensitive issues. Documents and reports were reviewed for consistency and getting more information and trends and personal observation was used in the chain with facts. The triangulation of these methods helped in quality data assurance from which a conclusion was drawn from the findings.

3.3.0 Data collection methods

Purposive sampling method was used because it is convenient and time saving. The respondents were purposively selected depending on their ability to easily analyze and understand the problem of study. Also a fair representation from each village was considered when sampling. Simple random sampling was used to limit on the biasness of purposive sampling.

3.4 Data Sources

The study utilized two types of data sources that is primary to be collected from the field and secondary data that was got from the available literature about the phenomenon under study as reviewed in Chapter two.

3.5 Data Collection Methods and Instruments 3.5.1 Questionnaire

Two sets of mailed structured questionnaires containing both closed and open-ended questions were used to collect data from the respondents already mentioned. This was preferred because it helped the researcher to collect data from a bigger number of respondents in a short time. The questions were structured following the study objectives. For purposes of easy analysis, closed ended questions were also pre-coded.

3.5.2 Interview Guide

Data from the key informants were collected using an interview guide which was structured in accordance to the study objectives in order to keep the interviewees focused on the study purpose. This method was administered to respondents who didn't know how to read and write because it enabled the researcher to get clarifications before leaving the respondent and even cases of non-response were minimized when this tool was used.

3.5.3 Observation

This was administered to the researcher and it played a role in all research by directly observing what people were saying they think or do would reflect in their actual behavior. Systematic observations were used in this research where it involved observing objects, processes, relationships with people and recording these observations. Observations were useful to this research because information sought was all about observable things.

3.6.0 Data analysis

After data collection, the information got was processed and by the use of statistical techniques, it was analyzed. The data was edited on continuous bases to ensure completeness and uniformity. This was sorted into categories followed by frequency counts for each category and corresponding percentages.

3.6.1 Qualitative Data Analysis

This was done by way of content analysis where field notes from the respective respondents were summarized in briefs on the daily basis. This necessitated construction of summary sheets containing data in key variable sought and a sequential analysis was

under taken to provide much deep insight to the data to be collected, this helped in pointing out areas that would require additional literature before finally compiling the final report.

3.6.2 Quantitative Data Analysis

The data was edited on continuous bases to ensure completeness and uniformity. This was sorted into categories followed by frequency counts for each category and corresponding percentages. The frequencies and percentages indicated the magnitude of illness on households.

3.7.0 Data management

. After data collection, the information got was processed and by the use of statistical techniques, it was managed through data editing and coding.

3.7.1 Data editing

This was done immediately after data collection under this process; questionnaires were thoroughly checked to remove all mistakes and errors out of carelessness in giving data by the respondents and noting the relationships between answers and questions that were asked. The information which was got was edited in order to ensure accuracy and consistency.

3.7.2 Coding

This was given by respondents into meaningful categories and grades for purposes of bringing out one question important patterns. Here only one question was considered at a time to avoid difficulties and inaccuracy.

3.8 Ethical considerations

With the introductory letter obtained from the university, the researcher introduced herself to the respondents in order to legitimize her access to the respondents and data. The researcher went ahead to seek appointment with key informants that were interviewed. The consent of each respondent was sought before enrolling him/her to participate in the study. On the agreed date, the researcher went back collecting the filled questionnaires.

3.9 Anticipated limitations and solutions

It is worth noting that some respondents refused to be engaged in an interview. The researcher tried to seduce them into acceptance to answer the questions she posed to them. Considering the nature of the project, financial constraints exposed much difficulty to the researcher. This problem was reduced by limiting the scope of the study to the case study area and the mentioned objectives.

In the institutional context, where the researcher was expected to study institutional systems like funding, management, organization, administration, planning, the study was too broad and would not be finished in the available time. The researcher tried to work hard and mobilized every time she got.

CHAPTER FOUR: FINDINGS AND INTERPRETATION

4.0 INTRODUCTION

This chapter covers the presentation of data as it was coded, edited and tabulated. The purpose of the study was aimed at effects of health insurance to the social development of people a case study of Rukomo sector Nyagatare district in Rwanda. The findings have been derived from the respondents obtained by the use of both primary and secondary methods of data collection through interviews, questionnaires and personal observation. Data analysis was based on the study objectives and variables and research presentation was based on research questions using systematic approach.

