UGANDA MANAGEMENT INSTITUTE

GOVERNMENT SUPPORTED HEALTH FACILITIES AND ACCESSIBILITY TO HEALTH SERVICES IN UGANDA: A CASE STUDY OF KARUGUTU SUB-COUNTY NTOROKO DISTRICT

BY

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DECLARATION

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

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Name and Signature of Candidate

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Date

APPROVAL

This dissertation has been submitted for external examination under our approval as supervisors.

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Date

DEDICATION

I dedicate this work of Masters Degree thesis to my late father Kule Joshua and Mrs. Kule Edith for laying a solidified foundation for my education and shaping my life; and also to my wife Mrs. Merika Bwambale and my children Baluku Melvin and Bwambale Tumusime Elvin, whose love, efforts and abnegation spirit have been and will always be for me, a source of inspiration and courage.

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ABSTRACT

The purpose of this study was to establish the relationship between governments supported health facilities and accessibility to health services in Karugutu Sub-County in Ntoroko District. In fulfilling this purpose, the study determined how health infrastructure affects the accessibility to health services; the extent to which human resource influences the accessibility to health services; the extent to which medical materials determine the accessibility to health services; and lastly, the extent to which financial resource availability affect the accessibility to health service in Karugutu Sub-County.

The study was based on the physical and psychological needs theory. This theory emphasizes that participation of an individual in delivering and accessing services highly depends on their physical and psychological needs.

Correlation and case study designs were used in this study and SLOVEN's formula was also used to determine a sample size of 394 respondents from 25,500 total research populations and the sampling was done by the use of stratified random sampling and purposive sampling. Self-administered questionnaires, interview guides and observation check lists were used as research instruments for data collection and validity and reliability of research instruments were done using Content Validity Index and pre-testing. Both qualitative and quantitative data analyses were employed. Mean, standard deviations were employed to determine the extent of the variables while correlation matrix and regression model analysis were applied to establish the relationship between independent variables and dependent variable.

Study findings reveal that the health infrastructure and human resource at Karugutu Sub-County were generally effective and this was verified by mean values of 2.78 and 2.61 that fall under effective in the rating scale respectively. However, medical facilities and financial resources were ineffectively rated with mean values of 2.43 and 2.39 respectively. Concerning the relationship between the independent variables (health infrastructure; human resource; medical facilities and financial resource) and level of accessibility to health centers, findings reveal that all the four independent variables have significant positive effect on accessibility to health services in the sub-county. .

The study concluded that an improvement in the effectiveness of health infrastructure, human resource, medical facilities and financial resources can significantly boost the level of accessibility to health services in the sub-county.

The study recommended multi-sectoral approach involving different stakeholders so as to boost the level of accessibility to health services in Karugutu Sub-County. Through this approach, the equipments that are lacking in public health centers can be equipped; there can be an improvement in numeration of human resources in the health centers; and health officials can be motivated.

LIST OF ABBREVIATIONS AND ACRONYMS

AIDS: Acquired Immune Deficiency Syndrome

DHS: Demographic and Health Survey

DISH: Delivery of Improved Services for Health

EARHN: Eastern Africa Reproductive Health Network

FP: Family planning

GOU: Government of Uganda

HIV: Human immune virus

HSSP: Health Sector strategic Plan

H IVs: Health Centre Fours

MDGS: Millennium development Goals

MOH: Ministry of Health

NGO: Non-governmental organization

NMS: National Medical Stores

PEAP: Poverty Eradication Action Plan

RH: Reproductive health

RHD: Reproductive Health Division (Ministry of Health)

SWAp: Sector-Wide Approach

WHO: World Health organization

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This study investigated how the government supported health facilities influenced on the accessibility to health services in Uganda with particular reference to Karugutu Sub-County Health centers in Ntoroko District. In this study, government supported facilities were conceived as independent variables while accessibility to health service as dependents variables. This Chapter presents the background to the study, the statement of the problem, the research purpose, the objectives of the study, the significance and operationally definition of terms and concepts.

1.1 Background to the Study

1.1.1 Historical Context

In 1979, the thirty Second World Health Assembly was launched and the main theme was to design a strategy for health for all by the year 2000, this was by adopting the resolutions of the World Health Assembly. In this resolution, all member states of the World Health Organization (WHO) were invited to give their individual views in the formulation of plans, policies and strategies for improving health for all (WHO Report, 2000). This was also in line with the Milleniuem Development Goals (MDG's) of reducing maternal and child mortality, reducing the burden of HIV/ AIDS, Tuberculosis and malaria and reduce disparities in the health outcomes among the lowest and the highest income earners by at least 10 % over the period of the health sector

(Strategic Plan II Period 2005 / 2006 2009 / 2010 for Uganda). The decentralization of health services to District Health Centers IVs, IIIs and IIs was a result of this global strategy for health for all that was adopted in 1981.

The Uganda National Health Policy (1990) developed operational responsibility for delivery of the minimum package to health centers IVS. Each health center (IV) management team was expected to provide overall day to day management oversight of the health units and community level health activities under its jurisdiction in the planning and management of health services within the health, including supervision and quality assurance, provision of technical, logistic and capacity development support to the lower health units and communities including procurement and supply of drugs (HSSP 2005/06-2010).

The establishment of National Health Policy also targeted the high rate of prevalence of HIV/AIDS in Uganda. Through the implementation of the policy, Uganda became among the first countries in Sub-Saharan Africa to initiate clinical PMTCT programs (UNAIDS 2007). According to this report, the country initiated a pilot program in 2000 and PMTCT was given as a routine service to consenting HIV-positive women at delivery. The PMTCT program started as a pilot project in 2000 with 5 sites in 3 districts. The sites included: Nsambya Hospital, Mulago Hospital, Mengo Hospital, Arua and Lachor Hospitals.

The recent health reports also indicated that all 74 districts in Uganda were offering Prevention of Mother-To-Child HIV Transmission services at III and IV level Health Centre facilities, compared to only 50 districts that were offering them in 2005 (Health Sector Strategic Plan II Period 2009-2010). This same report noted that to improve access to health services at the local level, the government is building facilities and has so far upgraded 169 Health Centre IV outlets and 180

Health Centre III outlets in the country. The centers are equipped with wards, operating theaters, staff housing and equipment, improving access to health services where at least 72 percent of the population is within 5 kilometers of a health facility.

After the establishment of National health Policy (1990), Resource Mobilization and Awareness Project was also launched ("Project RMA"), in 1996. This project specifically involved three major organizational partners and these included Population Action International (PAI), the German Foundation for World Population (DSW) and the International Planned Parenthood Federation (IPPF). The RMA partners at the global, regional and national levels work with each other to ensure better health service accessibility in Uganda especially in the arena of reproductive health (Ortendahl, 2007). The project has since been promoting health accessibility through increasing "tangible financial and political commitment to sustainable reproductive health supplies through international coordination and support of national advocacy strategy for development and implementation in developing countries" (Ortendahl, 2007).

Many other health projects and policies have also been launched in the last few decades especially in the regime of national Resistance Movement to ensure better health services delivery and accessibility in Uganda. For example, different strategies and guidelines under the umbrella of the family planning movement in Uganda have continued to be modified to increase accessibility of the health service to many rural poor (Apunyo, 2009). In 1995, the *National Population Policy for Sustainable Development* together with the Ministry of Health revised some of the previous requirements in order to increase accessibility to family planning services. As a result of this commitment, the Uganda Demographic and health Survey (DHS) of 2006 reports that from 1995

to 2006, the total fertility rate (TFR), the average number of children a women will have in their lifetime, decreased from 6.9 to 6.7 children per woman (Apunyo, 2008).

This could be an indicator of increased accessibility to Family Planning Services. All the fore-mentioned interventions or policy measures have been established with an intention of promoting accessibility of health services to people in Uganda.

1.1.2 Theoretical Context

A theory based on both physical and psychological needs to support or hinder an individual's ability to access services or participate in activities is the appropriate theory for this study (Gilligan, 1982). This theory 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 government supported facilities such as human resource, health infrastructure, financial resource and medical facilities are limited and insufficient in most of the public health centers in Uganda (Naluyiga, 2009), they critically cause fatigue or stress or any other discomfort in patients hence limiting their moral in accessing health services. Many patients spend several hours while trying to access health services in public health services (Glenngard and Hjalte, 2006). Ill equipped health facilities and human resource causes discomfort, stress, fatigue in many of the patients and their relatives hence limiting their accessibility. Basing on this theory, people tend to instinctively drawn back from accessing or participating in activity or services that are causing them stress or fatigue or make them more uncomfortable.

The theory also emphasizes that aspects that cause fatigue, stress or any other discomfort in service accessibility demoralize the consumers of such services. As Gilliga (1982) established in his study,

if such facilities are left unattended to; clients or consumers of such services are de-motivated and the number of people accessing such services or participating in such activities tend to drop significantly.

Psychologically, Gilligan (1982) indicates that the environment in which people or patients access services acts as motivating force. If the environment is favorable, 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. This therefore suggests that aspects of number of hospital beds for patients, hospital rooms available, number of medical facilities and health structures and the number of health workers available tend to act as a driving force in determining the psychological strength that influences that ability of patients to access health services.

Therefore, this study was based on the theory of physical and psychological needs by Gellingan (1982) since it indirectly reflects what institution or organization should consider as major government supported facilities influencing the accessibility of health services in Uganda.

1.1.3 Conceptual Context

According to Kabene, Orchard, Howard, Orieno and Leduc (2006), there are principal health systems inputs which include: human resource, health infrastructure and health care consumables. Personnel for health are of different types that are to say, clinical and non-clinical personnel responsible for public and individual health. According to Leduc (2006), health infrastructure focuses on constructed structures and functioning equipments while Kabene stresses that drugs are key inputs for health service delivery. Availability and supply of appropriate quantities of drugs,

plasters, laboratory equipments among others at the appropriate time should therefore be an important responsibility for health. From this analysis, these government supported facilities or inputs in health centers formed the independent variables such as: health infrastructure, human resource, medical facilities and financial resources. Under infrastructure, aspects such as transport and communication, offices and wards, hospital beds available, power and water, laboratories were looked at.

On the other hand, human resource included the number of doctors, nurses, health centre managers, laboratories technicians and health unit management committees. Regarding the medical facilities, healthcare consumables such as drugs, plasters and syringes were considered. Under financial resources, the annual income of the community client, budget allocations, level of donations and level of auditing were determined.

Under the accessibility to health services, the study looked at dependents variables. Accessibility to health services considered the accessibility to drugs, out-patients diagnosed, medical examination and drug prescription, number of patients attended to, level of recovery rate and regularity of treatment.

1.1.4 Contextual Context

Although significant progress has been made, many of the 214 Health center IVs in the country, Karugutu Sub county Health Centres inclusive have encountered difficulty in meeting their obligation of increasing accessibility of Health services to the people. Constraints related to inadequate funding, recruitment, deployment, housing of personnel, high rates of turnover of recruited staff, heavy work load resulting from combining clinical and health management

functions of senior Health center IV personnel, low rates of completion and operationalization of infrastructure could well have contributed to the less performance of the Health centre IVs (HSSP 2005/06-2009/2010).

At the 2007 meeting of the Eastern Africa Reproductive Health Network, Reproductive Health advocates identified the uneven distribution system below district level and weak demand and utilization of Reproductive Health supplies as main challenges in Uganda. Stock outs of Reproductive Health supplies are widely described as common. Furthers still, available information reveals that logistics and procurement problems are more detrimental to the availability of Reproductive Health supplies in Uganda than any limitations on funding (Glenngård, and Hjalte, 2006).

Additionally, it has been noted that determination of spending on health broadly in Uganda due to the decentralized nature of the budget has become significantly difficult. Decentralized nature of the budget gives little room for lower health authorities to contribute in the prioritization of health services. This leads to ineffectiveness and insufficiency of procurement of medical facilities, health infrastructure hence affecting the accessibility especially in the areas of maternal and child care services marketing (Chattoe-Brown and Bitunda, 2006).

Furthermore, many of the government supported health facilities and structures are still largely funded through off-budget vertical support from donors. While the public sector health system allows for coordination and thorough examination of health policies and programs at the central level, centralization in policy making and budgeting in health sector has given more decision-making power to those on top without consultation of the lower authorities. This has created more challenges for Uganda's districts health units (Glenngård, and Hjalte, 2006). 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 addition to this, the low level of human resource recruitment in health sectors has completely made it to focus efforts on awareness-raising, gender and cultural issues and generating demand for health services, or on strengthening the broken systems that impede delivery of such services (Chattoe-Brown and Bitunda, 2006). This might also affect the accessibility to health services in one way or another.

