FACTORS AFFECTING HEALTH SERVICE DELIVERY AT ENTEBBE HOSPITAL

BY

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A DISERTATION SUBMITTED TO THE HIGHER DEGREES DEPARTMENT IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE MASTERS DEGREE IN MANAGEMENT STUDIES (PUBLIC ADMINISTRATION AND MANAGEMENT) OF UGANDA MANAGEMENT INSTITUTE

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DECLARATION

I, Prince Paul Wakooli, declare that this study is my original work and has to the best of my knowledge, never been submitted for the award of a degree or any other award in a university or other institutions of higher learning.

Signature ……..

Date …….

APPROVAL

This is to certify that this study has been carried out under our supervision and has been submitted with our approval in partial fulfillment of the requirements for the award of the Master's Degree in Management Studies (Public Administration and Management) of Uganda Management Institute

Signature ……..

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Date …….

Signature ……..

Mr. Byakutaaga Mwesigwa

Date …….

DEDICATION

I would like to dedicate this dissertation to my dear parents Dr Wesonga Wanderema Herbert Mrs.Wesonga Irene, my beloved wife Aidah Nakatudde and to the entire Wesonga family.

ACKNOWLEDGEMENT

I owe a token of thanks and sincere gratitude to all those who in one way or the other contributed to the successful completion of this work. Special thanks go to my dear parents for investing in my education.

I appreciate the professional assistance, exceptional devotion, intellectual and constructive guidance rendered to me by my supervisor, Mr. Byakutaaga Mwesigwa and Mrs. Oluka Prossy Nagita to ensure that this work was completed in time to the expectations and standards of the master's award.

I am also indebted to all my brother and sisters. I really thank them for their moral, spiritual, material and financial assistance throughout my studies and this research study in particular.

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LIST OF ABBREVIATIONS

AHSPR	Annual Health Sector Performance Report
CHOGM	Common Wealth Heads of Government meeting
EMHS	Essential medicines and Health Supplies
GOU	Government of Uganda
HSSP	Health Sector Strategic Plan
MOH	Ministry of Health
MRC	Medical Research Council
OECD	Organization for Economic Co-operation and Development
PAHO	Pan American Health Organization
PHC	Primary Health Care
PNFP	Private not for profit
WHO	World Health Organization
UPPAP	Uganda Participatory Poverty Assessment Program
VCT	Voluntary Counseling and Testing
GoU	Government of Uganda

ABSTRACT

The purpose of the study was to examine the factors affecting health service delivery in Entebbe Hospital. The objectives of the study included: to examine the effect of Human Resources for Health on health service delivery at Entebbe Hospital, to assess the effect of Health Infrastructure on health service delivery at Entebbe Hospital and to establish the extent to which Healthcare Consumable affect the health service delivery in Entebbe Hospital. The study used cross-sectional survey research design adopting both quantitative and qualitative approaches. The researcher used a sample of 80 respondents. Data was collected using questionnaires and interview guides. Findings from the study revealed that there is a strong positive relationship between human resources for health and health service delivery. There was a strong positive relationship between health infrastructure and health service delivery. There was a very strong positive relationship between health care consumables and health service delivery. The finding therefore revealed that adequate human resources, functioning health infrastructure and availability of healthcare consumables is a necessity if health service delivery is to be achieved in Entebbe Grade B hospital. Health service delivery should be prioritized by government and should be given more attention and increase its national budget allocation. It is recommended that ministry of health should recruit adequate staff and deploy them evenly in the various health departments, good health infrastructure is related to better health service delivery, and government should consider constructing adequate accommodation for medical staff as priority and adequate health care consumables is related to better health service delivery. The government of Uganda should strengthen the national supply chain for essential health commodities to ensure that Ugandans have access to essential drugs.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

The unsatisfactory healthcare service delivery is increasingly a topical issue. Central governments classify a range of public organizations on the basis of their performance and subsequently poor performers are named in service areas such as health, local governments, education and criminal justice (Pollitt and Bouckaert 2000 as cited in Andrews, George, Boyne and Enticotte 2006). The demand for healthcare services is on an increase world over, however health service delivery is still unsatisfactory in Africa and Uganda in particular. This study is about the factors affecting health service in Entebbe Hospital. The study will examine why the quality of health services offered in Entebbe Hospital is unsatisfactory to the clients despite the intensive efforts by government to reinvigorate the hospital.

This chapter presents the background to the study, statement of the problem, general and specific objectives, research questions, hypotheses, scope, significance and justification of the study.

The independent variables of the study were; Human Resources for Health, Health Infrastructure and Healthcare Consumables and the report established their relationship on the dependent variables which are: reduced infant mortality rate, number of expectant mothers attended to, immunization coverage and OPD attendance level (Health Evidence Network 2004).

1.1 Background to the study

It has understandably become common place for countries to formally assess and 'incentivize' the performance of their healthcare system (McLaughlin, et al., 2001; Rolan 2004). Umbrella organizations such as the World Health Organization (WHO) and the Organization for Economic Co-operation and Development (OECD) have taken an international lead in encouraging health system performance measurement (WHO, 2000; Smith, 2002). Health is an essential prerequisite

as well as an outcome of sound development policies and the good health status of the population is vital for a country's economic growth.

At the global level health issues became prominent at the international conference of primary health care that took place in the city of Alma Ata, Kazakh Soviet Socialist Republic (Kazakhstan) in September 1978, which resulted into the Alma Ata Declaration. One of the components of this Declaration is that countries should cooperate in a spirit of partnership and services to ensure primary health care for all people since the attainment of health by people in any country directly concerns and benefits every other country. Since the Alma Ata Declaration (1978), many developing countries started implementing intensive reforms in their health sector in order to improve performance of the health system functions (Macrae et al. 1996; Gesami 1999; Sauerborn et al., 1999, cited in Semali 2003).

As a result, African countries instituted in their health systems various reforms to improve the health service delivery in order to achieve better health especially for the poor. In 1990's the national department for health in South Africa restructured the health systems and put in place a district health system to provide and deliver health care services in line with primary health care principles of equity and efficiency, greater involvement of and responsiveness to communities and greater coordination between social sectors. The Bamako initiative in 1993 where an assessment of quality of health services in developing countries was done found out that the level of health care delivery was quit low and poor in terms of quality. This was caused by poor infrastructure, long distances moved by patients to health units, the rude health workers, long waiting time before patient access health care, shortage of drugs and in adequate medical equipment. A research made

by Uganda Participatory Poverty Assessment Program (UPPAP, 2000) found out that shortage of drugs in health facilities is a major factor affecting health service delivery.

Many reforms have come up in African countries and Uganda in particular, following the 1993 Bamako initiative, which seeks to address inadequacy in quality of health services in developing countries of Africa Uganda inclusive. In Uganda primary health care (PHC) has helped to address long distances moved by patients to health units by establishment of lower health units at health centre two, three and four, (HCII, HCIII, HCIV) at parish level, sub-county and county levels.

The above was aimed at decentralizing health services in Uganda generally. In an effort to ensure the provision of quality health care across the country, a statutory instrument, the Public Health Act, 1964 Chapter 269 was instituted by the Parliament of Uganda to regulate the health sector (Barton & Bizimana 1995). Under the health sector Ministry of Health (MOH) exists to provide the policies, guidance and standards. Many hospitals have been opened and decentralized to support and deliver health care services to people. The country has approximately 1738 health facilities of which 1226 belong to Government Entebbe Grade B Hospital inclusive, 465 to non-government organizations and 47 privately owned (MOH 2000). Despite the efforts by Africa's health professionals working in the public sector, the millions of Africans who depend on the public health service are frequently unable to access an acceptable level of health care. At the worst hospitals, the conditions that patients are subjected to frequently amount to a gross abuse of human rights. Patients spend hours waiting just for a file; must bring their own linen; stay in wards infested with vermin and reeking of human waste; or share a bed with another patient, and when hospital buildings are infested with grime and rubbish and one nurse is expected to manage an over-

crowded ward single-handedly, then it is patently obvious that the rights of patients are not being respected and that urgent action is required (http://www.da.org.za/docs/607/5WorstHospitals_document.pdf).

1.1.1 Theoretical background

Many scholars have come up with different theories explaining the various factors affecting health service delivery; the theory of three principle health system inputs guided the study.

According to Kabene, Orchid, Howard, Soriano and Leduc (2006) there are three principal health system inputs: human resources, health infrastructure and healthcare consumables. The contribution of the health workers is one of the most essential components of a health system's ability to effectively provide quality care and to ensure equitable access to that care throughout the entire population. The above authors further assert that adequate health infrastructure is key in health service delivery such as adequate accommodation for staff and availability of health care consumables. Hence the theory of the three principle health inputs guided this study; the study was restricted to the three factors affecting health service delivery.

1.1.2 Conceptual Background

Watson, (2002) defines human resources as the efforts, skills or capabilities which people contribute to a work organization as part of an employment exchange which are managerially utilized to enable organization to complete tasks while Kabene et al (2006), also defines human resources for health are the different kinds of clinical and non clinical staff responsible for public and individual health intervention. For purposes of this research human resources for health will focus on the size, composition and distribution of the health workers.