4.1.1 Background information about the respondents

A number of variables pertaining to the respondents' background were considered during the study. Respondent's age, sex and levels of education were the key variables that were explored. The background information about the respondents was considered important because it determined the level of awareness of the respondents about health insurance ism and its negative impacts they have on the social economic development in the area of study.

The sex of the respondents was identified as a key variable because both men and women consume alcohol and have different individual's perception on the alcohol consumption particularly in marriage life.

The age was also considered because it defined the level of respondents understanding because the range of age group was respondents who were found to be married and hence qualified for the study.

Table 1: Socio-Demographic characteristics of respondents

Variable		Frequency	Percentage(%)
Gender	Males	20	55.6
	Female	10	44.4
–	Sub Total	30	100%
Age	0-25	0	0
	25-35	07	27.77
	36-46	14	41.66
	47-57	05	16.66
	58-68	04	13.88
	Sub Total	30	100%
Marital status	Married	13	47.5
	Single	03	10
	Divorced	05	15
	Widowed	09	27.5
	Sub Total	30	100%
Education	Non	.)	13.9
	Primary	09	27.8
	Secondary	14	41.7
	Tertiary	04	16.7
	Sub Total	30	100%
Occupation	Peasants	13	41.66
	Teachers	07	22.22
	Students	06	19.44
	Elders	04	16.66
	Sub Total	30	100%

According to results from table 1 above, it's clear that a total number of 20 males and 10 females were interviewed totaling to 30 respondents. This number was the researchers' intention of interviewing. However during the study, more males were considered than females.

The reason why males were much more considered was that they were flexible and very open in revealing information about the problem than females who could shy away and avoided being asked some questions by respondents.

As reflected in table 4.1 above more respondents considered for the study were between the age brackets of 36-46 years constituting 41.66% of respondents. This was followed by those between 25-35 years and this constituted 27.77% and the least number of respondents were aged between 58 and above constituting 13.88%. This was the range of age groups were respondents were found to be married and hence qualified for the study as it was dealt with. It was found that some married couples had 25 and above years as demonstrated in the above table.

From the table above the highest number of respondents 14(41.7%) had gone to secondary level i.e. O'level and A' level, and 09(27.8%) had completed primary level, 16.7% had attended tertiary institutions i.e. college and university while 13.9% had never gone to school. This implies that Education level of the respondent was significant in occupation given that those that majority were peasants. This means those who had gone to secondary level, primary and those who did not go to school could not get enough money to pay for their medical bills thus joining health insurance.

According to results in table I above, the majority of respondents were peasants who were 13 constituting 41.66%. These were fol lowed by teachers who were 7 constituting 22.22%. The least number of respondents were the elders who were 4 constituting 16.66%. These were interviewed 2 times. The elders included councilors, local councils, chairpersons and church leaders and teachers.

4.2 Findings on household monthly earnings of respondents. Table 2: Showing the household earnings of respondents.

Variable	Frequency	Percentage(%)
Less than 100,000	2	6.7
100,000-300,000	10	33.3
300,000-600,000	2	40
600,000-900,000	3	10
Above 900,000	3	10
Total	**30**	**100%**

Source: Primary data

From the table above, the majority of the respondents their household earnings 12(40%) was between 300,000-600,000 while only 10(33.3%) their income was from 100,000300,000. While 10% earned above 900,000. This implies that majority of the households had no capacity to meet medical bills

Percentage of prevalence of health insurance

Table 3 showing the type of health insurance preferred

Beneficiary of Health insurance	**Frequency**	%
Rwandan National Insurance (RAMA)		3.3%
Community based health insurance (CBHI)	17	56.6 %
Civil servant	2	6.7%
Other insurance		3.3%
Without any insurance	9	30%
Total	30	100%

Source: Author's own computation from the Household living condition survey 2014. Health insurance information, are captured on individual basis because enrolment in the schemes is done by person. The actual membership status for the period when the survey was conducted is shown in the above table. It reports that out of 30 households interviewed, 17 (56.6%) were insured under CBHI, 9 (30%) were not insured, while the

others were insured under RAMA I (3.3%), Civil servant 2(6.7%) and other insurance schemes I (3.3%). However, for the purpose of this paper, the main focus is on assessing the effects of health insurance