In Karugutu Sub-County, Ntoroko District for example, it is still practically impossible for most of the population to access health service. This has been prompted by different government supported facilities which will be the subjects 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 by untrained or lowly trained personnel (HSSP II 2005/06-2009/2010, World Health Report 2003). Effects of some government supported facilities towards accessibility of heath services are still not clear. This has caused a lot of challenge to the area at large since some of the women die during and after their labor. In some cases, the children delivered tend 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 (World Health Report 2003.103). 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 health services in the proposed area of the study therefore prompted the need for an investigation into what could be the government supported facilities affecting the accessibility to health service in the area while focusing mainly on the health input systems such like; Health infrastructure, human resource and medical government supported facilities among others in public health centers of Karukutu Sub-County, Ntoroko District.

1.2 Statement of the Problem

Despite all efforts and strategies by the government and other NGOs toward health service improvement, the accessibility to such health services by the masses has remained relatively low particularly in rural setting and peri- urban centre (World Health Report, 2003). In 2005, Uganda adopted some strategies of increasing accessibility to health services through the HSSP and decentralization of health service initiatives. It has established health centers IV, III and II to enhance and promote health service for all (HSSP Report 2005 / 6 to 2009 / 10). As at 30th June, 2005, construction of 118 operating theaters and doctors houses countrywide were completed, 78 theaters were equipped and 134 HCIVs were provided with multipurpose vehicles (Annual Health Sector Performance Report FY 2004 / 2005). It was also indicated in the same report that the issue of human resource at HCIVs was improved. In this, many HCIVs throughout the country were staffed with 800 medical officers and all of them receiving operational budgets. Regarding the health care consumables, the government in full support of World Bank has worked together to support and uplift the budget line for health care consumables (MOH Report, 2005). This was done with the help of Global Fund.

Management of Karugutu Sub county Health centers provides different services to the community of Ntoroko District so as to achieve the health related MDGs such as improving environment for reproductive health, improving supplies the public 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 (2005/06-2009/2010), only about 40 patients access health services in day out of over 100 patients who seek for health services at Karugutu Sub county Health center. The level at which people access health services at the Health centers in Uganda is generally low (World Health Report, 2003). The health units being centers for proving health services to all should be seen on the forefront in the straggle to achieve the desired objectives. Therefore, this background information with gaps necessitated an investigative to establish the extent to which government supported health facilities affecting the accessibility to health services by the masses in Karukutu Sub-County Health Centers in Ntoroko District as case study.

1.3 Purpose of the Study

To assess the impact of the government supported health facilities on people's accessibility to health services in Karugutu Sub County, in Uganda.

1.4 Specific Objectives

The study was guided by the following operational objectives;

(i) To find out how health infrastructure affects the accessibility to health services by people in Karugutu Sub-County in Uganda.

(ii) To assess the extent to which human resource influences the accessibility to health services by people in Karugutu Sub-County, in Uganda.

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(iii) To investigate the extent to which medical materials influence the accessibility to health services by people in Karugutu Sub-County, Uganda.

(iv) To find out the extent to which financial resource availability affect the accessibility to health services by people in Karugutu Sub-County, Uganda.

1.5 Research Questions

(i)   To what extent does health infrastructure affect the accessibility to health services in Karugutu Sub-County in Uganda?

(ii)   To what extent do human resources affect the accessibility to health services in Karugutu Sub-County in Uganda?

(iii)   To what extent do medical materials influence the accessibility to health services in Karugutu Sub-County in Uganda?

(iv)   To what extent do financial resources affect the accessibility to health services in Karugutu Sub-County in Uganda?

1.6 Research Hypotheses.

(i)   Health infrastructure significantly affects accessibility to health services.

(ii)   Human resources significantly affect the accessibility to health services.

(iii)   Medical materials have a significant impact on the accessibility to health services.

(iv)   Financial resources have a significant effect on the accessibility to health services.

1.7 Conceptual Framework

Figure 1: Conceptual framework between independent and Dependent variables

Independent variables   **Dependent variables**

Government Support

                                          Accessibility to Health

Health Infrastructure

- Transport and communication

Human Resource
- Doctors
- Nurses
- Health centre managers

                                        - Number of patients attended to

Medical Materials
- Drugs
- Plasters

                                         Intervening

Financial Resources Availability
- Budget Allocation

                                        - Bureaucratic procedures in health ministry
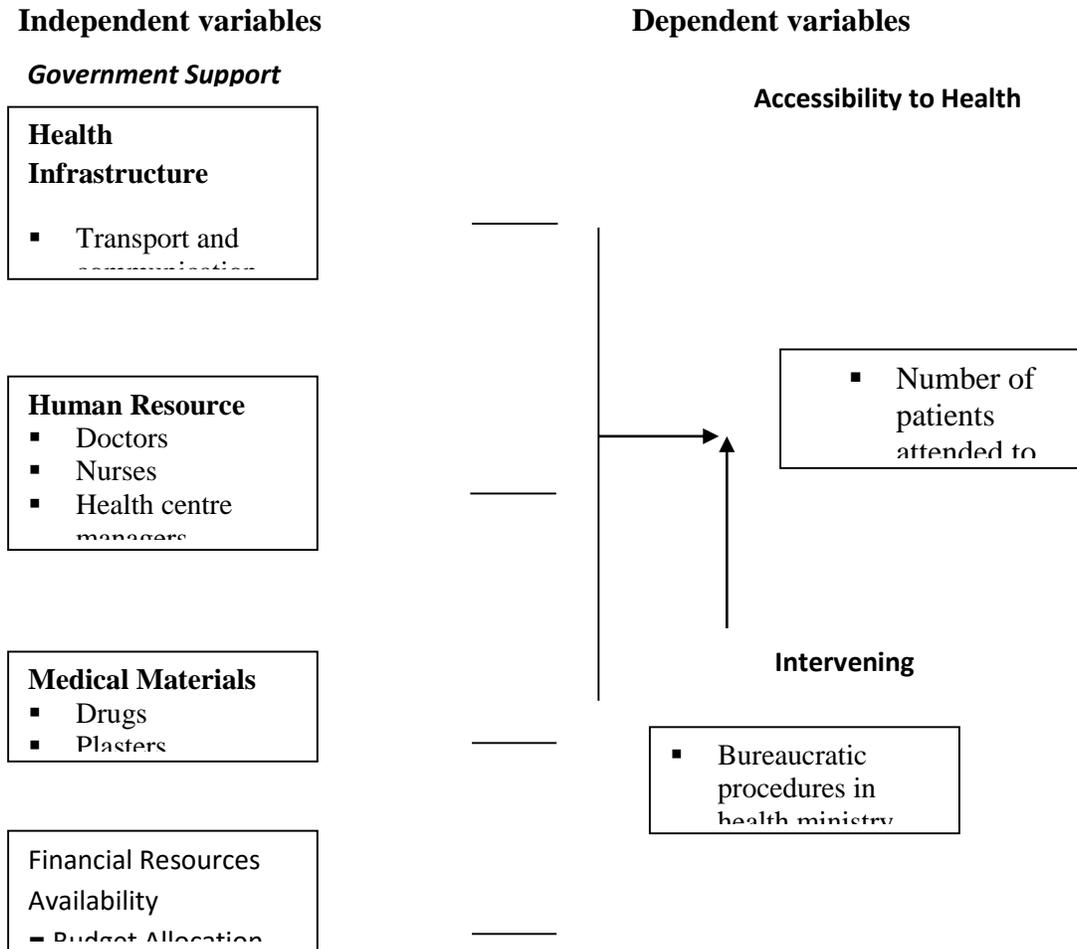
Source: Adopted from Health Policy and Development Volume 6 Number 3, December 2008.

The above conceptual framework diagram represents different independent variables that are of interest to the researcher and how they impact on the dependent variable.

The independent variables which are the government supported facilities that are thought to be having an effect on the accessibility to health services included health infrastructure, human

resource and medical facilities. Under the aspect of infrastructure, things like transport and communication, offices, buildings, power, water and laboratories available were investigated.

Concerning the human resource, aspects of number of doctors, nurses, health centre managers, laboratories technicians and health unit management committees were looked at. Regarding the medical facilities, aspects of drugs, ambulance, syringes and plasters available were assessed on how they impact on the dependent variable.

The dependant variables (Health services) have been looked at as services sought by people at the Health centers and they included: access to drugs, out-patient diagnosis, medical examination done, drug prescription, regularity of treatment, number of patients attended to, level of mortality and recovery rate from sickness. It was conceived by the researcher that the fore-mentioned independent variables impact on the dependent variables.

Intervening Variables: These are facilities that either increase or worsen the ability to access Health services despite the existence of the Health centers and they included: attitudes and beliefs, access to information, bureaucratic procedures of health ministry and income status of community members.

1.8 Significance of the Study

Assessing the extent of effectiveness of government supported facilities influencing the accessibility to health services in Karugutu Sub-County; Ntoroko District could be useful to the national, regional and district health policy makers. This could make them plan and implement policies that can promote accessibility to health services in rural areas of Uganda; hence a move towards health related MDGS.

Furthermore, information established in here will also be used to educate and sensitize the local people in the area, especially those who have failed to access the health services because of illiteracy. This will also help in promoting accessibility to health services since people will come to understand that they play a greater role in demanding good health services especially in areas of maternal and child care as well as reproductive health services.

Since Health services are broad, the study will provide literature on specific services and how they can be fully accessed by the people in order to achieve the national goal and target of achieving socio-economic development through improving the health of people. The study findings will contribute to the understanding of the government supported facilities that affect the accessibility to Health services, their magnitude and how they can be overcome.

Little scholarly work has been undertaken to explain the link between government supported facilities and accessibility to Health services in Uganda, this study will fill the gap on what government supported facilities affect the accessibility to health services by people in Karugutu Sub-County and how they affect the accessibility to health services.

The study could be useful to mid and top level managers in the Health department and in particular Ntoroko District. Scholars of management at scholarly level will also find the study useful.

Understanding of government supported facilities and their influence to accessing the Health services will provide a useful guide in formulating appropriate intervention/measures. It will provide literature on recommendations for the improvement of the Health service provision in the District

1.9 Scope of the Study

In the content scope of this study, this study investigated the extent of effectiveness of government supported facilities affecting or influencing the accessibility to health services. Since health services are broad, the study provided literature on specific services such as; access to drugs, out-patient diagnosis, medical examinations, and number of patients attended to, level of mortality rate, drug prescription and regularity of treatment. In this regard, it assessed the extent to which the outlined variables are accessed in Karugutu Sub-County Health Centers.

Concerning the geographical scope of this study, the study covered the public health sectors in Uganda with particular reference to Karugutu Sub-County Health centers in Ntoroko County, Ntoroko District. These health centers have been chosen among others because of their easy accessibility to gather information.

Regarding the time scope of this study, the study covered the period from 2006/2007, 2008/2009 and 2009/2010 financial years in order to capture relevant information and because it is the period with in which the Health sector strategic plans were intensively implemented. The study used cross-sectional approach in time scope so as to comparatively investigate the level of accessibility to health services in the last three years such that a common understanding and conclusion could be drawn.

1.10. Operational Definitions of Key Terms

Health services, for purposes of this research, were perceived as different services offered at the Health centers and they included: immunization, laboratory services, maternity, provision of

medical examinations, prescription of drugs, attending to patients, admitting patients among others.

Health infrastructure was perceived as the physical set up that enable the health centers to function like buildings, laboratory equipment, transport and communications, power and water, beds, offices and rooms as wards as well as roads.

Human Resources were looked at as people working at the health unit and these included: Doctors, Nurses, Laboratory Technicians, health center managers and health unit management committees.

Medical facilities in this research were seen as things that are directly used in the treatment of patients and things that can also be used to acquire the items used to acquire things for treating patients. In this research they included cotton wool, drugs, financial resources and plasters.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviewed the existing literature related to the subject of Government supported facilities affecting accessibility to health services. This was aimed at bringing out a deeper understanding and appreciation of the role played by the government supported facilities in accessing the services at health equipments as stressed by various scholars. Sources of this literature are mainly primary and secondary which include; text books, journals, articles, Health reports, dissertations and internet. The literature reviewed was under the four principle themes, health infrastructure, human resource, medical resource and financial resources.

2.1 Theoretical Review

This research was based on physical and psychological needs theory to support or hinder an individual's ability to access services or participate in activities (Gilligan, 1982). This theory strongly emphasizes that the participation of an individual in delivering and accessing services highly depends on their physical and psychological needs. As such, if people are physically fatigue and psychologically stressed of in any way, this affects their accessibility in services

Since some studies on health service accessibility indicated that many of the health centers in the country are ill-equipped with medical materials, infrastructure and human resource, these causes a lot of psychological stress and physical fatigue in patients hence limiting them from accessing health services.

