WILLINGNESS TO PAY FOR COMMUNITY HEALTH INSURANCE AMONG
HOUSEHOLDS IN WAKISO DISTRICT, UGANDA

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DECEMBER, 2014
DECLARATION

I, Violet Birungi declare that this work I have submitted is entirely my own effort and I am the sole author. I certify that all the material in the dissertation which is not my own has been identified and acknowledged.

Signed: ……………………………………………………………

Date: ……………………………………………………………
I certify that Violet Birungi carried out this research under my supervision.

Signed: .................................................................

Date: .................................................................

DR. ROBERT BASAZA (PhD) - SUPERVISOR
DEDICATION

This book is dedicated to my parents, Mr. and Mrs. Lubega who ensured that I live and succeed; my dear husband Dr. Ivan Mukisa for his patience, care, support and love; and finally to my lovely children, Zanetah and Benitah who make my life complete and fill our home with joy, laughter and are a constant reminder for the need to work hard.

Glory to the Lord Almighty forever!!
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CHI - Community Health Insurance
CVM - Contingent Valuation Methods
DDHS - District Director of Health Services
DHT - District Health Team
FGD - Focus Group Discussion
HC - Health Centre
HSD - Health Sub District
IMR - Infant Mortality Rate
KHHS - Kisiizi Hospital Health Society Plan
KI - Key Informant
MDGs - Millennium Development Goals
MMR - Maternal Mortality Ratio
MOH - Ministry of Health Uganda
OOPs - Out of Pocket Payments
PEAP - Poverty Eradication Action Plan
PNFP - Private Not for Profit
<table>
<thead>
<tr>
<th>Acronym</th>
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<tr>
<td>THE</td>
<td>Total Health Expenditure</td>
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<td>UPPAP</td>
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<td>USD</td>
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<td>WHO</td>
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<td>WTP</td>
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Adverse selection: This is the enrolling of those who are ill or more prone to be ill in an insurance scheme as compared to healthier persons.

Catastrophic expenditure: This occurs when payments for healthcare force households to borrow heavily or to reduce their other basic expenditures, on items such as on food, housing and clothing. A household is considered to face financial catastrophe when its total out-of-pocket health payments equal or exceed 10% of their disposal income.

Community health insurance schemes: These are arrangements where funds that consist of payments by community members (insured persons) are managed by an organization other than government or private for Profit Company and are used to finance all or part of the health care costs of members contributing to the pool. It involves risk sharing by pooling and the community is involved in the management of the scheme resources.

Formal employment: This includes persons who work for wage or salary in cash or in kind or both and have a formal job attachment.

Household: Any house with one or more people using the same kitchen and eating together.

Income quintile: Division of the population into five income sections (from lowest income to highest income) such that 20% of the population is in each group.

Informal employment: Employment in that part of the economy that is not structured that has emerged in urban and rural areas. It is not regulated and taxed by the institutions of government.

Moral hazard: Is a situation in which one party gets involved in a risky event knowing that it is protected against the risk and the other party will incur the cost.
Out of pocket payments: These are payments made by households at the point of receiving health services. It includes spending on alternative and/or traditional medicine but excludes expenditure on transportation to obtain care and special nutrition.

Risk protection: This is the shielding of an individual or household from critical income losses as a result of health care expenditures.

Universal coverage of healthcare: This is a situation where everyone in the population has access to appropriate promotive, preventive, curative and rehabilitative healthcare without suffering financial hardship as a result.
ABSTRACT

Introduction

Community Health Insurance (CHI) is advocated for in many developing countries as one way of addressing the ill effects of direct payments for healthcare. It is perceived to be relevant in countries that depend a lot on out of pocket payments for healthcare and where a large part of the population is not engaged in formal employment. Uganda is one such country. In Uganda, community health insurance has been piloted mainly by development partners but has not been fully embraced by the Government as a health financing mechanism. The study therefore was aimed at assessing the willingness of household heads to pay premium for Community Health Insurance (CHI) schemes in Wakiso district, Uganda.

Methodology

This was a cross-sectional study that collected both quantitative and qualitative data from the study subjects on willingness to pay for community health insurance using a semi-structured questionnaire. The study unit was a household with the household head present at the time of the data collection. Simple random sampling was conducted to select the households to visit per village. A total of 398 households with the household heads were included in the study from 4 sub-districts of Entebbe, Busiro South, Kyadondo East and Kyadondo North. Analysis of the quantitative data was conducted using software, SPSS version 16 while qualitative data was manually transcribed and analyzed.
Results

Two thirds (63.8%) of the household heads indicated willingness to pay for the CHI despite 39.7% not understating anything about CHI schemes. Most of the households reporting the willingness to pay for CHI were in the 4th and 5th income quintiles (15.8% and 13.3% respectively).

Unaffordability (28%) was the main reason for the households that were unwilling to pay for CHI schemes. Those willing to pay hoped for better quality of health services (35.8%) provided by the CHI scheme. Households were willing to pay a premium of 1,001-10,000/= Uganda shillings. Statistically, willingness to pay for community health insurance was likely to be influenced by the household income quintile and source of income for medical treatment since at 95% confidence interval, P<0.05.

Conclusion

Majority of the households in Wakiso district are willing to pay for the community health insurance scheme if introduced in their communities. The suggested minimum premium is likely to be afforded even by the 1st income quintile households.

Recommendation

Sensitization on community health insurance is needed across the district if all the households are to embrace the initiative. Standardization of the minimum amount of premium to pay is an area that requires exploration as well.
CHAPTER ONE
INTRODUCTION

1.0. Introduction

The government of Uganda has been striving to achieve equal access to essential health services for its entire population, with a particular focus on preventing impoverishment through improving its health financing system (MOH, 2010). A health financing review was conducted as the first step in developing the National Health Financing policy. The policy strategies aim towards achieving universal coverage and social health protection and provides the resources and economic incentives for operating health systems (MOH, 2010). The health financing system at present is designed around the need to finance the Uganda National Minimum Health care Package (UNMHCp).

With abolition of user fees in government hospitals, the Community Health Insurance scheme seemed a good justification (Basaza, 2010). While the schemes can only be joined by families as groups all the willingness to pay for the community insurance scheme is affected by a number of factors ranging from gender, household size, to health status, and quality of health care among others (Ataguba, 2008).

1.1. Background

Reviewing the financing of health systems is a major issue that has attracted the attention of policy makers globally. In particular, healthcare financing is one of the four functions of health sector reform agenda (Nigerian Health Review, 2006). Failure to finance healthcare, poor funding and insufficient resources to provide modest healthcare for individual needs are the
major problems in the health sectors of the developing world which includes Africa, Asia and Latin America (Net, 2007). According to WHO (2005), about 35 sub Saharan Africa countries spend less than USD 34-40 per capita, which is the minimum expenditure required to finance a basic package of health services. Several governments in developing countries have reviewed their policies on health care financing with the goal of establishing more realistic, efficient and sustainable funding for their health sectors. The main strategy that has been adopted is the implementation of health insurance schemes such as CHI commonly for the informal sector and social Health Insurance (SHI) targeting the formal sector employees initially (Carrin et al 2005).

The National Health Accounts Report (2013) points out that there has been significant increase in the expenditure, from 16 US$ per person in 1999 - 2000, to the current total expenditure on health of over US$ 27 per person per year, representing a 69% increase in total health expenditure (MOH, 2013). However, this is less than US$ 60 per person per year which is defined as the current estimate needed for provision of an appropriate basic package of services in low income settings (WHO, 2010). This increase in expenditure encourages populations to move away from direct payments for healthcare to prepayment and risk pooling systems so as to increase access to health services (WHO, 2005).

In Uganda, households constitute a major financing source of the Total Health Expenditure (THE) at 43% and this is followed by NGOs at 35%, Central Government at 21% and private firms at 1% (NHA, 2013). Households spend about 9% of their expenditure on health, although no user fees are paid in lower level government health units and general wings of publicly owned hospitals. However, the private sector charges user fees (MOH, 2011).
The government expenditure on health as a percent of total government expenditure has remained around 9%, which is below the Abuja target of 15% (AHSPR, 2012/13). According to the NHA report (2013), households contributed 88% of the private funds to the total health expenditure. Such level of out of pocket (OOP) payments suggest that financing of health care is less equitable, posing a high chance of financial catastrophe on households. Where OOP expenditure on health exceeds 20% of the total health expenditure, the risk of financial catastrophe from OOP expenditure increases significantly (WHO, 2010).

Community Health Insurance (CHI) schemes have been viewed as good starting points for achieving prepayment and risk pooling systems in sub-Saharan Africa. They can also provide a stable source of funding for health services (Criel, 2005). In Uganda, CHI schemes were initiated by the Ministry of Health (MOH) in 1995 in an effort to address the ill effects of OOPs (Basaza, 2003). The number of registered CHIS is 25, covering about 141,933 beneficiaries in 11 districts (UCHBFA, 2012). Assessment of the schemes has shown that membership improves overall quality of life in relation to members’ health and ability to cope with healthcare costs. However, low enrolment levels is a major challenge most schemes face (Derrienic et al 2005).

Healthcare in public health units in Wakiso is funded almost entirely by the government of Uganda (GoU) except for the PNFP and PFP hospitals where additional funds are obtained from the user fees charged for health services. GoU funding is usually inadequate, irregular and often subject to arbitrary reallocation (MOH 2004). As a result health services offered in public health facilities in Wakiso like elsewhere in the country are limited in variety, quantity and quality. Households are thus forced to make OOPs so as to receive better healthcare, from PNFP and
PFP health facilities. CHI schemes can reduce financial barriers to healthcare and the strain of direct payments for healthcare to households. CHI schemes, however, do not exist yet in Wakiso district. According to the NHA report (2013), private health insurance exists only on a very small scale of 1.2% and caters only for the wealthy families and individuals.