A large number among insured people who were interviewed argued that health insurance schemes have improved their living standards by preventing them from excessive health expenditures. Given that the majority of them are subsistence farmers and informal sector workers, they are mostly exposed to health shocks than rich people. However, with the introduction of CBHI, health status was argued to have improved as they can easily access health care. They further stressed that with CBHI, the health expenditures have substantially reduced and resources that were previously spent on health care in the absence of health insurance are now being used for other expenditures. These resources are now being allocated to children schooling, hiring labour for farming, and making savings in miorofinance institutions. Jt is therefore noticeable from this point of view that health insurance schemes play an important role in protecting insured member from impoverishment effects resulting from health problems and associated costs, and improves the income generating capacity because of good health status (Scheil-Adlung et al. 2006).

On the other side, the respondents from non-insured members revealed that it is hard to access modern health care because of associated high costs. However, in the presence of severe illness, respondents revealed that the main coping mechanisms used are selling farm lands in most cases, goats and sheep, stored food and other assets so as to meet medical needs. In addition, households that do not own these assets are forced to drop their children out of school for work and adjustment of education expenditures. As result, they testified experiencing impoverishment effects following an episode of severe health problems. This was supported by the story of a mother of 6 children, who said:

My elder son experienced health problems, as we were not insured with mutual health, at each visit to health centre; we could spend a considerable amount of money for medical care expenses. The situation got worse when we were no longer able to go to a health centre after selling all assets at our disposal, my son's health status deteriorated to the extent that he was no longer able to work. As he was the breadwinner for the household, we are no longer able to

pay rent for housing and other consumption expenditures (Mukandayisenga 2014, personal interview).

The above story clearly shows that in the absence of health insurance, poor households are exposed to different risks. This may consequently lead not only to depreciation of human capital but also into poverty trap, as they are no longer able to perform any income generating activity.

On the reasons why some people are not insured despite the benefit associated with community based health insurance, some people said that it is too expensive to get the premiums for all household members at once, so as to be entitled to get benefits. Their suggestions were to make deferred payments which will enable each household member to access medical care service even before full payment. They claimed that this will also allow them to extend the payment schedule throughout the year given their income level. However, most people said that being cash constrained was not the main reasons for turn up of not joining the schemes at all. They said that unwillingness to pay premiums was key factor, because the poorest households are in most cases subsidised by government and other development partners to pay their insurance contributions. They added that the time allocated to payment of premium is adequate to get payment since people are advised five months before the starting of the year.

However, community based health insurance financial sustainability constitutes a major challenge for the schemes in Rwanda, given that they are financed by both subscription fees and subsidies from government and development partners. This concern is based on the fact that external funds may be cut abruptly and the subscription fees may not be enough to cover medical care services provided. To ensure sustainable health insurance schemes, the gap between members' contributions and medical care services costs need to be filled. On one hand, people in charge of CBHI said that solidarity and equity of contributions fees among community based health insurance members is one of the key factors for the sustainability of the schemes. Categorising people into different socioeconomic categories for contribution will not only establish equity and solidarity among members but also will improve the coverage rate which results in increasing

contributions. Furthermore, the government is considering increasing taxes on consumption of tobacco and alcohol as they are considered to undermine people's health. (MoH 20 l 0). On the other side, by electing mobilisation committees at village level, people admitted that the turn up rate will decrease because of intensive sensitisation. By increasing also the awareness on community based health insurance benefits; many people will join the schemes, which will increase subscription fees. Given the increase of contributions resulting from enlarging the coverage rate, people believe that the health insurance schemes will be able to meet the needs of beneficiaries in a sustainable way.

