

**COMMUNITY HEALTH INSURANCE SCHEMES AND ACCESS TO QUALITY
HEALTH SERVICES IN RURAL AREAS: A CASE OF KASAANA
SUB-COUNTY, SHEEMA DISTRICT, UGANDA**

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DECLARATION

I, Nuwagaba Ronald R, declare that the information in this Dissertation, except where due reference has been made, is my original work and has not been submitted to any other University for any academic award.

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DEDICATION

I dedicate this Dissertation to my daughters, Nuwagaba Rowena, Nuwagaba Roane-Ihunde, and my wife Natamba Babrah for their continued love and patience in my studies.

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LIST OF ABBREVIATIONS AND SYMBOLS

%	:	Percentage
AIDS	:	Acquired Immunodeficiency Syndrome
AIID	:	Amsterdam Institute for International Development
CBHI	:	Community Based Health Insurance
CDC	:	Center of Diseases Control
CHI	:	Community Health Insurance
CREHS	:	Community Regulated Expansion of Health System
CVI	:	Content Validity Index
DFID	:	Department for International Development
HCCI	:	Health Care Cost Institute
HH	:	Household
HIV	:	Human Immunodeficiency Virus
HSD	:	Health Sub District
KAB	:	Kabale University
MAPPM	:	Master of Arts Degree in Project Planning and Management
MOH	:	Ministry Of Health
NGOs	:	Non-Governmental Organizations
OLS	:	Ordinary least square
OOP	:	Out of Pocket
PPP	:	Public-Private Partnership
PPPH	:	Policy on Public Private Partnership in Health
S/C	:	Sub County

SPSS	:	Statistical Package for Social Scientist
T/C	:	Town Council
UKaid	:	United Kingdom Aid
UNHCR	:	United Nations High Commission for Refugees
UNICEF	:	United Nations International Children's Emergency Fund
VHTs	:	Village Health Teams
WHO	:	World Health Organization

ABSTRACT

The study assessed the effect of community health insurance schemes on access to quality health services in rural areas of Kasaana Sub-County, Sheema District, Uganda. It was guided by the following objectives: to find out the effect of health infrastructure insurance scheme on the accessibility to quality health services; to determine the extent to which medical materials insurance scheme influence the accessibility to quality health services; and to find out the extent to which financial resource insurance scheme affect the accessibility to quality health services. The researcher used a correlation and cross-sectional design. The researcher used both purposive and stratified random sampling techniques to sample respondents. The sample size was 310 respondents. Pearson Correlation Coefficient was also used first to examine associations between variables, presented in a correlation matrix style. Finally, a sequence of Multiple Regression Analyses was employed to test the hypotheses and to identify the nature and extent of relationship. The study findings revealed that the effectiveness of health infrastructure has a strong, positive and significant impact on people's accessibility to quality health services (R-value of 0.983; Beta value of 0.983 and significant value of 0.00). The study findings also revealed that availability of medical facilities or material at health centres has a positive impact on the accessibility of quality health service to people (r-value of 0.979 and Beta value of 0.979 at significant value of 0.00). It was also revealed that availability of financial resources insurance schemes have a strong, positive and significant impact on people's accessibility to quality health services (r-value of 0.998, Beta value of 0.998 and significant value of 0.00.) This study concluded that effective health infrastructure insurance has a strong, positive and significant impact on the people's accessibility to quality health services. The government should ensure that laboratories at all health facilities that are well equipped with facilities such that patients can just access laboratory related services easily.

CHAPTER ONE

INTRODUCTION

1.0. Introduction

This chapter presents the background, statement of the problem, objectives, research questions, scope, significance, conceptual framework and definitions.

1.1. Background of the Study

1.1.1. Historical Perspective

In many developing countries, formal insurance is viewed as the province of the rich (Lenel & Steiner, 2020). One of the innovative features of Community Based Health Insurance (CBHI) is that it introduces a complex financial concept of health insurance as an extension to an already familiar form of informal social interaction (Flory, 2018). Health insurance has been perceived to enable access to and utilization of good quality health services, and to provide protection against catastrophic health expenditure (Masiye et al., 2016). Evidence shows that health insurance improves utilization of and accessibility to health services, and diminishes catastrophic health expenditure among insured households. In addition, availability of essential drugs improves at health facilities operating CBHI schemes.

A half of the world's people currently live in rural and remote areas. The problem is that most health workers live and work in cities. This imbalance is common to almost all countries and poses a major challenge to the nationwide provision of health services. Its impact, however, is most severe in low-income countries (Rechel et al., 2016). Of all the risks facing poor households, health risks pose the greatest threat to their lives and livelihoods. A health shock adds health

expenditures to the burden of the poor precisely at the time when they can least afford it (Ajibade et al., 2013). One of the ways that poor communities manage health risks, in combination with community financed health care services, are community-based health insurance schemes (CBHIs) (Dror et al., (2016). These are small scale, voluntary health insurance programmes, organized and managed in a participatory manner. They are designed to be simple and affordable, and to draw on resources of social solidarity and cohesion to overcome problems of small risk pools, moral hazard, fraud, exclusion and cost-escalation.

Although all countries have some form of community provision of health services, few insurance schemes are able to provide a full range of services to meet all healthcare needs (Kandelman et al., 2012). Shrinking healthcare budgets, inefficient delivery systems, poor service quality, and the imposition of user fees make it difficult for health insurance schemes to meet the health care needs of the poor. Oftentimes, “free” health care delivery systems do not work, and in practice, are never free: in some countries, community health care systems provide minimal services, and involve transaction costs, such as transport from the home to service providers, side payments, and long waiting times, that may render the “free” services out of reach of the poorest groups. Imposition of user-fees and drug charges, although aimed at improving the financial soundness of the health system, have also contributed to behavioural changes, such as delaying or avoiding care, that may ultimately expose the poor to greater health risks.

Health risks that require a household to pay for medical treatment are special concerns of poor households (Hodgkinson et al., 2017). The cost of each illness, injury or accident is generally one time, and can range from very small, for simple medicines, to very high, such as for major surgeries. Illness is also associated with mass covariant risks, such as wars, epidemics or natural disasters. These health risks tend to be difficult (or impossible) to predict and affect many persons

at the same time. Costs are greater because households face multiple losses (health, property) and because traditional coping mechanisms break down.

Throughout decades of underfunding of health systems by health insurance schemes as well as donors, an important mechanism for financing health care in poor countries has been user fees (Olakunde, 2012). However, there is now a growing international consensus that user fees are an inequitable form of financing, an impediment to health access, and a cause of impoverishment, and that concrete measures need to be taken to abolish them. Each year, 100 million people are pushed into poverty by the need to pay for health care.

In 1978, two United Nations organizations, the World Health Organization and UNICEF, held a joint conference at Alma Ata in the Soviet Union at which health was described as a human right to which all people were entitled (Birn & Kremmentsov, 2018). But in Africa, community and private health insurance cover almost exclusively the formal sector, and therefore achieve a coverage rate of no more than 10 per cent of the population. The majority of African citizens' – informal sector workers and the rural population – do not have access to this kind of social protection.

Habib et al. (2016) further argues that there is strong evidence that community-based health insurance provides some financial protection by reducing out-of-pocket spending. There is also evidence of moderate strength that such schemes improve cost-recovery. However, there is weak or no evidence that schemes have an effect on the quality of care or the efficiency in which care is provided.

Health insurance schemes are supposed to reduce unforeseeable or unaffordable health care costs through calculable and regularly paid premiums in contrast to the history of social health insurance

in most developed countries (Wahome, 2015), where health insurance schemes were first introduced for formal sector employees in urban areas, recently emerging health insurance schemes have taken the form of local initiatives of a rather small size that are often community based with voluntary membership. They have either been initiated by health facilities member-based organizations, local communities or cooperatives and can be owned and run by any of these organizations.

Studies by Dror et al. (2016) indicate that the uptake of any type of insurance in developing countries is low, thus an important element of impact of insurance is its rate of enrolment. However, the enrolment in voluntary health schemes is subject to the problem of selection bias through adverse selection the practice of more unhealthy people joining health insurance, and cream skinning a practice by insurers enrolling only the healthy people and conveniently excluding the high-risk population group consisting of aged, poor, and women from the insurance programme.

Community Health Insurance schemes face constraints related to their small size, limited access to management and technical insurance skills, and by the quality and accessibility of local health care service providers (Sumankuuro et al., 2018). Community Health Insurance schemes do fail, and when this occurs it is often due to weaknesses in management, financing, or a combination of the two. In addition, the poorest groups are unlikely to become members of Community Health Insurance because they are generally unable to afford the premiums.

Community Health Insurance is also designed to be accessible to their members (DeVoe and Sears, 2013). They are run and operated near their client base, simply because the poor or the rural population have neither the means nor the time to travel from their place of residence to distant

insurance service centres. Therefore, the existing gap is the high cost of healthcare services in Kasaana parish, Sheema district and the entire Uganda leading to: exclusions, catastrophic expenditures and undesirable coping strategies by the rural and urban poor in Uganda (Ssennyonjo, 2013). The poor in Uganda pay more for health care compared to their richer counterparts. Besides those who have bad experiences with health insurance facilities and those who do self-medication, some people try the health insurance facilities first when a case of sickness strikes. The option to start with the health insurance scheme is driven by the fact that the services are free. In reality though, patients wait for very long hours even if they rarely get the services they need at these health insurance facilities.