1.2. Problem statement

It is known that while public health services in Uganda are largely free, many patients pay bribes to medical staff in public health units. As a consequence of this, nearly 28% of the households in Uganda are experiencing catastrophic payments (Orem and Zikusoka, 2010) while 2.3% are impoverished because of medical bills (MOH, 2011).

Out of pocket payments (OOPs) for healthcare pose a significant financial burden to households and are a threat to the access to healthcare in Wakiso district. The OOPs occur at PNFP health facilities, PFP facilities and the private wing of Entebbe hospital (MOH, 2005). OOPs also occur as unofficial payments made before the sick can receive services within public health facilities (UPPAP, 2002).

Payments made at PNFP and PFP health facilities, though legitimate are no better considering the fact that just the inpatient treatment of an episode of malaria costs on average Shs 210,000-420,000 (Ruhweza, 2007). With the average annual household income in Uganda at Shs 303,700 (UBOS, 2009/10) such a magnitude of healthcare payments amounts to catastrophic expenditure. Consequently many individuals and households shun or delay to seek healthcare due to fear of these kinds of payments; some of those who have attempted to seek healthcare in such situations have become impoverished as a consequence (UPPAP, 2002).
CHI when well designed and implemented can increase access to and reduce the costs of healthcare. CHI schemes enabled people excluded from healthcare by other financing mechanisms to access healthcare in Senegal (Bennett, 2004). Enrolled members spent 50% less on hospitalized care than non-members (Bennett, 2004). CHI schemes have reduced catastrophic spending and enhanced financial protection in India (Ranson, 2002). In Uganda CHI schemes have helped to mobilize extra resources at local level and to improve efficiency, quality as well as access to health services (Derrienic, 2005).

Despite the existence of CHI schemes in Uganda since 1995 (Basaza, 2003), and the known benefits of such schemes, Wakiso, one of the districts in central Uganda does not have CHI schemes. The willingness of households in Wakiso district to pay and join CHI schemes is not known and it is also not known whether this is one of the factors responsible for the non-existence of CHI schemes in this area.

Therefore this study seeks to assess the willingness of households in Wakiso district to pay premium in order to join community health insurance schemes.

1.3. Objectives of the study

1.3.1. General Objective

To assess the willingness of household heads to pay premium for Community Health Insurance (CHI) schemes in Wakiso district.
1.3.2. Specific Objectives

1. To determine the income quintiles of household heads in Wakiso district.
2. To determine the willingness of household heads to pay for CHI Schemes in Wakiso district.
3. To establish the minimum amount of premium household heads are willing to pay for CHI Schemes according to their income quintiles in Wakiso district.

1.3. Research Questions

1. What is the income quintile of the household head?
2. To what extent are household heads willing to pay for CHI schemes in Wakiso?
3. What is the minimum amount of premium household heads are willing to pay when joining CHI Schemes in Wakiso?

1.4. Justification for the study

Wakiso is the second most populated district in Uganda having a projected population of 1,315,300 as projected from the 2002 census results. The UDHS report (2011) states that 77.5% of this population live in rural areas and are engaged in the informal sector, mainly on subsistence agriculture. Such a population suffers with the burden of paying for health care owing to the low incomes associated with the informal sector. Uganda government is in the process of passing the finalized National Health Insurance Bill as an alternative means of financing of health services. CHI is viewed as a better option for the informal sector because it involves community participation and has affordable premiums (UCBHFA, 2010). No study has been done in Wakiso district to establish the willingness to pay for CHI schemes. This study
will therefore generate information that can be used in planning and designing CHI Schemes in Wakiso district and other districts with similar setting.

1.5. Conceptual framework

The willingness to pay for community health insurance can be influenced by a number of independent factors (Figure 1). The independent factors include socio-economic, health system factors, individual household factors, governance and political factors as well as CHI scheme factors. In turn, the willingness to pay and join CHI Schemes can lead to better enrolment levels and ultimately to better health status of the communities and nation at large.
Figure 1. Conceptual framework for willingness to pay for CHI
CHAPTER TWO
LITERATURE REVIEW

2.1. Health systems in Uganda

The National Health System (NHS) in Uganda constitutes of all institutions, structures and actors whose actions have the primary purpose of achieving and sustaining good health. It is made up of the public and the private sectors like public hospitals, the military and private-not-for-profit hospitals among others. The health system has various sections including the infrastructure, delivery systems, human resource among which financing is one (Orem et al., 2010).

2.1.1. Health financing in Uganda

The purpose of a health financing system is; to mobilize resources for the health system, to set the right financial incentives for providers, and to ensure that all individuals have access to effective health care (Panda et al., 2013).

In most parts of Africa, health care payments still remain out-of-pocket payments or payment at the point of utilization which constrains the poor who cannot afford to make such payments at the point of utilization (Ataguba et al., 2008). Uganda has been facing a challenge of underfunding with only 9% of the support from government and 10% from donors which is not enough to meet the minimum health care package Health System is striving to provide to the Ugandan population (NHA, 2013).

The minimum health care package aims at guaranteeing the population health services that the people can afford, therefore acts as a form of medical security. It ensures equal access to the
package which consists of preventive, curative, and rehabilitative management of priority diseases and conditions to all people in Uganda with emphasis on the vulnerable populations (MOH, 2010). The government has been striving to achieve equal access to essential health services for its entire population, with a particular focus on preventing impoverishment through improving its health financing system (MOH, 2010).

Uganda carried out a health financing review as the first step in developing the national health financing policy. The strategies aim towards achieving universal coverage and social health protection. It provides the resources and economic incentives for operating health systems and is a key determinant of health system performance. It contributes to guiding resource mobilization, pooling, allocation and utilization efforts so as to ensure that the best and equitable outputs are achieved for the population receiving the health services (MOH, 2010). The health financing system at present is designed around the need to finance the Uganda National Minimum Health care Package (UNMHCP).

Health care resources in Uganda come from both private and public sources. Private sources include households, private firms and not-for-profit organizations and the two major sources of public funds are government and donors (through health projects, direct district support and Global Health Initiatives) but the local government and development partners also contribute (Orem et al., 2010). The households contribute 49.7 %, the private partners contribute 34.9% while the government contributes 14.9% and non-government organizations contribute only 0.4%. (NHA, 2013).
2.1.2. Sources of health finances

2.1.2.1. Public Funding

Public funds are transferred directly to the specified entities; including, the MOH headquarters, district, regional referral and national referral hospitals. Allocation amounts for each entity is based on a formula that takes into consideration population size, special considerations (e.g. areas affected by war or historically disadvantaged), human development index, per capita donor and NGO spending in the district, and historic budgeting (Zikusooka et al., 2009).

According to the Public Expenditure report (World Bank, 2008) there has been a focus on shifting resources to lower levels of care, especially district health services (which mainly cater for people living in the rural areas, that is those with relatively lower incomes), over the past seven years. Funds allocated to district health services steadily increased from 32% to 54%, while the proportions allocated to higher level institutions and facilities (MOH headquarters and referral hospital) decreased consistently from 30% to 18%. The drugs and medical supplies budgets for hospitals saw a slight improvement during the period but budgets for other administration, running costs and utilities fell. In the district health services, primary health care (PHC) facilities received the greatest percentage of resources, and absolute amounts received by these facilities increased consistently over the period.

Central government funds (from taxes), are channeled through general budget support, while donor funding is channeled through general budget support and through project support (e.g. to districts and non- government organizations) (Adebayo et al., 2013).
With Uganda still considering the introduction of national health insurance (NHI) in hope of improving risk-pooling and increasing coverage, and as an avenue to reduce current fragmentation in the smaller risk pools of CHIs and private health insurance schemes (World Bank, 2008; Zikusooka et al., 2009), the rural communities would benefit greatly from community based insurance.

2.1.2.2. Private funding

Regarding allocation mechanisms, donors' criteria for selecting some districts and not others is not explicitly documented anywhere. Some funding from donor projects is targeted at national-level activities which benefit the whole population, disease-specific activities, and others target specific regions or districts in the country, and so it is difficult to articulate the proportions of the population benefiting from donor project funds (Zikusooka et al., 2009).

Attempts at quantifying donor project funding for health on a regular and consistent basis has proved difficult, and as such it is hard to know the total size of funds involved. Resource allocation mechanisms vary between donor projects, depending on the objectives and interests of the donor or project, and it is not clear whether equity is a key consideration in resource allocation. The lack of explicit guidelines for selection of project implementation sites (and hence geographic resource allocation) has the potential to stimulate geographic inequity in the healthcare services throughout the country (Zikusooka et al., 2009).

Private resources comprise dozens of very small risk-pools, through small and highly fragmented Community Health Insurance and voluntary private prepayment schemes. Private health prepayment schemes are still in their infancy and cover less than 1% of population in key urban areas (especially Kampala), usually provided by corporate employers for their employees
and their dependants. They thus do not enhance the principles of equity and especially cross-subsidization.

2.1.2.3. Out of pocket payments

These are payments made by the client at the point of service utilization. This puts a financial strain on the affected households which exposes the household to getting impoverished (Ataguba, et al., 2008).

The predominance of out-of-pocket health financing makes it difficult for the poor to access quality health care services at the point of utilization making them resort to orthodox health care centers only when the condition of illness has deteriorated (Ataguba, et al., 2008).

Zikusooka et al., (2009) stated that Uganda's health sector remains significantly under-funded, mainly relying on private sources of financing, especially out-of-pocket expenditure, thereby making it difficult to attain sector targets. At 9.6 % of total government expenditure, public expenditure on health is far below the Abuja target of 15% that Government of Uganda committed to (NHA, 2013).