According to Kabene et al (2006), healthcare consumables are the drugs, prostheses and disposable equipment. Ministry of health (2005) asserts that districts with good performance on medicines are likely to perform. They are key inputs for health service delivery. The Annual Health Sector Performance Report (AHSPR 2000/01) health infrastructure focuses on construction, maintenance and upkeep of physical infrastructure and ensuring health facilities are adequately equipped with functioning equipment. The health infrastructure for purposes of this study will focus on medical equipment and medical structures. The absence of the three principle health inputs that is human resources for health, health infrastructure and healthcare consumables affects outpatient attendance level, immunization coverage, infant mortality rate, proportion of extent mothers.

1.1.3 Contextual Background

In effect government increased its budget allocation to the health sector in the financial year 2008/09, with only two other sectors having greater allocations i.e. works and transport and Education (Tibenderana 2009). Although the budget allocation for the health sector was increased, it is far below the required resource allocation of at least 1billion US Dollars per years as stipulated in the Abuja Declaration (2000). It has also been observed that Uganda has poor health indicators and a heavy disease burden (Health Sector Strategic Plan, 1999).

Entebbe Hospital is one of Uganda's Government funded hospitals, it initially had two campuses. Grade A constructed in 1904 and Grade B built in 1918. By then Grade A catered for expatriates and senior government officials while Grade B catered for other members of the community who

were not entitled to Grade A facilities. The two hospitals were merged in 1998 in to the today Entebbe Hospital in order to enhance efficiency and cost effectiveness.

The hospital has had made reforms and achievements in the recent three years to enhance its health care services and these reforms include: a new maternity block constructed to accommodate over 80 beds funded by Anti-hill foundation USA, new equipped casualty/administrative block funded by government of Uganda in preparation for CHOGM. A new ambulance was also provided, Voluntary Counseling and Testing (VCT) block constructed by Medical Research Council (MRC/UVRI) and a 30KV standby generator. All these reforms were put in place to promote health care services in the area. But despite the reforms, service delivery is wanting for example there is frequent stock out of drugs due to the lengthy procurement and chain supply system by ministry of health through national drug stores, dilapidated infrastructure that was constructed way back during the colonial era with minimum renovations and lack of adequate accommodation for hospital staff (Health Management Committee Meeting held on 03/09/2010).

1.2 Statement of the problem

Despite government efforts in the recovery process of the health sector and achievements of Entebbe Hospital over the years, currently there is a deteriorating trend in the quality of services rendered at the hospital. It has been claimed that admissions are more than the bed capacity. Shortages of drugs, sundries and diagnostic equipment are common conditions. Some patients complain of staying too long in the queue to reach a doctor for diagnosis and the health workers seem to have low motivation. The present number of health staff (Doctors, nurses, midwifes) available in the country, including the PNFP sector, amount to 59,000, with a ratio of 1 to 1,818

people (Health Management Committee Meeting held on 03/09/2010). This situation probably accounts for the inefficiencies in health service delivery and has delayed the achievement of the Millennium development Goals (MDGs) such as improving maternal health, reducing child mortality, combat HIV/AIDS, malaria and other diseases among others. Yet a healthy population leads to a wealthy nation as the adage goes. Because of uncertainties the researcher embarked on studying the factors affecting health service delivery at Entebbe Hospital.

1.3 Purpose of the Study

To examine the factors affecting health service delivery at Entebbe Hospital

1.4 Specific objectives of the study

1. Examine the effect of Human Resources for Health on health service delivery at Entebbe Hospital.
2. To assess the effect of Health Infrastructure on health service delivery at Entebbe Hospital
3. To establish the extent to which Healthcare Consumable affect the health service delivery at Entebbe Hospital

1.5 Research Questions

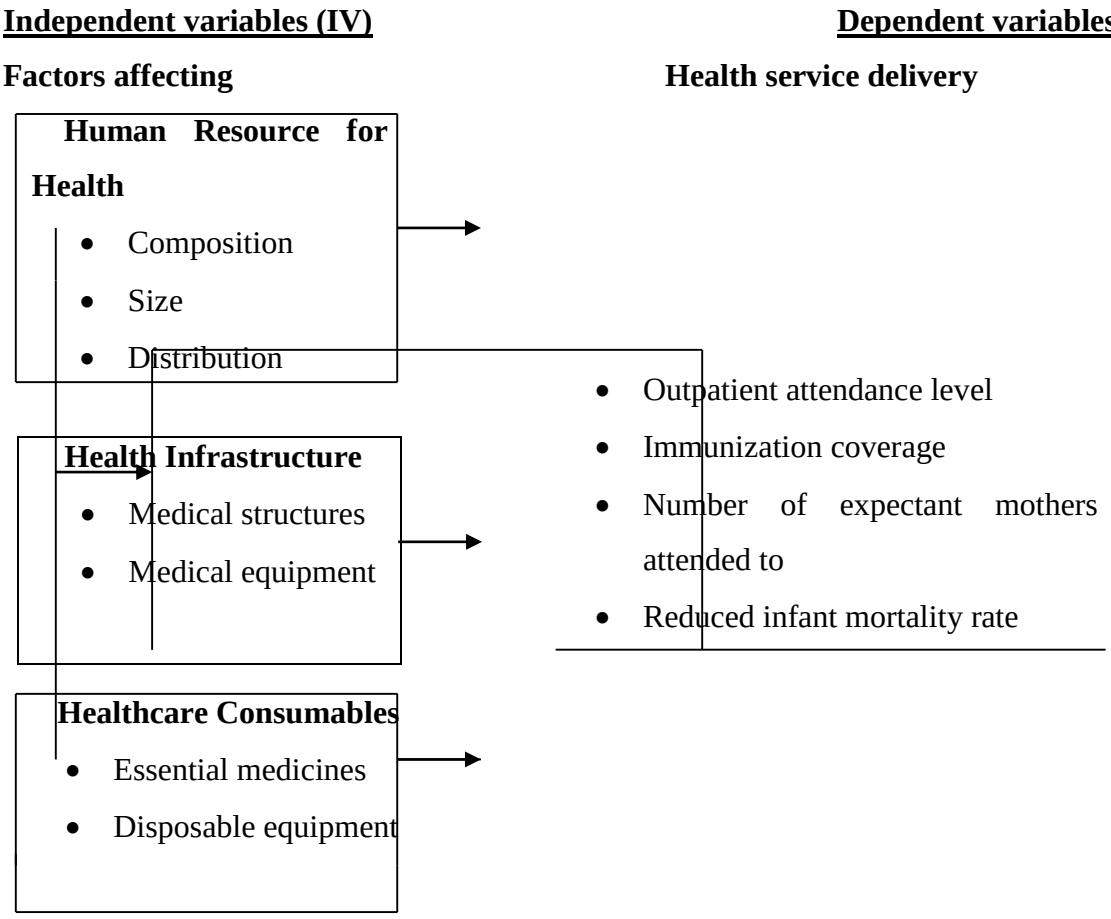
1. To what extent do Healthcare Consumables affect health service delivery at Entebbe Hospital?
2. What is the effect of Health Infrastructure on health service delivery at Entebbe Hospital?
3. What is the effect of Human Resource for Health on health service delivery at Entebbe Hospital?

1.6 Hypotheses of the study

1. Health Infrastructure positively affects health service delivery.
2. Human Resources for Health have a significant effect on health service delivery.
3. Healthcare Consumables positively affect health service delivery.

1.7 Conceptual Framework

Figure 1 showing the relationship between Independent variables and dependent variables



Source: Kabene et al; (2006), modified by the researcher Importance of human resources management in health: A global context "electronic version"

There are three basic health system inputs: Human Resources for Health, Health Infrastructure and Healthcare Consumables which are the independent variables that have an effect on the dependent variables. The dependent variables include reduced infant mortality, reduced maternal mortality, increased outpatient attendance levels, increased proportion of expectant mothers deliveries attended to.

1.8 Scope of the study

1.8.1 Geographical scope

The study focused on Entebbe Hospital which is located in Wakiso district Entebbe Municipality.

1.8.2 Content scope

In terms of content, the study investigated the factors affecting health service delivery.

1.8.3 Time scope

The study was restricted to a period of 2008 to 2011 because it is the period when refurbishment took place in the health sector. Despite this refurbishment, the health service delivery is not to the expected standard.

1.9 Significance of the study

The study results are expected to be beneficial in the following ways;

The study may be used by the health sector nationally to broaden their knowledge on ways of improving the sector performance. It may be significant to the academicians because it will form a body of knowledge which may be useful to other researchers. The study will enable the hospital to identify the gaps in their health service delivery and hence provide recommendations to improve on the health service

1.10 Justification of the study

Health is an essential prerequisite as well as an outcome of sound development policies, the good health status of the population is vital for a country's economic growth. Access to good health is a human right hence the need to ensure that citizens have access to health services.

1.11 Operational definitions according to the researcher

Healthcare consumables are drugs and other disposable equipment which are key to health service delivery.

Human resources for health will mean administrative and health workers in Entebbe Hospital

Health Infrastructure will mean health equipment, structures like buildings and other health facilities.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The chapter reviewed the existing literature on the subject of the health service delivery. The literature focused on the three independent variables which are: Health infrastructure, Human Resources for Health and Healthcare Consumables advanced by Kabene, Orchard, Howard, Soriano and Ledue (2006), and their effect on health service delivery.