For those who return home without drugs, the cost could be death or the worsening health conditions. The ones who buy drugs at small drug shops rarely cure, as the effectiveness of such medicines is highly doubted due to poor storage facilities at the shops and clinics (Khanna, 2012). The people who use private health facilities have a cost too, in these facilities; these facilities enjoy a high-quality perception. Because of this perception, most Ugandans wish to always seek medical treatment from the recognized private health facilities, even most of them are excluded due to the high costs involved but even for those who get excluded, they give up after all possible means available to them are exhausted.

Basaza et al. (2008) noted that Community Health Insurance (CHI) in Uganda faces low enrolment despite interest by the Ugandan health sector to have CHI as an elaborate health sector financing mechanism. User fees have been abolished in all government facilities and CHI in Uganda is limited to the private not-for-profit sub-sector, mainly church-related rural hospitals. The lack of good information, problems in ability to pay the premium, poor quality of health care,

the rigid design in terms of enrolment requirements and problems of trust are other important reasons for people not to join.

The health-insurance scheme covers outpatient and inpatient services but excludes medication for chronic illnesses such as HIV/AIDS (Kinhonhi, 2019), hypertension and diabetes. This has improved people's health as they can easily receive treatment. The scheme has also undertaken the provision of subsidized treated mosquito nets to its members. Currently, the scheme is made up of several categories of groups such as credit and savings groups, associations, women groups, burial groups and 'engozi' groups. For example, Kisiizi Health Insurance Scheme was the first micro health insurance scheme in Uganda, started by Kisiizi Hospital in 1996 with support from DFID in cooperation with the Ugandan Ministry of Health.

Health insurance has a history dating back in Uganda way back in 1996 after the abolition of user fees in health care providers as result of that many Ugandan especially rural based were affected because they did not have money to pay direct out pocket to private health care providers as a result of deterioration of services in the health insurance scheme providers (Huang et al., 2017). It was from this background that some faith-based hospitals especially in the south western Uganda and central Uganda with help from western donors established health insurance schemes to help the rural poor to access affordable, quality and timely health care with a membership of about 150,000 people.

1.1.2. Theoretical perspective

A theory based on physical and psychological needs to support or hinder an individual's ability to access services or participate in activities was the appropriate theory for this study developed Gilligan in 1982 (Lloyd & Little, 2010) and Principal Agent Theory by Sinclair (2013). Theory

based on physical and psychological needs underpins issues of fatigue, stress and biological aspects as facilities that increase or limit people from accessing services or participating in activities. As some of the community health insurance schemes supported facilities such as human resource, health infrastructure, financial resource and medical facilities are limited and insufficient in most of the community health centres in Uganda, they critically cause fatigue or stress or any other discomfort in patients, hence limiting their morale in accessing health services. The theory also emphasizes that aspects that cause fatigue, stress or any other discomfort in service accessibility demoralize the consumers of such services.

Psychologically, Gilligan (1982) indicates that the environment in which people or patients access services acts as motivating force. If the environment is favourable, then patients or clients feel that there is need to be liked by others and a sense of belonging to and this fulfils needs for affiliation or self-esteem and improves the level of their accessibility in services or participation. Therefore, this study was based on the theory of physical and psychological needs by Gilligan (1982) since it indirectly reflects what institution or organization should consider as major community health insurance schemes supported facilities influencing the accessibility of health services in Uganda.

Principal Agent Theory suggests that people are not equally good or bad at everything. Comparative advantages differ across the population (Gailmard, 2012). So it makes sense for individuals to do more of what they do best, and engage others, with different talents and attributes, to perform some of the other tasks. So there is scope for mutually beneficial trade. When X engages Y to perform task Z, some sort of contract needs to be drawn up and agreed upon. Three things make designing such a contract quite difficult. First, the visible outcome of Y's actions may well be partly outside Y's control: chance factors can make a big difference. Second, Y may be lazy and needing incentives to work hard and carefully. Third, Y may dislike risk.

If X is less averse to risk than Y, the contract should offer some measure of insurance to Y against bad shocks that could make for disappointing outcomes (Gong et al., 2017). If Y were neutral to risk, and X averse, the ideal contract should provide Y with no insurance: risk burdens should be apportioned quite differently, with X getting the insurance coverage, and Y facing all the consequences of lady luck himself. In the first case, then, Y should receive much, if not all, of his reward as a lump sum. In the second, the boot is on the other foot: X should pay (or receive) a fixed sum. It is the combination of the risks that could potentially upset the relationship between Y's action and the outcome on the one hand and the two agents' differing attitudes to risk on the other that primarily determines who should insure whom, and how. The theory was applicable to the study because it suggests that performance-based compensation is one way that is used to achieve a balance between principal and agent. Common principal-agent relationships included in agency theory include shareholders and management, financial planners and their clients, and lessees and lessors.

1.1.3. Conceptual perspective

In this study, the independent variable was “community health insurance schemes” while the dependent variable was “access to quality health services”. Community health insurance schemes were conceptualized as: health infrastructure, medical materials and financial resource. Access to quality health services was conceptualized as number of patients accessing health services. A Community Health Insurance Scheme is any programme managed and operated by a community-based organization, other than government or a private for-profit company that provides risk-pooling to cover the costs of health care services (Odeyemi, 2014). Community health insurance scheme can be initiated by health facilities, NGOs, trade unions, local communities, local governments or cooperatives and can be owned and run by any of these

organizations (Chan, 2013). CBHIs can be initiated by health facilities, NGOs, trade unions, local communities, local governments or cooperatives and can be owned and run by any of these organizations (Jutting, 2002). They may be organized around geographic entities (villages, cities), professional bodies (i.e. cooperatives or trade unions) or around health care facilities.

1.1.4. Contextual perspective

According to the World Bank, a number of Community Based Health Insurance Schemes (CBHIs) are growing rapidly; however, they caution that many schemes do fail (Fadlallahm et al., 2018). John Ataguba argues that many African countries, including Nigeria, Tanzania, Kenya, Uganda, and Cameroon have community-based health insurance schemes that offer protection for the poor but are unsustainable because poor people cannot contribute enough premiums to maintain the schemes. Community based health insurance provides free health services to its members. For any type of illness, members are requested to get free health care services by paying premiums excluding transportation and other self-administration costs. CBHI helps members to think themselves as protected from any risk of illness (Mulupi et al., 2013). They are highly interested to check up from its start for any unhealthy conditions. This increases health care service utilization.

Although significant progress has been made, Kasaana Sub-County, Sheema District, Uganda have encountered difficulty in meeting their obligation of increasing accessibility of Health services to the people (Gelsdorf et al., 2012). Constraints related to inadequate funding, housing of personnel, high rates of turnover of recruited staff, heavy workload resulting from combining clinical and health management functions. Standards and processes that are developed at the national level in the Ministry of Health are sometimes unknown or ineffective by the time services are rendered at

the district level. There needs to be greater accountability on the part of both central-level and district leaders to make sure national policies translate to district outcomes.

In Kasaana Sub-County, Sheema District, for example, it is still practically impossible for most of the population to access health service. This has been prompted by Community Health Insurance Schemes of investigation in this research. Many local women find it hard to access family planning, antenatal and post-antenatal services. Many of them still deliver at home and are attended to by untrained or lowly trained personnel (Musoke et al., 2014). Effects of some Community Health Insurance Scheme-supported facilities towards accessibility of health services are still not clear. This has caused a lot of challenge to the area at large since some of the patients die, for example, women during and after their labour. In some cases, the children delivered tend to die due to ignorance of those women about the availability of health services/ information.

Concerning sexually reproductive health, that is youth-focused health service, it has been revealed that very few of them access such services (Bender & Fulbright, 2013). This has increased chances by the youth in the area to contract or get HIV/AIDS; a disease that is likely to deprive the area of its youth as well as affecting social and economic development of the area. The low degree reflected in accessing the quality health services in the proposed area of the study therefore prompted the need for an investigation into what could be the health insurance schemes affecting the accessibility to quality health service in the area while focusing mainly on the health input systems such as: Health infrastructure, and medical materials in Kasaana Sub-County, Sheema District. This promoted the researcher to carry out the study on Community Health Insurance Schemes and access to quality health services in rural areas: a case of Kasaana Sub-County, Sheema District, Uganda.

1.2. Statement of the problem

Community Health Insurance schemes face constraints related to their small size, limited access to management and technical insurance skills, and by the quality and accessibility of local health care service providers (Twikirize & O'Brien, 2012). The health care and health status indicators for Uganda have remained poor, and the existence of several barriers and challenges to the use of health service delivery, including distance, transportation, bribery, informal costs or low perceived quality (Biggeri et al., 2018). Despite all efforts and strategies by the government and other NGOs toward health service improvement in all five (5) health centres in Kasaana Sub-County, the accessibility to such quality health services by the masses has remained relatively low particularly in rural setting. Management of community health insurance schemes provide different services to the community of Kasaana Sub-County, Sheema District, Uganda so as to achieve the quality of health services such as improving environment for reproductive health, improving supplies the community sector health system structure, reducing the mortality rate, improving maternity and child care services and others. According to the information provided by the HSSP II (2009/2010 - 2017/2018), approximately 40% patients access health services in a day who seek for health services in Kasaana Sub-County, Sheema District. The level at which people access quality health services is generally low. Therefore, this background evidence with gaps compelled an assessment of community health insurance schemes and access to quality health services in rural areas: a case of Kasaana Sub-County, Sheema District, Uganda.