Whereas Services at all government health facilities are free to everyone since 2001, the heavy reliance on out-of-pocket funding and the absence of integrated financing mechanisms result in very poor fund pooling in Uganda and can be a major contributor to underfunding of the healthcare system (Basaza et al. ,2010). Furthermore, the removal of user fees was an excellent reform as far as equity is concerned; the relatively poor quality of services in public health facilities has created a two-tier system in access to services. The poor are left to access the free
but poor quality) services while the relatively rich access services in the private health facilities (of relatively better quality) (Zikusooka et al., 2009).

2.2. **Cost of health care in Uganda**

Healthcare costs involve the cost of production for example of medicines and pharmaceutical products required in health care service. There is also the negotiated price of health care services or insurance between insurers and the people insured and others include payment for Individual Costs through purchase of insurance and out-of-pocket payments (Bowman, 2013).

The estimated per capita annual health expenditure in Uganda in 2007 was US$ 27; the government and donors accounted for half of this and another half was from private out-of-pocket. During the period of the current National Health Policy, the per capita annual health expenditure has consistently been increasing each year. Per capita government health expenditure ranged between US$ 4 and US$ 7, which is below the estimated cost (US$ 28) of delivering the minimum package (NHA Report, 2013).

Although tax revenue is equitable, without compulsory health insurance, low coverage of private health insurance and lack of financial protection, Uganda has limited pooling of resources, and hence minimal cross-subsidization. Overall, Uganda’s current health financing is inequitable and fragmented due to the regressive nature of its mechanisms. The government is taking action to promote equitable health care financing by establishing pre-payment schemes, enhancing cross-subsidization mechanisms and appropriate integration of financing mechanisms (MOH, 2009).
However, prepayments still form a small proportion of funding for Uganda's health sector. There is limited cross-subsidization and high fragmentation within and between health financing mechanisms, mainly due to high reliance on out-of-pocket payments and limited prepayment mechanisms (Zikusooka et al., 2009). The republic of Uganda in providing for health, (2010) argues that the Current financing is not fair, as cross-subsidization is limited, the high and low health risk persons, rich and poor pay the same amount of money at the point of getting the services making the poor to sell off their assets but also or take loans Which leaves them even poorer for unnecessary medical interventions.

2.2.1. Factors affecting the costs of healthcare services

To weigh the cost effect that ensures the highest possible benefit to the users, the value for money and Service coverage should be evaluated. Value for money is achieved when services are provided in a cost-effective manner. On the other hand, service coverage means provision of maximum range, quantum and choice of services using the existing resources (MOH, 2010). The factors that influence the cost of health care range from infrastructure to the medical qualification of the caregiver.

Most Africans first seek treatment from other areas like traditional healers and medical practitioners, and resort to health centers at the last resort. A practice further increases the cost of treatment (Ataguba, 2008).

The price of pharmaceuticals and medical equipment has been escalating worldwide leading to increased price of user fees. In response to this, social insurance was started to cover part or all of the medical expenses met by their members but the informal sector was left out (Basaza et al., 2009).
An estimated 4.8% of the households in Uganda are experiencing catastrophic payments for health, and 2.3% are pushed into impoverishment (MOH, 2010A). Therefore the community health insurance as a financing mechanism for the health sector seems a viable option to provide protection against catastrophic health expenditure for both formal and informal sectors (Basaza et al., 2010; MOH, 2009).

2.2.1.2 **Income and poverty levels among households**

All members of the society disproportionately suffered from poor health outcomes (Koh et al., 2011) however some studies revealed that the poor suffer higher mortality. The poor experience inequalities in receiving health care hence the need for an intersectoral action and social determinants based approach to reduce the inequalities (Koh et al., 2011). Uganda has tried to achieve this by trying to move decision making to the local government though the social health insurance schemes which has resulted into services being pushed to new settlements, proper monitoring of intervention efforts, protect displaced persons, reduced childhood acute malnutrition and stunting in Kitgum (Koh et al., 2011).

Prepayment mechanisms reduce catastrophic out of pocket payments which would otherwise lead to bankruptcy and more poverty especially for the poor households (Kexu, 2007). A study done in Europe showed that as household income increased so did the health insurance coverage (Denavas, 2006).

However, William (2011) notes that the existing social health insurance schemes in developing countries are developed with based on literature and with focus on technical designs used in rich countries neglecting the actors and processes involved in developing the policies and the
context they are being developed. This makes it unsuitable for low income earners as Lawson (2004) stated in his findings where 40% of Ugandans could not afford basic health services. Lagomarsino, (2012) suggests that to attain universal coverage, these countries need to implement varied national health insurance models that do not conform to historical archetypes.

2.3. Community health insurance

Health insurance aims at improving access to health care services by avoiding direct payment of fees by patients and spreading financial risk among all the insured (Morestin and Ridde, 2009). Community Health Insurance is one of the ways this can be attained (Wang and Pielemeier, 2012). Community Health Insurance (CHI) is a voluntary community-based and not-for-profit health insurance that was initiated to improve health of the poor and protect them from health-related crisis by increasing their accessibility of health services (Panda et al. 2013).

CHI focuses on reducing financial barriers for poor people who are at risk of health-related crisis to access the quality and effective health services by providing financial protection and phasing out out-of-pocket health expenditures which are a widely recognized burden forcing many people into debts and poverty (Basaza, 2009). In addition to providing financial protection, CHI have improved the utilization of health services by reducing out of pocket payments as people do not have to first look for money to seek medical treatment (Mebratie, 2013).

However, lack of funds can pose a major problem when it comes to time to pay the premium, and when the insured need to use healthcare services. Enrolling in an insurance program requires paying a premium. The combined premium constitutes funds upon which the insurance draws in order to compensate members who use insured healthcare services. However, Morestin
and Ridde (2009) further state that in Africa, the poor are under represented among the insured and usually find difficulty in paying the premium and thus do not become insured. This is usually when a single payment is required instead of smaller payments spread out over the year.

In Uganda, CHI was introduced in 1996 at a rural hospital in Kisiizi and the schemes are monitored under community based health financing association (UCBHFA, 2011). The CHI is basically run by the community for the local people usually through elected representatives, or run the local hospital the program as it is done in Kigezi hospital (Basaza, 2007). Here the locals pay a set premium and can access health care services at a subsidized price. The number of registered CHIS is 25, covering about 141,933 beneficiaries in 11 districts (UCHBFA report, 2012). The schemes were started jointly by the Ministry of Health and various donors like the Department for International Development of UK (DFID) and United States Aid for International Development (USAID) (Basaza et al., 2010). The donors have been dropping out like the donation from the Department for International Development ended in 2002 and today the schemes do not receive direct financing from governments or donors but are basically supported by contributions from the members (Basaza et al., 2007). The Community Health Insurance schemes operate in the private-not-for-profit sector, in settings where church-based facilities where user fees still function (Basaza et al., 2010). The CHI schemes are run on a not for profit basis, targeting the informal sector (Basaza et al., 2007) and apply the basic principles of risk-sharing, pooling resources and members' participation in management (Mebratie, 2013).

The schemes have several benefits including changing direct out of pocket payments to prepaid payments which expands the coverage of health services increase health care utilization, access to health services and widens the possibility of cross-subsidizing along with prevention of
financial strain on the side of the patients at the point of need of service. They also create better options for effectively and efficiently managing funds and achieving efficiency in services delivery by introducing purchasing functions and purchasers (financing). The CHI schemes are also associated with relatively cheaper outpatient care services as opposed to inpatient care. The schemes also appear to mitigate catastrophic healthcare expenditure (Mebratie, 2013).

2.4. Implementation of the CHI

Following the abolition of user fees in government hospitals, the CHI implementation seemed irrelevant but the uneffectiveness of the abolition of user fees (long ques, lack of medications and poor quality of health services given in government hospitals) is a good justification (Basaza, 2010). The schemes can only be joined by families as groups all who are registered in the same community, organization or work place or who live in the same village (Basaza et al., 2007). This association provides a forum for the sharing of experiences, provide technical support to the schemes and fulfill an advocacy function for the schemes (Basaza et al., 2009).

According to Mebratie (2013) after registration, the insured members are given CHI cards that can be used to access the defined benefit packages including free access to health services, transportation fee to health facilities and a death grant. The scheme beneficiaries are educated on client’s rights and the importance of the CHI card, and they are also encouraged to participate in monitoring the health service delivery at contracted public facilities.

However, the schemes still face some challenges for example, the poor are excluded from CHI schemes and even the few enrolled tend to use healthcare services less intensively because they are unable to afford related costs (MOH, 2009). Other studies have reported that those
individuals suffering from chronic health conditions are more likely to join CHI schemes as compared to those in good health leading to a condition known as adverse selection which poses a risk for the scheme (Mebratie, 2013).

2.4.1. **CHIs available in Uganda**

There are various schemes running in Uganda majority of which are hospital-based, run by the hospitals themselves, although some are run by the communities. Examples of operative CHI schemes in Uganda include: Ishaka hospital Adventist Health Plan, Mother to Child Rescue Health Plan, Kitovu Hospital and Pre-Payment Health Save for Health, Luweero.

2.4.2. **Governance of insurance schemes**

The national health insurance bill proposes that the employees and employers contribute 8% of their monthly wages to the national insurance scheme (MOH, 2007) an idea the employees are not in agreement with the programs. This was reflected in the report by Olaki, published in the New Vision on 24th of August 2007 and is in agreement with Ibrahimipour (2011) who reports that the government tends not to pay its contribution if it heads the scheme in Iran.

