

**KNOWLEDGE AND ATTITUDE OF MOTHERS TOWARDS IMMUNIZATION OF CHILDREN UNDER
FIVE YEARS IN KYABUGIMBI HEALTH CENTRE IV IN KYABUGIMBI TOWN BUSHENYI- DISTRICT
SOUTH WESTERN UGANDA**

BY

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BMS/0052/91/DU

**A COMPLETE RESEARCH SUBMITTED TO THE FACULTY OF CLINICAL MEDICINE
AND DENTISTRY IN PARTIAL FULFILLMENT FOR THE AWARD OF A BACHELOR OF
MEDICINE AND BACHELOR OF SURGERY OF KAMPALA INTERNATIONAL
UNIVERSITY WESTERN-CAMPUS.**

OCTOBER 2014

DECLARATION

I declare that this work is of my own effort and in case of any consultation credit has been given to respective authors by the references quoted.

NABUKALU SANDRA

SIGNATURE.....

DATE.....

SUPERVISOR: PROF, BEGUMYA

SIGNATURE:

DATE.....

DEDICATION

I dedicate this RESEARCH first to the almighty God has been there for me my whole life, also to my beloved family especially my mother Mrs. Josephine Kiwanuka; you are the greatest gift I will ever have. Thank you for your support prayers and encouragement may the almighty God richly bless you. I finally dedicate this work to all my sponsors especially my Guardian father Mr. Antoine Chiquet who has paid my Tuition throughout Medical school and my Aunt Dr. Noerine Kaleeba who has always cared, supported and counseled me.

Acknowledgement

I acknowledge; Kampala International University Western Campus administrative board, biomedical teaching staff, CLINICAL and NON clinical Teaching Staff, and my supervisor Professor Begumya, my Mother, Aunt and Sponsor and sisters, Phoebe, Viola, Josephine, Rachael and Stella and without forgetting my friends especially; Namulondo Grace and Nuwagaba Edwin who made it possible for me to reach this further.

Definition of terms

AMREF – Africa Medical Relief Fund

NGOs – Non Governmental Organization

KIUWC- Kampala international university western campus.

TB – Tuberculosis

HIV – Human immunodeficiency virus

ADHS - Armenian Demographic and Health Survey

DTP- Diphtheria, tetanus, pertussis

AEFI- Adverse events following immunization

BCG - Bacillus Calmette-Guerin (Tuberculosis vaccine)

CHSR- Center of Health Services Research and Development

FGD- Focus group discussion

GAVI- Global Alliance for Vaccines and Immunization

IDI- In-depth interview

MMR – Measles, mumps, rubella

MoH- Ministry of Health

NGO- Non-governmental organization

NIAC- National Information-Analytic Center

OPV- Oral poliomyelitis vaccine

PHC- Primary health care

RV – Rotavirus

SHAI - State Hygiene and Anti-epidemic Inspectorate

WHO- World Health Organization

ABSTRACT

Knowledge: is familiarity or understanding of something such as facts, information, description, or skills which are acquired by experience, education, perceiving discovering and learning. (Edward bliss 2013)

Attitude: this is the positive or negative evaluation of people, objects, events, activities ideas or environment. (Richard, 2013)

Immunization: is the cornerstone of diseases prevention worldwide, however, despite the advantages; immunization has still remained a major problem in developing countries due to low coverage leading to death of more innocent children or disabilities related to the immunizable infections/diseases.

Immunization is one attempt to protect the host against specific infections. It is therefore important To assess the knowledge and attitude of mothers towards immunization of children under five years in Kyabugimbi health centre iv case of Kyabugimbi town Bushenyi district south western-Uganda this will help;

- To identify the reasons why most mothers don't take their children for immunization.
- To determine the accessibility to immunization facility within the community
- To determine taboos and cultural beliefs on immunization.

During exercise a random sampling method will be used to select the respondents, regardless of marital status, ethnicity, nationality, and educational back ground. At least 100 mothers will be interviewed either at home, antenatal clinic or at their work place and questionnaires will be used,. Anyone to participate will be requested for her free will.