1.3. Objectives of the Study

1.3.1. General objective

The general objective of the study was to assess the effect of community health insurance schemes and access to quality health services in rural areas in Kasaana Sub County, Sheema District, Uganda.

1.3.2. Specific objectives

- i. To ascertain the relationship between health infrastructure insurance scheme and accessibility to quality health services in Kasaana Sub-County.
- ii. To find out the relationship between medical materials insurance scheme and accessibility to quality health services in Kasaana Sub-County.
- iii. To find out the relationship between financial resource insurance scheme and accessibility to quality health services in Kasaana Sub-County.

1.4. Research Questions

- i. What is the relationship between health infrastructure insurance scheme and accessibility to quality health services in Kasaana Sub-County?
- ii. What is the relationship between medical materials insurance scheme and accessibility to quality health services in Kasaana Sub-County?
- iii. What is the relationship between financial resource insurance scheme and accessibility to quality health services in Kasaana Sub-County?

1.5. Scope of Study

This provided a description of boundary of the study in terms of geographical scope, content scope and time scope.

1.5.1. Geographical Scope

The study was carried out in Sheema district which is located in south western Uganda, along Mbarara-Kasese highway. It borders Buhweju district in North, Mbarara district in the East, Bushenyi District in the west and Ntungamo district in the south. Sheema district has 2 counties and one municipality, that is Sheema South County, Sheema North County and Sheema Municipality. Sheema district has nine subcounties and four town councils namely: Shuuku, Rugaraama, Kasaana, Kitagata, Kashoozi, Kigarama, Kagango, Kyangyenye, Masheruka, Bugongi, Kakiindo, Kishabya and Kanyeganyegye. The researcher chose Kasaana Sub County located in Sheema South County because there are a number of community health insurance schemes in existence. Kasaana Sub County is made up of five parishes namely; Kasaana East, Kasaana west, Karugorora, Kyeihara and Buraro. In each of these parishes there are a number of community health insurance schemes (group) and people in these parishes have knowledge about how community health insurance schemes work.

1.5.2. Content Scope

The content scope covered the relationship between health infrastructure insurance scheme and accessibility to quality health services; the relationship between medical materials insurance scheme and accessibility to quality health services; and the relationship between financial resource insurance scheme and accessibility to quality health services.

1.5.3. Time scope

This research study was conducted within a period of three years, that is from February 2018 to May 2021. This time helped in collecting sufficient, valid and dependable data that helped the researcher to clearly understand the phenomenon being investigated. In this period the researcher carried out an investigation about the phenomenon, administered questionnaire and conducted interviews to get data from the respondents.

1.6. Significance of the study

The study would help the government of Uganda and donors in planning, designing and establishment of National health insurance scheme.

The study would help community members, health care providers, community leaders to appreciate the role of Community health insurance schemes in improving the quality of health and implementing partners' services rendered.

The study would help academicians to appreciate the services of CHIs and explore appositve change in the lives of community members in the social, economic and political arena.

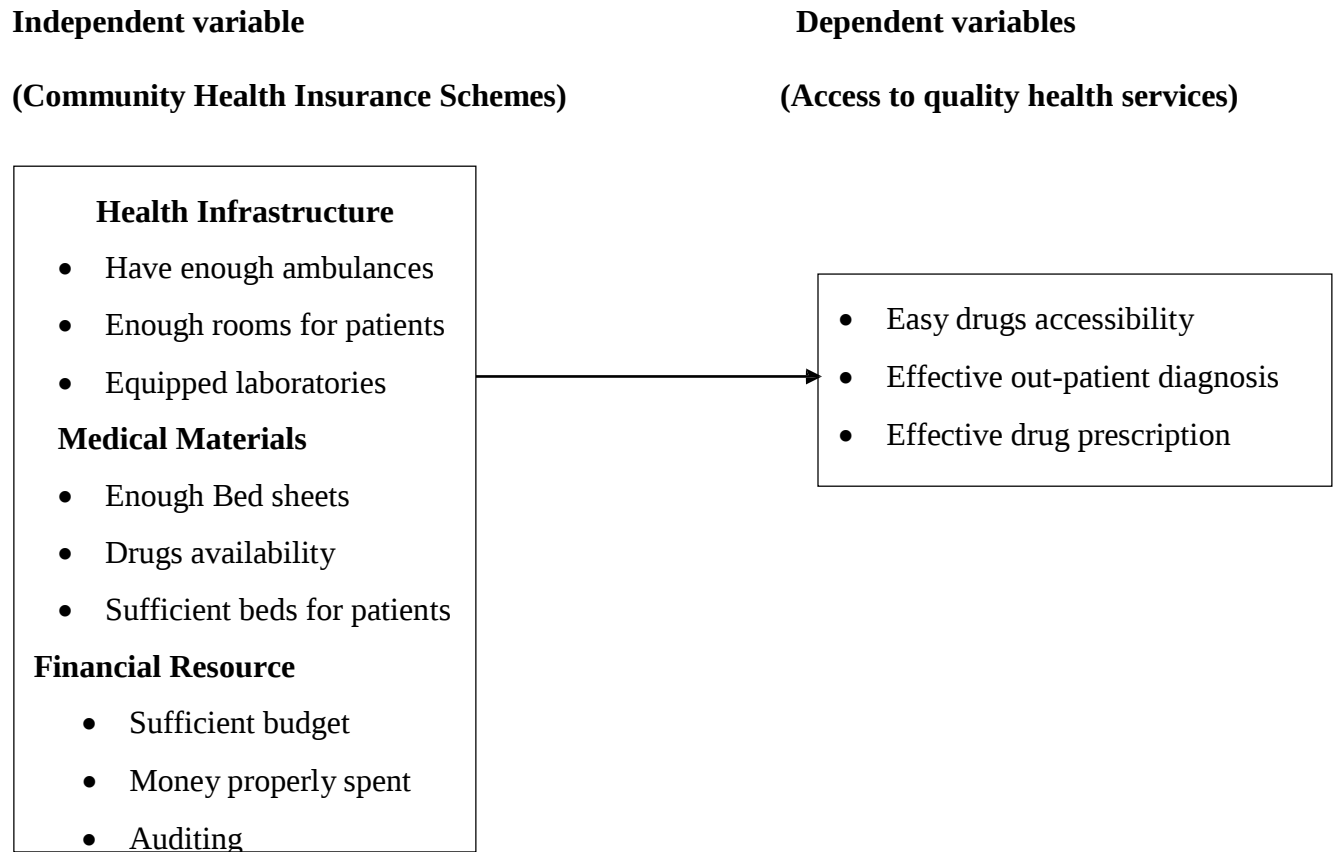
The study would help the researcher to be awarded a Master of Arts Degree in Project Planning and Management of Kabale University.

1.7. Conceptual Framework

Figure 1 is the conceptual framework showing the relationships between independent and dependent variables, as well as moderating variables of the research problem. The independent variables are conceptualized as services offered by health insurance schemes.

Other factors such as: government policy, economic climate and cultural difference of households have been taken into consideration because of their moderating effect on the dependent variables.

Figure 1: Conceptual framework



Source: Modified by Researcher (2019)

The above figure is conceptual framework which illustrates how independent variable influences dependent variable. The figure indicates the independent variable as Community Health Insurance Schemes while the dependent variable is Access to quality health services. Computer health insurance schemes were conceptualized as Health Infrastructure (have enough ambulances, enough rooms for patients, equipped laboratories); Medical materials enough bed sheets, drugs availability, sufficient beds for patients) and financial resource (sufficient budget, money properly spent an

auditing). Access to quality health services was conceptualized as easy drugs accessibility, effective out-patient diagnosis and effective drug prescription. The figure further indicated other factors that can influence dependent variable. These included Government policy, economic climate and cultural differences.

1.8. Operational Definitions of Key Terms

This section consisted of the definition of the following terms: CBHI schemes, health, Post-moral hazard, community, insurance and finally social protection.

Health

This refers to a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.

CBHI schemes

These are nonprofit initiatives built upon the principles of social solidarity and designed to provide financial protection against the impoverishing effects of health expenditure for households in the informal sector.

Post-moral hazard

Refers to unnecessary use of health care services (intended overconsumption) once insured. Tabor suggests the use of pre-selected providers as a strategy but also co-payment.

Community

Social groups of any size whose members reside in a specific locality, share government, and often have a common cultural and historical heritage.

Social Protection

This is defined as community interventions to assist individuals, households, and communities better manage risk, and provide support to the critically poor.

Insurance

A contract between an individual (the policyholder) and an insurance company

CHAPTER TWO

LITERATURE REVIEW

2.0. Introduction

This chapter reviews the existing literature related to community health insurance schemes and access to quality health services in rural areas. The literature was reviewed following the objectives of the study.