2.1 The Theoretical Framework

According to Kabene, Orchid, Howard, Soriano and Leduc (2006) there are three principal health system inputs: human resources, health infrastructure and healthcare consumables. The contribution of the health workers is one of the most essential components of a health system's ability to effectively provide quality care and to ensure equitable access to that care throughout the entire population. The above authors further assert that adequate health infrastructure is key in health service delivery such as adequate accommodation for staff and availability of health care consumables. Hence the theory of the three principle health inputs guided this study; it was restricted to the three factors affecting health service delivery.

2.2 Examine the effect of Human Resources for Health on health service delivery at Entebbe Hospital

When examining healthcare performance in a global context, many general Human Resource issues and questions arise including the size, composition and distribution of health personnel. Ministry of health (2006) states that Human Resource for health is key for delivering health sector

goals and objectives, through the provision of skilled, efficient and equitable distribution of Human resource, to address health issues in a country. The study will review Human resource for health in terms of size, composition and distribution.

The Toronto 2005 Regional Meeting of the Observatory of Human Resources for Health identified "Human resources as foundation of the health system" and a main guiding principles to support the efforts for the development of human resources for health. "The development of human resources in health forms the social and technical foundation of the health systems and their improvement. The contribution of the health workers is one of the most essential components of a health system's ability to effectively provide quality care and to ensure equitable access to that care throughout the entire population" (Pan American Health Organization & Health Canada 2005).

The health sector is a labor intensive sector and availability of adequate human resource for health is key to achievement of health objectives (National Health Policy, 2009).

Results of the study of health care systems from a global perspective and the importance of human resource reveal the importance Human resource management to any healthcare system and how it can improve healthcare models. The performance and benefits of the system can deliver depends largely upon the knowledge, skills and motivation of these individuals responsible for delivering health services. (Kabene et al, 2006).

Today, the development of human resources for health is not a matter of choice but a strategic necessity. WHO's drive to move the health workforce agenda forward is recognized by many

countries as encouraging policy-makers to address the chronic shortage in health personnel that still characterizes the health workforce around the globe. As The World Health Report (2006) indicates that the workforce is the heartbeat of each and every health system and the availability of sufficient and competent workers is vital to the well-being of people and achievement of national, regional and global health goals, including the Millennium Development Goals.

The inadequate numbers of health workers has also been reported by Lucas (2005). McCourt et al (2003), notes that while the demand for health staff increases, the supply is decreasing and will decrease further if current trends continue. They argue that one reason is brain drain of the skilled staff going abroad. Staffs are lost due to transfers, departure for long term training, death and resignation. Low productivity in health workers is attributed to poor remuneration, lack of promotions, poor leadership and lack of transparency, lack of descent accommodation and poor working conditions. HRM practices must be developed in order to find the appropriate balance of workforce supply and the ability of those practitioners to practise effectively and efficiently. A practitioner without adequate tools is as inefficient as having the tools without the practitioner.

A lot has been said about the importance of Human resources for health, the literature reviewed to a big extent focuses on western countries and less is said about African countries hence the study sought to establish an in depth understanding of the human resources for health and health service delivery in Entebbe hospital. The findings showed that human resources for health at Entebbe hospital have inadequate accommodation and their remuneration was not satisfactory to the majority and was in agreement with some scholars who asserted that health staff should be motivated to enhance better health service delivery.

2.3 To assess the effect of Health Infrastructure on health service delivery at Entebbe Hospital

According to Ministry of Health Report (MOH 2002), health infrastructure which is a division of the clinical services department, focuses on construction, maintenance and upkeep of physical infrastructure and ensuring health facilities are adequately equipped with well functioning equipment. Health infrastructure will be reviewed in terms of medical structures and medical equipment.

There is a massive backlog of dilapidated infrastructure due to previous neglect which adversely affected access and quality despite the free health services provided by government, access to the government health facilities is still limited which is evident at Entebbe hospital, most of the structures were constructed during the colonial era and there is need for periodic renovations. (Uganda Bureau of Statistics 2004). There is need to establish s clear hierarchy of health service delivery. Over the period of the HSSP II some HC were upgraded to higher levels and this necessitated the construction of OPDs, theatres, maternity wards, staff houses as well as rehabilitating and equipping health centers (Ministry of Report Health 2005).

The World Health Report (2000) argues that coverage, accessibility and quality of care are three basic requirements in health development. Coverage depends on the availability of suitably located facilities where quality care is given to the whole population by well trained workers using appropriate technologies. Ministry of health 2000 states that there is evidence to show that the distance to health facilities is a significant barrier to access to health care by the poor. The report

adds that the poorest communities are also least likely to initiate construction of health facilities, ranging from lack of clear national policies and leadership, to inadequate resources and bad management.

Ramani et al. (2006) argues that in most developing countries, the provision of basic PHC services is a major concern of government and decision making. The government has to improve availability, equity and quality care services as well as ensure basic care to the poor and marginalized. The ministry of health 2006 notes that all the 27,632 health facilities in the country lack equipment of one type or another. That most of the health centers lack laboratory equipment, delivery kits testing kits oxygen cylinders drip stands, scanners weighing scales communication equipment and mattresses. ICT remains a challenge with prevalence among health facilities being at 6.4% mostly comprising of mobile phone, radio, TV and computers to a smaller extent.

The 2008/09 annual health sector performance report observes that only 40% of available equipments were in good condition and about 17% needed replacement. Rehabilitation of buildings and maintenance of medical equipment is not regularly done. Nutrition units which were attached to health units are functioning with limited capacity. Accommodation for staff remains a big challenge and is a major reason for low staff numbers, Ministry of Health (2008). The findings showed that health adequate infrastructure is a necessity and fully operational theatres, however there were some dilapidated buildings that hadn't been renovated for quite a long time.

2.4 To establish the extent to which Healthcare Consumable affect the health service delivery in Entebbe Hospital

According to Kabene et al (2006), healthcare consumables are the drugs, prostheses and disposable equipment. Ministry of Health (2005) asserts that districts with good performance on medicines are likely to perform. They are key inputs for health service delivery Availing medicines and supplies in appropriate quantities and at the appropriate time should be key responsibility for health managers.

MOH report (2007) asserts that local governments receive funds from central government, development partners, global health initiatives and locally raised revenue to deliver health services. Inadequate financing remains primary constraint inhibiting the development of the health sector in Uganda. The report states that the current level of funding of US Dollars 7.84 per capita falls far below estimated level of funding of district PHC conditional grants need to be addressed. No country can provide health services without resources to pay for them. Indeed this is further supported by the Abuja Declaration which asserts that Uganda's health budget is far below the agreed which at least 1 billion US Dollars per year. This is clear evidence of the inadequate drug stocks and other health care consumables in Entebbe hospital due to the limited resources allocate to the health budget in Uganda

WHO Report (1995), argues that poorly coordinated drug policies and strategies inefficient procurement, inequity in distribution, unaffordable prices and inappropriate use are a common place in the world. Half the world's population still lack regular access to the most needed drugs.

According to Ministry of Health (2006), delivery of healthcare consumables is caused by the delay in disbursement of funds from Ministry of Finance planning and economic development to the districts usually in the first and second quarters of the financial year. The report also notes that the

government policy of funding Non Governmental Organizations' hospitals to increase accessibility of health services to the poor has failed due to user fees that they charge.

A recent survey shows that even though 72% of the households were close to a public health care facility, only 33% of the households believe that medicines are available in public health care facilities. Medicines are 3-5 times more expensive in the private sector compared to the public sector procurement costs. For many people, medicines in the private sector are not affordable and this constitutes a major obstacle to households accessing medicines. (Health Sector Strategic Plan III 2010/11-2014/15).

The Medicines Credit Line budgets have stagnated while Primary Health Care grants for Essential medicines and Health Supplies **(**EMHS**)** only slightly increased with low utilization at approximately 55%. Delays in procurement, poor quantification by and late orders from facilities and poor records keeping are among the management issues that contribute to shortage and wastage of medicines in the public sector. The findings showered the Ministry of health delays to disburse funds to procure essential drugs due to the lengthy bureaucracy in government procurement and supplies. Equally so some of the drugs and sundries provided to the hospital are in low quantities and do not match the ever increasing patient level since the hospital acts as a referral hospital to surrounding health centers like Kisubi hospital among others.

2.5 Conclusion

The literature reviewed above confirms that many scholars have conducted several studies to establish the general factors affecting the performance of different countries and regions in health

service delivery collectively, the scholar emphasize that human resource for health is very key in the performance of the health sector. However human resource can’t work independently without other factors. The study was conducted to find out how the factors identified in the conceptual framework affect the performance of health service delivery with specific reference to Entebbe Hospital

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presents the methodology and procedures by which this study was conducted. It covers the research design, study area and sample size. It also highlights the methods and instruments of data collection, research procedure, data analysis and interpretation under which qualitative and quantitative data are considered.