Furthermore, there is concern about how the informal sector will contribute towards the scheme fund. A study done by Shafie (2013) in Malaysia revealed that only 10% of the population pays taxes hence contribute towards the fund for the insurance scheme rendering it unsuitable. Ministry of Gender, Labour and Social Development (2006) stated a similar situation in Uganda where over 53% of the Ugandan population is employed but only 17% are in the formal sector which is the target for the scheme funds. The bigger percentage (36%) earn income from the informal sector which is hard to assess and applying the 8% contribution may lead to lower contributions putting the burden on the government funding the scheme (Carrin, 2005a).
Although the government scheme may be perceived as more efficient (Carrin, 2005b), to ensure financial security, a decision has to be made to make it compulsory or voluntary (Carrin, 2008) so that the people who can afford to pay are the ones entitled to the services with exemptions only for the extremely poor who have no support from any one (Aryeetey et al., 2013). Liu, (2011a) agreed with DU, (2009) that in China most public schemes ran bankrupt and collapsed due to the small contributions made by the informal sector with subsidies. Private health insurance on the other hand, includes employer based plans and individually underwritten risks but they are usually not flexible and geared towards certain conditions at their inception. They tend to deliberately increase health care costs and leave out particular segments of the population who need care to lower their expenditure in order to make profit (Shafie, 2013).

The constitution guarantees the people of Uganda the right to safety and information on the management offered at the health centers to ensure high quality health care and services especially on accessibility and equity (GoU, 2000). Ways of improving transparency and equity can be tackled through polices which dictate what the services the scheme offers and the roles of the participants (Parmar, 2014). Liu (2011a) states that policies affect the progress of the schemes and transforming the policy into real world institutions would affect its sustainability.

In this view, the insurance commission was setup and it is meant to ensure effective administration, supervision by regulating their conduct, issuing annual licenses for them to conduct business and safe guard the rights of the policy holders. It is also responsible for revoking the license in case of dishonesty and fraud. The insurance companies in Uganda are controlled by legislation and political expediency through an insurance commission which requires them to have mandated saving account in the central bank which help buffer from
being cheated (GoU, 2000). The community based health insurance scheme is centralized and all payments are made at the central office either the hospital or body running the scheme which are all under the UBCHFA umbrella (UBCHFA, 2013).

Non transparent income flow is also another area of conflict between the insurers and their clients making them drop out and the source of most corruption issues (Ibrahimipour, 2011). The national health insurance report highlights the need for solidarity, respect of cultures and traditions and maintenance of integrity. Equity can be attained through setting policies, ensuring equal contributions, access, and treatment for all persons in equal need and ethics as the other areas that need to be followed which can be emphasized in the polices (Saksenna, 2011). In Rwanda where this scheme is already established, accessibility of the hospitals is still the major challenge especially to the rural poor who stay furthest from the facilities (Saksenna, 2011). Probably adding transportation as one of the benefits of the scheme would lead to increased utilization of the scheme by the people (Basaza, 2008).

2.4.3. **Health services provided by the CHI schemes**

The schemes offer medical benefits, either inpatient or outpatient care only or both but do not cover transportation or burial expenses. The treatment for most chronic diseases like diabetes, hypertension or major surgeries are not covered and the members have to meet these costs from another source (Kyomugisha et al., 2009). This is one of the many reasons why membership has remained persistently low resulting into unsuccessful implantation of the CHI schemes (Manuela, 2006).
2.4.4. Willingness to pay for CHI

A study in Nigeria revealed that the willingness to pay for the community insurance scheme were affected by gender, household size, health status, quality of health care, confidence in the proposed scheme, number of dwelling rooms, distance to the nearest health centre and wealth. Wealthier households were willing to pay higher amounts than less wealthy households (Ataguba, 2008). People view CHI as a form of financial protection against illness whereas majorities regard it as prepayment for healthcare. There are several factors affecting the willingness of people to pay for the CHI schemes including:

2.4.4.1. Availability and accessibility to quality health services: In a study by Bowman (2013), he found out that most people join the schemes to ease their access to quality healthcare, subsided and prompt treatment. The members have an advantage of getting the same treatment for less than non-members and also equal services for gender, age or social status. Despite this advantage, the number of schemes and the persons covered remain small and are confined to one part of the country. Some members complain about unfairness in the schemes were non-members are treated better in hospital than members and they pay premiums continuously without falling sick. The issue of schemes refusing to cover illnesses like diabetes and hypertension were also a concern leading to low enrolment into the schemes (Basaza et al, 2010).

2.4.4.2. Quality of health care given: According to Jehu-Appiah et al (2011), this deals with the effectiveness of the treatment, the quality of the drugs and timeliness in getting the necessary care. The constant supply of essential drugs is a prerequisite for credibility of the scheme and quality of care given. When people are satisfied with the providers’ care, they are
likely to renew their membership, and the uninsured that can afford to, also join CHI (Jehu-Appiah et al., 2011). The service delivery should be adequate in terms of availability of equipment and staffing of providers. Provider attitude affects the quality of service given to the community. A positive attitude and interpersonal relationships have been associated with increased enrollment (Bowman, 2013).

2.4.4.3. **Price:** Bawa and Jehu-Appiah suggested that when schemes charge the same premium for the rich and poor, this can lead to failure to raise the premiums. The poor are more at risk of getting sick with common illnesses like malaria, diarrhea but cannot raise the premiums yet they are the ones most likely to use the health services. Financial affordability of the insurance payments is an important determinant of whether people will enroll in CHI. When the price of CHI premiums is perceived to be high, the odds of enrolling decrease by probability of 0.8. The timing for payments should also be convenient or most people in the poor economic sector may not afford to renew membership or premiums (Bawa, 2011; Jehu-Appiah et al., 2011).

2.4.4.4. **Benefits:** Bowman (2013) states that when people find that they do not need to borrow money to pay for health care, can save from paying hospital bills, the odds of a person enrolling in CBHI are 1.8 times higher if they view the program as beneficial.

2.4.4.5. **Convenience:** this deals with scheme opening hours, location and collection of insurance cards. To increase people’s overall satisfaction, scheme administrators should be responsive to community preferences and address barriers hampering enrollment (Jehu-Appiah et al., 2011).
2.4.4.6. **Awareness and understanding of the CHI:** the idea of community insurance schemes is still new to most people and that even the heads of health services had limited experience of working with such schemes. The locals believe they should be able to receive these medical services free of charge at government hospitals so are reluctant to join (Basaza et al., 2010; Bawa, 2011). This could be solved by providing more information to the community through pamphlets, brochures, and newspaper articles (Bowman, 2013).

2.4.4.7. **Community beliefs and attitudes:** Prevailing ideas about insurance and peer pressure from opinion leaders and past experience of members in the community affect people’s decisions to enroll. Information spreads fast in communities, people listen to one another and perceptions can have a cumulative effect within the community. The previously enrolled who perceived CHI to be beneficial and convenient, may be disappointed by the services if the advantages are fewer than anticipated and influence the enrollment of those who are not insured. When this is cumulated with opinion leaders or peers, they can outweigh positive experiences of other people, and negatively affect people’s decision to enroll. Enhancement of enrollment to overcome consumer bias and negative experience can be done by becoming responsive to consumer preferences to ensure CHI meets their expectations (Jehu-Appiah et al. 2011).

2.4.4.8 **Mobilization of the people:** Joining the schemes requires people to join as a group, but teaming up with many homes is not easily achieved (Basaza et al., 2010). He further states that some communities in his study did not join insurance schemes because they were not informed of the existence of such schemes and other did not know what was required of them to join.
2.4.4.9 **Policy concerns:** The AHSPR 2011/12 clearly states that at the central level of the ministry of health, the schemes lack a central strategic policy or guidelines and there exists no regulatory framework in Uganda to safeguard against skimming. They also do not have specific procedures for the accreditation of providers and insurers making people reluctant to join.

2.4.4.10 **Lack of trust in the schemes:** The people do not trust in local financial organizations after previous depressing experiences with similar institutions. The schemes lack a framework for accountability, operation for the delivery of promised services. Ugandans suffered from the closure of various banks and building societies in the 90s which led to countrywide collapse of co-operative societies, non-governmental organizations and local groups involved in the credit unions (Basaza, 2010). During this time, the organizations which had taken money from communities with the promise of subsequent assistance failed to materialize and people fear the same might happen (Ataguba, 2008).

The CHI Scheme should not harm the participants in any way. This is because without careful planning, isolation, underfunding and poor management, the scheme can produce undesirable consequences and collapse; thus leading to people losing confidence in the prepayment mechanism that is to improve financial protection against disease risk (Wang and Pielemeier, 2012).

Community participation: The limited community involvement also causes distrust in the management of the schemes. CBHI should be voluntary and the local community should be well informed about what they are participating in and be willing to undertake it (Wang and Pielemeier, 2012).
CHAPTER THREE
METHODOLOGY

3.1. Study area

Wakiso district lies in the Central Region of Uganda, bordering with Luwero district in the North, Mukono district in the East, Mpigi district in the West, Masaka district in the South-West and Kalangala district in the South. It also surrounds Kampala district and absorbs the social-economic stresses associated with urban establishments such as slums, poorly planned structures, high prevalence of communicable diseases and heaps of garbage. The district is divided into 13 sub-counties, four town councils and 2 municipal divisions. It has a total of 139 parishes and 688 villages of which some are peri – urban.

There are seven health sub-districts (HSDs) in Wakiso namely Entebbe, Busiro South, Busiro North, Busiro East, Kyadondo North, Kyadondo South and Kyadondo East. Respectively the referral health facility is Entebbe Hospital. Others are Kisubi and Namugongo hospitals which are private not for profit health (PNFP) facilities, Namayumba Health Centre IV, Wakiso Health Centre IV, Buwambo Health Centre IV, Ndejje Health Centre IV and Kasangati Health Centre IV. There are currently 102 health units of which 64 are purely public inclusive of 5 which institutionally belonging to the UPDF and Prisons (State House Clinic, Katabi, Luwunga, Kigo and Kitalya). The 38 are affiliating non-governmental organizations (NGOs) or community based organizations (CBOs) health units offering curative services in the District. Many of the government facilities need rehabilitation and re-tooling. There are over 500 registered private clinics and drug shops as well.
3.2. **Study population**

The study population was heads of households in Wakiso district and the study unit was a household. Other respondents included eleven key informants like the community leaders, members of the DHT and managers of HC IVs and hospitals in the district, officials of UCBHFA, MOH planning department personnel and religious bureau staffs.