TABLE OF CONTENTS

Declaration.....	2
Dedication.....	3
Acknowledgement.....	4
Definition of terms.....	5
Abstract.....	6
Table of contents.....	7-8
A) CHAPTER ONE	
a. Introduction.....	9-10
b. Background of study area.....	10-12
c. Problem statement.....	12-13
d. Purpose of study.....	13
e. Conceptual framework.....	14
f. Objectives of the study.....	15
g. Scope of the study.....	16
g. Justification.....	16
B) CHAPTER TWO	
a. Literature review.....	17-19
C) CHAPTER THREE	
METHODOLOGY.....	20
a. Sample size.....	20-21
b. Study design.....	21
c. Study area.....	21
d. Data collection methods.....	22
e. Pre-testing.....	22
f. Data collection tools.....	22

g.	Data quality control.....	22
h.	inclusion and exclusion criteria.....	22
i.	Sampling procedure.....	22
j.	Data analysis.....	23
k.	Validity of data.....	23
l.	Reliability of data.....	23
m.	Ethical consideration.....	23
n.	Limitations of the study.....	23
o.	Dissemination of results.....	23
	Annex 1...questionnaire.....	24-29
	Annex 2...References.....	30-32
	Annex 3...Consent.....	33
	Annex 4...Proposed budget.....	34
	Annex5...Work plan.....	35
	D) CHAPTER FOUR	
a)	Study Findings.....	36-56
	E) CHAPTER FIVE	
a)	Discussion of the results.....	56
b)	Conclusion.....	56
c)	Recommendation.....	57

A) CHAPTER ONE

a) INTRODUCTION

Knowledge: is familiarity or understanding of something such as facts, information, description, or skills which are acquired by experience, education, perceiving discovering and learning. (Edward bliss 2013)

Attitude this is the positive or negative evaluation of people, objects, events, activities, ideas or environment. (Richard, 2013)

Immunization is the process of inducing immunity to an individual by administering antigen, antibody sensitized T – cells or transfer factors [**vaccines**] in order to induce a reaction to an antigenic substance (Jane, 2013)

An immunization [vaccination] is among the twentieth century's most successful and most cost effective public health tools for preventing diseases and deaths. Thanks to immunizations, diseases like polio that were once common are now only distant memories for most countries.

At present, there are vaccines available to protect children and adults against at least eight life threatening or crippling diseases. Immunization programs goal is to prevent vaccine preventable diseases by making our children and adults receive the vaccines they need. (Andrew, 2014)

Immunization is the cornerstone of diseases prevention worldwide, through the immunization process, one attempt to protect the host against specific infections.

Immunization started long time ago following discovery of vaccines by Edward Jenner, between 1749 – 1823.

Experimented with cowpox leading to small pox vaccine in 1796 the inoculation of vaccines at this time was called vaccination. One of the other that followed small pox vaccines to be discovered was BCG vaccine, which was discovered by two microbiologists; Chalmette and Guerin hence the name BCG. They declared this vaccine stable in 1921. (Jane, 2013)

The major concern of the WHO is to ensure that all children receive vaccination against immunizable diseases. The long term objective is;

Reducing the morbidity and mortality rates due to the eight major preventable childhood infections i.e., diphtheria, measles, tetanus, hepatitis B, poliomyelitis and HIB and whooping cough.

The immunization strategies were carried out in developing countries by WHO following the Alma-Ata declaration for several years. However, despite this immunization, the morbidity and mortality rates of children under 5 years still remained high. WHO launched a program; the Expanded Program on immunization in 1974 in all developing countries, in Uganda it is called; Uganda Expanded Program on Immunization.

Advantages of Immunization are:

It leads to a healthy nation which is productive thus economic development.

It leads to high life expectancy since risky infectious diseases shall have been reduced /eliminated and their associated complications.

However, despite the advantages, immunization has still remained a major problem in developing countries due to low coverage leading to death of more innocent children or disabilities related to the immunizable infections/diseases.

b) BACK GROUND INFORMATION OF STUDY AREA

Bushenyi District is one of the oldest districts in Uganda created in 1974 when it was carved out of Mbarara District Administration then, In 2009, it was split into five districts (4 new districts of Buhweju, Mitooma, Sheema and Rubirizi districts) with one new Municipal Council of Bushenyi-Ishaka.