2.1. Theoretical Review

This study was based on physical and psychological needs theory to support or hinder an individual's ability to access quality health services (Gilligan, 1982). This theory strongly emphasizes that the participation of delivering and accessing quality health services highly depends on their physical and psychological needs. As such, if people are physically fatigued and psychologically stressed in any way; this affects their accessibility in services (Strachan et al., 2015). Since some studies on health service accessibility indicated that many of the health centres in the country are ill-equipped with medical materials, infrastructure and financial resource, these cause a lot of psychological stress and physical fatigue in patients, hence limiting them from accessing quality health services.

2.2. Review of related Literature

2.2.1. The relationship between health infrastructure insurance scheme and accessibility to quality health services

The health infrastructure insurance scheme components support the delivery of quality health services (Croft and Parish, 2013). However, there is a mismatch between construction and the capacity to make these health service facilities. Ministry of health report as at 30th June 2005

stresses that construction of 118 operating theatres and 130 doctors houses was completed, 78 theatres were equipped and 134 health centre IVs were provided with multipurpose vehicles. However, there are inadequate accommodation facilities for health workers at health centre IVs, IIIs and IIs. Most of the staff have to hire accommodation outside the duty stations, services such as maternity. Therefore health insurance scheme should provide accommodation facilities to health workers.

Jacobs et al. (2012) further urge that effective health service delivery required a network of functional health facilities that accessibility improved from 49% to 72% by 2015. This was however a national average, it cannot concussively be taken for all parts of the country. This therefore creates need to find out the percentage for Kasaana Sub County, Sheema District, Uganda.

Infrastructure is basic system and services that are necessary for a county or organization (Friedman et al., 2017). These include among others buildings, transport, water, power supplies and administrative systems. Health centre facilities especially offer more than medical care to the sick. Health centres host many community health reference laboratories, contribute to the diagnosis and prevention of illnesses, signal and early warning of communicable diseases, serve as resources. This called for health insurance scheme to improve infrastructure.

The report of Ministry of Health-Uganda (2015) indicated that one of the most pressing facilities in this regard is the aspect of health infrastructure. The report therefore noted that besides poor management and lack of long-term forecasting, various transport issues remain a great challenge in improving the level of quality health service accessibility in the country. It further pointed out

that there are too few vehicles, and the maintenance of those few still remains inadequate and this directly and indirectly endangers accessibility of health services in many rural parts of this country.

Bowling et al., (2012) cited that Uganda's government has embraced private provision of social services including health care. The involvement of private providers is an indicator that the public facilities are not sufficient enough to meet the high demands of the ever-increasing population. This has been done through partnership arrangements. This paper discusses the impact of Public Private Partnership (PPP) in health care outcomes of the local population and opportunities for improving health outcomes, challenges facing private providers in a low-income setting.

Health care services in Uganda have been decentralized and the health system works better through referrals (Ministry of Health Uganda, 2010). The households are served by community health workers (Village Health Teams-VHTs, communities/villages are served by the lowest level, that is a health centre II, several villages (more than 2 parishes) are served by a health centre III, relatively complicated cases are referred to a health centre IV or hospital with theatre services such as minor surgeries, cesarean services and with an inpatient department. This is referral facility, known as Health Sub District (HSD) and can be a public or Non-Governmental Organization (NGO). Cases beyond this referral facility are further referred to health district services headquarter, then onwards to regional referral hospitals, national referral hospital and the destination is Ministry of Health Headquarters depending on the severity of the illness (Kamwesiga, 2011, Ministry of Health, 2010).

Studies by Mbarara District Local Government (2015) found out that the public sector cannot on its own meet the ever-increasing health demands of the growing population thus Public-Private Partnerships (PPP). A national PPP policy was put in place to address health gaps in the health

care system. Government collaboration with the private sector has in the past involved various programmes (e.g. Malaria Control Programme, Global Fund) or addressed special needs within the private sector (such as government subsidies to private sector). The Government of Uganda is developing the National Policy on Public Private Partnership in Health (PPPH), in order to build a sustainable partnership with the private health sector and strengthen the health care delivery system. The government aims to provide an enabling environment for effective coordination of efforts among all partners, to increase efficiency in resource allocation, achieve equity in the distribution of available resources for health and effective access by all Ugandans (Uganda Parliamentary Committee on Health, 2012).

2.2.2. The relationship between medical materials insurance scheme and accessibility to quality health services

Resources are the key inputs for health (Muhia et al., 2017), who add that availability of drugs and supplies in appropriate quantities at the appropriate time should therefore be an important responsibility for health administrators. Availability of drugs (medicine) is one of the national indicators. The indicator should report the percentage of the health units without any stock out of health sector strategies plan indicator drugs annual Health sector performance report 2017/2018.

Health community is achieved when every client is able to choose, obtain and use health products whenever he/she needs them. However, this may not be true to most health centres where it was reported in the Annual Health Sector Performance Report 2014/2015 that 37% of the Health centres had stockouts. Due to the above, the researcher was prompted to conduct a research of finding out the extent to which medical materials insurance scheme influence the accessibility to quality health services.

Resource management specializes in the development and implementation of plans and strategies

disguised to help organizations and individuals meet their goals (World Health Organization, 2012). Finance resource management understands the advantages of using sound proven and innovative financial strategies in achieving the desired results. For the Health system to be sustainable, it must be able to pay for investment in building and implement, training and remuneration of personnel and for drugs and other consumables. This aims at summarizing the issues of considering how funding systems can be designed in order to achieve policy objectives.

In elaborating why the level of health service accessibility is still low in Uganda's health centres, World Health Organization (2013) blamed the decentralization of authority and responsibilities as a reason affecting the accessibility to medical equipment as well as health services in the country. The report indicated that decentralization that has made districts develop District Health Sector Strategic Plans and implement them has made accessibility quite hard. In addition, the report indicated that improving accessibility to health services using funds transferred to district by central level, which may or may not arrive on time or in full is very difficult since many of the health centres will have to stay without medical facilities.

Financial resources have also been blamed for low level of accessibility to health centres in Uganda (Morgan et al., 2017).). A study by the United Nations Development Programme (UNDP) (2018), for example, indicates that the budget for the provision of health sector services in the country is still low and yet a lot is needed. This means that the health insurance schemes for health sector are still minimal. Most of the drugs and other medical facilities in community health centres are funded by donor organizations and yet in the health sectors, supplies of medicines are less than a half of the required amounts. This therefore affects the accessibility of quality health services to many patients in the country.

Another aspect under medical facilities that limits the accessibility to health services in Uganda according to Ahumuza et al., (2014), is the concern about accountability and transparency of health insurance schemes spending and other health centre managers or management committees. According to this study, many patients cannot access health services properly because the money meant for procurement of medical facilities sometimes is not appropriately used or is embezzled. Even in some of the health centres, drugs get lost and many people are not held responsible. It is through this factor that medical facilities in Kasaana Sub-County are insufficient and that many patients fail to access quality health services.

2.2.3. The relationship between financial resource insurance scheme and accessibility to quality health services

In establishing the influence of financial resources insurance scheme on accessibility to quality health services in many developing countries, Jacobs et al. (2012) indicated that many health insurance schemes in development countries find it difficult to fully finance some of the health supplies and services especially those related to HIV/ AIDS. This suggests that the budget allocation for the improvement of the health sector in many developing countries is still low. This results in poor health or medical facilities in community health centres. Thus the result of inadequacy of health or medical facilities is that many people cannot effectively access community health services, which limits access to community health services by people in developing countries including Uganda.

Another studies by Pallas et al. (2013), it was also noted that insufficient funding of community health centres and poor payment of health workers reduces the moral of the workers many developing country. According to this study, low payment to community health workers due to low budget allocation for the sector encourages absenteeism, neglect of patients, and poor attention

to patients and sometimes, staff may refuse to be transferred to high-prevalence regions within a country. This leads to high death rates, stress and suffering of patients, hence making them discomforted and discontented about the community health centres. This kind of experience makes them reluctant to get health services from the community health centres and hence leading to low accessibility to quality health services by people.

Furthermore, Serbanescu et al. (2019) also noted that financial resources are very important health insurance schemes affecting the accessibility to quality health services both directly and indirectly in Uganda. In his explanation, Serbanescu et al. (2019) noted that treatments to HIV / AIDS and reproductive health can only be effectively done under sufficient financial resources since they need special facilities. If financial resources are insufficient, it means that facilities for treating HIV/ AIDS and offering reproductive health are insufficient. This demoralizes health professionals and makes their caring for AIDS patients and those with reproductive health problems demanding and stressful for community health workers. Thus, this leads to low service delivery on the side of health workers hence discouraging accessibility to quality health services by people in community health centres especially in relation to HIV / AIDS and reproductive health.

Corruption, embezzlement and misappropriation of funds meant for purchase of health equipment and improvement of health infrastructure by the topmost health officers is also another factor leading to low accessibility of health services in Uganda (Onwujekwe et al., 2019). Studies by Winardi (2013), for example, cited that corruption is one of the aspects that discourages good working morale among the lower staff members. When money meant for facilitation and procurement of medical equipment or facilities is misused by those top health officials, health facilities will be inadequate and staff will tend to be reluctant and demoralized. This in one way or

another affects health service delivery to patients since health workers may neglect their responsibilities to attend to patients hence affecting accessibility to many patients.

Further still, it has been indicated that low budgeting to health centers and low payment to health workers have greatly affected the accessibility to quality health services by many people in Uganda. Through this system, accessibility to quality health services in Uganda is made difficult by many people (Adebayo et al., 2015).