2.1.1 Health Infrastructure as a Government supported facilities affecting the Accessibility to Health Services

According to the ministry of health report [2000] there is a massive backlog of dilapidated infrastructure due to previous neglect which adversely affects access and quality despite the free health services provided by government to government health facilities. Annual Health sector performance report [financial year 2004/2005] stresses that health infrastructure constitutes one of the key inputs for health services delivery and is composed of buildings [both medical and non medical] health centre equipments, communication facilities [Radio calls] and transport facilities. The above health infrastructure components support the delivery of health services. The up grading of health centre II's to III's and III's to IV's has led to improved health services delivery [ministry of Health 2005], in order to improve emergency care, theatres and medical officers' Houses were constructed at health centre IV's. However, there was a mismatch between construction and the capacity to make these government supported facilities functional [Uganda Bureau of statistics, 2004]. Karugutu health centre IV's theater and medical officer's house have never been operational, hence the need for finding out whether services are being accessed at the health center.

Ministry of health report as at 30th June 2005 stresses that construction of 118 operating theatres and 130 doctors houses were completed, 78 theatres were equipped and 134 health centre IV's were provided with multipurpose vehicles. However the level of functionality varies considerably from district to district. There is inadequate accommodation facilities for health workers at health centre IV's IIIs and IIs most of the staffs have to hire accommodation outside the duty stations, services such as maternity, theatre and many others that are required on a 24 hour basis are severely compromised during the night hours [annual Health sector performance report FY 2004/2005]. It further urges that effective health service delivery requires a network of functional

health facilities that accessibility improved from 49% to 72% by 2005. 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 Karugutu Sub county health centres.

Infrastructure is basic system and services that are necessary for a county or organization. These include among others buildings, transport, water, power supplies and administrative systems. Health centre facilities especially in developing centres, offer more than medical care to the sick (periago R. 2004). Health centres hosts many public health reference laboratories, contribute to the diagnosis and prevention of illnesses, signal and early warning of communicable diseases, serve as resources. Centres for public health education and are magnets for research. But the long-term impact of the loss or sufficiency of these public health institutions particularly their physical infrastructure exceeds the impact of delayed treatment of trauma, injuries and the like. This hidden impact is difficult to quantify and consequently often over looked.

In determining some of the government supported facilities affecting the health service accessibility to people in Uganda, the report of Ministry of Health-Uganda (2005) indicated that one of the most pressing government supported facilities in this regard is the aspect of health infrastructure in the country. 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 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.

2.1.2 Human Resource as a Facility Influencing the Accessibility to Health Services

Health policy and development [volume 6 Number 3 December 2005]points out that personnel for health in much of the developing world particularly in sub-Saharan Africa are inadequate and poorly distributed, there is a mismatch between supply and demand, high mobility across local, national, regional and international boarders [Narasimban et al, 2004]. These challenges pose a serious obstacle to the achievement of improved health. Geographical imbalance in the distribution of health workers aggravates the health personnel crisis.

The number of trained health workers in Africa has historically been inadequate; many countries have suffered from serious scarcities of almost all cadres [USAID, 2003]. The expansion of the health facility network in many African countries has been done in an uncoordinated way, such that the construction and refurbishment of health facilities has not matched with the ability of the national health system to staff and maintain them on a sustainable basis.

In Uganda the recent program to set up health centres at every parish was not followed by increased production and recruitment of health staff to fill them.

Many standing health centres which are not staffed or are understaffed. Therefore patient's access to functional health services continues to be difficult.

To circumvent the problem of staff shortage some countries have opted to use substitute cadres for duties that were the traditional domain of other more highly qualified professional cadres, like the nursing assistants to do the work of qualified nurses. Of recent; this task shifting approach has even received world health organization backing [WHO, 2007].

According to Decenzo and Robbins (2002), for an organization to achieve its goals of needs inputs financial resources, (such as money), and people. However managers forget about how important the people variable is to the success of an organization, and so have failed because they have taken their human resources for granted. Organizations are composed of people, and these people represent one of the organizations most valuable assets. However, because organizations do not own people, as they do to capital and physical assets, this resource is seldom given proper attention. In support of the above, Sambo (2007) claimed that less attention is being paid to the people who actually deliver health care.

Decenzo and Robbins (2002), stress that the supply of human resources must be sufficient to ensure the health operation of the organization, whether be it a business firm, a government agency, or university, towards this objective of confirming health operations, requires health workers, acquired through human resource planning, training and development system.

The new local government staffing norms which propose an increase in staffing levels of health centres and in particular having two medical officers at health centre IV is a step in the right direction but there is also a high turnover of medical officers in the health centre IV's [annual sector Report October 2005]. The above therefore calls for a study to find out how Human resource has affected the accessibility to health services in Karugutu Sub county health centres.

While commenting on the level of health service accessibility in Uganda especially in the areas of family planning and reproductive health, Glenngård, and Hjalte (2006) indicated that the level of accessibility in those services still remain minimal throughout the country. Giving a reason for this cause, the scholars established that shortage in human resource especially in advocacy, to

spearhead capacity for health service delivery and sensitization and education as facilities affecting the accessibility level to health services especially in rural areas.

In a similar way, Mossialos and Dixon (2002) also noted that one of the major government supported facilities limiting accessibility to health services in Uganda is the shortage of skilled and experienced personnel like doctors. In his study, the author indicated that many of the patients who seek some medical services in Level II and Level III health centers tend to be referred to Level IV health centers because of lack of highly skilled human resource in those health centers. According to him, even patients find it very hard to access services in those Level IV health centers they are referred to since they are still ill-equipped with doctors hence making accessibility to health services in many parts of the country very hard.

In establishing why the level of accessibility to health services is still minimal in Uganda, World Health Organization (WHO) (2007) pinpointed the technical capacity of bureaucrats as a reason for this cause. According to this report, the technical capacity of bureaucrats in Uganda varies. Improving the accessibility to health services demands institutional capacity and yet the MOH supervision is limited. Further still, it has also been noted that the too few health workers in Uganda are not well motivated and lack of passion among them makes accessibility of health services to patients difficulty as many of the health workers don't arrive on time, district officials may lack the time to track order status and follow up with the NMS. It is therefore within this fact that the accessibility level of health services in public health centers in still down the earth.

2.1.3 Medical Materials as Government supported facilities Affecting the Accessibility to Health Services

Resources are the key inputs for health [Kabene 2006], she adds that availability of drugs and supplies in appropriate quantities at the appropriate time should therefore be an important responsibility for health administrators. Districts with good performance on drugs are likely to perform well overall [ministry of health 2005]

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 2004/2005] it further stresses that in financial year 2004/2005, 65% of health units experienced a monthly stock out of drugs. Logistics managers should strive to ensure a consistent and reliable supply of the products that they require serving their clients. Health community is achieved when every client is able to choose, obtain and use health products when ever he/she needs them [Uganda Health Facilities Survey 2002]. However this may not be true to most health centres where it was reported in annual Health sector performance report 2004/2005 that 37% of the Health centres had stock outs. Due to the above, the researcher was prompted to conduct a research of finding out the relationship between availability of resources and accessibility to health services. Resource management specializes in the development and implementation of plans and strategies disguised to help organizations and individuals meet their goats, Mossialos and Dixon (2002). Finances resources management understands the advantages of using sound proven and innovative financial strategies in achieving the desired results. 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, Mossialos and Dixon (2002). This aims at summarizing the issues of considering how funding systems can be designed in order to achieve policy objectives.

According to stover (2001) allocated resources for health flows through various layers of national and local government institutions on their way to the health facilities.

In elaborating why the level of health service accessibility is still low in Uganda's health centers, World Health Organization (WHO) (2007) 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 difficulty since many of the health centers will have to stay without medical facilities.

Financial resources have also been blamed for low level of accessibility to health centers in Uganda. A study by United Nations Development Programme (UNDP) (2008) for example indicates that the budget for provision of health sector in the country is still low and yet a lot is needed. This means that the government support for health sector is still minimal. Most of the drugs and other medical facilities in public health centers are funded by donor organizations and yet in the health sectors, supplies of medicines are less than half of required amounts. This therefore affects the accessibility of health services to many patients in the country.

Another aspect under medical facilities that limits the accessibility to health services in Uganda according to Chattoe-Brown and Bitunda (2006), is the concerns about accountability and

transparency of government spending and other health center 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 centers, drugs get lost and many people are not held responsible. It is through this factor that medical facilities in many public health centers are insufficient and that many patients fail to access health services.

Glenngård, and Hjalte (2006) also had a similar view to that of Chattoe-Brown and Bitunda (2006) especially when trying to establish reasons for low accessibility level of health services to patients in Uganda. Taking into consideration the accessibility to HIV/AIDS for example, they strongly blamed the mismanagement of HIV/AIDS funding as a reason for poor medical facilities. A lot of money meant for the provision of services to those HIV/AIDS patients normally gets lost and yet many patients fail to access drugs and improve contraceptives.

2.1.4 Financial Resources as Government supported facilities Influencing the Accessibility to Health Services

In establishing the influence of financial resources on accessibility to health services in many developing countries, Narasimban et al, (2004) indicated that many governments 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 improvement of health sector in many developing countries is still low. This results to poor health or medical facilities in public health centers. Thus the result of inadequacy of health or medical facilities is that many people cannot effectively access public health services hence limiting accessibility to public health services by people in developing countries including in Uganda.

Another studies by Decenzo and Robbins (2002), it was also noted that insufficient funding of public health centers and poor payment of health workers reduces the moral of the workers many developing country. According to this study, low payment to public 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 public health centers. This kind of experience makes them reluctant to get health services from the public health centers and hence leading to low accessibility to public health services by people.

Furthermore, Mossialos and Dixon (2002) also noted that financial resources are very important government supported facilities affecting the accessibility to health services both directly and indirectly in Uganda. In his explanation, Mossialos and Dixon (2002) noted that treatments to HIV / AIDS and reproductive health can only be effectively done under sufficient financial resources since they need special facilities. According to the author, 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 public health workers. Thus, this leads to low services delivery on the side of health workers hence discouraging accessibility to health services by people in public health centers especially in relation to HIV / AIDS and reproductive health.

Corruption, embezzlement and misappropriation of funds meant for purchase of health equipments and improvement of public health infrastructures by the top most health officers is also another

factor leading to low accessibility of public health services in Uganda. Studies by WHO (2007) for example cited that corruption is one of the aspects that discourages good working moral 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 public health centers and low payment to health workers have greatly affected the accessibility to health services by many people in Uganda. Studies carried out by Karugire, (1992) using observation techniques found out that due to low health staff payment, in most of the sub-counties' health centers (92.3%), the health workers were absent and many of them (65.4%) reported to the health centers after 8:00 AM on those days that they had worked. Consequently, a majority of the health centers (95.8%) did not open on time. Through this system, accessibility to health services in Uganda is made difficult by many people.

Similar studies carried out by Kisamba, (1991) using Participatory Learning and Analysis (PLA) method. This study observes that due to low payments to health workers, patients indicated that the health workers report late for duty or in some cases they do not report at all, and so, they are not always attended to. This finding suggests that the government should try to work on the better funding of health centers and payment of health centers so that better accessibility to public health service can ensured by the local population.

Districts health centers 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 (Walism, 1998). This suggests that the contribution of local government and community members in financing health sectors is still low hence financial resource acquisition roles including, making health sector budgets, health center buildings as well as repairing health center are singled out as the roles the Central Government that in most cases is insufficient.

2.2 Conclusion

The impression from the related literature somewhat underpins that health infrastructure, human resource, medical materials and financial resources both directly and indirectly contribute to the accessibility to health centers. However, none of the studies analyzed in the literature was done in Karugutu District in Ntoroko District. This suggests that study in Karugutu Sub-County, Ntoroko District needs to be done such that the extent of effectiveness of health infrastructure, human resources, medical equipments and financial resources in determining the accessibility could be investigated.

2.3 Gaps in the Literature

From the literature it can be seen that most of the literature reviewed especially those by Decenzo and Robbins (2002); Periago (2004); Narasimban et al. (2004); Gilligan (1982); Mossialos and Dixon (2002); Karugire (1992); Kisamba (1991); Walism (1998) among others were over a decade ago. This means that there is already a gap in information related to time frame as many changes in trends regarding non-formal education and accessibility of children to education as influenced by socio-economic as well as modern technology have occurred. Thus, there is need to investigate the current trends on government supported health facilities and

accessibility to health services in Uganda. Further still, there has not been any critical investigation on different issues regarding government supported health facilities and accessibilities to health services in Karugutu Sub-County, Ntoroko District by any of the authors whose works has been reviewed in the literature. This suggests that there was still a need to carry out a critical assessment of government supported health facilities and how it impacts on accessibilities to health services in Karugutu Sub-County, Ntoroko District of recent.