3.1 Research Design

The research employed a cross sectional survey design because data was collected at one point in time from a sample selected to represent a large population as supported by Linda (2005). The design enabled the researcher to describe characteristics of a large population. The study involved both field and desk study. The field study employed both qualitative and quantitative approaches in collection of data and analysis. During field study Cross sectional survey was used to generate primary data from two sets of respondents. The structured interviews were administered to the managers of the hospital who were few in number and had in-depth views of the subjects under study. On the other hand the closed ended questionnaires were administered to the rest of the hospital staff who were the majority and main target of the study.

3.2 Study Population

The study focused on health workers, clinical and administrative staff, at Entebbe Hospital. According to the Entebbe Hospital Human Resource Manual 2009, the target population was 100

staff; this was the number of employees at that time. These included 16 Medical Officers, 18 Administrative officers, 9 Dental and Pharmacy officers, 37 Nurses and 20 Support Staff.

3.3 Sample size and selection

Table 1: Sample Size and Selection

Category	Total population	Sample	Sample selection
Medical Officers	16	13	Simple random sampling
Administrative Officers	18	14	Purposive sampling
Dental and Pharmacy	9	7	Simple random sampling
Nursing officers	37	30	Simple random sampling
Support Staff	20	16	Simple random sampling
Total	100	80	

Sources: ***Primary data***

A sample of 80 respondents was selected for the study out of a population of 100 staff. These included 13 Medical Officers, 14 Administrative officers, 7 Dental and Pharmacy officers, 30 Nurses and 16 Support Staff. The sample size was determined using Krejcie and Morgan Table (Amin 2005). The sample of 80 health workers was select using the simple random sampling so that every subject had an equal chance of being selected. (Mugenda & Mugenda 1999).

3.3.1 Sampling technique

Simple random sampling was used to choose the respondents. This technique involves assigning numbers to members of the access population and picking any number at random (Mugenda &

Mugenda 1999). This technique enables every subject to have an equal chance of being selected. The key informants were selected using purposive sampling this is so because they were in a better position to provide an in depth explanation to the study.

3.4 Data collection methods

Data collection methods are techniques of collecting data and since in this research both quantitative and qualitative methods were used, primary data was collected using an interview guide and questionnaire.

3.4.1 Questionnaire Survey

Data was obtained using questionnaire with closed ended questions. The questionnaires were used because they give in-depth information in terms of feelings, background, decisions and were easily administered (Mugenda & Mugenda, 2003).

3.4.2 Key Informant Interviews

These interviews were used to gather information from the Medical Officers and Hospital Administrators as key informants, these were selected using purposive sampling technique. The key informants interview guide (Appendix ii) helped the researcher in obtaining an overview of the factors affecting health service delivery in the hospital; these were face to face interviews. This is a method of collecting data in which selected participants are asked questions in order to find out what they do, think or feel to enable the researcher solicit information on the subject under study through probing, (Deniscombe, 1998). It was flexible and permitted the researcher to ask

more complex questions and it took into account of non verbal communications such as attitude. That data obtained supplemented that obtained through questionnaires.

3.5 Data Collection Instruments

3.5.1 Self Administered Questionnaire

The questionnaires (Appendix i) are more reliable and easy to administer because each item is followed by alternative answers, it allowed respondents to answer freely. The instrument was considered appropriate to the study owing to the fact that according to Amin (2005) it is less expensive to administer and easy to analyze compared to other instruments such as focused group discussions and observations. The questionnaires were issued to, Dental and Pharmacy officers, Nurses and Support Staff in Entebbe hospital.

3.5.2 Interview Guide

An interview guide (Appendix ii) is a set of questions that the interviewer asks when interviewing. It makes it possible to obtain data required to meet specific objectives of the study. With the interview guide, qualitative data was collected to explore how health service delivery is administered in Entebbe hospital. The interviews were held with the management committee of Entebbe hospital, this consisted of administrative officers and the medical officers.

3.6 Quality of data instruments

3.6.1 Validity

Validity was measured by using content validity index (CVI). This measured the extent to which the content of the instrument corresponds to the theoretical framework of the study. A value of above 70% is acceptable as it ensures that the instrument provides information capable of

answering at least 70% of the research questions (Mugenda & Mugenda, 1999). The CVI measurement involved independent rating of each independent item in the questionnaire in relation to the research questions by four different persons knowledgeable on the subject on whether each question was relevant (R) of Not Relevant (NR) and is calculated using the formula

CVI = R/N, where;

CVI = Content Validity Index

R = Relevant

N = Total number of items in the four questionnaires

The four persons evaluated the questions in the questionnaire. The valid questions in the questionnaire for the four respondents were summarized up and divided by the total number of questions evaluated by the four respondents. The validity of the questionnaire administered was therefore CVI = 200/220 = 0.909(90%)

3.6.2 Reliability

Table 2 reliability analysis scale (alpha)

Variables	Items	Alpha
Human Resources for Health	23	0.793
Health Infrastructure	16	0.7814
Health Care Consumables	18	0.852

The reliability of the questionnaire was tested according to Cronbach's alpha coefficient using the SPSS. All the variables scored a coefficient exceeding the recommended 0.70 (table 8), which is acceptable for social research (Cronbach, 1970) as cited in Amin, (2005)

3.7 Data collection Procedures

The researcher ensured that the two instruments were discussed with the two supervisors before using them. The researcher also obtained an introductory letter from UMI to allow the study to be undertaken at Entebbe hospital. This enabled the respondents in the field to cooperate willingly without any supervision. The two research assistants were recruited under the supervision of the researcher who made field visits to assist and encourage respondents to fill the questionnaires with in the period. A meeting to brief research assistants was held before they went out to the field to collect data.

3.8 Data Management and Analysis

Data was of two types; responses from questionnaires and responses from interviews. Each questionnaire was checked for completeness during collection and the researcher ensured that all aspects contained in the interview guide were asked during interviews. Interviews responses were analyzed manually based on the responses given by the respondents. Data was edited, serialized by coding of paragraphs and categorized according to themes and variables of the study for content analysis. These were then grouped into folders each representing a distinct theme. The themes and attributes were quantified using frequency counts which were consolidated to establish patterns, trends and relationships. Two types of methods used in analysis included descriptive and inference statistics processed using SPSS.

3.8.1 Quantitative data analysis

The data was summarized, coded and entered in the computer to verify the hypothesis using Social Science Research (SPSS) Computer software (Amin, 2005). Data was summarized to establish central tendency measures and correlation.

3.8.2 Qualitative data analysis

The analysis of interview responses and documentary review data involved linking them to the variables and their relationships were established and interpreted using correlation. The information from interview responses was analyzed by listing down all respondents' views under each question or category. In this case the tally mark method was used to group similar views expressed by more than one respondent. The necessary quotations were used to strengthen the interpretation.

3.9 Measurement of Variables

The questionnaires were composed of propositions with a five point Likert type response scale since the researcher was interested in finding out the opinion and views (Mugenda & Mugenda, 1999). The scale of 5-1 was used to help the researcher measure the extent to which research objectives are achieved whereby 5= strongly agree, 4=agree, 3=undecided, 2=disagree and 1= strongly disagree. The respondent selected the response that best describes his or her reaction to each statement.

CHAPTER FOUR
PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS

4.0 Introduction

The chapter presents and discusses findings from data collected from the respondents that participated in this study. The findings from the data collected regarding factors affecting health service delivery in Entebbe Hospital.

4.1 Response rate

Out of the target population of 100 respondents, a sample of 80 respondents was selected for the study. The researcher disbursed 80 self administered questionnaires to the sampled health workers, all the 80 questionnaires were returned and found to be usable, although some were returned a bit late, justifying the busy schedules of some of the respondents, this was 100% response rate which is above 60% as advanced by Fowler, (1984). The 100% response rate was achieved due to the fact that the researcher explained clearly the research objective and gave the respondents enough time to respond to the questionnaire and made follow ups to the disbursed questionnaires. 27 respondents of the 80 were also issued with interview guides and these included the medical officers and administrative officers, and the response rate was equally 100%.

4.2 Socio-demographic Characteristics of respondents

The demographic characteristics of the respondents that were analyzed include age, education level, and period of service.

4.2.1 Age Structure of the respondents

Table 3: Distribution of the respondents by age

Age	Frequency (f)	Percentage (%)
18-24	1	1.2
25-31	6	7.5
32-38	20	25.0
39-45	24	30.0
46-52	21	26.2
53-58	7	8.8
59-65	1	1.2
Total	80	100.0

Source: Primary data

From the sample of respondents, it was found out that 1 (1.2%) was aged between 18-24years, 6 (7.5%) were aged between 25-31 years, 20 (25%) were aged between 32-38 years, 24 (30%) were aged between 39-45 years, 21 (26.2%) were aged between 46-52 years, 7 (8.8%) were aged between 53-58 years, 1 (1.2%) were aged between 59-65 . The majority of the respondents being aged between 39-45 years imply that the health sector has reasonably experienced and still energetic staff to perform their duties efficiently and effectively.