Districts health centres do not have sufficient financial resources to run decentralized health services because the tax-base is narrow. Their income is obtained through conditional and unconditional grants from the central government (Caldeira & Rota-Graziosi, 2014). This suggests that the contribution of community health insurance schemes and community members in financing health sectors is still low hence financial resource acquisition roles including, making health sector budgets, health centre buildings as well as repairing health centre are singled out as the roles the Central Government that in most cases is insufficient.

2.3. 2.3Conclusion

The impression from the related literature somewhat underpins that infrastructure community health insurance scheme, medical materials community health insurance schemes and financial resources community health insurance schemes both directly and indirectly contribute to the accessibility to health centres. However, none of the studies analysed in the literature was done in Kasaana sub-County, Sheema District. This suggests that a study in Kasaana sub-County, Sheema district needed to be done to assess the extent of effectiveness of community health insurance schemes in determining the accessibility to quality health services.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presents the methods and procedures through which the study was conducted. It covers: the research design, the study population, the sample size and selection, the sampling techniques and procedure, data collection methods, data collection instrument and data analysis.

3.1 Research Design

The researcher used correlation and cross-sectional designs. Correlation design is the design that statistically describes the nature and degree in which the dependent variable relates and responds whenever the independent variable is manipulated (Hayes & Preacher, 2014). Therefore, correlation design was chosen because it helped in the determination of the relationship between the independent variables and dependent variable used in the study. Furthermore, the research design also helped in description of the degree or strength of the relationship between health infrastructure, medical materials and financial resources to accessibility of health centres through the use of Statistical Package for Social Scientist (SPSS) in terms of mean, standard deviation, correlation matrix and regression analysis. The cross sectional design was also chosen to select specific health facilities in Kasaana Sub-County, Sheema District as representation for all other health centres. Involving both correlation and cross-sectional designs also helped in investigating a lot in the data processing and analysis of the information gathered especially for academic purpose.

3.2 Study Population

Wyon and Gordon (2013) describe a study population as the number of subjects or the total environment of interest to the researcher. This study population consisted of 1600 respondents

chosen from the four parishes out of out of 5 parishes in Kasaana Sub County. Out of the above population, 1556 were household heads, 40 health management committee members and 4 health facilities in-charges.

3.3 Sample Size and Selection

The researcher used both purposive and stratified random sampling techniques to sample respondents and the sample size was 310 respondents obtained from a population size of 1600 involving health management committee, health facility in-charges. The 310 sample size was determined using sampling table guide by Morgan and Krejcie (1970). (See Appendix II).

Table 1: The Population Category and the Sample Size

Category	Population size	Sample size	Methods of sampling
Health facility in charges	4	4	Purposive sampling
Save for Health Uganda committee members	40	40	Purposive sampling
Households	1556	266	Stratified random sampling
Total	1600	310	

Source: Researcher from Primary and Secondary Sources of data (2021)

3.4 Sampling Techniques and Procedure

The population was first divided into mutually exclusive groups that were relevant, appropriate and meaningful in the context of this study and the stratified random sampling was applied to select the household members while other categories such as Save for Health Uganda management committee, health facility in-charges were purposively sampled. Stratified random sampling was used so as to select household members because it was believed that some of the households / patients to be sampled were in their critical conditions and too young, hence incapable of giving information needed for this study. As for community members, it was also believed that some of the community members might be so ignorant that they might fail to deliver the information that could be helpful for this study.

3.5 Data Collection method

Research Questionnaire Survey: The study involved collecting data from a large number of respondents; therefore, a questionnaire survey was the most appropriate data collection method. A questionnaire survey is a data collection method by which the participants are directly questioned about their feelings on the study problem (Bartneck et al., 2015). The questionnaire Survey was made up of close-ended questions. This method of data collection was very useful because it was fast to use in data collection.

3.6 Research Instrument

Questionnaire Survey: The researcher employed closed-ended, open-ended and structured questionnaires as instruments to collect data; they were of 4 points on the Likert Scale. The attitude of the respondents was determined by the way they answered the questions. Questionnaires were convenient to collect data from respondents. Respondents were able to give authentic responses to sensitive questions especially when they were not required to give their

names. The questionnaires

were administered to all respondents as they had sufficient knowledge about community health insurance schemes and access to quality health services in rural areas.

3.7 Data Quality Control

3.7.1 Reliability of Research Instruments

Reliability refers to the consistency of measurement, that is, the extent to which the results are similar from different forms of the instrument. After the data was collected, it was systematically checked, focus maintained and identification and correcting of errors carried out. On the other hand, for quantitative data, the reliability of items in the various constructs was retested using Cronbach Alpha (α) method provided by SPSS. Reliability of the items in the different constructs was attained at the benchmark of $\alpha = 0.70$ and above. The items thus enabled collection of accurate data. The results were as presented in Table 2

Table 2: Reliability Indices

Items	Number of Items	Cronbach Alphas
Health infrastructure	5	0.875
Medical materials	5	0.775
Financial resource	5	0.851
Quality health services	5	0.873

Source: Primary Data (2021)

3.7.2 Validity of Research Instruments

Validity of research instrument is the degree to which the tool measures what it is intended to measure (Mohajan, 2017). Content- Related Evidence of Validity method was used. It was determined using content-related evidence of validity. A list of objectives, which guided the

construction of the instrument and separate list of the items designed specifically to answer the research questions were given to two knowledgeable persons in the area of content.

These knowledgeable persons were independently asked to have a thorough inspection of the items and link each objective with the respective item, and assess the relevance of the items to the content addressed to objectives. Two knowledgeable persons were asked to write each item on a 4 – point scale namely:- not relevant (NR), somewhat relevant (SR) quite relevant (QR) and very relevant (VR). The researcher then computed the level of agreement on the items between the two knowledgeable persons as inter-rater agreement (to what extent do these knowledgeable persons agree).

$$CVI = \frac{\text{Number of items rated quite relevant and very relevant}}{\text{Total number of items in the questionnaire}}$$

$$CVI = \frac{n}{N}$$

Where:

CVI = Content Validity Index,

n = Number of items rated relevant

N = Total number of items in the questionnaire.

Table 3: CVI for Questionnaire

Raters	Items relevant (n)	Items not relevant	Total items (N)
Rater 1	16	4	20
Rater 2	18	2	20
Total	34	6	40

Source: Primary Data (2021)

The CVI for the questionnaire:

$$= \frac{n}{N} = \frac{34}{40} = 0.85$$

A Content Validity Index of 0.7 and above according to Amin (2005) qualifies the instrument to be used. Therefore, basing on the results above, the CVI being 0.85 is above the minimum standard qualifying the instrument to be valid.

3.7 Data Gathering Procedures

An introductory letter was obtained from Kabale University directorate of post graduate studies and research. The introductory letter was presented to parish chiefs to secure permission to carry out study in their areas. The researcher administered the instruments to the respondents in person and explained to them the purpose of the study. Respondent's filled the questionnaires after which they were returned to the researcher. Completed questionnaires were received and cross-checked for inconsistencies.

3.8 Data Analysis

After data collection, tallying of the information started immediately. Frequencies and percentages were used to determine the profile or demographic characteristics of respondents while basic descriptive statistics such as mean and standard deviation together with correlation and regression

analysis was used to characterize the data. Pearson Correlation Coefficient was also used first to examine associations between variables, presented in a correlation matrix style. Finally, a sequence of Multiple Regression Analyses was employed to test the hypotheses and to identify the nature and extent of the relationship between community health insurance schemes and access to quality health services in rural areas. The analysis was done using the Statistical Package for Social Sciences (SPSS).

3.9 Ethical Considerations

The researcher first availed consent forms to the targeted respondents. The research maintained a high level of ethics throughout the whole research process. Material obtained from other sources such as journal articles, books and book chapters was acknowledged. The respondents were also informed as to why and how they were chosen. Anonymity was ensured and the researcher observed confidentiality while handling the responses. Information was availed to respondents that the research did not endanger them directly or indirectly and that participation was voluntary. During data management and analysis, the findings were associated with respondents through a coding system.

CHAPTER FOUR

PRESENTATION, ANALYSIS, INTERPRETATION AND DISCUSSION OF FINDINGS

4.0 Introduction

This chapter presents analyses, interprets the data collected from the field and discusses the findings. It first indicates the profile of respondents as regards to their gender, age group, education level and denominations and then illustrates the various findings regarding the objectives to draw satisfactory conclusions to answer the research questions.

4.1 Demographic Characteristics of Respondents

Respondents in this study were described according to gender, age group and education level as indicated by frequencies and percentages.

Table 4: Demographic Characteristics of Respondents (n=310)

Variable	Frequency	Percent
Gender		
Male	172	55.3
Female	138	44.7
Age Group		
20-29	91	29.4
30-39	66	21.3
40-49	65	20.8
50-59	53	17.0
60 +	35	11.4
Education Level		
Primary	78	25.1
Secondary	122	39.3
Tertiary	140	35.5

Source: Primary Data (2021)

Results in Table 4 indicate that 55.3 percent men and 44.7 percent women participated as respondents in this study. This suggests that both men and women were given fair and proportionate opportunity to participate in this study as respondents so as to obtain fair study results. Much as the number of male respondents was more than that of their female counterparts, the gender gap between the two sexes was not large enough to affect the study findings. Sampling both men and women as respondents helped in that some of the information that one sex could not reveal properly could be indicated by the other sex.