It can also be seen that none of the literatures reviewed was quantitative. Many of the research findings were qualitative thus could not establish the extent at which the health infrastructure, human resource, medical facilities and financial resources affect accessibility to health services. Thus, this study attempted to address this gap by establishing both quantitative approaches to draw a clear picture on the relationships between the research variables with the help of mean values and correlation.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presents the method 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 a correlation and case study designs. Correlation design is the design that statistically describes the nature and degree in which dependent variable relates and responds whenever the independent variable is manipulated. Therefore, correlation design was chosen because it helped in the determination of relationship between the independent variables and dependant variable used in the study. Furthermore, the research design also helped in description of the degree or strength of relationship between health infrastructure, human resource, medical materials and financial resources to accessibility of health centers through the use or Statistical Package for Social Scientist (SPSS) in terms of mean, standard deviation, correlation matrix and regression analysis.

The case study design was also chosen to select specific government aided health centers in Karugutu Sub-County as representation for all other health centers in Uganda such that generalization of findings could be done. Through case study design, time frame for this study and financial shortage that might be limitation to this study was somewhat solved since the study was only carried out in some selected health centers in Karugutu Sub-County to generalize the findings in the level of accessibility to health services in Uganda determined by effectiveness of human resource, financial resource, health infrastructure and medical materials.

Involving both correlation and case study designs also helped in the use of qualitative and quantitative as well as analytical analysis and investigation processes hence helping a lot in the data processing and analysis of the information gathered especially for academic purpose.

3.2 Study Population

The study focused on the District health officers, Health workers at Karugutu Health Center IV, community members and the chairperson health unit management committee. According to the population projection of 2010, the population was projected to be 25,500 (The Higher Local Government Statistical Abstract-Bundibugyo District-June, 2009). The fore-mentioned population category was targeted so as to achieve fair findings regarding the study variables since what one category of population could be mentioned by the other category.

3.3 Sample Size and Selection

The researcher used both purposive and stratified random sampling techniques to sample respondents and the sample size was 394 respondents out of 25500 involving District Health Officer, Health Workers, Management Committees, community members and patients in the selected health centers in Karugutu Sub-County. The 394 sample size was determined using Yamane's formula:

$$n = \frac{N}{1 + N(e^2)}$$

Where; n = the sample size

 N = the population size

and e = the level of significance, which is = 0.05.

Therefore, the sample size of this study was 394 respondents hence making study sample large enough to represent the salient characteristic of the accessible population as a target group. The summary on the population size and sample size is indicated in Table 1.

Table 1: The Population Category and the Sample Size

Category	Population Category	Sample size	Methods of sampling
District Health Officer	01	01	Purposive sampling
Health Workers	20	20	Purposive sampling
Management Committee	12	12	Purposive sampling
Community Members	25,000	250	Stratified Random sampling
Patients	467	111	Stratified random sampling
Total	**25,500**	**394**	

Source: Researcher from Primary and Secondary Sources of data

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 community members and patients while other categories such as management committee, health workers and District Health Officer were purposively sampled.

Stratified random sampling was used so as to select community members and patients because it was believed that some of the 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. Thus, through stratified random sampling, the researcher first divided the population of patients and community members based on their conditions to deliver their education level and age category such that respondents who could give the needed information for this study could be sampled randomly from them.

Purposive sampling technique was used to get some of the realistic information about dependent variables such as the financial resource availability for health facilities in the district as they play a greater role in budgeting; and human resource management gaps as they deal with remuneration and recruitment among others. In this regard, those capable of delivering information regarding aspects fore-mentioned like the district health Officer, health workers, and management committees were targeted.

3.5 Data Collection Instruments and Methods

Since the study was both qualitative and quantitative in nature, data collection approach involving four approaches, that is too say, use of questioning, interviews, observation checklist and documentary review were used.

3.5.1 Research Methods

3.5.1.1 Observation Checklist

This information obtained through observation check list was used to either affirm or challenge information obtained from respondents especially through questionnaires and interviews, hence helping in data analysis. Issues that formed important part of observation checklist involved the state of health infrastructure, medical materials and availability of human resource were determined.

3.5.1.2 Documentary Review

This method was used to collect secondary data which was already available in published/ unpublished form. This method helped in gathering sufficient information about the number of patients who get medical services on daily basis, number of health workers such as doctors, nurses, laboratory technicians among others, and stock levels of medical facilities such as drugs, cotton wools and syringes.

3.5.2 Research Instruments

Two research instruments were employed and these included the questionnaire and interview guide. These are discussed below:

3.5.2.1 Questionnaire Survey

The researcher employed closed-ended, open ended and structured questionnaires as instruments to collect data; they were of 4 Likert Scale. The attitude of the respondents determined by the way they would have answered the questions (Amin, 2005). 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 health workers and stakeholders like some members of the community as they have sufficient knowledge about facilities in health centers and accessibility to health services.

3.5.2.2 Interview Guide

Using interview guides, some interviews were conducted with key informants to gather information from the chairperson health unit management committee, District Health Officer and

other members of the community who could provide detailed and alternative information about study variables. The interviews were face to face and this helped the researcher in getting people's perception and reality on why accessibility to health centers is relatively low.

3.6 Reliability and Validity of Research Instruments

Reliability of an instrument is the extent to which the measure is without bias and hence offers consistent measurements (Sekaran, 2003). Drafts of the questionnaires and interview were discussed with colleagues, after which they were discussed with the supervisors for further guidance. Pre-testing was carried out using 30 respondents. The questionnaires were then evaluated using four point rating scale. The reliability of the instrument that is, on government supported facilities (human resources, health infrastructure, medical facilities and financial resource) were determined using internal consistency estimates of Cronbach's Alpha co-efficient which was to be from $\propto=0.7$ and above. If it was less than this, then the instrument would be considered unreliable and the researcher would make new instruments.

According to Sekaran (2003), validity of an instrument refers to the effectiveness of research instruments in obtaining data so as to achieve the stated research objectives. Regarding the validity of the research instrument, the research instruments were determined by Content Validity Index (CVI). In this regard, the researcher asked some two experts to act as raters. The two raters in this case helped in assessing the extent to which the items in the questionnaire met the demands of research objectives or not. After proper assessment, the experts helped in phrasing unclear questions so as to avoid ambiguity. Then revision of the questions was done while following the recommendations from the raters. After that, compilation of the responses from raters was

computed to determine the Content Validity Index (CVI). The details of Content validity Index are shown in Table 2 on the next page.

Table 2: Reliability and Validity of Instrument

	Relevant items	**Not relevant items**	**Total**
Rater 1	43	3	46
Rater 2	42	4	46
Total	**85**	**7**	**96**

Total number of items rated as relevant

Total number of items being judged / rated in the questionnaire

$$\text{CVI} \quad \frac{85}{96} \quad =0.$$

The CVI was 0.89, which was greater than 0.7 (the Cronbach's Alpha co-efficient). Thus the instruments were considered valid because the items in the instruments were relevant and sufficient to cover the content validity index.

CVI   **3.7 Data Gathering Procedures**

Before the data gathering

Before data gathering a letter was obtained from the Postgraduate Studies and Research of Uganda Management Institute as an introductory letter to those who were involved in the exercise.

The researcher sought permission from the health management Committees of the selected health centers from where the research exercise was carried out. A formal list of health workers and patients was obtained. The researcher together with research assistants visited the different selected health centers and sample 394 respondents both randomly and purposively ensuring that each category was represented and capable respondents were selected.

During the data gathering

During data gathering, self administered questionnaires (SAQs) and interviews were administered to respondents with the help of research assistants and after filling in the questionnaires and obtaining information through interview as well as observation, the researcher collected the instruments to prepare data on issues of interest for the area of study. The researcher with research assistants constantly visited the sampled respondents ensuring that the questionnaires and interviews are done in about three weeks.

After the data gathering

After data gathering, the researcher then analyzed the data using Pearson's Product Moment Correlation and Multiple Regression Analysis so as to find out the level or degree of variation among different study variables. Necessary editing was also done to make sure that standardized study was done for academic purpose. The researcher at last presented the report for final approval hence rendering it ready for defense.

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 hypothesis and to identify the nature and extent of relationship between government supported facilities (health infrastructure, human resource, medical facilities and financial resource) and the accessibility to health services in the Karugutu Sub-County, Ntoroko District. The analysis was done using the Statistical Package for Social Sciences (SPSS). Data interpretations for both independent and dependent variables were differently done as indicated below.

3.9 Measurement of Variables

For the level of effectiveness in government supported facilities such as health infrastructure, human resource, medical facilities and financial resource in the selected health centers in Karugutu Sub-county, the following values, range and interpretation were used.

Mean Range	Response Mode	Interpretation
3.26-4.00	strongly disagree	Very Effective
2.51-3.25	Strongly Agree	Effective
1.76-2.50	Agree	Ineffective
1.00-1.75	Disagree	Very ineffective

For the level of accessibility to health services in Karugutu, the following values, range and interpretation were used.

Mean Range	Response Mode	Interpretation

3.26-4.00	strongly disagree	very high
2.51-3.25	strongly agree	high
1.76-2.50	Agree	low
1.00-1.75	Disagree	Very low

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

4.0 Introduction

This chapter presents analyses and interprets the data collected from the field. 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 a satisfactory conclusion to answer the research questions and to test hypotheses.

4.1 Profile of Respondents

Respondents in this study were described according to genders, age groups, education level, and dominations as indicated by frequencies and percentage distributions in Table 3on the next page.

Table 3: Profile of Respondents (n=394)

Gender	Frequency	Percent
Male	218	55.3
Female	176	44.7
Total	**394**	**100.0**
Age Group		
20-29	116	29.4
30-39	84	21.3
40-49	82	20.8
50-59	67	17.0
60 +	45	11.4
Total	**394**	**100.0**
Education Level		
Primary	99	25.1
Secondary	155	39.3
Tertiary	140	35.5
Total	**394**	**100.0**
Experience		
1-2 Years	25	6.3
3-4 Years	57	14.5
5+ Years	312	79.2
Total	**394**	**100.0**
Denomination		
Protestant	91	23.1

Catholic	114	28.9
Pentecostal	50	12.7
Moslem	31	7.9
Adventist	108	27.4
Total	**394**	**100.0**

Source: Primary Data

Results in Table 3 indicate that 55.3 percent of men participated as respondents in this study and 44.7 percent of women participated as respondents. This suggests that both men and women were given fair and proportionate opportunity to participate in this study as respondents so as to obtain a 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 3 indicate that most respondents were still in their early adulthood age 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 health services in Karugutu 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 3 also indicate that most of the respondents sampled in Karugutu 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

stopped in primary education. Different respondents from different education background 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 level was very instrumental in the data analysis since people with different attitude and believes influenced by their education level had different ideology regarding accessibility to health service.

Regarding the experience of respondents, the study took in consideration the number of years the respondents selected had taken in Karugutu Sub-county. The findings in Table 3 demonstrate that the majority of the respondents had stayed in the area for over five years (79.2 %); followed by those who had stayed in the area for 3 to 4 years (14.5 %); and lastly, the least participants in the area had spent 1 to 2 years (6.3 %) in the area. This indicates that the majority of the respondents had sufficient experience of health services in the area hence could reveal reliable information concerning the government supported facilities affecting the accessibility to health services in the area.

Finally, the study investigated the denomination of respondents since accessibility to health services could be affected by different religious beliefs. The data in Table 2 further indicates that majority of the respondents were Catholics (28.9 %); followed by the Adventists (27.4 %); next was Protestants (23.1 %); then Pentecostals (12.7 %); and lastly, the least participants in the research were the Moslems (7.9 %).

4.2.0 Extent of Effectiveness of Health Infrastructure in Accessing Health Services in Karugutu Health Centers

The first research objective was to find out the extent to which health infrastructure contributes to the accessibility to health services in Karugutu Sub-County in Uganda. To achieve this objective, the researcher asked 8 questions in the questionnaire and each question was based on the four points 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 as basis for accessibility to health services in Karugutu Sub-County Health Centers by ticking one number from the four options. Their responses were summarized using means as indicated in Table 4.