3.3. **Study design**

It was a cross sectional study employing both quantitative and qualitative data collection methods. Qualitative data was mainly collected through key informant interviews with leaders while quantitative data was collected at the household level using a semi-structured questionnaire. The study collected data at a single point in time and the measurement of dependent and independent variables was done at the same time.

3.4. **Sample size determination**

Sample size calculations was based on the Kish and Leshlie’s (1965) formula for sample size determination. This was because the main outcome of interest was categorical and reported as a proportion. The formula is stated below.

\[ n = \frac{Z^2 PQ}{D^2} \]  

(Kish and Leshlie; 1965)

\[ n= \text{Sample size to be determined.} \]

\[ Z = \text{Standard normal deviation at 95% confidence limits (1.96)} \]

\[ P = \text{Prevalence of Willingness to pay in the population.} \]
(Prevalence of 50% will be used because figures from previous studies in Africa of 90% and above could not be used because the studies were conducted in communities where CHI schemes had already been in existence).

\[ Q = 1 - P, = (1 - 0.5) = 0.5 \]

D = the absolute precision (maximum error I was willing to allow) = 5% (0.05) +-

It follows that,

\[ n = \frac{1.96 \times 1.96 \times 0.5 \times 0.5}{0.05^2} = 384 \]

The sample size will therefore be 384; however 424 households had to be sampled so as to provide for the 10% possible non-responses.

3.5. **Sampling procedure**

The sampling unit was a household and the sampling frame comprised all the seven HSDs in Wakiso district. Four HSDs were randomly selected out of seven. Proportionate probability sampling was used to select households from each HSD. The number of households per HSD was computed by expressing the population of households in each HSD as a proportion of the total population of households in the four sampled HSDs and then multiplying this by 400 (the sample size).

One sub-county was selected from each of the HSDs above by simple random sampling. Three parishes were selected from each sub county again by simple random sampling, making a total of 12 parishes. From each parish, villages were randomly selected from a list provided from the district-planning department. The target was to have at least 10 households per village.
The households were also randomly selected from the household listing obtained from the Local Council Chairperson of each of the selected villages where possible. Where this was not possible, a pen was tossed in the centre of the village and then households visited following the direction of the tip. In both cases every third household was visited. Households in which the head was not available on the day of the survey were skipped.

3.6. **Inclusion and exclusion principle**

All household heads who consented participated in the study, while those that were headed by minors and those with mental disorders were excluded in the study.

3.7. **Study variables**

3.7.1. **Dependent variables**

These are factors or characteristics that are dependent on the effect of other variables in the relationships under study. Therefore the dependent variable was willingness of household heads to pay for CHI schemes.

3.7.2. **Independent variables**

These are factors, conditions or characteristics being observed or measured and are hypothesized to influence the dependent variable. They include:

- Socio-economic factors such as (degree and level of poverty, unemployment level, literacy, beliefs),
- Health system factors such as (quality of health care, type of health care provider, availability of desired health services, geographical access to health services),
Household factors such as (household head’s level of education, knowledge and attitudes, household income and expenditure) and

CHI scheme factors such as (affordability of premiums, period and mode of payment, community participants and attractiveness of the benefit package).

3.8. Data collection tools

3.8.1. Quantitative Data

Quantitative data was collected from heads of households using interviewer administered semi-structured questionnaire from 19th June to 19th July, 2014. The semi-structured tool was developed and pretested before the data collection process.

3.8.2. Qualitative data

The principal investigator interviewed 11 key informants (KIs) using a key informant guide. The KIs were purposively sampled out of community leaders, members of the DHT, managers of HC IVs and hospitals, staff from religious bureaus, MOH planning department and UCBHFA.

3.9. Data analysis and presentation

Quantitative data from questionnaires was coded, checked, cleaned and entered into SPSS version 16.0 for analysis. Results are presented in a tabular and narrative form. Qualitative data was analyzed manually.
3.9.1. **Univariate analysis**

This was done using frequency distribution tables and the corresponding percentages calculated. The data was then presented using bar charts and frequency tables.

3.9.2. **Bivariate analysis**

Chi square tests were done for measures of association. The strength of association was determined using the p-values. Associations were considered significant when p < 0.05.

3.10. **Quality control**

3.10.1. **Identification of research assistants**

Research assistants were health workers who had conducted at least one research interview. They demonstrated good knowledge of English and the local languages in Wakiso District.

3.10.2. **Training of research assistants**

Research assistants were trained in the following areas: Study background and objectives, sample selection procedures and interviewing skills to avoid bias and wrong data collection. A thorough review of both the English and Luganda version of the questionnaire, correct recording of responses and data collection methods was also done.

3.10.3. **Pre-testing**

The semi-structured questionnaire was pre-tested by both the principal investigator and the research assistants before actual collection of data commenced. (These areas were outside the sites for actual data collection). This was done in order to validate the questions and ensure that
they are suitable for interviewing the respondents. Revisions were made based on the findings of the pre-test.

3.10.4. Supervision of research assistants

The principal investigator closely supervised the research assistants during data collection. The filled questionnaires were reviewed for data accuracy, consistency and completeness on a daily basis. Editing of the questionnaires and correcting of errors found was done to ensure the quality of data collected.

3.11. Sources of data

Primary sources of data included data collected by the researcher and assistants during interviews with heads of households and key informants. Secondary data included literature from Insurance books, journals, previous researches and internet articles on community health insurance.

3.12. Ethical Issues

Permission to conduct the study was sought from the IHSU Institute of Public Health Management (IPHM), District Health Officer (DHO) Wakiso and Local council leaders. Informed written consents were obtained from respondents before interviewing them. They were provided information about the study and their queries were clarified immediately. Strict confidentiality was maintained all through data collection and analysis by use of anonymous identifiers. In addition access to the data collected was restricted to the principal investigator.
3.13. Dissemination of results

Information generated from the study was presented to International Health Sciences University (IHSU) in partial fulfillment of the requirement for the award of MPH Degree. It will also be presented to the DHT and community of Wakiso District. Additional dissemination will be done to the Ministry of health (Planning department), which is responsible for the design of the proposed National Health Insurance Scheme (NHIS) and the Uganda Community Based Health Financing Association (UCBHFA).

3.14. Study limitations

The main challenges encountered during the study included delays in approval from the district and absence of household heads at the time for data collection.
4.0. **Introduction**

The data from the study is presented in tables and graphs in this chapter. The results are presented in line with the study objectives.

4.1. **Demographic results from the study**

The demographic characteristics for each household captured about the household head included the sex, education level, marital status and their age as presented in table 1.

The survey results indicated that 63.6% of the household heads are between 19-39 years of age, 28.9% are between 40-59 years and only 7.5% are above 60 years. Majority of the heads interviewed (70.6%) were male as compared to 29.4% being females.

According to the results from the study, 97% of the household heads have attended up to formal education with 42% having been to tertiary level, 40.5% have attended secondary education and 14.6% reported to have studied up to primary level.

Majority of the household heads included in the study (56.8%) reported to be married as compared to 27.4% that were not. Among the respondents, 10.8% were divorced, while 5% were widowed.
Table 1: Demographic characteristics of the household heads

<table>
<thead>
<tr>
<th></th>
<th>N= 398</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age of household head</strong></td>
<td></td>
</tr>
<tr>
<td>19-39yrs</td>
<td>253 (63.6%)</td>
</tr>
<tr>
<td>40-59yrs</td>
<td>115 (28.9%)</td>
</tr>
<tr>
<td>60-89yrs</td>
<td>30 (7.5%)</td>
</tr>
<tr>
<td><strong>Sex of household heads</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>281 (70.6%)</td>
</tr>
<tr>
<td>Female</td>
<td>117 (29.4%)</td>
</tr>
<tr>
<td><strong>Education level of household head</strong></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>58 (14.6%)</td>
</tr>
<tr>
<td>Secondary</td>
<td>161 (40.5%)</td>
</tr>
<tr>
<td>Tertiary</td>
<td>167 (42%)</td>
</tr>
<tr>
<td>No formal education</td>
<td>12 (3%)</td>
</tr>
<tr>
<td><strong>Marital status of household head</strong></td>
<td></td>
</tr>
<tr>
<td>Single adult</td>
<td>109 (27.4%)</td>
</tr>
<tr>
<td>Monogamous married</td>
<td>219 (55%)</td>
</tr>
<tr>
<td>Polygamous married</td>
<td>7 (1.8%)</td>
</tr>
<tr>
<td>Separated /divorced</td>
<td>43 (10.8%)</td>
</tr>
<tr>
<td>Widowed</td>
<td>20 (5%)</td>
</tr>
<tr>
<td><strong>Source of income of household head</strong></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>19 (4.8%)</td>
</tr>
<tr>
<td>Farmer</td>
<td>18 (4.5%)</td>
</tr>
<tr>
<td>Salaried employee</td>
<td>147 (36.9%)</td>
</tr>
<tr>
<td>Formal business owner</td>
<td>107 (26.9%)</td>
</tr>
<tr>
<td>Informal business owner</td>
<td>89 (22.4%)</td>
</tr>
<tr>
<td>Retired with pension</td>
<td>2 (0.5%)</td>
</tr>
<tr>
<td>Retired without pension</td>
<td>1 (0.3%)</td>
</tr>
<tr>
<td>Other</td>
<td>15 (3.8%)</td>
</tr>
<tr>
<td><strong>Average household size</strong></td>
<td></td>
</tr>
<tr>
<td>1-3 members</td>
<td>186 (46.7%)</td>
</tr>
<tr>
<td>4-6 members</td>
<td>156 (39.2%)</td>
</tr>
<tr>
<td>&gt;7 members</td>
<td>56 (14.1%)</td>
</tr>
</tbody>
</table>

Most of the respondents (39.6%) reported to be employees and therefore earn regular salaries while 26.9% had formal businesses as compared to 22.4% that were in informal businesses as their source of income. Notably, only 4.5% were farmers while 4.8% reported not to be unemployed and therefore no regular source of income.
The average household size for Wakiso district based on the findings from the research is 4 people. The household variations indicated that 46.7% have 1-3 members followed by 39.2% that have 4-6 individuals eating from the same pot. Only 14.1% of the households have more than 7 people cooking in the same pot.