As regards respondents' age, the results in Table 4 indicate that most respondents were still in their early adulthood ages of 20 to 39 years (51 %); followed by those in mid- adulthood 40 to 59 (38%) and those from the age group of 60 and above were very few as they formed only 11 percent of the total participants. This implies that most of the respondents were still young and so could easily identify challenges affecting the accessibility to quality health services in Kasaana Sub- county based on current life standards. Having different age groups also helped in that what one age group could not clearly streamline could be specified by the other, hence enabling variety of ideas for academic research.

Results in Table 4 also indicate that most of the respondents sampled in Kasaana Sub-county had at least dropped out of school in secondary school (39.3%); followed by those who had at least attained tertiary education (35.5%); and lastly, the least participants in this study were those who acquired primary education. Different respondents from different education backgrounds were sampled since issues concerning accessibility to health services in the area concern all kinds of people regardless of their education level. Information obtained from respondents from different education levels was very instrumental in the data analysis since people with different attitudes and

beliefs influenced by their education level had different ideology regarding accessibility to health service.

4.2 The effect of health infrastructure insurance scheme on the accessibility to quality health services in Kasaana Sub-County

The first research objective was to find out the extent to which health infrastructure insurance scheme contributes to the accessibility to quality health services in Kasaana Sub-County in Uganda. To achieve this objective, the researcher asked 5 questions in the questionnaire and each question was based on the four-point scale ranging between one to four, where 1= strongly disagree (meaning very ineffective); 2=disagree (meaning ineffective); 3=agree (meaning effective) and 4= strongly agree (meaning very effective). For each question, respondents were asked to rate the effectiveness of health infrastructure insurance scheme as basis for accessibility to quality health services in Kasaana Sub-County Health Centres by ticking one number from the four options. Their responses were summarized using means as indicated in Table 5.

Table 5: Health infrastructure insurance scheme in Kasaana Sub-County, (n=310)

Items	Mean	Std. Dev	Interpretation
The health facilities have good telecommunication systems	3.21	.87	Agreed
The health facilities have sufficient power for both day and night	3.18	.91	Agreed
The health facilities in Kasaana Sub-County have nearby water sources for staff and patients	3.31	.67	Agreed
The health facilities in Kasaana Sub-County have enough rooms for patients	3.12	.98	Agreed

The health facilities have well equipped laboratories	2.45	.93	Disagreed
Overall Mean Average	3.05		Agreed

Source: Primary Data (2021)

The means in Table 5 indicate that the majority of respondents agreed that most of the items on the health infrastructure in Kasaana health centres were effective. They agreed that the health centres have good telecommunication systems (mean of 3.21); they again agreed that the health centres have sufficient power for both day and night (mean of 3.18); They agreed that the health centres in the sub-county have nearby water sources for staff and patients (mean of 3.31); that the health centres have enough rooms for patients (as wards/ offices) (mean of 3.12); and lastly, they disagreed the health centres have well equipped laboratories (mean of 2.45). This implies that the situation of health infrastructure in Kasaana Sub-County is fairly good though there is still need for improvement especially in the areas of beds, laboratory facilities among others.

4.2.1 Correlation Analysis between health infrastructure insurance scheme and Accessibility to quality Health Services in Kasaana Sub-County

To establish whether there is a significant relationship between the level of effectiveness of health infrastructure insurance scheme and accessibility to quality health services in Kasaana Sub-County, and test the research hypothesis that stated that health infrastructure significantly affects accessibility to health services in Kasaana Sub-County. To establish the nature of relationship, the stated research hypotheses were tested. The researcher correlated the overall mean average value of each of the independent variables with the overall mean average value of dependent variable. The results are indicated in Table 6.

Table 6: Relationship between Health infrastructure insurance scheme and accessibility to quality health services in Kasaana Sub-County

Correlations			
	Health infrastructure insurance scheme		accessibility to quality health services
Health infrastructure insurance scheme			
Pearson Correlation	1	.773**	
Sig. (2-tailed)			.000
N	310	310	

accessibility to quality health services

Pearson Correlation .773** 1

Sig. (2-tailed) .000

N 310 310

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data (2021)

The value $r=0.773$ and sig. 0.00 implies that there is a positive significant relationship between the effectiveness of health infrastructure insurance scheme and the level of accessibility to quality health services to people in Kasaana Sub-County. According to the findings, the research hypothesis that stated that there is no significant effect of health infrastructure insurance scheme on the accessibility to quality health services in Kasaana Sub-County was rejected. In other terms, it can be said that the more effective the health infrastructure insurance scheme is, the higher will be the people's accessibility to quality health services.

4.2.2 Regression Analysis between health infrastructure insurance scheme and accessibility to quality health services in Kasaana Sub-County

As the correlation analysis between health infrastructure insurance scheme and accessibility to quality health service was found to be significant, there was need to confirm the findings using regression analysis. The findings regarding this are shown in Table 7.

Table 7: Regression Analysis between health infrastructure insurance scheme and Accessibility to quality health services

Coefficients^a				
Model	Unstandardized	Standardized	t	Sig.
	Coefficients	Coefficients		

		B	Std. Error	Beta		
1	(Constant)	-2.785	.305		-13.614	.000
	health	9.893	.176	.983	143.705	.000
	infrastructure					

a. Dependent Variable: Accessibility to quality Health Service

Source: Primary Data (2021)

The presentation in Table 7 illustrates that both regression model summary and coefficient values were used to determine the degree of relationship between effectiveness of Health infrastructure insurance scheme and accessibility to quality health service to the people of Kasaana Sub-County. The degree of relationship between the effectiveness of health infrastructure insurance scheme and quality accessibility to health services in the sub-county is generally high at 98.3 percent. This is indicated by the Beta value of .983 at level of significance at 0.00. This finding reveals that the state of health infrastructure insurance scheme has a positive and significant affects people's accessibility to quality health services. This finding signifies that effectiveness in health infrastructure positively influences or impacts on the level of accessibility to quality health services. As such, when the health infrastructures are adequate and in good state, people are likely to find accessibility to health services more comfortable and this makes them like services in such health centres.

Relating this finding to what other reports, scholars and authors have noted regarding the effectiveness of health infrastructure in their own context, it can be noted that this finding is in line with Jacobs et al. (2012) further urge that effective health service delivery requires a network of functional health facilities that accessibility improved from 49% to 72% by 2015. The findings in the case of Kasaana Health Centers somewhat supports the reports of these various reports.

On the relationship between the two variables, it was found out from the study that effectiveness of health infrastructure has a strong, positive and significant impact on people's accessibility to health services in Kasaana Sub-county as indicated by the R-value of 0.983; Beta value of 0.983

and significant value of 0.00. The research finding on the relationship between health infrastructure and level of accessibility in the case of Kasaana is agreement with Ministry of Health-Uganda (2015) which indicated that one of the most pressing facilities in this regard is the aspect of health

infrastructure. The report further noted that besides poor management and lack of long-term forecasting, various transport issues remain a great challenge in improving the level of quality health service accessibility in the country.

4.3 The extent to which medical materials insurance scheme influence the accessibility to quality health services in Kasaana Sub-County

The third research objective of this study was to establish relationship between availability of medical materials insurance scheme and accessibility to quality health services to people of Kasaana Sub-County. Before establishing the relationship between the two research variables (effectiveness of medical facilities and accessibility to health service) seven questions were asked in questionnaire to determine the level of effectiveness and availability of medical resource in the sub-county health centres. Each question was based on the four-point scale ranging from one to four, where 1= strongly disagree, 2=disagree, 3=agree and 4= strongly agree. Their responses were summarized using means as indicated in Table 8.

Table 8: Availability of medical materials in health facilities in Kasaana sub county**Kasaana (n=310)**

	Mean	Std. Deviation	Interpretation
Sterilization of syringes is not common in the health centers	2.58	1.24	Disagreed
Drugs are always available at the health centers	2.37	.98	Disagreed
No cases of patients dying here because of insufficient medical facilities	2.42	.99	Disagreed
Bed sheets are always changed for patients	2.31	1.09	Disagreed
Patients receive drugs that has been prescribed at the health centers	2.16	.94	Disagreed
Overall Mean Average	2.37		Disagreed

Source: Primary Data (2021)

Table 8 indicates that on the basis of the mean values, the majority of the respondents disagreed on most items used to measure the availability of medical facilities in Kasaana Health Centers. they disagreed that sterilization of syringes and other instruments is not common in the health centers (mean of 2.58); they disagreed that drugs are always available at the health centers (mean of 2.37); next, respondents disagreed that there was no cases of patients dying in the health centers because of insufficient medical facilities (mean of 2.42); then, they disagreed that bed sheets are always changed for patients (mean of 2.31); and lastly they disagreed that patients receive drugs that has been prescribed at the health centers (mean of 2.16); The overall mean average obtained

was 2.37 which fall under ineffective (disagreed) on the rating scale. This suggests that the respondents disagreed on the availability of medical facilities and resources in the Kasaana sub county being sufficient to meet the demands of patients. Thus, there is high need for improvement in the medical facilities for the people in the sub-county.