4.2.2 Distribution of respondents by level of education

Table 4: Respondents by level of education

Education	Frequency (f)	Percentage (%)
Ordinary level	26	32.5
Advanced level	7	8.8
Diploma level	26	32.5
Graduate level	9	11.2
Post graduate level	5	6.2
PHD level	1	1.2
Others	6	7.5
Total	80	100.0

Source: Primary data

From the sample of respondents 26(32.5%) had Ordinary level certificates, 7(8.8%) had Advanced level certificates, 26(32.5%) had Diplomas, 9(11.2%) were graduates, those at post graduate level were 5(6.2%), 1(1.2%) was at PHD level and 6(7.5%) had other qualifications. This implied that the hospital has well trained and skilled health staffs whose understand their roles and all have the minimum qualification required by the hospital.

4.2.3 Distribution of respondents by length of service

Table 5: Respondents by length of service

Years of service	Frequency (f)	Percentage (%)
1-5 years	16	20.0
6-10 years	9	11.2
11-15 years	13	16.2
16-20 years	29	36.2
21-25 years	8	10.0
26-30 years	2	2.5
above 30 years	3	3.8
Total	80	100.0

Source: Primary data

The distribution of respondents by years of service showed that the majority had served for 16-20 years compared to those above 21 years. This implied that the respondents had enough experience with the Organization and were therefore able to draw from their wealth of experience to answer the questionnaires appropriately

4.3 What is the effect of Human Resource for Health on health service delivery in Entebbe Hospital?

This section concentrates on the effect of human resources for health on health service delivery in Entebbe Hospital. Eight questions were used to explore effect of human resources for health on health service delivery in Entebbe Hospital Findings on effect of human resources for health on health service delivery are presented in Table 6 followed by an analysis and interpretation.

Table 6: Effect of human resources for health on health service delivery in Entebbe Hospital

Questions	Agree	Undecided	Disagree	Total
The hospital has adequate staff to handle their tasks	(16.0%)	(0.0%)	(84.0%)	(100%)
The staff are evenly distributed	(50.0%)	(7.5%)	(42.5%)	(100%)
There is capacity building plan for staff	(28.2%)	(16.7%)	(55.1%)	(100%)
Health workers are satisfied with their salaries	(2.5%)	(3.8%)	(93.7%)	(100%)
Staff needs are taken in to account by management	(45.0%)	(10.0%)	(45.0%)	(100%)
Management regularly motivates staff	(21.25%)	(5.0%)	(73.75%)	(100%)
Staff have adequate skills to perform their duties	(68.75%)	(11.25%)	(20.0%)	(100%)
Staff complaints are addressed on time	(25.0%)	(13.8%)	(61.3%)	(100%)

Note: Agree includes combined responses of strongly agree and agree, while disagree includes combined responses of strongly disagree and disagree.

Table 6 illustrates that (16.0%) respondents agreed that the hospital has adequate staff compared to (84.0%) who disagreed. This shows that Entebbe hospital has inadequate staff. This lack of adequate staff can therefore lead to poor health delivery in the hospital.

The study findings showed that 40(50.0%) respondents indicated that the staff is evenly distributed compared to (42.5%) who felt that the staff are not evenly distributed. This shows that staff is evenly distributed in Entebbe hospital as agreed by majority of the respondents. It is known fact that proper distribution of staff could lead to better health service delivery.

Results indicate that respondents (28.2%) agree that there is capacity building plan for staff compared to (55.1%) who disagreed. were not convinced about their job security. This shows that there is no capacity building plan for staff in the hospital. Lack of capacity building plan could affect health service delivery in the hospital.

It was also established that (2.5%) respondents agreed that health workers are satisfied with their salaries compared to (93.7%) who disagreed. This shows that majority of the employees were not satisfied with their salaries. This lack of satisfaction can therefore demoralize employees in performing their tasks hence resulting in poor health service delivery. They could also seek for alternative employment or other Companies where they can get satisfactory salary.

One of the hospital management staff who was hesitant to mention their name said that "*poor health service delivery is attributed to poor health workers remuneration which is inadequate. These people (health workers) get little salary which demotivates them hence become reluctant in their work*".

Results also indicate that respondents (45.0%) agree that staff needs are taken into account by management compared to (45.0%) who disagreed. This shows that staff needs are neither taken into account by management nor not. With taking into account staff needs, staff may be motivated to work leading to better health service delivery in the hospital.

It was established that (21.25%) of the respondents agreed that management regularly motivates staff compared to (73.75%) who disagreed. This shows that majority of the staff were not regularly motivated

by the management. This affects health service delivery negatively because some employees may not opt to work to their best.

The study findings further showed that (68.75%) of staff have adequate skills to perform their duties compared to (20.0%) who did not have adequate skills. This shows that majority of the staff in the hospital have adequate skills. This implies that staff with adequate skills is likely to lead to better health service delivery.

Lastly results show that (25.0%) of the respondents agree that staff complaints are addressed on time compared to (61.3%) who disagreed. Hence this high percentage of disagreement clearly showered that staff complaints are not urgently addressed by management. This implies that not addressing staff complaints on time could lead to poor service delivery in the hospital.

The management committee interviewed responded when asked "Has Human resources for health affected health service delivery in Entebbe Hospital". The management committee responded that it is a fact because they have no adequate staff, salaries are not satisfactory and employees are not motivated. They noted that this has greatly affected health service delivery in the hospital.

Thus, from the above presentation, analysis and interpretation, it can be stated that health service delivery at Entebbe hospital is not to the expected levels in that for most staff, the salary was not satisfactory; there is no capacity building plan for staff, staff needs are not taken in to account by management, management does not regularly motivates staff and staff complaints are not addressed on time despite majority of the staff having adequate skills.

Therefore, the descriptive statistics on effect of human resources for health on health service delivery in Entebbe hospital show a pattern that is likely to relate. Thus, these findings were subjected to correlation analysis to test the following hypothesis;

Hypothesis 1*: Human resources for health have a significant effect on health service delivery in Entebbe hospital*

Table 7: Correlation between human resources for health and health service delivery

	Human resources for health	Health service delivery
Human resources for health	r = 1.000 p = . n = 80	r = .779 (**) p = .000 n = 80
Health service delivery	r = .779 (**) p = .000 n = 80	r = 1.000 p = . n = 80
Coefficient of determination	r2 = .606	

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

The hypothesis was verified using Pearson correlation. The study variable human resources for health and health service delivery were measured basing on the scores assigned to the different responses of the individual respondent. The researcher computed the total value of these scores in order to measure and relate the two variables using Pearson correlation techniques. To interpret the correlation findings, the correlation coefficient (r) was used to determine the strength of the relationship between human resources for health and health service delivery. The sign of the coefficient (positive or negative) was used to determine the nature of change in the variables. The

significance of the correlation coefficient (p) was used to test the hypothesis that "*Human resources for health have a significant effect* on *health service delivery in Entebbe hospital"* Findings are presented in Table 7 followed by the analysis and interpretation.

Table 7 show that there is a strong positive correlation (r = 0.779) between human resources for health and health service delivery. This finding was subjected to verification to test the hypothesis "*Human resources for health have a significant impact on health service delivery in Entebbe hospital"* by comparing the significance of the correlation (p = .000) to the recommended significance at 0.01. Given that the p value was less than 0.01, the hypothesis was accepted and it was concluded that there is a strong positive relationship between human resources for health and health service delivery. Interpreting the strong nature of the relationship, the findings show that change in human resources for health is related to a considerable change in health service delivery. As for the positive nature of the relationship, the findings show that both variables change in the same direction whereby adequate human resources for health is related to better health service delivery, and inadequate human resources for health s is related to poor health service delivery. Since the correlation coefficient does not determine how much an independent variable account for a change in the dependent variable, a further analysis using the coefficient of determination, which is the square of the correlation coefficient, is computed. Thus, the coefficient of determination (r2) = .606 when expressed in percentage shows that human resources for health accounts for 60.6% change in health service delivery, thus is a big change.

4.4 What is the effect of Health Infrastructure on health service delivery in Entebbe Hospital?

Findings on effect of health infrastructure on health service delivery are presented in Table 8 followed by an analysis and interpretation.

Table 8: Distribution of Respondents by their responses on effect of health infrastructure on health service delivery

Questions	**Agree**	**Undecided**	**Disagree**	**Total**
All health structures are being utilized	(41.25%)	(8.75%)	(48.75%)	(100%)
Wards are big enough to accommodate patients	(50.0%)	(7.5%)	(42.5%)	(100%)
The casualty section is fully equipped	(62.5%)	(7.5%)	(29.95%)	(100%)
The hospital has proper drug storage facilities	(58.75%)	(6.25%)	(35.0%)	(100%)
An ambulance is in place to handle emergency cases	(78.75%)	(2.5%)	(18.75%)	(100%)
Standby generator is in place	(77.5%)	(6.25%)	(16.25%)	(100%)
All theatres are fully equipped	(23.75%)	(13.75%)	(61.25%)	(100%)
All theatres are fully operational	(36.25%)	(5.0%)	(58.75%)	(100%)
Hospital structures are renovated regularly	(21.25%)	(5.0%)	(73.75%)	(100%)
There is adequate accommodation for all staff	(7.5%)	(3.75%)	(88.75%)	(100%)

Source: Primary data

Note: Agree includes combined responses of strongly agree and agree, while disagree includes combined responses of strongly disagree and disagree.