4.2. Economic status of the households in Wakiso

The economic status of the households was measured by the average monthly income, availability of assets and household expenditure. The results are presented in table 2, table 3 and figure 2.

4.2.1. Household monthly income quintiles

The monthly income quintiles for the households were based on the activities or source of incomes reported by the household heads. The results are presented in table 2.

Table 2: Household monthly income quintiles

<table>
<thead>
<tr>
<th>Monthly income</th>
<th>(N=398)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-100,000</td>
<td>62 (15.6%)</td>
</tr>
<tr>
<td>101,000-200,000</td>
<td>58 (14.6%)</td>
</tr>
<tr>
<td>201,000-300,000</td>
<td>83 (20.9%)</td>
</tr>
<tr>
<td>301,000-500,000</td>
<td>96 (24.1%)</td>
</tr>
<tr>
<td>Above 501,000</td>
<td>99 (24.8%)</td>
</tr>
</tbody>
</table>

The study results indicate that 24.8% of the household heads earn above 501,000/= shillings per month (5th quintile), followed by 24.1% earning a monthly average of 301,000-500,000/=. 
Further still, a quarter of the household heads reported to earn between 0-100,000/= shillings per month.

4.2.2. Household economic expenditure on basic needs

Household heads were requested to provide information on what they spend on most every month for the basic needs like food, health, and others like rent, clothes in (figure 2).

**Figure 2: Household monthly expenditure on basic needs**

Majority of the households (68.8%) reported to spend mostly on food every month, followed by education at 18.3% and then rent (8.5%). Only 1.5% reported to spend more on health every month.

4.2.3. Average household expenditure on basic needs

The research also collected information on average household expenditure on basic needs. (Table 3)
Table 3: Household monthly and annual average expenditure on basic needs

<table>
<thead>
<tr>
<th>Item</th>
<th>Monthly Average (UGX)</th>
<th>Annual Average (UGX)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td>191,544.00</td>
<td>2,305,354.30</td>
</tr>
<tr>
<td>Education</td>
<td>113,555.70</td>
<td>1,180,623.10</td>
</tr>
<tr>
<td>Rent</td>
<td>45,552.80</td>
<td>530,678.40</td>
</tr>
<tr>
<td>Healthcare</td>
<td>25,218.10</td>
<td>264,522.60</td>
</tr>
<tr>
<td>Other</td>
<td>21,016.40</td>
<td>235,164.50</td>
</tr>
<tr>
<td>Clothing</td>
<td>18,619.60</td>
<td>215,706.00</td>
</tr>
</tbody>
</table>

The monthly average household expenditure for food is 191,544/= shillings, followed by education at 113,555.7/=,. Healthcare monthly expenditure within the households is at 25,218.1/= as compared to rent that is 45,552.8/>. The trends for the annual expenditures are not any different from the monthly averages as indicated above.

4.2.4. Source of income for household medical costs

Households also reported on their source of income for medical costs (figure 3).

Figure 3: Source of income for households’ medical costs
The households’ main source of medical costs is salary (39%), followed by the formal and informal businesses at 25% and 23% respectively. Only 2% of the households reported to have social health insurance.

4.3. **Health services seeking and accessibility amongst the households**

Information on where households access health services for medical treatment was also collected (figure 4).

4.3.1. **Common source of medical treatment for the households**

The study respondents provided information on where the household members seek treatment when they fall sick (figure 4).

![Figure 4: Households medical treatment sources](image-url)
Majority of the households (66.6%) access medical treatment from clinics; followed by 64.8% that get the services from public government hospitals. The results also indicate that there is at least half (54.5%) of the homes that use drug shops to get medical treatment. Very few (2.8%) of the households are able to access medical services from the community health workers within their areas.

Non-government health service providers are the least places that households seek medical treatment from as compared to the government health centers like health center IVs, IIIIs, and IIIs.

4.4. Understanding of community health insurance scheme by household heads

The research assessed the household heads understanding of community health insurance by asking them to define it in their own understanding (table 4).

Table 4: Percentage of household heads who understand community health insurance scheme

<table>
<thead>
<tr>
<th>Household heads’ understanding of CHI</th>
<th>(N=398)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knows</td>
<td>240 (60.3%)</td>
</tr>
<tr>
<td>Doesn’t know</td>
<td>158 (39.7%)</td>
</tr>
</tbody>
</table>

The results indicate that 60.3% of the households are aware and understand the concept of community health insurance. On the other hand, more than a third (39.7%) of the households do not have any knowledge on the initiative.
4.5. Household willingness to pay of community health insurance scheme

The respondents’ opinion on willingness to pay for the community health insurance scheme was sought and the results are indicated in table 5.

Table 5: Willingness to pay for community health insurance

<table>
<thead>
<tr>
<th>Willingness to pay for CHI</th>
<th>(N= 398)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>144 (36.2%)</td>
</tr>
<tr>
<td>Yes</td>
<td>254 (63.8%)</td>
</tr>
</tbody>
</table>

The respondents also provided their opinion on willingness to pay for the community health insurance and the results indicate that 63.8% reported to welcome the idea while 36.2% are unwilling.

4.5.1. Reasons for willingness to pay for CHI

The respondents that indicated to be willing to pay for the community health insurance scheme were interviewed on the possible reasons and they are summarized in figure 5.

The results from the study show that the reason most of the respondents were willing to pay for the community health insurance scheme was because they thought the scheme would offer better services. Some respondents also indicated the scheme being cheaper (29.9%) as a reason for willingness to pay.
Only 18.9% of the households gave their reasons for joining as benefits from the schemes like quick and reliable services, and having an insurance cover scheme for the entire family. A quarter of the households mentioned that they viewed CHI as a conveniently way to pay for medical bills and therefore access quality health services.

“Insurance cover minimizes financial burden especially when one household member falls sick. People do not need to look for money in case of illness and also it enhances the culture of saving”, (official of one of the schemes).

4.5.2. Reasons for unwillingness to pay for CHI

The study findings show that 28% of the households reported that they might not afford the payment for the community health scheme, while 25% indicated not to trust the schemes because people might default with the payments (figure 6). Further, 24% of the households noted that they did not want such a scheme since they already have access to quality health.
Other (21%) reasons provided included members reporting that they rarely fall sick and therefore did not find reason to pay for such a community health insurance scheme.

Figure 6: Reasons for unwillingness to pay for CHI

4.6. Associations between willingness to pay, income quintiles, source of income for medical treatment costs and source of medical treatment

Bivariate statistical analysis (Chi square tests) for selected categorical variables was conducted to establish relationships and compare variations from the respondents. The statistical analysis conducted was mainly for willingness to pay for community health insurance and income quintiles of the households, source of income for medical treatment costs and source of medical treatment.
4.6.1. Relationship between willingness to pay for community health insurance and income quintiles

At 95% confidence interval, the level of significance is 0.001 which is less than the p value of 0.05 (table 6). Therefore, there is a relationship between the willingness to pay for community health insurance and the household income quintiles.

Table 6: Statistical relationship between willingness to pay for community health insurance and income quintiles

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>17.587a</td>
<td>4</td>
<td>0.001</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>18.534</td>
<td>4</td>
<td>0.001</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>398</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 20.98.

4.6.2. Influence of income quintiles on willingness to pay for community health insurance

In order to understand the relationship between willingness to pay for CHI and income quintiles, a cross tabulation was conducted as presented in table 7.
Table 7: Cross tabulation for willingness to pay for community health insurance and income quintiles

<table>
<thead>
<tr>
<th>Willingness to pay</th>
<th>Income quintiles</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
</tr>
<tr>
<td>NO</td>
<td>Count</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>4.5%</td>
</tr>
<tr>
<td>YES</td>
<td>Count</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>11.1%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>15.6%</td>
</tr>
</tbody>
</table>

The results indicate that households in the 4<sup>th</sup> and 5<sup>th</sup> quintile are more willing to join and pay for the CHI as compared to the lower quintiles as indicated by 15.8% and 13.3% respectively. However, 11.6% of the 5<sup>th</sup> quintile households are not willing to pay for the CHI scheme.

4.6.3. Relationship between willingness to pay for community based health insurance and source of income for medical treatment costs

The results in table 8 indicate statistical relationship for the household source of medical treatment costs and their willingness to join a community health insurance initiative.

Table 8: Statistical relationship between willingness to pay for CBHI and source of income for medical treatment costs

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>21.931a</td>
<td>8</td>
<td>0.005</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>27.939</td>
<td>8</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>398</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 9 cells (50.0%) have expected count less than 5. The minimum expected count is 1.09.
Household source of income for medical treatment costs is likely to affect the willingness to pay for the community health based insurance since there is a statistical level of significance of 0.005 at 95% confidence interval that is less than the P value of 0.05.

4.6.4. Relationship between willingness to pay for community health insurance and source of medical treatment

The results in table 9 indicate statistical relationship for the household source of medical treatment and their willingness to pay for a community health insurance initiative.