4.4.1 Correlation between medical materials insurance scheme and accessibility to quality health service

Similarly, correlation between medical facilities and accessibility to health services was also determined so as to establish the level of relationship between the two variables. The summary on the finding regarding this is presented in Table 9.

Table 9: Correlation between medical materials insurance scheme and accessibility to quality Health Services

Correlations			
		Medical materials insurance scheme	Accessibility to quality Health Service
Medical materials insurance scheme	Pearson Correlation	1	.798**
	Sig. (2-tailed)		.000
	N	310	310
Accessibility to quality Health Service	Pearson Correlation	.798**	1
	Sig. (2-tailed)	.000	
	N	310	310

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data (2021)

Further still, Table 9 shows that there is a strong positive significant relationship between the effectiveness of medical facilities. insurance scheme and level of accessibility to quality health services to people in Kasaana Sub-County. This finding is confirmed by r-value of 0.798 and sig. value of 0.00. Regarding the research findings, the research hypothesis that stated that there is no statistical influence of medical materials insurance scheme on the accessibility to quality health services in Kasaana Sub-County is rejected and the researcher contends that effectiveness of medical materials insurance scheme significantly influences the accessibility to health service to the people of Kasaana Sub-County. In other words, it can be said that if medical facilities are available and adequate, there will be an improvement in accessibility to quality health services by people in the area of study.

4.4.2 Regression Analysis between medical materials insurance scheme and accessibility to quality health Services

In similar way, regression analysis between medical materials insurance scheme and accessibility to quality health services was also established. This was done so as to either confirm or deny the findings established by correlation analysis. Table 10 presents the findings on regression analysis between the variables.

Table 10: Regression analysis between medical materials insurance scheme and Accessibility to quality Health Services

Coefficients ^a					
Model	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
1					
(Constant)	-3.477	.364		-11.290	.000
Medical materials insurance scheme	9.710	.126	.979	86.002	.000

a. Dependent Variable: Accessibility to quality Health Service

Source: Primary Data (2021)

Based on the presentation in Table 10, it can be said that there is a positive significant relationship between effectiveness / availability of medical facilities insurance scheme and accessibility to quality health services and this is confirmed by Beta = .979, at $P < .000$. This suggests that the impact of medical facilities on accessibility to quality health services high, positive and significant. Considering this finding to test the research hypothesis the second research hypothesis, it can be said that the hypothesis that stated that there is no statistical influence of medical materials insurance scheme on the accessibility to quality health services in Kasaana Sub-County is rejected.

The finding on effectiveness of medical material insurance scheme in the case of Kasaana Health centers was in agreement with Muhia et al., (2017) that resources are the key inputs for health, she adds that availability of drugs and supplies in appropriate quantities at the appropriate time should

therefore be an important responsibility for health administrators. Availability of drugs (medicine) is one of the national indicators.

Concerning the correlation of availability of medical facilities insurance scheme and accessibility of quality health service to people in Kasaana Health facilities, it was also noted that availability of medical facilities or material at health centers have a positive impact on the accessibility of quality health service to people. This was verified by r-value of 0.979 and Beta value of 0.979 at significant value of 0.00. Thus, improvement in medical facilities insurance scheme at Kasaana Health facilities can significantly improve the level of accessibility of quality health service to people in there. This research finding is somewhat related to studies by Ahumuza et al., (2014) that under medical facilities that limits the accessibility to health services. Many patients cannot access health services properly because the money meant for procurement of medical facilities sometimes is not appropriately used or is embezzled. Even in some of the health centers, drugs get lost and many people are not held responsible. It is through this factor that medical facilities in Kasaana Sub-County are insufficient and that many patients fail to access quality health services.

4.4 The extent to which financial resource insurance scheme affect the accessibility to quality health services in Kasaana Sub-County.

The third research objective was to find out the extent to which financial resource insurance scheme affect the accessibility to quality health services in Kasaana Sub-County. The level of effectiveness of financial resource insurance scheme in the Kasaana Health centers was found out by asking 5 questions in the questionnaire and each question was based on the four points scale ranging from one to four, where 1= strongly disagree, 2=disagree, 3=agree and 4= strongly agree. The summary on the level of effectiveness of financial resources insurance scheme according to the respondents investigated is summarized using means as indicated in Table 4.8.

Table 11: Effectiveness of financial resource insurance scheme in Kasaana Health facilities (n=310)

	Mean	Std. Dev	Interpretation
Spending is prioritized on crucial items	3.24	1.08	Agreed
Funds are easily accessible in different departments	2.42	1.06	Disagreed
Auditing of the health centers is always effectively done	2.35	1.04	Disagreed
Budget allocation for Kasaana Health Centers is sufficient	2.33	1.02	Disagreed
Money allocated for health centers is properly spent for health service improvement	2.29	1.04	Disagreed
Overall Mean Average	2.53		Disagreed

Source: Primary Data (2021)

Table 11 indicates that respondents also disagreed on most of the items investigated under adequacy of financial resources in the Kasaana Health centres. The only aspects respondents agreed that the spending being prioritized on crucial items (mean of 3.24). Respondents disagreed on the remaining aspects under adequacy of financial resources insurance scheme in the quality health centres. They disagreed that funds are being easily accessed in different departments (mean of 2.42); they disagreed that auditing of the health centres is being always effectively done (mean of 2.35); they disagreed that budget allocation for Kasaana Health Centres is being sufficient (mean of 2.33); lastly they disagreed that money allocated for health centres is being properly spent for health service improvement (mean of 2.29). The overall impression on how adequate the financial

resources insurance scheme at Kasaana Health centres are was finally determined by adding the mean values of all the nine items in Table 4.9 and dividing it by nine to get an overall mean average of 2.53. This mean value obtained indicates that the majority of respondents disagreed with the financial resources insurance scheme at health centres in the sub-county being sufficient to meet the demands of the health facilities.

4.5.1 Correlation Analysis between financial resource insurance scheme and Accessibility to quality Health Services

The relationship between financial resource insurance scheme and accessibility to quality health services was also determined using correlation matrix. The findings on this relationship are presented in Table 12.

Table 12: Correlation between financial resource insurance scheme and accessibility to quality health services

Correlations			
		Financial resource insurance scheme	Accessibility to quality Health Service
Financial resource insurance scheme	Pearson Correlation	1	.887**
	Sig. (2-tailed)		.000
	N	310	310
Accessibility to quality Health Service	Pearson Correlation	.887**	1
	Sig. (2-tailed)	.000	
	N	310	310

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data (2021)

Table 12 also portrays that there is a strong positive significant relationship between the effectiveness of financial resources insurance scheme in health centres and the level of

accessibility to quality health centres to the people of Kasaana Sub-County. This is reflected by the r-value of 0.887 and sig. value of 0.00. According to the findings, the third research hypothesis that stated that there is statistical significant relationship between financial resource insurance scheme and the accessibility to quality health services in Kasaana Sub-County is accepted. Thus, the research finding asserts that if there is improvement in the level financial facilitation of health facilities, the level of accessibility to quality health services to the people is likely to increase since services will tend to be more effective.

4.5.2 Regression Analysis between financial resource insurance scheme and accessibility to quality health services

The degree of relationship between financial resources insurance scheme and accessibility to quality health services was also retested using regression analysis. The findings are indicated in Table 13.

Table 13: Regression analysis between financial resource insurance scheme and accessibility to quality health services

		Coefficients^a			
Model		Unstandardized		Standardized	Sig.
		Coefficients		Coefficients	
		B	Std. Error	Beta	
1	(Constant)	.028	.030		1.334 .184
	Financial resource	1.043	.009	.998	130.99 .000

a. Dependent Variable: Accessibility to Health Service

Source: Primary Data (2021)

Table 13 also presents that availability of financial resources insurance scheme have a strong, positive and significant impact on accessibility to quality health service to the people of Kasaana Sub-County. This is indicated by Beta = .998, at $P < .000$. This finding means that if more financial resources insurance scheme are availed and properly utilized and allocated for specified uses, the number of people accessing to quality health services will considerably increase in Kasaana Sub-County. This finding also reveals that the third research hypothesis that stated that there is statistical significant relationship between financial resource insurance scheme and the accessibility to quality health services in Kasaana Sub-County is accepted.

4.6 Level of Accessibility to quality health Service to the people of Kasaana Sub-County

The dependent variable of this study was level of accessibility of quality health services to the people of Kasaana and the mean values obtained in here were used to correlate the mean values of other variable under independent variables. Before the mean values were used to correlate the variables under independent variables, the level of accessibility of health services to the people of Kasaana was done. To determine the level of accessibility of quality health service to the people of Kasaana, 5 questions were asked in the questionnaire and each question was based on the four-point Likert scale ranging between one to four, where 1= strongly disagree, 2=disagree, 3=agree and 4= strongly agree. For each question, respondents were asked to rate the level of accessibility of quality health service to the people of Kasaana. The findings regarding this are presented in Table

14.