Table 8 illustrates that (42.25%) respondents agree that all health structures are being utilized compared to (48.75%) who felt that the all health structures are not being utilized. This shows that

all health structures in Entebbe hospital are not being utilized given that majority of the staff disagreed. This implies that health service delivery in the hospital is poor.

Results indicate that respondents (50.0%) agree that wards are big enough to accommodate patients compared to (42.5%) who disagreed. This shows that the wards in Entebbe hospital are big enough to accommodate patients. This implies the hospital has the capacity of handling many patients and this likely to lead to better health service delivery.

It was also established that (62.5%) respondents agreed that the casualty section is fully equipped compared to (29.95%) who disagreed. This shows that the casualty section of the hospital is fully equipped as indicated by majority of the staff. This implies that patients are able to receive better health services. This further means that the hospital has the capacity to handle emergencies despite the increasing number of outpatients. The principle nursing officer said that "*the casualty section was fully furnished and equipped during the CHOGM period and is fully functional; we even accommodate referrals from other hospitals like Kisubi hospital"*.

Results also indicate that respondents (58.75%) agree that the hospital has proper drug storage facilities compared to (35.0%) who disagreed. This shows that the hospital has proper drug storage facilities and this is likely to lead to better service delivery.

It was established that (78.75%) respondents agree that ambulance in place to handle emergency cases compared to (18.75%) who disagreed. This shows that the hospital has an ambulance in place to handle emergency cases. This is likely to lead to better health service delivery as there is means to handle emergency cases at all times.

The study findings further showed that (77.5%) agreed that there is a standby generator is in place compared to (16.25%) who disagreed. This shows that the hospital has a standby generator is in place. This implies that having a standby generator is in place is likely to lead to better health service delivery in the hospital. Power supply is constant and hence the patient's wards have light and power all the time which facilitates health service delivery.

It was further established that (23.75%) respondents agreed that all theatres are fully equipped compared to (61.25%) who disagreed. This shows that theatres in the hospital are not fully equipped. Lack of fully equipped theatres are likely to affect health service delivery in the hospital. One of the staff interviewed note that "*the theatres are over whelmed by the increasing number of patients' referred for operation both from the hospital and those from other nearby medical centers, yet the equipment are not enough. We need advanced technological equipment in the theatres".*

It was established that (36.25%) respondents agreed that all theatres are fully operational compared to (58.75%) who disagreed that all theatres were not fully operational. This shows that the theatres in the hospital are not fully operational as indicated by majority of the respondents. This is likely to lead to poor health service delivery.

Findings show that (21.25%) respondents agreed that hospital structures are renovated regularly compared to (73.75%) who stated that hospital structures are not renovated regularly. This shows that the hospital does not renovate its structures regularly. Without renovation of structures, they are likely to fall and affect health service delivery.

Lastly results show that (7.5%) respondents agree that there is adequate accommodation for all staff compared to (88.75%) who disagreed. This means that the hospital has no adequate accommodation for all staff. Poor living conditions could affect health service delivery in the hospital.

Interviews with management committee indicated they do not have funds to renovate their structures, equip theaters, service generators and construct house for the staff. They blame the government for underfunding the health sector and this has resulted in poor health service delivery.

In a nutshell, it can be stated that the Health Infrastructure in Entebbe hospital is inadequate as observed by majority of the respondents stating that not all health structures are being utilized, not all theatres are fully equipped, not all theatres are fully operational, hospital structures are not renovated regularly and there is no adequate accommodation for all staff. These are likely to affect health service delivery in Entebbe Hospital

In view of the above responses, the study established that poor Health Infrastructure is likely to lead poor health service delivery. Thus, these findings were subjected to correlation analysis to test the following hypothesis:

Hypothesis 2*:* ***Health Infrastructure positively affects health service delivery in Entebbe Hospital.***

The hypothesis was verified using Pearson correlation. To interpret the correlation findings, the correlation coefficient (r) was used to determine the strength of the relationship between health infrastructure and health service delivery. The sign of the coefficient (positive or negative) was used to determine the nature of change in the variables. The significance of the correlation

coefficient (p) was used to test the hypothesis that "Health infrastructure positively affects health service delivery in Entebbe hospital". Findings are presented in Table 9 followed by the analysis and interpretation.

Table 9: Correlation between health infrastructure and health service delivery

	Health infrastructure	Health service delivery
Health infrastructure	r = 1.000 p = .	r = .626 (**) p = .000
Health service delivery	r = .626 (**) p = .000	r = 1.000 p = .
Coefficient of determination	r2 = .392	

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

Table 9 show a strong positive correlation (r = 0.626) between health infrastructure and health service delivery. This finding was subjected to verification to test the hypothesis "*Health infrastructure positively affects health service delivery in Entebbe hospital"* by comparing the significance of the correlation (p = .000) to the recommended significance at 0.01. Given that the p value was less than 0.01, the research hypothesis was accepted and it was concluded that there was a strong positive relationship between health infrastructure and health service delivery. Interpreting the strong nature of the relationship, the findings show that change in health infrastructure is related to a very considerable change in health service delivery. As for the positive nature of the relationship, the findings show that both variables change in the same direction whereby good health infrastructure is related to better health service delivery, and bad health infrastructure is related to poor health service delivery. Since the correlation coefficient does not determine how much an independent variable account for a change in the dependent variable, a further analysis using the coefficient of determination, which is the square of the correlation

coefficient, is computed. Thus, the coefficient of determination (r2) = .392 when expressed in percentage shows that health infrastructure accounts for 39.2% change in health service delivery.

4.5 What is the effect of Human Resource for Health on health service delivery in Entebbe Hospital?

This section explores findings on the extent to which healthcare consumable affect the health service delivery in Entebbe hospital which was investigated using seven key questions. Findings on the extent to which healthcare consumable affect the health service delivery is presented in Table 10 followed by an analysis and interpretation.

Table 10: Distribution of Respondents by their responses on extent to which Healthcare Consumable affect the health service delivery in Entebbe Hospital

Questions	Agree	Undecided	Disagree	Total
Drugs are an important component of the health sector	(65.0%)	(3.75%)	(22.5%)	(100%)
Drugs are always in stock throughout the year	(13.75%)	(2.5%)	(83.75%)	(100%)
Expired drugs are issued out to patients	(17.5%)	(5.0%)	(76.25%)	(100%)
Expired drugs are appropriately disposed off	(58.75%)	(16.25%)	(25.0%)	(100%)
Disbursement of funds for drug procurement is timely	(16.25%)	(32.5%)	(51.25%)	(100%)
Drugs are directly purchased by the hospital	(25.0%)	(15.0%)	(60.0%)	(100%)
Purchase of essential drugs is given first priority	(52.5%)	(15.0%)	(32.5%)	(100%)

Note: Agree includes combined responses of strongly agree and agree, while disagree includes combined responses of strongly disagree and disagree.

According to Table 10, majority of the staff (65.0%) acknowledge that drugs are an important component of the health sector compared to minority (22.5%) who disagreed. This implies that the hospital and generally the health sector cannot offer health services without drugs.

Furthermore, it is revealed that (13.75%) staff agreed that drugs are always in stock throughout the year compared to (83.75%) who disagreed. This shows that drugs are not always in stock throughout the year Entebbe hospital as revealed by majority of the respondents. It is known fact that lack of drugs affects health service delivery in hospitals.

The drug stores manager noted that "*drugs and essential equipment were insufficient and it created an impression in the eyes of the patients that staff is technically incompetent yet they have the necessary skills, the government should increase the budget allocated to Health sector to take care on such*".

In addition, it is revealed that (17.5%) staff agreed that expired drugs are issued out to patients compared to (76.25%) who stated that expired drugs are not issued out to patients. This shows that expired drugs are not issued out to patients in Entebbe hospital. This is a clear indication that health workers in Entebbe hospital are aware of the negative effects of expired drugs a sign of better health service delivery.

It was established that (58.75%) of the staff agreed that expired drugs are appropriately disposed off compared to (25.0%) who disagreed. This shows that the hospital appropriately disposes its expired drugs. Proper disposal of expired drugs is a sign of proper health service delivery.

It was also established that (16.25%) respondents agreed that disbursement of funds for drug procurement is timely compared to (51.25%) who disagreed. This shows that disbursement of funds for drug procurement in Entebbe hospital is not timely. Delay in disbursement of funds for drug procurement affects health service delivery in the hospital.

It was established further that (25.0%) of the staff agreed that drugs are directly purchased by the hospital compared to (60.0%) who disagreed. This shows that Drugs are not directly purchased by Entebbe hospital. This in most cases causes delays leading to shortages of drugs in the hospital thus affecting health service delivery.

Lastly, it was established that (52.5%) of the respondents agreed that purchase of essential drugs is given first priority compared to (32.5%) who disagreed. This show that purchase of essential drugs is given first priority in Entebbe hospital. This is likely to lead to better health service delivery in the hospital.

Majority of the top management employees interviewed noted that drugs are an important component of the health sector hence purchase of essential drugs is given first priority. They also noted that expired drugs are not given to patients and have mechanisms for proper disposal of drugs. They however noted that they have no powers to purchase drugs and disbursement of funds for drug procurement often delays affecting service delivery.