In general, despite some contradicting views especially on the reasons of joining the schemes, all interviewed people agreed on the role of health insurance in improving the access to modern health care and preventing insured member from incurring excessive health expenditures and from using income threatening coping mechanisms. The analysis suggests that, health insurance schemes have improved the household welfare by preventing them from cutting back on consumption expenditures or using other coping mechanisms so as to deal with health problems and associated costs. In addition, with CBHI, future households' income generating capacity is not threatened, as insured poor people's access to health care increases and they are prevented from borrowings, saving depletion, sale of assets to finance health care. Furthermore, the analysis reveals that noninsured members are exposed to different risks and are likely to remain in poverty, as any effort made by them to improve their living conditions is drawn back by health problems and associated costs which contribute to perpetual poverty.

to the social development of people. These people insured with these schemes serve as treatment group while people without insurance are considered as control group.

The effects of illness on households in Rukomo sector Nyagatare district. Table 6:Whether illness has an effect on the people (the respondents).

Response	**Number of respondents**	**Percentage**
Yes	25	83.3
No	05	16.7
Total	**36**	**100%**

According to table 4.7 above it was revealed that many respondents 30 representing 83.3% agreed that illness has a negative effect on the social development of people. Among the households interviewed, the majority argued that when a member of the family gets sick, consumption of other necessities like food, shelter and education reduces and this is conluded by (Flores et al 2008, Gerti er and Gruber 2002, Wagstaff 2007) that poor people in developing countries pay for their healthcare expenses mainly out of pocket. Health expenditures reduce household expenditures such as food, education, farming expenses and others (Wang et al 2006).

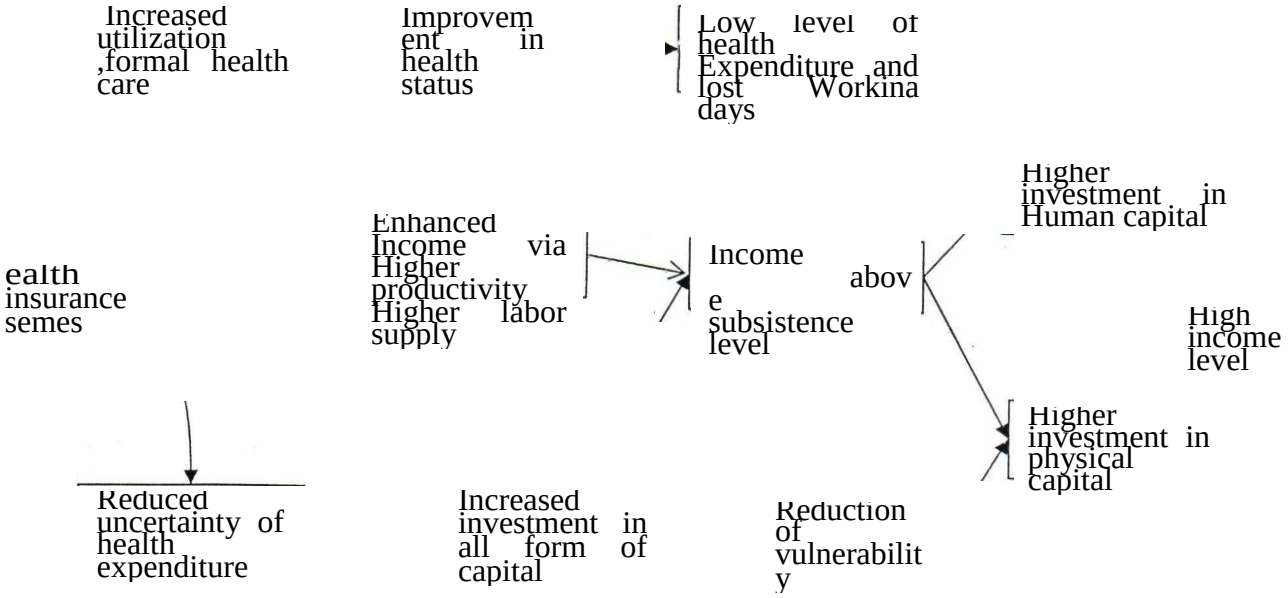
2.2 Challenges faced by rural people in accessing health care

Response	**Number of respondents**	**Percentage**
Lack of money	16	53.3%
Many dependants	10	33.3%
Not heard of the scheme	**4**	**13.3%**
Othe	**0**	**00%**
	30	100%

Accessing health care by people in the area of study is a big challenge mainly because of lack of money as shown in the table because the biggest number of people 16 (53.3%) complained that they had no money to join the scheme while others said that they had many dependants thus not joining the scheme and then a few respondents complained that they had not heard of the scheme.