Table 14: Level of accessibility of quality health service to the people of Kasaana Sub-County

	Mean	Std. Dev	Interpretation
Immunization of children in the health facilities is effectively done	2.31	1.13	Agreed
The out-patient diagnosis in Kasaana health facilities is always effectively done	2.92	1.00	Agreed
Patients in Kasaana Health facilities can easily access drugs	2.97	1.12	Agreed
Drug prescription is effectively done to all patients in Kasaana health facilities	2.41	1.12	Disagreed
Patients who come for treatment are regularly treated in the health centers of Kasaana Sub-County	2.33	1.08	Disagreed
Overall Mean Average	2.59		Agreed

Source: Primary Data (2021)

The findings in Table 14 indicate that respondents disagreed with most of the items used to investigate the level of accessibility to health services in Kasaana Sub-County. The few items under the level of accessibility that respondents agreed on and rated highly were on immunization of children in the health centres being effectively done (mean of 2.31); followed by the out-patient diagnosis in Kasaana Health Centres being always effectively done (mean of 2.92); next was on patients in Kasaana Health Centres' ability to easily access drugs (mean of 2.97). However, respondents disagreed and lowly rated that drug prescription is being effectively done to all patients in Kasaana Health Centres (mean 2.41); and they also disagreed that patients who come for treatment are being regularly treated in the health centres of Kasaana Sub-County (mean of

2.33). On the overall, it can be said that respondents agreed that the level of accessibility to quality health services to the people of Kasaana Sub-County was generally moderate and this can be affirmed by the overall average mean value of 2.59. This implies that the level of accessibility of health services to people of Kasaana is moderate. This could have been because of effective medical facilities and effective financial resources to support the health centres.

The research finding in regard to Jacobs et al. (2012) that many health insurance schemes in development countries find it difficult to fully finance some of the health supplies and services especially those related to HIV/ AIDS. Thus the result of inadequacy of health or medical facilities is that many people cannot effectively access community health services, hence limiting accessibility to community health services by people in developing countries including in Uganda.

Further still, it was also noted that availability of financial resources insurance schemes has a strong, positive and significant impact on people's accessibility to quality health services in Kasaana Sub-County. This was confirmed by r-value of 0.998, Beta value of 0.998 and sig. value of 0.00. The description using means to determine the level of accessibility to quality health services indicates that the level of accessibility to quality health services by the people of Kasaana Sub-County is still moderate. This was indicated by the mean values 2.59 that fall under moderate in the rating scale. This research finding is in agreement with that of Jacobs et al. (2012) who urge that effective health service delivery requires a network of functional health facilities that accessibility improved from 49% to 72% by 2015.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter establishes the discussion of major research findings, and draws conclusions in relation to each research objective. Lastly, recommendations to improve level of accessibility of quality health service to the people of Kasaana Sub-County are made.

5.1 Conclusions

From the above findings of the study in Kasaana health centres, the researcher generated the following conclusions as per the study objectives.

This study concluded that effective health infrastructure insurance has a strong, positive and significant impact on the people's accessibility to quality health services.

Regarding the relationship between medical facilities and materials insurance scheme, this study concluded that availability of medical facilities and materials in health facilities has a strong, positive and significant impact on people's accessibility to quality health services.

In the same way, this study also concluded that availability of financial resources insurance scheme has a strong, significant and positive impact on people's accessibility to quality health services in Kasaana Sub-county.

5.2 Recommendations

Basing on the findings of this study, the researcher recommends that in order to improve and increase the level of accessibility to quality health services by the people of Kasaana, different health service stakeholders should put emphasis on the following:

5.2.1 Recommendations on Health Infrastructure Insurance Scheme

The government through the ministry of health in collaboration with health management committee should ensure that laboratories at all health facilities are well equipped with facilities such that patients can access laboratory related services easily.

Laboratory attendants should also be closely monitored by the health management committee and district health officers such that issues related to shortage of beds that tend to discourage accessibility to health services can be rectified.

5.2.3 Recommendations on Medication materials Insurance Scheme

Laboratory attendants should make sure that medical stores are well kept and closely linked with service providers especially in rural areas. This will prevent cases of stock-outs especially in health centres that is sometimes detrimental to quality health service accessibility to people.

Health officials who are caught in drug theft should be properly dealt with such that medicine meant for patients does not just disappear from the health centres.

5.2.4 Recommendations on Financial Resources Insurance Scheme

Local people should make sure that they are much involved in the financial management in the health facilities. Such strategies can significantly reduce cases of corruption and fraud in the health sector. This can be done by demanding accountability from those managing health centres hence reducing cases of corruption and mismanagement of funds meant for medical facilitation.

5.3 Study Limitations

Financial limitation was one of the key challenges facing this study. There was shortage of money to facilitate different research materials and activities such as internet, journals, text books, newspapers, transport, for hiring research assistance and someone to help in statistical analysis of

the findings. However, the researcher tried to raise funds in different avenues such that the research budget was met.

Another challenge was also related to instrumentation. The research tools that were used in this study were researcher-made and this was affecting the overall findings. However, this challenge was overcome through ensuring validity and reliability test so as to arrive at a reasonable measuring tool.

Another challenge was intervening or confounding variables which were beyond the researcher's control and these included honesty of the respondents and personal bias. To minimize such conditions, the researcher asked respondents to be as honest as possible and to be impartial/unbiased when answering the questionnaires.

5.4 Areas for further research

The following areas can be recommended for further research:

- People's socio-economic status and their attitudes towards quality health services in community health facilities in Kasaana Sub County, Sheema District.
- Location of community health facilities and people's accessibility to quality health services.

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APPENDICES

APPENDIX I: QUESTIONNAIRE FOR RESPONDENTS

Dear Respondents,

Dear respondent, I am Nuwagaba Ronald R a student of Kabale University, pursuing a Masters of Arts Degree in Project Planning and Management. You have been selected to respond to these questions because of your central role in health regarding the community health insurance schemes in improving the access of health services in rural areas. The information given will be treated with high level of confidentiality and only for academic purposes.

SECTION A. RESPONDENTS' DEMOGRAPHIC INFORMATION

Kindly answer all questions. Put a tick (☐) where appropriate.

A. Age

20-29 ☐ 30-39 ☐ 40-49 ☐ 50-59 ☐ 60 and above ☐

B. Gender

Male

Female ☐

C. Education Level

Primary ☐ Secondary ☐ Tertiary ☐

SECTION B. INDEPENDENT VARIABLES

In this section you are required to show your level of agreement by ticking or circling one of the five statements in the boxes. Tick () where appropriately. The responses are represented by the following.

SCALE

Strongly agree (SA)	Agree (A)	Disagree (D)	Strongly Disagree (SD)
4	3	2	1

No.	Health infrastructure insurance scheme	SA	A	D	SD
1	The health facilities have good telecommunication systems				
2	The health facilities have sufficient power for both day and night				
3	The health facilities in Kasaana Sub-County have nearby water sources for staff and patients				
4	The health facilities in Kasaana Sub-County have enough rooms for patients				
5	The health facilities have well equipped laboratories				
	Medical materials insurance scheme	SA	A	D	SD
1	Sterilization of syringes is not common in the health centers				
2	Drugs are always available at the health centers				
3	No cases of patients dying here because of insufficient medical facilities				
4	Bed sheets are always changed for patients				
5	Patients receive drugs that has been prescribed at the health centers				

	Financial resource insurance	SA	A	D	SD
1	Spending is prioritized on crucial items				
2	Funds are easily accessible in different departments				
3	Auditing of the health centers is always effectively done				
4	Budget allocation for Kasaana Health Centers is sufficient				
5	Money allocated for health centers is properly spent for health service improvement				

SECTION C: DEPENDANT VARIABLES

No.	Accessibility to quality health services	SA	A	D	SD
1	Immunization of children in the health facilities is effectively done				
2	The out-patient diagnosis in Kasaana health facilities is always effectively done				
3	Patients in Kasaana Health facilities can easily access drugs				
4	Drug prescription is effectively done to all patients in Kasaana health facilities				
5	Patients who come for treatment are regularly treated in the health centers of Kasaana Sub-County				

APPENDIX II: SAMPLING TABLE GUIDE

<i>Table for Determining Sample Size of a Known Population</i>									
N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384
<i>Note: N is Population Size; S is Sample Size</i>					<i>Source: Krejcie & Morgan, 1970</i>				

APPENDIX III: RESEARCH BUDGET

Item	Quantity	Unit (Shs)	Total Cost (Shs)
Ream of ruled papers	2	15,000	30,000
Pens	4	500	2,000
Questionnaires	79	100	18,900
Transport	6 trips	60,000	360,000
Lunch	6 meals	5,000	30,000
Printing & photocopying Proposal	3 copies	100,000	100,000
Printing & photocopying Dissertation	100 pgs x 4 copies	1,000	130,000
Hard cover binding	4 copies	20,000	80,000
Internet charges			50,000
TOTAL			800,900

APPENDIX IV: TIME TABLE

Period	Activity	Duration
February 2018 to April 2018	Preparation of the Research Proposal	3 months
April 2019- June 2019	Securing permission letter and collecting data from the Field	3 months
July, 2019	Analyzing and compiling data got from the Field	1 month
August, 2019	Defending the research report	1 day
August, 2019	Making corrections in the report	5 days
August, 2019	Typing, photocopying, binding and handing in report to the department	1 month

APPENDIX V: MAP OF UGANDA SHOWING SHEEMA DISTRICT



Sheema District

APPENDIX VI: MAP OF SHEEMA DISTRICT SHOWING KASAANA SUB COUNTY