This has drastically reduced the size of Bushenyi District from five counties to one of Igara that includes the municipality. The District is made of 1 County (Igara), 9 Sub-counties, 1 Municipal Council, 4 Town Boards, 3 Wards, 64 parishes and 565 villages.

i) Geographical perspectives

Bushenyi District lies between 0° N and $0^{\circ} 46'$ S of the equator and $29^{\circ} 41'$ East and $30^{\circ}30'$ East of Greenwich. Bushenyi District headquarters is located 340 kilometers from Kampala in the South Western part of Uganda. Bushenyi District is neighboring with the districts of Rubirizi in the North, Buhweju and Sheema in the North East, Sheema in the East, Mitooma in the South West and Sheema in

the South. The district has a land area of 3'949 square kilometers and lying between 910 – 2,500 meters above sea level.

ii) The political perspectives

Bushenyi has a long history of Political and Economic stability since its initiation as a district in 1974. The district has been one of the most important strongholds of the past governments including UPC government in the 1960s. (Gina, 2011). This event to the political and economic integration of Bushenyi in the Uganda's priority districts. The integration led to a rapid development in the area including establishment of agro based industries and private investments including the foundation for Kampala International University and the University Teaching Hospital.

Bushenyi has a history of close political alignment with the government. To paraphrase much of what Gina wrote to describe Bushenyi's unique political position in Uganda's history, the district seems to have played a political role, linking closely to those in power regardless of the ethnic group, religion, or region from which the leader was drawn(Gina, 2011).

Bushenyi is now served by only one administrative county i.e. Igara, and further subdivided into smaller administrative units: 9 sub-counties and 1 municipality of Ishaka. Under Uganda's decentralized administrative structure, Bushenyi district funded services are provided at the level of the district, which is administered by an elected Chairperson, with his cabinet forming a quasi-legislative council formally known as Local Council Five (LC V). The LC V is constituted by elected representatives from each sub-county. (SDS, 2012)

iii) The physical Features

The main physical features within Bushenyi district include natural tropical forests of Karinzu and Imaramagambo covering an area of 784 km². Arable land covers 2,215 square kilometers; open water bodies cover 372 square kilometers and wetlands covering 183 square kilometers.

iv) Demographic Records

The district has several health units at various levels of administrative unit from Parishes to the district. Some of these health units are government owned while others are NGO owned and others private.

Bushenyi District has 64 parishes and these are being served by 34 health facilities and on average each health facility within a parish is within 5 km radius. Based on the coverage of health facilities right from parish level it is estimated that 70 per cent of the population is within a walk able distance as recommended by the Ministry of Health to the health unit. HIV/AIDS services are offered in 15 health facilities which give coverage of 30.6 per cent of services within 5 km radius.

c) PROBLEM STATEMENT.

Lack of immunization is a major problem worldwide and not only to the third world countries but also first world countries. (Vieira, 2014),

Records have revealed that women men have a tendency of not taking their children for immunization and sometimes men think it is women's responsibility to take children for immunization this may be due to lack of knowledge towards immunization . (Vieira, 2014),

The major concern of WHO is to increase the immunization coverage as a means of eradicating the preventable childhood diseases and illness, however there is still high mortality and morbidity rates due to these preventable and immunizable diseases.

The Ministry of Health under the Uganda government has started outreach services in hospitals and health centers in order to increase the immunization coverage but yet many children are still being hospitalized due to these preventable diseases and childhood illnesses.

Information at the district health office of Bushenyi indicates there is need to emphasize the importance of immunization in the country, this can be done by training more health workers and creating more health facilities so that the community / communities can be easily accessed and receive the services.

Political influence towards immunization is the other factor that has contributed to the poor immunization coverage. It influences immunization in terms of supply of the vaccines, construction of health units and roads, distribution of health workers and equipment.