Table 9: Statistical relationship between willingness to pay for CHI and source of medical treatment

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>15.907a</td>
<td>11</td>
<td>0.145</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>17.326</td>
<td>11</td>
<td>0.099</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>398</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 16 cells (66.7%) have expected count less than 5. The minimum expected count is .36.

The results from the study show that the source of medical treatment is not likely to affect the choice of willingness to pay for community based health insurance since at 95% level of significance, P>0.05. Therefore, there is no significant relationship between the willingness to pay for CHI and where the community members seek medical treatment.
4.7. Minimum amount of premium households are willing to pay for CHI

The research probed from the respondents that reported to be willing to pay for the community health insurance on how much they would be willing to contribute as indicated in table 10.

Table 10: Minimum amount of premium households are willing to pay

<table>
<thead>
<tr>
<th>Minimum premium amount to pay</th>
<th>(N=254)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1,000</td>
<td>18 (7.1%)</td>
</tr>
<tr>
<td>1,001-10,000</td>
<td>152 (59.8%)</td>
</tr>
<tr>
<td>10,001-50,000</td>
<td>61 (24.0%)</td>
</tr>
<tr>
<td>&gt;50,001</td>
<td>23 (9.1%)</td>
</tr>
</tbody>
</table>

Majority of the respondents (59.8%) reported to be able to pay Uganda shillings, 1,001-10,000 while 24% were willing to pay between 10,001-50,000 shillings. A few respondents recorded to be able to pay less than 1,000 shillings at 7.1% and on the other hand, 9.1% noted to be able to pay above 50,000 shillings.

One of the officials for the scheme said, “the premium depends on how many people are in the scheme and the target should be many people so that they can pay 10,000/= per person per year”. One district health official for Wakiso suggested 5,000/= per person during the interview while an in-charge for one of the HC IVs indicated 10,000/= as minimum premium for the community members.
4.8. Policy governance for community based health insurance

According to the findings from the key informants, community members need to be part of the Community Health Insurance for ownership. The Local structures like pre-existing units and the scheme should be incorporated. The structures should be unifying without discriminating.

“The people determine leaders. But cautious of roles they are to play. They should elect someone who is capable of managing the roles given and not just one they like” (an official of Uganda Protestant Medical Bureau).

“The local council should run it. The community will trust the LC and will review it as their own”, (In-charge of a HC IV in Wakiso).

The Local area service providers should be identified within their locality like private clinics and private not for profit health centers to provide the community health insurance services, according to some key informants.

“The DHT should be the one to select the suitable health centers with good quality services to provide the CHI services”, noted one of the district health officials for Wakiso district.

According to the informants; community health insurance schemes should be run professionally and well established with a bank account and get receipts to acknowledge payments from clients as well as have legal status.

The district VHT coordinator also suggested the engagement of VHTs to mobilize communities, enroll people and monitor those that haven’t paid the premium for good management of the
scheme. This would also help in sensitizing the community members on the benefits of the scheme and therefore encourage payment.

Challenges highlighted during the key informant interview ranged from poor management, to fraud and ignorance of the communities among others.

“To control fraud in the scheme, there should be setting up a finance committee answerable to the community, strict auditing and record keeping” (LC1 official).

“Challenges of corruption and moral hazard require strong monitoring and evaluation plans for the scheme as well as quarterly reviews by the stakeholders”, (District health officer, Wakiso district).
CHAPTER FIVE
DISCUSSION OF RESULTS

5.0. Introduction

This chapter mainly relates the findings from the research and literature reviewed during the study. The discussion is aligned to the objectives of the study.

5.1. Income quintiles of household heads in Wakiso district

The study revealed that 24.8% of the households were in the 5th income quintile and therefore earn more than 500,000/= Uganda shillings per month while 24.1% were in the 4th quintile. A study in Nigeria revealed that the willingness to pay for the community insurance scheme is affected by a number of factors including household incomes. Wealthier households were willing to pay for the community schemes compared to others. Bawa (2011) points out that financial affordability of the insurance payments is an important determinant of whether people will enroll in CHI, and since majority of households in Wakiso are in the 4th and 5th income quintiles, the likelihood of them paying for the community health insurance is high.

5.2. Willingness of household heads to pay for CHI Schemes in Wakiso district

In Wakiso, two thirds (63.8%) were willing to pay for the CHI with various reasons not any different from what other studies have found out in other areas. For example, 35% of the respondents were anticipating better quality of services and according to Jehu-Appiah et al (2011), the constant supply of essential drugs is a prerequisite for credibility of the scheme and quality of care given. More still, the CHI being cheaper (29.9%) was another major reason for households’ willingness to pay and in a study by Jehu-Appiah et al. (2011), the price of CHI
premiums was found to directly affect enrollment of members. The Pearson coefficients of (P>0.005) indicated a direct effect of household income quintiles and source of income for medical costs on the willingness to pay for CHI. Willingness to pay for CHI is dependent on a number of factors according to Ataguba (2008). When people are satisfied with the providers’ care, they are likely to renew their membership, and the uninsured that can afford to, also join CHI.

On the other hand, 36.2% of the households were not willing to pay and the major reason was affordability (28%) and studies have shown that if CHI premiums are perceived to be high, the odds of enrolling decrease by probability of 0.8 (Jehu-Appiah et al, 2011). Another outstanding reason was lack of trust in the scheme (25%) and this is not surprising since according to Basaza (2010), Ugandans suffered from the closure of various banks and building societies in the 90s which led to countrywide collapse of co-operative societies, non-governmental organizations and local groups involved in the credit unions and this is because schemes lack a frame work for accountability and operation for the delivery of promised services.

Lastly, the willingness to pay for CHI in Wakiso varies with income quintiles and the research findings indicated that while more households that were willing to pay for the initiative were in the 4th and 5th quintiles (15.8% and 13.3%), the trend remained the same for those that were also not willing to join. This could be attributed to various reasons beyond affordability. For example, Bowman (2013), found out that most people join the schemes to ease their access to quality health care, subsided and prompt treatment. However, Basaza et al, (2010) notes the issue of schemes refusing to cover illnesses like diabetes and hypertension were also a concern.
leading to low enrolment into the schemes and in Wakiso, 24% reported to already have access to quality health care and therefore did not find it fit to pay.

5.3. Amount of premium household heads are willing to pay for CHI Schemes according to their income quintiles in Wakiso district

In Wakiso, 59.8% of the households indicated the willingness to pay 1,100-10,000/= Uganda shillings for as premium while 33.1% could afford above 10,000/= as the minimum amount. Since the premium is not standardized in literature, the research results indicate the amount that is affordable to majority since most households were above the 2nd income quintile. The CHI schemes are run on a not for profit basis, targeting the informal sector (Basaza et al., 2007) and apply the basic principles of risk-sharing, pooling resources and members' participation in management (Mebratie, 2013). The local people set the minimum premium to pay. The amount of premium according to many studies directly affects the willingness of the clients to enroll into community health insurance schemes.
CHAPTER SIX
CONCLUSION AND RECOMMENDATIONS

6.0. Introduction

This chapter summarizes the study that was conducted in Wakiso district. It also provides key recommendations based on the research findings.

6.1. Conclusion

According to the study, most of the households in the district are in the 4th and 5th income quintiles and therefore have regular income sources. Since income quintiles directly affect willingness to pay for community health insurance, most of the households in Wakiso are likely to pay for the CHI since they are in higher income quintiles.

Majority of the households in Wakiso district are willing to pay for the community health insurance scheme if introduced in their communities. This might be as a result of the community members understanding the concept of community health insurance and hence the willingness to pay for the scheme despite that currently majority of them are accessing the health services from public health facilities within the district.

The community members are also willing to pay a subsidized premium amount for the scheme in order to improve on the quality of health service and also conveniently access the services. They are willing to pay Uganda shillings 1,001-10,000/= as an affordable premium for the community members in the district.
In conclusion, the community members in Wakiso district would be willing to pay for the community health insurance if introduced to them since majority are knowledgeable about the concept, and can also afford the premium that was suggested.

6.2. Recommendations

Based on the results of the study, the following are the key recommendations:

Community sensitization on community health insurance is needed across the district and probably the entire country. This would be a platform to ensure that community members own the community health insurance scheme and therefore improve on accessibility of health services at the community level.

Standardization of the minimum amount of premium to pay is an area that requires exploration. Premium amount is a key factor that determines enrollment and service packages for insurance schemes. As such, standardizing the premium would address and cater needs for all populations as well as determine the service package.

There is a weak policy environment for community health insurance. The government through the Ministry of Health therefore needs to develop strong policies that streamline implementation of community health insurance schemes across the country.

6.3. Areas for further research

Based on the findings from this study, there is need to further study the following elements on community health insurance:
I. A cross-sectional study to establish the contribution of community health insurance to improvement of quality of health care for the rural communities in Uganda

II. A comparative study on willingness to pay for community health insurance amongst the low and high income quintile households.
REFERENCES


Criel, B., 2005. The role of community health insurance in health financing and local health care systems. A presentation made during the Evidence Based Workshop on Fair and Sustainable Health Financing, Kampala


Lawson D. (2004). Determinants of health seeking behavior in Uganda-is it just income and user fees that are important? University of Manchester. pp 32

Liu, H., (2011a). Dynamics of social health insurance development: examining the determinants of Chinese basic health insurance coverage with panel data. Social science & medicine, pp. 551-552.

Liu, H., (2011b). School of insurance, centre for insurance and social security research, southwestern university of finance and economics, Chengdu, Sichuan 61130, china. China economic review 22 pp. 30


Ministry of Gender Labor and Social Development: Labor market information report for Uganda: Ministry of Gender Labor and Social Development 2006.