In view of the above responses, the general conclusion showed that healthcare consumable affect the health service delivery in Entebbe Hospital. Thus, these findings were subjected to correlation analysis to test the following hypothesis:

Hypothesis 3: ***"Healthcare consumables positively affect health service delivery in Entebbe hospital"***

The hypothesis was verified using Pearson correlation. To interpret the correlation findings, the correlation coefficient (r) was used to determine the strength of the relationship between health care consumables and health service delivery. The sign of the coefficient (positive or negative) was used to determine the nature of change in the variables. The significance of the correlation coefficient (p) was used to test the hypothesis that *"Health care consumables positively affect health service delivery in Entebbe hospital"*. Findings are presented in Table 11 followed by the analysis and interpretation.

Table 11: Correlation between health care consumables and health service delivery

	Health care consumables	Health service delivery
Health care consumables	r = 1.000 p = .	r = .735 (**) p = .000
Health service delivery	r = .735 (**) p = .000	r = 1.000 p = .
Coefficient of determination	r2 = .541	

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

Table 11 show a very strong positive correlation (r = 0.735) between health care consumables and health service delivery. This finding was subjected to verification to test the hypothesis *"Health care consumables positively affect health service delivery in Entebbe hospital"* by comparing the significance of the correlation (p = .000) to the recommended significance at 0.01. Given that the p value was less than 0.01, the research hypothesis was accepted and it was concluded that there was a very strong positive relationship between health care consumables and health service delivery. Interpreting the very strong nature of the relationship, the findings show that a change in health care consumables is related to a very considerable change in health service delivery. As for the positive nature of the relationship, the findings show that both variables change in the same direction whereby adequate health care consumables is related to better health service delivery, and vice versa. Since the correlation coefficient does not determine how much an independent

variable account for a change in the dependent variable, a further analysis using the coefficient of determination, which is the square of the correlation coefficient, is computed. Thus, the coefficient of determination (r2) = .541 when expressed in percentage shows that electronic health care consumables accounts for (54.1%) change in health service delivery, which is a big change.

CHAPTER FIVE

SUMMARY, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the discussion, conclusions and recommendations. It is divided into three sections. The first section presents the discussion according to the objectives of the study. The second section contains conclusions which were done with reference from objectives, relevant

literature and the findings as presented in chapter four and the third section entails the recommendations.

5.1 Summary of findings

5.1.1 Effect of Human Resources for Health on health service delivery in Entebbe Hospital

Findings of the study revealed that there is a strong positive relationship between human resources for health and health service delivery, this means that adequate human resources for health is related to better health service delivery human. Thus from the results, it can be stated that for most staff, salary was not satisfactory, there was no capacity building plan in place, staff needs were not taken in to account by management and the staff are not regularly motivated. If all these issues are addressed promptly then the service delivery in the hospital with be up to standard

5.1.2 Effect of Health Infrastructure on health service delivery in Entebbe Hospital

There was a strong positive relationship between health infrastructure and health service delivery, this means that good health infrastructure is related to better health service delivery. Thus from the findings, it can be stated that the Health Infrastructure in Entebbe hospital is inadequate as observed by majority of the respondents stating that not all health structures are being utilized, not all theatres are fully equipped, not all theatres are fully operational, hospital structures are not renovated regularly and there is no adequate accommodation for all staff. These are likely to affect health service delivery in Entebbe Hospital

5.1.3 Extent to which Healthcare Consumable affect the health service delivery in Entebbe Hospital

There was a very strong positive relationship between health care consumables and health service delivery, this implied that adequate health care consumables is related to better health service delivery. Majority of those interviewed noted that drugs are an important component of the health sector hence purchase of essential drugs is given first priority. They also noted that expired drugs are not given to patients and have mechanisms for proper disposal of drugs. They however noted that they have no powers to purchase drugs and disbursement of funds for drug procurement often delays affecting service delivery. The study concluded that the three principle health inputs as advanced by Kabene et al are significant to health service delivery in Entebbe hospital.

5.2 Discussion of findings

5.2.1 Effect of Human Resources for Health on health service delivery in Entebbe Hospital

There is a strong positive relationship between human resources for health and health service delivery whereby adequate human resources for health is related to better health service delivery, and inadequate human resources for health s is related to poor health service delivery. In particular the study established that the salary was not satisfactory; there is no capacity building plan for staff, staff needs are not taken into account by management, management does not regularly motivates staff and staff complaints are not addressed on time despite majority of the staff having adequate skills.

This finding is in agreement with Kabene et al, (2006) who found out a significant relationship between Human Resources for Health and health service delivery. The study showed that there was inadequate numbers of staff in Entebbe hospital. Iinadequate numbers of health workers has also been reported by Lucas (2005). Staffs in Entebbe hospital have been lost due to transfers, departure for long term training, death and resignation. The results suggests a wow productivity

among health workers in Entebbe hospital and this is partly attributed to poor remuneration, lack of promotions, poor leadership and lack of transparency, lack of descent accommodation and poor working conditions. These human resource factors have lowered health service delivery in Entebbe hospital.

This also agrees with a recent study of the MoH, MoFPeD and the World Banks (2008) which indicated that there are a wide range of reasons why there are huge vacancies: insufficient training capacity, low remuneration and poor working conditions in the public and PNFP sectors, making it difficult for the sector to recruit and retain staff and this greatly affect the health sector.

According to McCourt et al (2003), HRM practices must be developed in order to find the appropriate balance of workforce supply and the ability of those practitioners to practise effectively and efficiently. However, the results showed that there is no capacity building plan in place at the hospital, training is self-sponsored which is a huge financial burden to the staff.

5.2.2 Effect of Health Infrastructure on health service delivery in Entebbe Hospital

There was a strong positive relationship between health infrastructure and health service delivery whereby good health infrastructure is related to better health service delivery, and bad health infrastructure is related to poor health service delivery. In particular the study established that not all health structures are being utilized, not all theatres are fully equipped, not all theatres are fully operational, hospital structures are not renovated regularly and there is no adequate accommodation for all staff. These are likely to affect health service delivery in Entebbe Hospital,

for any hospital to be effective in its services, it should have fully operational structures at are fully equipped and have the capacity to accommodate a wide range of patients at any particular time.

This finding is contrary with Ministry of Health (2008) 2008/09 annual health sector performance report that indicated that health infrastructures were in good condition and had greatly improved service delivery in Uganda.

The findings however are in agreement with Ramani et al (2006) who indicated that most hospitals in developing world are not fairly equipped with laboratory equipments; delivery kits; testing kits; oxygen cylinders; drip stands, scanners; weighing scales; communication equipment and mattresses and these lowers health service delivery.

According to WHO (2008), rehabilitation of buildings and maintenance of medical equipment is not regularly done. Nutrition units which are attached to health units are functioning with limited capacity. Accommodation for staff remains a big challenge and is a major reason for low staff numbers which greatly affects the health sector.

The findings point to the fact the hospital need extra funds from the government to enable it meet its budget in fully equipping theaters, renovating structures and constructing staff houses. This also agrees with Tibenderana, (2009) who suggests that government should allocate more funds to the health sector to enable them improve service deliverly.

5.2.3 Extent to which Healthcare Consumable affect the health service delivery in Entebbe Hospital

There was a very strong positive relationship between health care consumables and health service delivery whereby adequate health care consumables is related to better health service delivery, and vice versa. In particular the study established that drugs are an important component of the health sector hence purchases of essential drugs is given first priority, expired drugs are not given to patients, there is proper disposal of drugs, the hospital management has no powers to purchase drugs and disbursement of funds for drug procurement often delays affecting service delivery.

This finding is in agreement with WHO (1995), that indicate that poorly coordinated drug policies and strategies inefficient procurement, inequity in distribution, unaffordable prices and inappropriate use are a common place in the world. The hospital lacked regular access to the most needed drugs and this was partly attributed to delay in disbursement of funds from Ministry of Finance planning and economic development and lack of finance in the ministry of health. This implies that health service delivery in Entebbe hospital is low as health consumables are key inputs for health service delivery.

The findings of the study are in agreement with a recent study of the MoH, MoFPeD and the World Banks (2008) which indicates that availability of and access to medicines in Uganda continues to be a major problem. Only 30% of the EMHS required for the basic package are provided for in the national budget. Delays in procurement, poor quantification by and late orders from facilities and poor records keeping are among the management issues that contribute to shortage and wastage of medicines in the public sector.

A recent survey by MOH (2008) also shows that even though 72% of the households were close to a public health care facility, only 33% of the households believe that medicines are available in

public health care facilities. Medicines are 3-5 times more expensive in the private sector compared to the public sector procurement costs. For many people, medicines in the private sector are not affordable and this constitutes a major obstacle to households accessing medicines28. Another study shows that only 45.7% of the public health facilities had key essential medicines; the situation was a bit better in mission facilities at 57.5% and private facilities at 56.3%. The length of stock-out duration in public health facilities is at 72.9 days compared to 7.6 days per year for the mission facilities. Mean availability of originator and generic medicines on the EML is at 3.5% and 45.7%, respectively29

According to Kabene et al (2006), availing medicines and supplies in appropriate quantities and at the appropriate time should be key responsibility for health managers. Contrary to this, the hospital experience some drug shortages despite the fact that they share a fence with National Drug Stores, this is critical issue that is caused by length bureaucracy involved in procuring of drugs by Ministry of Health.