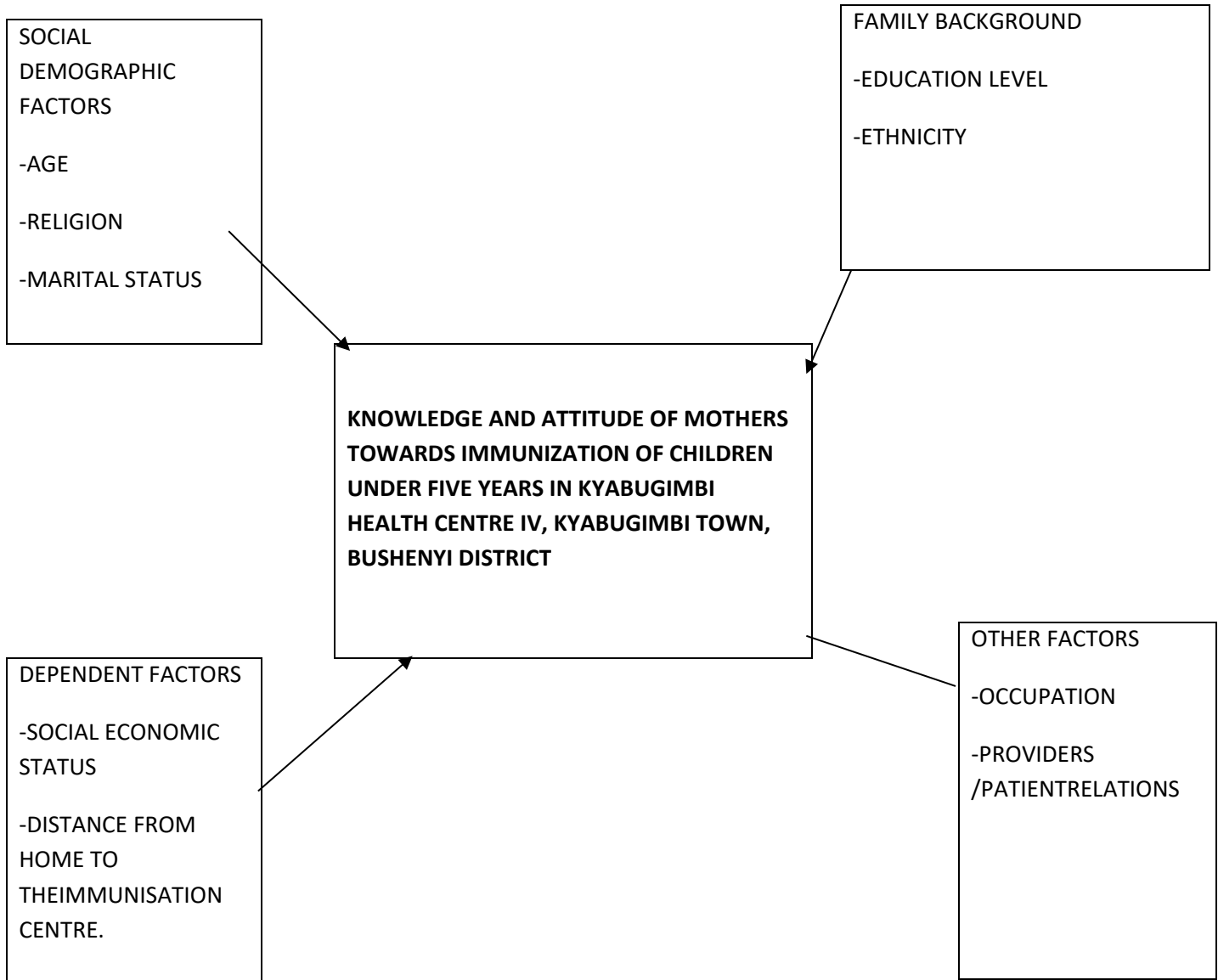
Immunization was introduced in the early 1900's but the problem of early childhood illnesses and diseases seems to persist and this has led to the research; it is important at this time to Assess knowledge and attitudes of mothers towards immunization of the children under five years in Kyabugimbi health centre IV Kyabugimbi town Bushenyi district.

d) PURPOSE OF THE STUDY

To assess the knowledge and attitude of mothers towards immunization of children under five years in Kyabugimbi health centre IV Kyabugimbi town Bushenyi district south western-Uganda

e)

CONCEPTUAL FRAME WORK



Knowledge and attitude of parents towards immunization may be dependent on several factors including social demographic, background, distance from home to health Centre, provider-patient relationship and others that come to play role towards parental attitude and knowledge of immunization.

f) OBJECTIVES OF THE STUDY

i) Broad Objective/Aim of study

To assess the knowledge and attitude of mothers towards immunization of children under five years in Kyabugimbi health centre IV Kyabugimbi town Bushenyi district.

ii) Specific Objectives

- To establish the reasons why most mothers don't take their children for immunization.
- To establish the accessibility to immunization facility within the community
- To determine taboos and cultural beliefs on immunization.

iii) RESEARCH QUESTIONS

- a) Are mothers aware of immunization?
- b) What is the common attitude of mothers in Kyabugimbi town towards immunization of children?
- c).Is immunization part of services are offered at Kyabugimbi health centre IV?
- d).At what age do mothers first take their children for immunization?
- e) How many times do mothers take their children for immunization?
- f) Where do mothers go for your immunization services?
- g) How far is Kyabugimbi health centre from mothers' homes?
- h) Are husbands cooperative when mothers want to bring the children for and immunization?

g) SCOPE OF STUDY

i) Geographical scope

Kyabugimbi health centre IV is about 4 kilometers from Bushenyi town which is located in western part of Uganda covering an area of about 339km by road west of capital Kampala, which lies on the altitude of 1,300m above sea level. It is found to be 65km south west of Mbarara municipality along Mbarara-Kasese road.

ii) Time scope

The study was conducted within a period of 5 months, from June 2014 to October 2014 the study involved administration of questionnaires to mothers visiting Kyabugimbi health centre IV , 100 mothers were interviewed at antenatal clinic, in the wards, at outpatient department questionnaires were will be used. Everyone who participated was requested at free will.

h) JUSTIFICATION.