Table 4: State of Health Infrastructure in Karugutu Health Centers (n=394)

	Mean	Std. Dev	Interpretation
The health centers have near by water sources for staff and patients	3.21	.77	Agreed
The health centers have enough rooms for patients (as wards/ offices)	3.18	.88	Agreed
The health centers have good telecommunication systems	3.16	.86	Agreed
The health centers have sufficient power for both day and night	3.14	.81	Agreed
Karugutu Sub-county health centers have enough vehicles for staff and patients (ambulances and staff cars)	2.86	.97	Agreed
The health centers have well equipped laboratories	2.41	.92	Disagreed

The health centers have sufficient beds for patients	2.19	1.00	Disagreed
The Health center has sufficient health infrastructure and this makes patients recover faster	2.12	1.01	Disagreed
Overall Mean Average	**2.78**		**Disagreed**

Source: Primary Data

The means in Table 4 indicate that majority of respondents agreed that most of the items on the health infrastructure in Karugutu health centers effective. They agreed that the health centers in the sub-county have nearby water sources for staff and patients (mean of 3.21); that the health centers have enough rooms for patients (as wards/ offices) (mean of 3.18); they also agreed that the health centers have good telecommunication systems (mean of 3.16); they again agreed that the health centers have sufficient power for both day and night (mean of 3.14); and lastly, they agreed that the health centers are well equipped with laboratories (mean of 2.86).

However, respondents disagreed on the effectiveness of some items under health infrastructure in Karugutu health centers. They disagreed that the Health centers have sufficient health infrastructure and that makes patients recover faster (mean of 2.12); they again disagreed that the health centers have sufficient beds for patients (mean of 2.19); and lastly, they disagreed the health centers have well equipped laboratories (mean of 2.41).

To get the overall picture on the situation of health infrastructure in Karugutu Sub-County Health centers, the mean values for all the 8 questions in Table 4 were added and divided by 8 to get the overall mean of 2.78, which falls under effective (agreed) on the rating scale. This implies that the situation of health infrastructure in Karugutu Sub-County is fairly good though there are still needs

for improvement especially in the areas of beds, laboratory facilities among others health infrastructure facilities.

The values of standard deviation in Table 4 help in assessing and examining the level of variability in responses from the mean value. In this regard, the larger the value of standard deviation, the more the individual data points differs from responses of SA, D, A and SA.

Therefore, since most of the items have relatively low values of standard deviation; it means that there is low variability in the responses. In other terms, majority of the responses were not much deviating from the mean of the scores from responses of SD, D, A and SA. In this case, it can be said that the findings regarding the state or situation of health infrastructure in the case of Krugutu Sub-County Health Centers can be trusted since there is low level of variability.

From the information generated through interview, majority of the informant accepted that there is availability of water for both staff and patients; enough rooms and sufficient power. However, many of them noted that beds are still not enough for patients. One of the patients was quoted saying "*When I came here, all the beds were already taken up by other patients. Thus, I had to put down my bed so that I can access medical services.*" I also observed that several patients had put down their mats to sleep on as there were few beds in wards. In some rooms, there were only four beds and the wards could contain eight patients or more. This confirms the shortage of beds in the health centers is still a big challenge and this could affect accessibility to health services. Other aspects that were also physically observed included the availability of water for patients, solar panels to generate power.

4.2.1 Correlation Analysis between Health Infrastructure and Accessibility to Health Services in Karugutu Health Centers

To establish whether there is a significant relationship between the level of effectiveness of health infrastructure and accessibility to health services in Karugutu Sub-County, and testify the research hypothesis that stated that health infrastructure significantly affects accessibility to health services in Karugutu 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 5.

Table 5: Relationship between Health Infrastructure and Accessibility to Health Centers in Karugutu Sub-County

Correlations			
		Health infrastructure	Accessibility to Health Service
Health infrastructure	Pearson Correlation	1	.973[**]
	Sig. (2-tailed)		.000
	N	394	394
Accessibility to Health Service	Pearson Correlation	.973[**]	1
	Sig. (2-tailed)	.000	
	N	394	394
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: Primary Data

The value p=0.973 and sig. 0.00 implies that there is a positive significant relationship between the effectiveness of health infrastructure and the level of accessibility to health services to people

in Karugutu Sub-County. According to the findings, the research hypothesis that stated that health infrastructure significantly affects accessibility to health services in Karugutu Sub-County in Uganda is accepted. In other terms, it can be said that the more effective health infrastructures are, the higher will be the people's accessibility to health services.

4.2.2 Regression Analysis between Health Infrastructure and Accessibility to Health Services in Karugutu Sub-County

As the correlation analysis between health infrastructure and accessibility was found to be significant, there was need to confirm the findings using regression analysis. The finding regarding this are showed in Table 6.

Table 6: Regression Analysis between Health Infrastructure and Accessibility to Health Services

<table>
<tr><th colspan="7">Coefficients^a</th></tr>
<tr><td rowspan="2"></td><td rowspan="2"></td><td colspan="2">Unstandardized Coefficients</td><td>Standardized Coefficients</td><td rowspan="2">t</td><td rowspan="2">Sig.</td></tr>
<tr><td>B</td><td>Std. Error</td><td>Beta</td></tr>
<tr><td colspan="2">Model</td><td>B</td><td>Std. Error</td><td>Beta</td><td>t</td><td>Sig.</td></tr>
<tr><td>1</td><td>(Constant)</td><td>-2.585</td><td>.205</td><td></td><td>-12.614</td><td>.000</td></tr>
<tr><td></td><td>Health infrastructure</td><td>10.893</td><td>.076</td><td>.973</td><td>142.705</td><td>.000</td></tr>
<tr><td colspan="4">a. Dependent Variable: Accessibility to Health Service</td><td></td><td></td><td></td></tr>
</table>

Source: Primary Data

The presentation in Table 6 illustrates that both regression model summary and coefficient values were used to determine the degree of relationship between effectiveness of Health infrastructure and accessibility to health service to the people of Karugutu Sub-County. The degree of

relationship between the effectiveness of health infrastructure and accessibility to health services in the sub-county is generally high at 97.3 percent. This is indicated by the Beta value of .973 at level of significance at 0.00. This finding reveals that the state of health infrastructure has a positively and significantly affects people's accessibility to health services. This finding signifies that effectiveness in health infrastructure positively influences or impacts on the level of accessibility to 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 centers.

In this regard, this research finding agrees with the first research hypothesis that stated that health infrastructure significantly affects accessibility to health services in Karugutu Sub-County in Uganda.

This finding also concurred with the findings obtained through interview where respondents indicated that indeed they get discouraged whenever they do not get beds; whenever laboratory and its equipments are not functioning and whenever the boreholes have problems.

4.3.0 Effectiveness of Human Resource in Accessing Human Resource in Karugutu Health Centers

The second research objective was set to determine the extent to which the effectiveness of human resource influences the accessibility to health services in Karugutu Sub-County. Before establishing the relationship between the two study variables, the extent of effectiveness of human resource in Karugutu health centers. The responses regarding this are established and summarized using means as indicated in Table 7 on the next page.

Table 7: Extent of Effectiveness of Human Resource in Karugutu Health Centers (n=394)

	Mean	Std. Dev	Interpretation
Health workers attends to patients as soon as they reach the health centre	2.96	1.01	Agreed
The health workers in Karugutu Sub-County here receive further training to enhance their skills	2.94	.99	Agreed
Karugutu Sub -County Health centers have adequate staff	2.83	.77	Agreed
The Health Unit Management Committee is functional in its duties	2.80	1.07	Agreed
The remuneration of health Center Staff if timely done	2.76	.97	Agreed
Karugutu Sub-County Health Sector has all categories of staff	2.66	.95	Agreed
The patients take little time to access laboratory services	2.48	.95	Disagreed
The Health staff are evenly distributed	2.44	1.06	Disagreed
The Health centre staff attends to all patients	2.43	.87	Disagreed
There is effectiveness in task-shifting among the health workers in Karugutu Sub-County Health Centers	2.42	1.09	Disagreed
The human resource in the health centers is sufficient and this makes patients recover in time	2.31	1.08	Disagreed
There is high level of customer care to all patients by health workers in Karugutu Sub-County Health Centers	2.30	.96	Disagreed
Overall Mean Average	**2.61**		**Agreed**

Source: Primary Data

The findings in Table 7 portray that respondents agreed with half of the items under investigated and disagreed with half of them. Thus, under human resource, respondents agreed that health workers attend to patients as soon as they reach the health centre (mean of 2.96); they agreed that health workers in Karugutu Sub-County receive further training to enhance their skills (mean of 2.94); they also agreed that Karugutu Sub -County Health centers have adequate staff (mean of

2.83); they then agreed that the Health Unit Management Committee is functional in its duties (mean of 2.80); after which respondents agreed that remuneration of health Center Staff is being timely done (mean of 2.76); and lastly, respondents agreed that Karugutu Sub-County Health Sector have all categories of staff (mean of 2.66).

As already indicated, respondents disagreed on half of the items investigated to determine the effectiveness of human resource at Karugutu Sub-County. The items respondents disagreed on included the level of customer care offered by health workers to all patients being high in Karugutu Sub-County Health Centers (mean of 2.30); the human resource in the health centers being sufficient hence making patients recover in time (mean of 2.31); next was on there being effectiveness in task-shifting among the health workers in Karugutu Sub-County Health Centers (mean of 2.42); then, the health centre staff effectively attending to all patients without discrimination (mean of 2.43); after which, the health staff being evenly distributed (mean of 2.44); and lastly, respondents disagreed that patients take little time to access laboratory services (mean of 2.48).

To get the overall picture on how effective the human resource at Karugutu Health Center is, the means for all the 12 questions in Table 7 were added and divided by 12 to get the overall mean of 2.61. This implies that respondents generally agreed that the human resource in Karugutu Health Centers is generally effective although there is still need for improvement such that better performance can be ensured so as to guarantee better accessibility to health services to the people in there.

Since the values of standard deviation of the items are relatively high, it can be said that the level of variance among those individual variables is generally high. In other terms, it can said that

majority of the responses highly deviated from the mean of the scores from responses of SD, D, A and SA. The impression here is that the findings regarding the effectiveness of human resource in Karugutu Sub-County Health Centers may require more investigation since there is generally high level of variability in mean values deviating from responses of SD, D, A and SA.

Basing on the information obtained through interview, both the administrators and patients compliant of few health practitioners in the health centers. There was shortage of different carders in the health centers and this made health workers to be overloaded with work. One of the health workers workers was quoted saying, "*As there are few health workers in this health center, we are forced to do both administrative and clinical duties.*" This statement clearly indicates that there is shortage of human resource at the health centers in karugutu Sub-County.

From the observation, it was also found out that there were only three mid wives in one of the health centers and four nurses in total. Some of the gaps in human resource however have been filled by nursing aiders with little knowledge and experience.

4.3.1 Correlation Analysis between Human Resource and Accessibility to Health Services

To establish the influence of human resource on accessibility to health services in Karugutu Sub-County health centers, correlation analysis was done and the results are shown in Table 8.

Table 8: Correlation between Human resource and accessibility to health service

Correlations			
		Human resource	Accessibility to Health Service
Human resource	Pearson Correlation	1	.990[**]
	Sig. (2-tailed)		.000
	N	394	394
Accessibility to Health Service	Pearson Correlation	.990[**]	1
	Sig. (2-tailed)	.000	
	N	394	394
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: Primary Data

Table 8 also illustrates that there is a strong positive significant relationship between the adequacy in human resource and accessibility to health service at Karugutu Sub-County Health Centers. This is revealed by y the r-value of 0.990 and sig. value of 0.00. Basing on this finding, the research hypothesis that stated that human resources significantly affect accessibility to health services in Karugutu Sub-County in Uganda is supported. The implication from this study finding is that the more effective and adequate human resource is, the higher will be the level of accessibility to health services to the people of Karugutu Sub-County.

4.3.2 Regression Analysis between Human Resource and Accessibility to Health centers

To find the validity of relationship between human resource and accessibility to health services using correlation analysis, regression analysis was also established. The finding regarding this is presented in Table 9.

Table 9: Regression Analysis between Human Resource and Accessibility to Health Services

Coefficients[a]					
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	-2.686	.226		-11.892	.000
	Human resource	10.817	.083	.990	129.857	.000
a. Dependent Variable: Accessibility to Health Service						

Source: Primary Data

The value of β=0.990 at p≤0.00 implies that human resources have a high positive and significant impact on accessibility to health services such that an improvement in human resource in health centers will lead to a significant increase 9improvement) health service accessibility by people. The judgment passed on the second hypothesis based on this finding is that the second hypothesis on the significant relationship between effectiveness of human resource and accessibility of health services in Karugutu Sub-County is accepted.

Through interview method, respondents also confirmed that they tend to get discouraged whenever they come for services and health officials fail to attend to them. This suggests that if health centers are well equipped with human resource, services are likely to be effective and people's accessibility to health services is likely to improve. This is testified by one of the patients as she said:

"What discourages me most whenever I go to health centers is to keep waiting in pain and health officials are not there to attend to you. Sometimes you think of looking for other ways rather than going again to suffer in Health center whose official cannot attend to you easily".