4.3 The extent to which health insurance has prevented rural people from impoverishment

Figure 2.2: Simplified Flow-Chart Relating health insurance to the impoverishment of the people in Rukomo sector.



The figure above presents the way in which health insurance has prevented the rural people from impoverishment. By making their pre-payment premiums, households share risks and are prevented from catastrophic health expenditures which may lead to household impoverishment. Health insurance schemes help insured members to take advantage of economic opportunities through reducing the uncertainty resulting from health expenditures. As poor people rely mainly on labour productivity in generating income, access to health care resulting from health insurance will improve health status and decrease the lost working days due to illness and consequently household production output will increase. In addition, as household are no longer exposed to catastrophic health expenditures, their consumption patterns will increase. Increasing household consumption and improving health status of household members will considerably increase income. Health insurance schemes are therefore considered as potential instruments which reduce· uncertainty of health expenditures, improve health care utilization and enhance income through high productivity and labour supply.

The findings from qualitative data reveal that, insured households consumption expenditures were not disrupted following illness episodes. The main reason given was that health insurance considerably prevented them from incurring catastrophic medical spending. They further argued that access to modern health care has significantly improved because, of CBHI. The following story from a 30 years old man, illustrates the point:

I experienced a chronic disease since 1999 when I was 18 years old such that I had to see the doctor at least four times per year, and could spend at least R WF 90 000per year (145 US $). Sometimes I could not afford to seek medical care because of excessive health expenditures I was incurring as compared to my earnings. As my income was running low, this disrupted my consumption expenditures such that I was always under food insecurity and could not dare to make any investment. However, with the introduction of community based health insurance, my health expenditures have drastically reduced such that the entire household can only spend RWF 7000 (l 2US $) per year, as a result, this allowed me to construct a house and acquire a farm for agriculture purpose. In addition to this, my health status has

improved a lot as it is easy for me to meet any specialist doctor for treatment without fearing medical costs, which was not the case before (Muragijimana 2014, personal Interview).

This narrative indicates that health insurance schemes have not only protected insured household from financial risk but also improved the likelihood of desired health care. By improving the access to quality health care, CBHI has played an important role in bettering health status of poor people who could not benefit from such services before. This is consistent with Saksena et al (2011) who revealed that community based health insurance schemes in Rwanda have increased the access to modern health care and have prevented insured households from incurring catastrophic health expenditures. A contrasting experience is from one respondent, a 40 years old female head of household who is not insured under community based health insurance who declared:

When Iwas sick, I went to see traditional healers for treatment as l could not afford modern medical care; unfortunately, I could not recover and used the savings to get basic drugs for appeasing. As a casual worker, the situation was worsened by the fact that I was not able to go to work and get money to buy food for my three children who were starving; on an empty stomach, my eldest child who is IO years old could not even attend school (Mukamrenzi 2014, personal interview).

This story indicates that non-insured household are likely to face catastrophic health expenditures and fall into poverty because of medical care payments made out of pocket or may face human capital depreciation when they are not able to pay for health care (Hodgson and Meiners 1982).

CHAPTER FIVE
5.0 DISCUSSION, CONCLUSION AND RECOMMENDATIONS

1.2 5.1.1 Introduction

This chapter brings out the key findings that are crucial for future responsive programming and need for streamlining in the approaches to support health insurance schemes among households in the area of study This chapter highlights issues of quality and quantity with meeting health insurance requirements, politician's involvement in health insurance work, limited use of government frameworks conclusion andrecommendations for improvinghealth insurance.

5.1.2 Discussion

This research paper used quasi-experimental impact evaluation techniques for estimating the impact of health insurance on household consumption expenditures and poverty reduction. However, this analysis is not based on a fully randomised experiment, as the data used were produced from a field survey, implying that health insurance membership is not likely to be completely random. There is a possibility of self-selection into health insurance such that establishing its effects on outcome variables may produce biased results. Based on the nature of subscription fees, rich people may more easily join health insurance than poor people. Moreover, people with an acute illness or with pre-existing conditions may have a higher incentive to enroll in health insurance schemes than healthy people, raising adverse selection issue. Households with more children may also be more inclined to join health insurance schemes, because the prevalence of diseases among children is relatively high compared to adults. There are also other unobserved factors that may influence people to join health insurance schemes. One of the unobserved factors that may increase health insurance membership in case of Rukomo sector is the pressure from local authorities who have signed performance contracts for increasing membership overtime.