5.3 Conclusions

From the findings, one can conclude that the three Principle health inputs that is Human resources for health, Health infrastructure and Healthcare consumables, have an effect on health service delivery at Entebbe Hospital, there were inefficiencies identified like lack of accommodation for staff low motivation, shortages of drugs among other which had an upper hand I service delivery. However if human resource is fully catered for and motivate, health infrastructure fully renovated, furnished and fully operational, health care consumables fully stocked, there is no doubt that health service delivery at the hospital will be to the expected standard.

5.4 Recommendations

Basing on the findings of the study, the researcher would like to suggest to management of Entebbe hospital and policy makers in the public health management the following for each of the factors under the study as bellow.

5.4.1 Human Resources for health

To ensure improvement in the performance of the health sector, the hospital should recruit and deploy staff in all departments in line with the approved staffing structure from the ministry of health.

Ministry of Health should give special incentives to human resources for health to meet their needs and enhance job satisfaction.

5.4.2 Health infrastructure

The hospital should come up with some income generating activities to enable them maintain the buildings and monitoring of health services.

Government should consider constructing adequate accommodation for medical staff as priority and should provide adequate structures that can accommodate the large numbers of patients through lobby policy makers (legislature)

5.4.3 Health care consumables

The government of Uganda should strengthen the national supply chain for essential health commodities to ensure that Ugandans have access to essential drugs

The national drug policy should refocus on contributing to attainment of good standard health by the population by ensuring that drugs are affordable and subsidized.

The government through the Ministry of health should avail medicines and supplies in appropriate quantities and at the appropriate time.

Human resource management practices must be developed in order to find the appropriate balance of workforce supply and the ability of those practitioners to practise effectively and efficiently.

Government also needs to improve the wealth fare of the staff so as to motivate them provide better health services to the public and staff should also be trained enough to provide the health service.

The government should step out to support interested researchers to carry out further studies on the subject matter using qualitative studies in order to obtain in depth information.

5.5 Suggestions for future research

Further studies on the factors affecting health service delivery in different parts of the country should be carried out. This will lead to accumulation of data on issues surrounding factors affecting health service delivery in the country.

More research on these factors should be done using the longitudinal research design so as to establish the factors affecting health service delivery over a long period of time.

Other factors like attitude should be taken in to account as a factor affecting health service delivery.

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APPENDIX I

QUESTIONNAIRE ON THE FACTORS AFFECTING HEALTH SERVICE DELIVERY IN ENTEBBE HOSPITAL

Dear respondents,

The attached questionnaire has been designed purposely for data collection on the factors affecting health service delivery in Entebbe Hospital.

You have been identified as a potential person who can provide useful and reliable data that will help policy makers and implementers improve health service delivery in Entebbe Hospital.

This is purely an academic research which will be submitted in partial fulfillment of the requirements for the award of the Masters Degree in Management Studies (Public Administration) of the Uganda management institute.

You are kindly requested to contribute towards this research by answering the questionnaire. I will be grateful for the honest opinion presented; the response shall be treated with utmost confidentiality. Thanks in advance for sparing time to respond to this questionnaire. I expect to receive it back within two weeks time from the date of receipt.

WAKOOLI PAUL PRINCE, MMS (PAM) UMI

B.A. (SS) MUK, PGD PAM (UMI), CERT. LAW (LDC)

SECTION A

Demographic characteristics

a) Age of respondent
   i. 18-24
   ii. 25-31
   iii. 32-38
   iv. 39-45
   v. 46-52
   vi. 53-58
   vii. 59-65
   viii. Above 65

b) Sex
   i. Male
   ii. Female

c) Name of the Department
   i. Dental and pharmacy
   ii. Nurses
   iii. Support
   iv. Administration
   v. Medical Officers

d) Highest academic qualification attained
   i. Ordinary level
   ii. Advanced level
   iii. Diploma level
   iv. Graduate level
   v. Post graduate level
   vi. PHD level
   i. Others
   (specify)……
   …

e) For how long have you been working with Entebbe Hospital?
   i. 1-5 years
   ii. 6-10 years
   iii. 11-15 years
   iv. 16-20 years
   v. 21-25 years
   vi. 26-30 years
   vii. Above 30 years

f) What is the nature of your employment?

i. Permanent
ii. Contract
iii. Probation
iv. Assignment

INSTRUCTIONS

In each of the statements below, for section B, show your level of agreement by ticking or cycling one of the given statements using the 5 points scale. The numbers represent the following responses; 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree

SECTION B

FACTORS AFFECTING HEALTH SERVICE DELIVERY

To what extent do you agree with the following statements in regards to human resources for health in Entebbe Hospital?

	SCALE	Strongly agree	Agree	Un decided	Disagree	Strongly disagree
1	Entebbe Hospital has adequate staff	5	4	3	2	1
2	The administrative health staff are adequate	5	4	3	2	1
3	The staff are evenly distributed in departments	5	4	3	2	1
4	Hospital has all categories of health staff	5	4	3	2	1
5	There is capacity building plan for staff	5	4	3	2	1
6	The staff have adequate skill to perform their roles	5	4	3	2	1
7	Management regularly motivates staff	5	4	3	2	1
8	Health workers are satisfied with their salaries	5	4	3	2	1
9	Staff needs are taken in to account by management	5	4	3	2	1

10	There is performance management and appraisal in place	5	4	3	2	1
11	Staff complaints are addressed on time	5	4	3	2	1

Health Infrastructure

13	Casualty section is fully equipped and ready for emergencies	5	4	3	2	1
14	All health structures are being fully utilize	5	4	3	2	1
15	Wards are big enough to accommodate patients	5	4	3	2	1
16	The process of tendering construction work is fast	5	4	3	2	1
17	There is adequate supervision of health structures by both staff and MOH	5	4	3	2	1
18	Hospital structures are renovated regularly	5	4	3	2	1
19	There is adequate accommodation for all personnel of the hospital	5	4	3	2	1
20	MOH specifies the equipment to be distributed to the hospital	5	4	3	2	1
21	Most of the equipment used is procured directly from suppliers by MOH	5	4	3	2	1
22	The district budget provides for the ambulance maintenance	5	4	3	2	1
23	Constant breakdown of equipment disrupts service delivery	5	4	3	2	1
24	All theatres are in operation	5	4	3	2	1
25	The theatres are fully equipped	5	4	3	2	1
26	Standby power generator is in place	5	4	3	2	1
27	Ambulance in place to handle emergency cases	5	4	3	2	1
28	The ambulances are only used for the above purpose	5	4	3	2	1
29	Hospital has proper drug storage facilities	5	4	3	2	1

Healthcare Consumables

30	Drugs are an important component of the health sector	5	4	3	2	1
31	Drugs are always in stock throughout the year	5	4	3	2	1
32	Drugs are directly purchased by the hospital	5	4	3	2	1
33	the procurement of drugs is done my MOH through the national medical stores	5	4	3	2	1
34	There is a standard delivery schedule of drugs issued by NMS showing the order and delivery date deadlines	5	4	3	2	1
35	Disbursement of funds for procurement of healthcare consumables is done on time	5	4	3	2	1
36	The district PHC conditional grant is adequate	5	4	3	2	1
37	Purchase of essential drugs/ first aid drugs is given first priority	5	4	3	2	1
38	Expired drugs are appropriately disposed off/ destroyed	5	4	3	2	1
39	Expired drugs are issued out to patients	5	4	3	2	1

Health service delivery

40	Patients have equal access to health services	5	4	3	2	1
41	Infant mortality rate is low	5	4	3	2	1
42	Infant mortality rate is on the increase	5	4	3	2	1
43	All expectant mothers are attended to during deliveries	5	4	3	2	1
44	Maternity mortality rate is low	5	4	3	2	1
45	Maternity mortality rate is high	5	4	3	2	1
46	Outpatient attendance level is high	5	4	3	2	1

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j) Highest academic qualification attained
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   ii. Others
   (specify)……
   …

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46	Outpatient attendance level is high	5	4	3	2	1

APPENDIX II

INTERVIEW SCHEDULE FOR FACE TO FACE INTERVIEWS WITH MANAGEMENT COMMITTEE

1. **Climate Setting**
    - Introduce the researcher and the assistant to the respondents
    - Explain to the respondent the purpose of the interview
    - Explain that the data collected will be purely for academic purposes and the contribution will lead to the success of the study
    - Explain that the interview will last for 30 minutes
    - Finally give a brief background of the health service delivery and the performance of the health sector over years
2. **Questions for the interview**

    a) How have the following factors affected health service delivery in Entebbe Hospital?
        - Human resources for health
        - Health infrastructure
        - Healthcare consumables

    b) What could be the other factors that are not mentioned above but affect health service delivery in Entebbe Hospital?

    c) How have the factors mentioned above affected health service delivery in Entebbe Hospital?

    d) How can these factors be addressed so as to improve on the health service delivery in Entebbe Hospital?

Table for Determining Sample Size from a Given Population

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

Note.—*N* is population size.
S is sample size.