The impression from this quotation is that indeed patients would always like to be attended to whenever they go for treatment. Thus, when health official are few and they are troubled with pain, they do not get the courage to go back for treatment or to take their relatives to such health centers again some other time.

4.4.0 Availability of Medical facilities in Accessing Health Services in Karugutu Health centers

The third research objective of this study was to establish relationship between availability of medical facilities and accessibility to health services to people of Karugutu 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 centers. 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. Their responses were summarized using means as indicated in Table 10.

Table 10: Availability of Medical Resources in Karugutu Health Centers (n=394)

	Mean	Std. Deviation	Interpretation
Other things like plaster, cotton wools etc are always available for patients	3.06	.88	Agreed

Sterilization of syringes is not common in the health centers	2.49	1.21	Disagreed
Drugs are always available at the health centers	2.48	.99	Disagreed
No cases of patients dying here because of insufficient medical facilities	2.43	.98	Disagreed
Bed sheets are always changed for patients	2.25	1.07	Disagreed
No case of theft of medical facilities has been registered	2.18	1.12	Disagreed
Patients receive drugs that has been prescribed at the health centers	2.15	.97	Disagreed
Overall Mean Average	**2.43**		**Disagreed**

Source: Primary Data

Table 10 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 Karugutu Health Centers. The only item respondents disagreed on under medical resource was that of things like plaster, cotton wools etc being always available for patients (mean of 3.06).

As mentioned earlier, respondents disagreed on the most of the items investigated under medical facilities. They disagreed that patients receive drugs that has been prescribed at the health centers (mean of 2.15); they also disagreed that no case of theft of medical facilities have been registered (mean of 2.18); then, they disagreed that bed sheets are always changed for patients (mean of 2.25); next, respondents disagreed that there was no cases of patients dying in the health centers because of insufficient medical facilities (mean of 2.43); after which, they disagreed that drugs are always available at the health centers (mean of 2.48); and lastly, they disagreed that sterilization of syringes and other instruments is not common in the health centers (mean of 2.49).

The general impression on the effectiveness and availability of health facilities in Karugutu Health Centers was determined by adding the means of all the seven items in the Table 6 and dividing it by seven. The overall mean average obtained was 2.43 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 Karugutu Health Centers 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.

Considering the values of standard deviation, it can be observed that the values are generally high for most of the items except the first item. Higher standard deviation values for most of the items indicate that the level of variance in the responses deviating from the mean of the scores of SD, D, A and SA was generally high, thus further investigation may need to be undertaken to ascertain the findings as regard to the availability of health facilities in the health centers in the sub-county. High levels of standard deviation could have been as result of biasness and dishonesty among respondents while answering the questions on availability of health facilities.

4.4.1 Correlation between Medical Facilities and accessibility to 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 11.

Table 11: Correlation between Medical Facilities and Accessibility to Health Services

Correlations		Government supported Medical facilities	Accessibility to Health Service
Government supported Medical facilities	Pearson Correlation	1	.988**
	Sig. (2-tailed)		.000
	N	394	394
Accessibility to Health Service	Pearson Correlation	.988**	1
	Sig. (2-tailed)	.000	
	N	394	394
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: Primary Data

Further still, Table 11 shows that there is a strong positive significant relationship between the effectiveness of government supported medical facilities and level of accessibility to health services to people in Karugutu Sub-County. This finding is confirmed by r-value of 0.988 and sig. value of 0.00. Regarding the research findings, the research hypothesis that stated that there is significant relationship between availability of medical materials and accessibility to health services in Karugutu Sub-County in Uganda is accepted and the researcher contends that effectiveness of government supported medical facilities significantly influences the accessibility to health service to the people of Karugutu 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 health services by people in the area of study.

4.4.2 Regression Analysis between Medical facilities and Accessibility to health Services

In similar way, regression analysis between medical facilities and accessibility to health services was also established. This was done so as to either confirm or deny the findings established by correlation analysis. Table 12 presents the findings on regression analysis between the variables.

Table 12: Regression Analysis between Medical Facilities and Accessibility to Health Services

Coefficients[a]						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	-4.477	.364		-12.290	.000
	Medical facilities	10.710	.126	.988	85.002	.000
a. Dependent Variable: Accessibility to Health Service						

Source: Primary Data

Based on the presentation in Table 12, it can be said that there is a positive significant relationship between effectiveness / availability of government supported medical facilities and accessibility to health services and this is confirmed by Beta = .988, at P< .000. This suggests that the impact of medical facilities on accessibility to health services high, positive and significant.

Considering this finding to test the research hypothesis the third research hypothesis, it can be said that the hypothesis that stated that there is significant relationship between availability of medical materials and accessibility to health services in Karugutu Sub-County in Uganda is accepted.

Basing on the findings obtained through observation checklist, it was found out that several important drugs such as amoxilline, capsules, dexa among many others were not found in the

health centers. This is a clear confirmation that medical facilities in those health centers were still inadequate.

As one of the patients revealed;

"I have been here in this health center for the last two weeks. Most of the drugs prescribed are not in the health center. In most cases, my relatives have to struggle to buy the medicines I take from outside clinics. Our health centers are just by names now but not by what is inside them".

This story reveals a clear frustration of patients. Such incidences discourage many of them from accessing health services.

4.5.0 Extent of effectiveness of financial facilities in Accessing Health Services in Karugutu Health Centers

The fourth research objective was to establish the relationship between effectiveness of financial facilities and accessibility of health services to the people of Karugutu Sub-County. Before the relationship between the two research variables (medical facilities and accessibility health centers) was established, the researcher set up the level of effectiveness of financial resource in Karugutu Health centers. The level of effectiveness of financial resource in the Karugutu Health centers was found out by asking 9 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 according to the respondents investigated is summarized using means as indicated in Table 13.

Table 13: Effectiveness of Financial resource in Karugutu Health Centers (n=394)

	Mean	Std. Dev	Interpretation

The health centre regularly receive funds for medical facilities	2.56	1.01	Agreed
Spending is prioritized on crucial items	2.54	1.07	Agreed
Funds are easily accessible in different departments	2.41	1.05	Disagreed
The community members try to support the health centers with their income	2.40	1.03	Disagreed
The health centers in Karugutu get annual donations	2.38	.99	Disagreed
Auditing of the health centers is always effectively done	2.36	1.06	Disagreed
Budget allocation for Karugutu Health Centers in sufficient	2.34	1.01	Disagreed
Cases of corruption, fraud have not been registered in the health centers	2.31	1.04	Disagreed
Money allocated for health centers is properly spent for health service improvement	2.27	1.02	Disagreed
Overall Mean Average	**2.39**		**Disagreed**

Source; Primary Data

Table 13 indicates that respondents also disagreed on the most of the items investigated under adequacy of financial resources in the Karugutu Health centers. The only aspects respondents agreed with under financial resources included the health centre regularly receiving funds for medical facilities (mean of 2.56) and the spending being prioritized on crucial items (mean of 2.54).

Respondents disagreed on the remaining aspects under adequacy of financial resources in the health centers. They disagreed that funds are being easily accessed in different departments (mean of 2.410; followed by the community members trying to support the health centers with their

income (mean of 2.40); they also disagreed that the health centers in Karugutu get annual donations (mean of 2.38); next, they disagreed that auditing of the health centers is being always effectively done (mean of 2.36); after that they disagreed that budget allocation for Karugutu Health Centers is being sufficient (mean of 2.34); followed by cases of corruption, fraud having not been registered in the health centers (mean of 2.31); then lastly, respondents disagreed that money allocated for health centers is being properly spent for health service improvement (mean of 2.27).

The overall impression on how adequate the financial resources at Karugutu Health centers are was finally determined by adding the mean values of all the nine items in Table 13 and dividing it by nine to get an overall mean average of 2.39. This mean value obtained indicates that majority of respondents disagreed with the financial resources at health centers in the sub-county being sufficient enough to meet the demands of the health centers.

A clear observation on the values of standard deviation in Table 13 is that the variability in the individual responses of mean values deviating from each other as regards to SD, D, A and SA was generally high. The lowest value of standard deviation of the nine items was .99 and the highest was 1.07. This means that there is much greater variability in what respondents believe about sufficiency in financial resource and at Karugutu Health Centers and the actual level of effectiveness of in the level of financial resource at the health centers. In similar way, high levels of standard deviation could mean that there was some subjectivity and untruthfulness among some respondents while answering the questions.

4.5.1 Correlation Analysis between Financial Resource and Accessibility to Health Services

The relationship between financial resource and accessibility to health services was also determined using correlation matrix. The findings on this relationship are presented in Table 14.

Table 14: Correlation between Financial Resource and Accessibility to Health Services

Correlations			
		Financial resource	Accessibility to Health Service
Financial resource	Pearson Correlation	1	.989[**]
	Sig. (2-tailed)		.000
	N	394	394
Accessibility to Health Service	Pearson Correlation	.989[**]	1
	Sig. (2-tailed)	.000	
	N	394	394
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: Primary Data

Table 14 also portrays that there is a strong positive significant relationship between the effectiveness of financial resources in health centers and the level of accessibility to health centers to the people of Karugutu Sub-County. This is pointed out by the r-value of 0.989 and sig. value of 0.00. According to the findings, the fourth research hypothesis that stated that financial resources have a significant effect on the accessibility to health services in Karugutu Sub-County in Uganda is accepted. Thus, the research finding asserts that if there is improvement in the level financial facilitation of health centers, the level of accessibility of health services to the people is likely to increase since services will tend to be more effective.

4.5.2 Regression Analysis between Financial Resources and Accessibility to Health Services

The degree of relationship between financial resources and accessibility to health services was also retested using regression analysis. The findings are indicated in Table 15.

Table 15: Regression analysis between Financial Resources and Accessibility To health Services

		Unstandardized Coefficients		Standardized Coefficients		
Coefficients[a]						
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	.027	.020		1.333	.183
	Financial resource	1.023	.008	.989	130.990	.000
a. Dependent Variable: Accessibility to Health Service						

Source: Primary Data

Table 15 also presents that availability of financial resources have a trong, positive and significant impact on accessibility to health service to the people of Karugutu Sub-County. This is indicated by Beta = .989, at P< .000. This finding means that if more financial resources are availed and properly utilized and allocated for specified uses, the number of people accessing health services will considerably increase in Karugutu Sub-County.

This finding also reveals that the forth research hypothesis that stated that financial resources have a significant effect on the accessibility to health services in Karugutu Sub-County in Uganda is accepted.

This research finding on the relationship between financial resources and accessibility of health services analyzed through quantitative approaches also agrees the findings through observation

checklist and interviews where it was found out that some health programs could not be implemented because of shortage of money and delays of money from the ministry.

This was testified by one of the health official interviewed as he said:

"We always try to do our best but sometimes it is our ministry that fails us. They do not allocate enough resources to run health centers and yet the number of patients our health centers many poor people who cannot afford health services elsewhere. This affects us and most especially our patients".

This statement by the health official is a clear indication that financial resource both directly and indirectly affect accessibility to health services and its insufficiency and delay both frustrates health officials and patients.

4.6 Summary of Analysis of the relationship between Government Supported facilities and Accessibility to health Services

The summary of the relationship between government supported facilities (independent variable and accessibility to health services (dependent variable) is presented in table 16.

Table 16: Summary on Correlation between Government Supported facilities and

Accessibility to Health Services

	Health infrastructure	Human resource	Medical facilities	Financial resources	Accessibility to health services
Health infrastructure	1				
Human resource	.987**(P≤0.00)	1			
Medical facilities	.980** (P≤0.00)	.986** (P≤0.00)	1		
Financial resources	.968** (P≤0.00)	.984** (P≤0.00)	.985** (P≤0.00)	1	
Accessibility to health services	.973** (P≤0.00)	.990** (P≤0.00)	.988** (P≤0.00)	.989**(P≤0.00)	1
**. Correlation is significant at the 0.01 level (2-tailed).					

Source: Primary data

As it is presented in Table 16, there is a strong and positive significant relationship between health infrastructure and accessibility to health services (.973** P≤0.00); human resource and accessibility to health services (.990** P≤0.00); medical facilities and accessibility to health services .988** P≤0.00); and lastly between financial resources and accessibility to health services (.989**P≤0.00). This summary on the relationship between the independent variables and dependent variable suggests that adequacy and improvement in the situation and availability of health infrastructure, human resources, medical facilities and financial resources can positively lead to improvement in the level of people's accessibility to health services.

The relationship between all the independent variables and dependent variable being established by summary of correlation was further established using regression analysis. The finding regarding this is presented in regression model summary; ANOVA and Coefficient of regression Analysis.