Ministry of Health: *Health sector strategic plan III 2010/11-2014/15*: Ministry of Health, Uganda 2009b pp.6, 9, 22&23


Ministry of Health: *Promoting people’s health to enhance socio-economic development. The second National health policy*: Ministry of Health, Uganda 2010b. pp 4-18


Morestin, F. & Ridde, V. (2009). How can the poor be better integrated into health insurance programs in Africa? *An overview of possible strategies July 2009*, Université de Montréal pp 1&2


Republic of Uganda (2010), Providing for health social health protection initiative., Health Financing Review and social health protection specifying the options follow up visit and


UCBHFA, (2011). Uganda Community Based Health Financing Association brochure on Community based health financing. PHR plus and USAID/GOU.

UCBHFA, (2012). Uganda Community Based Health Financing Association report on Community based health financing in Uganda. PHR plus and USAID/GOU.


APPENDIX 1. CONSENT FORM FOR RESPONDENTS

Introduction

Good morning/afternoon. I am a student at the International Health Sciences University, Kampala. I am assessing the Willingness to pay for Community Health Insurance among Households in Wakiso District. I would like to discuss with you matters concerning Health in your home. You are selected as a resource person to participate in this study, because we regard the information that you may give to be important.

Procedures for the study

You will be asked questions on health within your community. We shall select a private place for the discussion so that other people will not distract us. The answers you give will be recorded using a tape recorder as well as pen and paper, your name will not be recorded but you will be identified using a number. I ask you to allow me use the tape recorder.

Benefits

The information you will give will help Wakiso district to plan on how best to improve health services for households within it.

Confidentiality

Your answers will be taken generally as a contribution from one of the individuals in Wakiso district. The answers will be treated in confidence and used for purposes of this study only. No one else will be told what we have discussed, or have access to information on this questionnaire.

Voluntary consent

You are free to choose whether to take part in this study or not, and you are free to withdraw at any time at your own discretion. Feel free to ask any questions before or after the discussion.

Statement of Informed Consent

I have read/ someone has read for me the above information and I have understood it. I hereby, do agree to participate in this study.

Respondent's signature……………………………………Date…………………………

Names of researcher eliciting consent……………….. ………. Signature………………
APPENDIX 2: QUESTIONNAIRE

Willingness to pay for Community Health Insurance among Households in Wakiso District

Questionnaire no.: __________ Date: __________

i) Respondent No……………………………..

ii) Interviewer’s Name………………………….. iii) Language of Interview…………………..

iv) HSD………………………… v) Sub-county………………………… vi) Parish…………………

vii) LC1 …………………

SECTION A

Qn.1 Household Head Information

<table>
<thead>
<tr>
<th>Name of household head</th>
<th>Age</th>
<th>Sex</th>
<th>Education level</th>
<th>Source of income</th>
<th>Ethnicity</th>
<th>Marital status</th>
</tr>
</thead>
</table>

Marital Status: 1=Single Adult; 2=Monogamous married; 3=Polygamous married; 4=Separated or Divorced; 5=Widowed; 6=Still a child or pupil

Relation to Head of Household:

1 =Wife/Husband; 2 =Son/Daughter; 3 =Mother/Father; 4 = other relative; 5 =Non-relative

Education Attained: 1= Primary, 2= Secondary, 3=Tertiary, 4=No formal education, 5=Still in school; 6=Not yet of school age

Source of income: 1= Unemployed, 2= Farmer, 3= Salaried employee, 4= Formal business owner, 5= Informal business owner, 6= Retired with pension, 7= Retired without pension, 8= other (specify)
SECTION B

Qn. 2 Demographic and Household Information

Information for all household members. Please tell me the number of people living in your household with you, their age, marital status, relation to head of household, education, sex, religion, occupation and whether they bring money to the household

<table>
<thead>
<tr>
<th>ID</th>
<th>Full name (Include the infants)</th>
<th>Ethnicity</th>
<th>Relation to the head of household</th>
<th>Sex Male=1 Female=2</th>
<th>Age in years</th>
<th>Education Attained</th>
<th>Economic Activity</th>
<th>Marital status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
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<td></td>
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<td>6</td>
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<td></td>
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</table>

**Marital Status:** 1=Single Adult; 2=Monogamous married; 3=Polygamous married; 4=Separated or Divorced; 5=Widowed; 6=Still a child or pupil

**Relation to Head of Household:**
1 =Wife/Husband; 2 =Son/Daughter; 3 =Mother/Father; 4 = other relative; 5 =Non-relative

**Education Attained:** 1= Primary, 2= Secondary, Tertiary, 4=No formal education, 5=Still in school; 6=Not yet of school age

**Economic Activity:** 1=Unemployed, 2=Farmer, 3=Salaried employee, 4=Formal business owner, 5=Informal business owner, 6=Retired with pension, 7=Retired without pension, 8=other (specify)
SECTION C

Socio-economic characteristics:

Qn. 3 What is your monthly income from the activities you mention above (UGX)?

……………………………………………………

Qn. 4 Household asset ownership: Could you tell me if you have the following in your house

<table>
<thead>
<tr>
<th>Household Item</th>
<th>Indicate 0=No and 1=Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Television</td>
<td></td>
</tr>
<tr>
<td>b. Refrigerator</td>
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<tr>
<td>c. Conventional telephone</td>
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<td>d. Cellular telephone</td>
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<td>e. Vehicle</td>
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<td>f. Motorcycle</td>
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<td>g. Washing machine</td>
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<td>h. Microwave oven</td>
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<tr>
<td>i. Indoor plumbing</td>
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<tr>
<td>j. Indoor bathroom</td>
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<td>k. Computer</td>
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<tr>
<td>l. Electricity</td>
<td></td>
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<tr>
<td>m. Solar power</td>
<td></td>
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</tbody>
</table>

Qn. 5 Where do you seek medical treatment for your household members?

<table>
<thead>
<tr>
<th>Healthcare provider</th>
<th>Indicate 0=No and 1=Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A) Government health units</td>
<td></td>
</tr>
<tr>
<td>i) Hospital</td>
<td></td>
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<tr>
<td>ii) Health Centre IV</td>
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<td>iii) Health Centre III</td>
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<tr>
<td>iv) Health Centre II</td>
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<tr>
<td>B) Private for Profit H/Units</td>
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<tr>
<td>i) Hospital</td>
<td></td>
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<tr>
<td>ii) Clinic/ Nursing home</td>
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<tr>
<td>iii) Maternity home</td>
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<td>iv) Drug shop</td>
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<tr>
<td>v) Pharmacy</td>
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<td>C) NGO health Units</td>
<td></td>
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</tbody>
</table>
Qn. 6 What is the major source of income for meeting your household medical costs?

1=None, 2=Farming, 3=Salary, 4=Formal business, 5=Informal business, 6=Pension/Savings, 7=Borrowing/Loan 8=Social health insurance, 9=Community health insurance, 10= Other (please specify) …………………………………………………

Qn.7 Which of the following items do you spend on MOST per month/year? Circle ONLY one

Food

Healthcare

Rent (Shelter)

Education

Clothing

Other

Qn. 8 How much do you spend on the items indicated in the table below in your household per month/year?

<table>
<thead>
<tr>
<th>Expenditure category</th>
<th>Expenditure per month (Estimate)</th>
<th>Expenditure per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Food</td>
<td></td>
<td></td>
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<tr>
<td>b. Healthcare</td>
<td></td>
<td></td>
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<tr>
<td>c. Rent (Shelter)</td>
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<tr>
<td>d. Education</td>
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<tr>
<td>e. Clothing</td>
<td></td>
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<tr>
<td>f. Others (specify)</td>
<td></td>
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</tr>
</tbody>
</table>
Qn. 9 On average, how much money do you earn per month? Circle ONLY one

a. 0 – 100,000/= 

b. 101,000 – 200,000/= 

c. 201,000 – 300,000/= 

d. 301,000 – 500,000/= 

e. 501,000/= and above 

SECTON D: Willingness to pay for Community Health Insurance

Community Health Insurance consists of arrangements where funds that consist of payments by community members (insured persons) are managed by an organization other than government or private for Profit Company and are used to finance all or part of the health care costs of members contributing to the pool. It involves risk sharing by pooling and the community is involved in the management of the scheme resources. 

Qn. 10 What is Community Health Insurance?  1=knows, 2=Doesn’t Know (Circle only one)

Qn. 11 In case such a scheme is initiated in your village/parish, are you willing to pay as the household?  0=No (Go to 12), 1=Yes (Go to 13)

Qn. 12 If No, what are your reasons for withholding?

Qn. 13 If Yes, what would attract you to the scheme (why would you be very much willing to pay)?

Qn. 14 How much money are you willing to contribute per person in your household per year in order to join the scheme as a household?............................................................
Qn. 15 If your household joins the scheme and you have paid the annual contribution for everyone in the household, where would you choose to get treatment for you and your household members from?

Qn. 16 What is the reason for your choice in Qn. 15?

THANK YOU SO MUCH FOR PARTICIPATING IN THIS SURVEY!
APPENDIX 3: RESEARCH AUTHORIZATION

Dear Sir/ Madam,

Re: Assistance for Research

Greetings from International Health Sciences University.

This is to introduce to you Birungi Violet, Reg. No. 2012-MPH-PT-003 who is a student of our University. As part of the requirements for the award of a Masters Degree of Public Health of our University, the student is required to carry out field research for the submission of a Research Dissertation

Birungi would like to carry out research on issues related to: Willingness to Pay for Community Health Insurance among households in Wakiso District, Uganda

I therefore request you to render the student such assistance as may be necessary for her research

I, and indeed the entire University are thanking you in anticipation for the assistance you will render to the student

Sincerely Yours,

Prof. David Ndungutse Majwejwe
Dean, Institute of Health Policy & Management