In addition, health insurance targets generally poor people who work in informal sector and rural famers who do not have regular income. Any health shock that affects these people in absence of health insurance may have a large impact on their living conditions. However, it is worth noting that, in order to avoid adverse selection and moral hazard issues, health insurance membership is made at household level such that, for any household member to be entitled to get medical care service the entire family have to fully pay their premiums. This will reduce the chances for households to select only vulnerable individuals or people with pre-existing conditions to join the schemes. In addition, for any subscriber to benefit from insurance schemes, the premiums have to be paid three months prior. This also reduces chances for ill persons to join community based health insurance after realizing they are experiencing an illness problem. Given that all households are not able to pay for themselves the subscription fees, the Government in partnership with donors subsidize the poorest segment of people. This makes therefore, community based health insurance to serve not only rich people who can easily pay premiums, but also poor people have access to medical care services.

Via estimating the effects of health insurance on household's consumption expenditures and poverty reduction considering the estimation issues highlighted in the previous sections. It is worth noting that, though matching estimator cannot deal with bias through unobservable, it has the potential to deal with selection biases originating from observed covariates (Shimeles 2010). However, based on the facts that ill people unlikely select themselves into CBHI, and that household cannot select any household member like children, women or other vulnerable person to join schemes; it is therefore realistic that the selection criteria that may introduce bias can be observed and controlled for. PSM allows estimating CBHI effects by pairing insured members with a group of non-insured members that have similar characteristics in the probability of participating in health insurance program. This study uses data from the same source which have some members who are nonparticipants, therefore we expect bias from our estimates to be minimised. However, it is argued that when the number of characteristics to be used in the match increases, the chances of finding matches reduces (Bryson et al. 2002)

5.1.3 CONCLUSION

There is a growing evidence of health problems effects on households particularly in developing countries. In most cases a sizeable part of health spending is made out of pocket, which not only affects household consumption expenditures but also may push them into poverty. Despite remarkable efforts in controlling health problems and associated costs by the government and development agents, this remains a major challenge in Rwanda. Health insurance schemes constitute potential instrument to mitigate negative effects associated with health problems.

This paper investigates the effects of health insurance on social development of people in Rukomo sector and also includes preventing households from impoverishment effects resulting from substantial medical expenditures. Based on data from integrated household living conditions survey, this paper estimates the effects of health insurance program whereby non-insured people were used as control group and insured members as treatment group for comparison. In addition, the effects were re-estimated for different population groups to see the impact heterogeneity. Qualitative data from interviews was also applied to supplement quantitative findings.

The findings suggest that health insurance schemes in Rukomo sector have protected insured people from households' food consumption and education expenditures disruption. In addition, the out of pocket health payments and school dropout were found high among non-insured people compared to insured people. Implying that insured households are cushioned from substantial medical expenses and dropping their children out of school, as their consumption level is not disrupted by health problems and associated costs. From the qualitative analysis, it was found that health insurance schemes improved the access to health care for insured members and they are no longer constrained by medical expenses. This implies that insured people's health status is likely to improve compared to non-insured as they can access easily modern health care. The results also reveal that health insurance schemes have protected insured households from impoverishment effects resulting from substantial medical expenses.

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Generally, both qualitative and quantitative data stressed the role of health insurance in improving households' living conditions of insured members by protecting them from incurring substantial health expenditures and enabling them to maintain their consumption expenditures level even in the wake of severe illness.

5.1.4 RECOMMENDATIONS

It is therefore suggested that any policy aiming at improving households, living conditions, especially in developing countries should incorporate health insurance and particularly community-based health insurance in the poverty reduction program, particularly because the majority of people in these countries are poor and cannot afford other form of health insurance.