Table 17: Regression Model Summary of Independent variables

		Model Summary		
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.995[a]	.989	.989	.10947
a. Predictors: (Constant), health infrastructure, human resource, medical facilities, financial resources				

Source: Primary data

Basing on the R^2 value of 0.989 as presented in Table 17, it can asserted that variation is the health infrastructure, human resource, medical facilities and financial resources leads to 98 % variation in variation in accessibility to health services in terms of number of patients attended to and quality of health services provided. In this regard, it can be said that the remaining 2 % variation can be explained by other factors that are not established or included in this study. Thus, since the independent variables established in this study positively influence the level of accessibility to health services, government should try its best to ensure that their effectiveness, availability and adequacy is ensured.

Table 18: Analysis of variance between Independent and Dependent variables

		ANOVA[b]				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	420.787	4	105.197	8.778E3	.000[a]
	Residual	4.662	389	.012		
	Total	425.449	393			
a. Predictors: (Constant), health infrastructure, human resource, medical facilities, financial resources						
b. Dependent Variable: Accessibility to health services						

Source: Primary data

Basing on the findings presented in Table 18, it can also be confirmed that there is still a positive significant relationship between the independent variables (health infrastructure, human resource, medical facilities and financial resources) and this relationship is confirmed by F-Value of 8.778E3 at P=0.00.

The influence of independent variables on the dependent variable is presented in the coefficients of regression analysis of Table 19.

Table 19: Summary of Coefficients of Regression Analysis

Coefficients[a]					
	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
1 (Constant)	.085	.028		3.080	.002
Health Infrastructure	.264	.043	.973	6.092	.000
Human Resource	.654	.051	.990	12.730	.000
Medical Facilities	.366	.042	.988	8.666	.000
Financial Resources	.291	.037	.989	7.783	.000
a. Dependent Variable: Accessibility to health services					

Source: Primary data

The results in Table 19 of the coefficients of regression analysis indicates that health infrastructure, human resource, medical facilities and financial resources have a strong, positive and significant impact on the level of accessibility to health services of 0.973; 0.990; 0.988 and 0.989 units respectively. This finding on the degree of influence on health infrastructure, human resource, medical facilities and financial resource availability on accessibility to health services therefore means that government through the ministry of health should try to put in place and consider that

health centers have better infrastructure, adequate health officials; medical facilities are always available for patients; and that there is improved budget allocations to finance different activities, programs and facilities at health centers such that people can happily access health services.

4.7 Level of Accessibility to health Service to the people of Karugutu Sub-County

The dependent variable of this study was level of accessibility of health services to the people of Karugutu and the mean values obtained in here were used to correlate the mean values of other variable under independent variables (health infrastructure, human resource, medical facilities and financial resource). Before the mean values were used to correlate the variables under independents variables, the level of accessibility of health services to the people of Karugutu was done. To determine the level of accessibility of health service to the people of Karugutu, ten questions were asked in the questionnaire and each question was based on the four points 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 health service to the people of Karugutu. The finding regarding this is presented in Table 20 on the next page.

Table 20: Level of Accessibility of Health Service to the People of Karugutu Sub-County

	Mean	Std. Dev	Interpretation
Immunization of children in the health centers is effectively done	2.84	1.13	Agreed
The out-patient diagnosis in Karugutu Health Centers is always effectively done	2.77	1.00	Agreed
Patients in Karugutu Health Centers can easily access drugs	2.54	1.12	Agreed
The level of mortality rate in Karugutu Sub-county is quite low	2.53	.96	Agreed
Many women get maternal care in the health Centers	2.49	1.11	Disagreed
Drug prescription is effectively done to all patients in Karugutu Health Centers	2.40	1.12	Disagreed
HIV/ AIDS patients are taken care of and well treated at Karugutu Health Centers	2.34	1.01	Disagreed
Patients who come for treatment are regularly treated in the health centers of Karugutu Sub-County	2.32	1.08	Disagreed
The number of people accessing counseling services is increasing in Karugutu health Centers	2.29	1.13	Disagreed
Patients can get access to doctors available in Karugutu Health Centers	2.25	1.11	Disagreed
Overall Mean Average	**2.48**		Disagreed

Source: Primary Data

The findings in Table 20 indicate that respondents disagreed with most of the items used to investigate the level of accessibility to health services in Karugutu Sub-County. The few items

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under the level of accessibility that respondents agreed on and rated highly were on immunization of children in the health centers being effectively done (mean of 2.84); followed by the out-patient diagnosis in Karugutu Health Centers being always effectively done (mean of 2.77); next was on patients in Karugutu Health Centers' ability to easily access drugs (mean of 2.54); and lastly was on the level of mortality rate in Karugutu Sub-county being quite low (mean of 2.53).

However, respondents disagreed and lowly rated that there are many women getting maternal care in the health centers (mean of 2.49); that drug prescription is being effectively done to all patients in Karugutu Health Centers (mean of 2.40); then, HIV/ AIDS patients are being taken care of and well treated at Karugutu Health Centers (mean of 2.34); they also disagreed that patients who come for treatment are being regularly treated in the health centers of Karugutu Sub-County (mean of 2.32); after that they disagreed that the number of people accessing counseling services are being increasing in Karugutu health Centers (mean of 2.29); and lastly, respondents disagreed that patients are being able to get access to doctors available in Karugutu Health Centers (mean of 2.25).

On the overall, it can be said that respondents disagreed that the level of accessibility to health services to the people of Karugutu Sub-County was generally low and this can be affirmed by the overall average mean value of 2.48. This implies that the level of accessibility of health services to people of karugutu is low. This could have been because of ineffective medical facilities and ineffective financial resources to support the health centers.

Basing the analysis on the values of standard deviation in Table 20, it can also be seen that the variance in the individual variables used to measure the level of accessibility to health services in Karugutu Sub-county Health Centers is generally high. All standard deviation values start from

.96 and the rest were from 1 and above. The interpretation from this is that majority of the responses highly deviating from the mean of the scores from responses of SD, D, A and SA. As being fore mentioned, high level of variation of responses from means values demands for further investigations on the aspect of level of accessibility to health services since there must have been some biasness and dishonesty among some respondents while answering the questions.

CHAPTER FIVE

SUMMARY AND DISCUSSION OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter establishes the summary and discussion of major research findings, and draws conclusions in relation to each research objective. Lastly, some recommendation to improve level of accessibility of health service to the people of Karugutu Sub-County is established.

5.1 Summary of Major Findings

The major purpose of this study was to establish the effectiveness of the government supported facilities in determining accessibility to health services to the people in Karugutu Sub County, in Uganda. The study was based on four specific objectives which were to find out how health infrastructure contributes to the accessibility to health services to people in Karugutu Sub-County; assess the extent to which human resource determines the accessibility to health services by people in Karugutu Sub-County; investigate the extent to which medical materials determine the accessibility to health services by people in Karugutu Sub-County; and lastly to find out the extent to which financial resources contribute to the accessibility to health services by people in Karugutu Sub-County.

On the extent to which health infrastructure affects the accessibility to health services in Karugutu Sub-county, it was found out from the study that effectiveness of health infrastructure in terms of transport and communication, offices and wards, beds, power, water, laboratory and laboratory equipments have a positive and significant impact on people's accessibility to health services in Karugutu Sub-county. This was confirmed by R-value of 0.973 affirmed by Beta value of 0.973 at very small sig. value of 0.00. This finding also concurs with the findings established through interview and observation checklist where at least different health infrastructures such as beds, offices and wards, solar panels and generators for power, boreholes, laboratories were observed in various health centers in the sub-county. These infrastructures were used different patients and staff members and this makes those who come for health services to feel at home.

Regarding the extent at which human resources affect the accessibility to health services in Karugutu Sub-County, the findings indicate that effectiveness of human resource in terms of doctor, nurses, health center managers, laboratory technicians, health unit management committee have a positive and significant impact on people's accessibility to health service in the sub-county. Thus, if health centers are equipped with human resource, this is will improve effectiveness of services and accessibility to health services as well. This was also confirmed by R-value of 0.990 and confirmed by Beta value of 0.990 at Sig. value of 0.00. A critical observation on the adequacy of human resources in the selected health centers also indicated that much as the number of health centers were not all that enough, the few could meet the demands of the patients under all conditions. This could have explained why the quantitative analysis revealed adequacy in the human resource in the health centers in the sub-county.

Concerning the extent of government supported medical facilities influencing the level of accessibility to health services, it was confirmed that medical facilities also have a positive and significant impact on people's accessibility to health centers in Karugutu Sub-County. This is also confirmed by R-value of 0.988 and supported by Beta value of 0.989 at significant value of 0.00. The study finding in the significant relationship between the availability of medical facilities or resources also agrees with the findings got through personal observation in which some important drugs could not be found in the health centers. Some of the common drugs that were observed to be available include paracetamols, aspirin, capsules but some of the drugs such as dexa, PBZ, amoxilline and many others were not available. This discourages people as they see no use of going to health centers for treatments.

Lastly, findings on the contribution of financial resources on to the accessibility to health services indicated that financial resources have a strong, positive and significant impact on people's accessibility to health services. This was testified with R-value of 0.989 and affirmed by the Beta value of 0.989at a very small sig. value of 0.00. Basing on the finding on observation checklist, it was also found out that indeed the financial resource at the health centers in the sub-county was not enough and sometimes money meant for purchase of different medical facilities could come late. The inadequacy in the medical facilities is partly so because the money availed could not cater for and facilitate different materials as well as health programs as expected.

5.2 Discussion of Major Findings

5.2.1 Health Infrastructure and Accessibility to Health Services

The description of findings using means showed that the respondents agreed on the effectiveness of health infrastructure in terms of transport and communication, offices and wards, beds, power and water and laboratories and this was determined by average mean of 2.78. The findings based on the interviews and observation checklist also confirms that at least items such as beds, power and water sources, laboratory and its equipments, transports, offices and wards were in good states for patients much as some improvement in their adequacy is still needed.

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 findings is in line with ministry of health report [2000]; Uganda Bureau of statistics [2004]; Ministry of health

report as at 30th June 2005; Ministry of Health-Uganda (2005); that in one way or another indicated in their reports that the government together with other stakeholders have tremendously improved the health infrastructure in Uganda in terms of transport and communication, wards and offices, water and power government supported facilities among others. The findings in the case of Karugutu 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 in terms of transport and communication, offices and wards, beds, power, water, laboratory and laboratory equipments has a strong, positive and significant impact on people's accessibility to health services in Karugutu Sub-county as indicated by the R-value of 0.973; Beta value of 0.973 and significant value of 0.00. This finding also concurred with the findings obtained through interview where respondents indicated that indeed they get discouraged whenever they do not get beds; whenever laboratory and its equipments are not functioning and whenever the boreholes have problems. The research finding on the relationship between health infrastructure and level of accessibility in the case of Karugutu is agreement with that Periago (2004) who noted that inadequate of health infrastructure leads to delayed treatment and this discourages people from accessing services; and the Ministry of Health-Uganda report that also indicated that few vehicles directly and indirectly endangers accessibility to health services in many rural parts of this country.

5.2.2 Human Resource and Accessibility to Health Services

Regarding the description of findings using means on the effectiveness of human resource in the health centers of Karugutu Sub-County (measured in the number of doctors, nurses, health center

managers, laboratory technicians and health unit management committee), it can also be noted that there is effectiveness in human resource much as there exists some gaps here and there. The effectiveness of human resource was supported by the overall mean average of 2.61 that falls under effective in the ration scale. Through observation checklist, it was found out that at least different all categories of heath officials were available in the health centers though they were few. In interviews, it was also found out that at least the few health officials could handle the different health patients.

Relating the research finding on the adequacy of human resource in Karugutu Sub-County Health Centers with those of other writers/ scholars/ authors and reporters in the literature, it can be noted that this finding is not in agreement with findings by Health policy and development [volume 6 Number 3 December 2005]; findings by USAID [2003]; Decenzo and Robbins (2002); Glenngård, and Hjalte (2006); Mossialos and Dixon (2002); and lastly, the World Health Organization (2007), who in their reports indicated that the level of human resource capacity in Uganda is very inadequate. Much as the research findings in the case of Karugutu was not in agreement with the outlined reports and authors and scholars, the researcher noted that in some cases those not well qualified could do the work of doctors to reduce the gap of inadequacy in human resource.