It is also suggested that suitable policies are devised for Rwanda as a country to cover its population since extending the coverage of crucial health services to the world's poor could save millions of lives each year, reduce poverty, spur economic development, and promote global security. Based to this view, it is argued that better health care may be able to accomplish what development practitioners, nongovernmental organizations, economists, foreign aid, and diplomacy have failed to achieve.

However, in order to avoid risks of adverse selection, the entire family is required to enroll so that household member may benefit from the schemes. As previously mentioned, the premium payment system considers the low purchasing power of poor people by providing subsidies from government and development partners. It should be noted that, whenever an enrolled member obtains health services, he pays 10% of medical care costs in an effort to avoid moral hazards that may take place because of overusing health services. In addition, in order to ensure health insurance schemes' sustainability, national risks pooling funds should be established under the Ministry of Health to assist health insurance schemes experiencing financial problems and allocate grants to CBHI funds at district level.

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Appendix 1

QUESTIONNAIRE TO BE FILLED BY RESPONDENTS

Dear Sir/Madam,

Dear respondent, I am conducting a research study on effects of health insurance to the social development of people a case study of Rukomo sector in Nyagatare district.

The questionnaire items are about the study and you are kindly requested to participate in responding to the questions below. The information given will be treated as confidential and the results of the study will be used for academic research purposes only.

SECTION A: BACKGROUND OF THE RESPONDENT

Please tick your personal information in the gaps below

1. Gender Male D Female

2. Age 18-19 [] 26-30] 31-40 □ Above 20-25 □ 41 years D

3. Marital Status

Single [] Divorced/Separated D Married D Widow □

4. Type of Marriage

Monogamy [

Polygamy D

5. What is the highest level of education you have attained?

Never been to school .....

Attained Primary education .....

Attained Secondary education .....

Attained Tertiary/University College .....

6. What is your religion?

(a)Catholic □

(b)Protestant □

(c)Muslim □

(d)Pentecostal

Others specify

7. What is your main source of income (main occupation)?

Unemployed □

Self-employed □

Employed □

Others (specify) □

8. How much does your occupation earn you per month?

(a) between 10,000-50,000 D (d)51,000-100,000 □ (e) 110,000-150,000 []

(b)Less than 10,000shs D

9. How many people live permanently in your household currently

(a)Those aged l 8years and below D

(b)Those aged l 8-33years D

(c)Those aged 34 years and above D

10. For those who currently are permanent residents in your household how many are in paid employment and how much does each earn per month. Are they engaged in regular employment?

(a)Yes is Regular employment

(b) No in regular employment

11. Overall how much does your household earn in a month

(a) Below 500,000 (d) 151000-200,000

(b) 51000-100,000 (e) 210,000 and above

(c) 110,000-150,000

12. Are you registered with any health insurance?

1.Yes 2.No

Explain why?

……

13. What type of health insurance?

1.Without insurance 2. Civil servant 3.RAMA 4. CBHI

it

14. In your own opinion, are there any special reasons why some households have never joined the scheme since it started?

1. Lack of money 2. Many dependants 3. Not heard about the scheme

4. Others (specify)

15. Have you or any of your household members ever used their insurance card to seek medical care?

1. No 2. Yes

16. When was your last visit to the health center or clinic?

1. This week 2. Last week 3. A month ago

4. Others (specify)

17. Which health facility have (community clinic have you or any of your household members ever used most recently)

18. What do you think about the quality of drugs

1. Very good 2. Good 3. Poor

19. What benefits have you got as a registered member of health insurance?

.... …… .... …… …… ……

....

20. What challenges have you faced as an individual in accessing health care services at any health center or clinic?

……

…… …… .... ……

2 I. What challenges does the community face in accessing health care services in the area.

..... ……

.... ……
…… ……

22. Do you have any general comments about how to improve the scheme?

Thanks for your co-operation

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APPENDIX II

FOCUS GROUP DISCUSSION GUIDE FOR BOTH MALES AND FEMALES

I. Would you say health insurance is a problem in this community?

2. What are the main problems encountered in accessing health care in your area.

3. What are the major effects ofhealthinsurance to people of this community?

4. Could be there some measures that have been put up by the community, families, to reduce the challenges encountered while accessing health care inby people in your community?

5. What could be recommendations on prevalence of health insurance in this community?