Regarding the correlation of human resource (element under independent variable) and accessibility of health service (dependent variable), it was found that human resource availability at the health centers has a strong, positive and significant impact on people's accessibility to health services in Karugutu Health Centers. This was indicated by r-value of 0.990 and Beta value of 0.990 and sig. value of 0.00. Through interview method, respondents also confirmed that they tend

to get discouraged whenever they come for services and health officials fail to attend to them. This suggests that if health centers are well equipped with human resource, services are likely to be effective and people's accessibility to health services is likely to improve. This finding is also in agreement with some of the reports analyzed in the literature by Narasimban et al, 2004]; USAID, 2003] and Decenzo and Robbins (2002) whose views indicate that effectiveness of human resource enhances people's accessibility to health services.

5.2.3 Medical Facilities and Accessibility of Health Service

The description of using means to determine the effectiveness of medical materials (drugs, plaster, laboratory equipments and syringes) on the other hand reveals that the level of effectiveness and availability in medical materials or government supported facilities are still ineffective. This is confirmed by the overall mean average of 2.34 which falls on ineffective on the rating scale. Basing on the findings obtained through observation checklist, it was found out that several important drugs such as amoxilline, capsules, dexa among many others were not found in the health centers. This is a clear confirmation that medical facilities in those health centers were still inadequate.

The finding on effectiveness of medical material in the case of karugutu Health centers was in agreement with that of annual Health sector performance report [2004/2005]; Uganda Health Facilities Survey [2002]; Mossialos and Dixon (2002); Health Organization (2007); United Nations Development Programme (2008); and Chattoe-Brown and Bitunda (2006) who in one way or another indicated cases of stock-outs in many of health drug stores nationals wide.

Concerning the correlation of availability of medical facilities (element under independent variable) and accessibility of health service (dependent variable) to people in Karugutu Health Centers, it was also noted that availability of medical facilities or material at health centers have a

positive impact on the accessibility of health service to people. This was verified by r-value of 0.988 and Beta value of 0.988 at significant value of 0.00. This research finding on the relationship between medical facilities and accessibility to health centers through interviews was also in line with that of quantitative analysis. Thus, improvement in medical facilities at Karugutu Health Center can significantly improve the level of accessibility of health service to people in there. This research finding is somewhat related to the reports in the literature by Uganda health facilities Survey (2002); World Health Organization (WHO) (2007); and United Nations Development Programme (UNDP) (2008) who emphasized that equipping health centers with government supported medical facilities can tremendously boost accessibility to health services in Uganda.

5.2.4 Financial Resources and Accessibility to Health Centers

Concerning the description by the use of means on the financial resources availability (in terms of budget allocation, donations received and amount of money available) in Karugutu Sub-County Health Centers, the research findings assert that the financial resource to support the Karugutu Health Centers is ineffective and insufficient. This was confirmed by the mean value of 2.34 that falls under ineffective in the rating scale. This research finding also agrees the findings got through observation checklist and interviews where it was found out that some health programs could not be implemented because of shortage of money and delays of money from the ministry.

The research finding in regards to financial resources in Karugutu Health Centers is in agreement with some of the reports and research findings by scholars/ authors such as Narasimban et al, (2004); Decenzo and Robbins (2002); Mossialos and Dixon (2002); Karugire (1992); and Kisamba (1991) whose research findings/reports somewhat indicated that the health Centers in the case of Uganda are financially under facilitated.

Further still, it was also noted that availability of financial resources have a strong, positive and significant impact on people's accessibility to health services in Karugutu Sub-County. This was confirmed by r-value of 0.989, Beta value of 0.989 and sig. value of 0.00. In the interviews conducted, it was also revealed that Thus, if there is improvement in financial resources in the health centers of Karugutu Sub-County, the level of accessibility of health service is likely to improve by around 98 percent.

The description using means to determine the level of accessibility to health services indicates that the level of accessibility to health services by the people of Karugutu Sub-County is still low. This was indicated by the mean values 2.48 that fall under low in the rating scale. This research finding is in agreement with that of Apunyo (2009) who noted that the level of accessibility to health services in many public health centers have gone down and that different guidelines and strategies are under way to enhance better accessibility to health services.

5.3 Conclusions

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

This study concluded that effective health infrastructure has a strong, positive and significant impact on the people's accessibility to health services in Karugutu Sub-County.

On the human resource, this study concluded that availability and adequacy of human resource in health centers has a strong, positive and significant impact on people's accessibility to health services in Karugutu Sub-County.

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

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

5.4 Recommendations

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

5.4.1 Recommendations on Health Infrastructure

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

The number of beds and their states at health centers 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.

5.4.2 Recommendations on Human resources

The government of Uganda should continue numeration of human resource in the health sector. This should be done after verifying some of the core sectors that lack health official such that proper distribution of health officials can be done.

Motivation of health officials should also be ensured such that cases of brain drain can be reduced. This can be done through investing in the training of health workers as well as improving salary levels of health workers.

Further training to health official on customer care and other related issues should also be provided to health officials such that patients can feel at home and peace whenever they go for health services.

Enough recruitment of health official should also be done by the government under the umbrella of the ministry of health such that health officials do not over work themselves and respect task-shifting effectively.

5.4.3 Recommendations on Medication facilities

Medical stores should be well stored and closely linked with service providers especially in rural areas. This will prevent cases of stock-outs especially in health centers that is sometimes detrimental to health service accessibility to people.

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

5.4.4 Recommendations on Financial Resources

Local people should get involved in the financial management in the health centers. Such strategies can significantly reduce cases of corruption and frauds in the health sectors. This can be done by demanding accountability from those managing health centers hence reducing cases of corruption and mismanagement of fund meant for medical facilitation.

5.5 Challenges of the Study

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 some one 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.

Intervening or confounding variables which were beyond the researchers control and these included honesty of the respondents and personal biases. To minimize such conditions, the researcher asked respondents to be as honest as possible and to be impartial/ unbiased when answering the questionnaires.

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.

5.6 Areas for Further Research

The following areas can be recommended for further research:

(i)   People's socio-economic status and their attitudes towards health services in public health centers.

(ii)   Location of public health centers and people's accessibility to health services.

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APPENDICES

APPENDIX 1

QUESTIONNAIRE ON THE GOVERNMENT SUPPORTED FACILITIES DETERMINING THE ACCESSIBILITY TO HEALTH SERVICE IN UGANDA

Dear Respondents,

The attached questionnaire has been designed purposely for data collection on the government supported facilities determining the accessibility to health services in Uganda and Karugutu sub county centres have been taken as a case study.

You have been identified as a potential respondent who can provide useful and reliable information that will help policy makers and implementers to improve on the health service delivery at the health centres.

The information being gathered is for academic research which will be submitted to Uganda management institute in partial fulfillment of the requirements for the award of a master's degree in Management studies (public administration and Management).

You are kindly requested to contribute towards this research through answering the questionnaire. I will be very grateful for your honest opinions presented. The responses shall be treated with at most confidentiality.

Thanks in advance for sparing time to respond to this questionnaire. I expect to receive feed back within one week's time from the data of receipt.

Thank you,

Yours faith fully

EDWARD BWAMBALE

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. Experience or Numbers of year spent in the area

1-2 ☐   3-4 ☐   5 and above ☐

D. Education Level

Primary ☐   Secondary ☐   Tertiary ☐

E. Denomination

Protestant ☐   Catholic ☐   Pentecostal ☐   Moslem ☐

Other (Please Specify): …………………………………………..

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

HEALTH INFRASTRUCTURE	SA	A	D	SD
1. Karugutu Sub-county health centers have enough vehicles for staff and patients (ambulances and staff cars)				
2. The health centers have enough rooms for patients (as wards/ offices)				
3. The health centers have good telecommunication systems				
4. The health centers have sufficient power for both day and night				
5. The health centers have near by water sources for staff and patients				
6. The health centers have sufficient beds for patients				
7. The health centers have well equipped laboratories				
8. The Health center has sufficient health infrastructure and this makes recover faster.				
HUMAN RESOURCES				
9. Karugutu Sub -County Health centers have adequate staff				
10. Karugutu Sub-County Health Sector has all categories of staff				
11. The Health staff are evenly distributed				
12. The attends to patients as soon as they reach the health centre				
13. The Health centre staff attends to all patients				
14. The patients take little time to access laboratory services				
15. There is shortage of human resource in the health center and this makes patients die				

	SA	A	D	SD
16. The Health Unit Management Committee is functional in its duties				
17. The health workers in Karugutu Sub-County here receive further training to enhance their skills				
18. There is high level of customer care to all patients by health workers in Karugutu Sub-County Health Centers				
19. There is effectiveness in task-shifting among the health workers in Karugutu Suub-County Health Centers				
20. The remuneration of health Center Staff if timely done				
MEDICAL RESOURCE	**SA**	**A**	**D**	**SD**
21. Bed sheets are always changed for patients				
22. Sterilization of syringes is not common in the health centers				
23. No case of theft of medical government supported facilitieshas been registered				
24. Patients receive drugs that has been prescribed at the health centers				
25. Drugs are always available at the health centers				
26. Some patients die here because of insufficient medical facilities				
27. Other things like plaster, cotton wools etc are always available for patients				
FINANCIAL RESOURCES				
28. Budget allocation for Karugutu Health Centers in sufficient				
29. The health centers in Karugutu get annual donations				
30. The community members try to support the health centers with their income				
31. Money allocated for health centers is properly spent for health service improvement				
32. Auditing of the health centers is always effectively done				
33. Cases of corruption, fraud have not been registered in the health centers				
34. Funds are easily accessible in different departments				

35. The health centre regularly receive funds for medical facilities				
36. Spending is prioritized on crucial items				

SECTION C: DEPENDANT VARIABLES

ACCESSIBILITY TO HEALTH SERVICES	SA	A	D	SD
1. Patients in Karugutu Health Centers can easily access drugs				
2. The out-patient diagnosis in Karugutu Health Centers is always effectively done				
3. Drug prescription is effectively done to all patients in Karugutu Health Centers				
4. Patients who come for treatment are regularly treated in the health centers of Karugutu Sub-County				
5. Patients can get access to doctors available in Karugutu Health Centers				
6. The level of mortality rate in Karugutu Sub-county is quite low				
7. Many women get maternal care in the health Centers				
8. Immunization of children in the health centers is effectively done				
9. The number of people accessing counseling services is increasing in Karugutu health Centers				
10. HIV/ AIDS patients are taken care of and well treated at Karugutu Health Centers				

APPENDIX II

INTERVIEW GUIDE TO THE HEALTH WORKERS AND MANAGEMENT

COMMITTEE

1. What is your marital status?

2. Your academic qualification?

3. What is your age range?

4. How long have you worked in this institution?

5. What services are you offering at this institution?

6. What is your assessment on accessibility to health services by patients?

7. Do you have enough personnel to handle all cases received by this health centre?

8. If your answer is No to question 7 above which category of medical personnel do you feel should be increased and to what number?

9. What is your comment about the infrastructure of this health centre?

10. Dou you have enough room as wards to admit patients?

11. Do you also have enough beds to accommodate patients in this health center?

12. Concerning transport system, does this health center have sufficient transport for both the staff and patients in terms of ambulances and other cars for the staff?

13. Is there sufficient source of water and power for staff and patients during the day and night?

14. Do you have well equipped laboratory?

15. Comment on the level of medical resources in this health centers?

16. Do your patients get all the drugs prescribed right from here?

17. If your answer to question 16, is "No" why not getting the drugs right from here?

18. Does the health centre get sufficient financial resource to purchase medical equipments?

19. Is you stock for medical government supported facilitiessufficiently stocked or sometimes drugs for patients get over?

20. On average, how many patients die here because of insufficient infrastructure, medical government supported facilitiesand shortage of human resource?

21. What other thing would you like to say about the health services here and the accessibility to patients in this area?

APPENDIX III

INTERVIEW GUIDE FOR PATIENTS

1. Age

2. Marital status

3. Patients classification (i) inpatient (ii) outpatient

4. What are you suffering from?

5. How long have you been at the health centre

6. Did the health workers explain to you the type of sickness you are suffering from?

7. Have you seen the doctor?

8. Have you received Treatment?

9. Are you satisfied with the quality of health care you have received so far?

10. If Yes in 9 above, what has satisfied you?

11. If No in 9 above, what has no satisfied you?

12. In your opinion does this health centre has enough space for all patients to access services?

13. What problems have you encountered in using some of the government supported facilities here?

14. Do other patients receive drugs?

15. In your opinion does this health centre have enough personnel to offer health services?

16. Do some patients die in this health center because of insufficient medical services offered?

17. If yes, to question 16, on average how many of them die in a week?

18. How is the attitude of the health workers towards patients?

19. According to your experience here, do you think it is easy to access health services here?

20. If your answer to question 17 is "No", what are you planning to do next time you fall sick or when one of your relatives falls sick?

21. What advice would you like to give about health services in this health center:

   (i)   To Health workers?

   (ii)   To Patients?

   (iii)   To government officials?