- a) The result of this study contributed and supplemented to the existing knowledge on immunization in Bushenyi district.
- b) The study gave need for health workers to sensitize the community on the benefits and importance of immunization.
- c) It is a requirement for partial fulfillment of the award of the degree of bachelor of medicine and bachelor surgery at Kampala international university western -campus

B) CHAPTER TWO

a) LITERATURE REVIEW

In globe, routine immunization coverage for diptheria-pertusis and tetanus (DPT), Measles and poliomyelitis (Polio) in according to world health organization for children of ages 12 to 18 months averages 53%. This is well below the targeted score of 80% as United States, Europe and Asia. (WHO, 2005).

In the U.S. since 1979. Polio is still found in other parts of the world so certain people could still be at risk of getting it. This includes those people who have never had the vaccine, those who didn't receive all doses of the vaccine, or those traveling to areas of the world where polio is still prevalent. . (WHO 2005).

Ever since vaccination was introduced, a minority has been opposed to this practice. Recently however, fear of adverse events and a general questioning of the usefulness of certain vaccines have led to wariness on the part of the broader public. In France, this phenomenon is particularly striking since the hepatitis B vaccination campaign. We wished to analyze the situation by drawing on the results of surveys conducted by the French Institute of Prevention and Health Education (Institut national de prévention et d'éducation pour la santé, INPES) which sought to gain a better understanding of health care professionals' and the general public's attitudes towards immunization(UNEPI 2003)

In East Africa the coverage rate is even lower at 50.3%. The government of Uganda, in collaboration with development partners, has committed to allocate more funds to increase immunization coverage. In Uganda, infants' routine immunization Coverage for DPT3, Measles and Polio for children of ages 12 to 18 months. (JHPIEGO, 2006).

Uganda's immunization coverage remains low compared to other East African countries, with experts now calling for a better plan to address the gap. A report by the advisory committee on vaccines and immunization of the Uganda National Academy of Science (UNAS) shows that in the 1990s, Uganda had one of the most successful immunization programmes in East and sub-Saharan Africa. With 52 per cent national immunization coverage, Uganda has the lowest number of fully immunized children in East Africa against the 90 per cent target of the global

immunization vision and strategy. This makes Uganda the country with the highest infant mortality rate in the region [Gullen 2011]

Immunization, or immunization, is the process by which an individual immune system becomes fortified against an agent (known as immunogen). When this system is exposed to molecules that are foreign to the body, called *non-self*, it will orchestrate an immune response, and it will also develop the ability to quickly respond to a subsequent encounter because of immunological memory. This is a function of the adaptive immunity; therefore, by exposing an animal to an immunogen in a controlled way, its body can learn to protect itself: this is called active immunization. (JHPIEGO/MNH programme 2006).

Immunizations are definitely less risky and an easier way to become immune to a particular disease than risking a milder form of the disease itself. They are important for both adults and children in that they can protect us from the many diseases out there. Through the use of immunizations, some infections and diseases have almost completely been eradicated throughout the United States and the World. One example is polio. Thanks to dedicated health care professionals and the parents of children who vaccinated on schedule, polio has been eliminated (UNEPI 2003).

Immunization is a key priority of the Uganda Minimum Health Care Package of the health sector. Over the past ten years, implementation of the EPI revitalization and strategic plans has accelerated government efforts to achieve better health for the children and women of Uganda, thereby contributing to the enhancement of the quality of life and productivity. (JHPIEGO/MNH programme 2006).

A comprehensive review of the programme conducted in 2005 provided vast information on good practices, gaps and lessons learned over the previous 5 years that formed the basis for development of the 1st multiyear plan (2006-2010). Several achievements were noted: reversal of the decline of immunization coverage with achievement of high coverage surpassing previously set targets; (UNEPI 2003]

introduction of additional vaccines (hepatitis B and *Haemophilus influenza* type b (Hib) in the routine immunization schedule resulting in increased demand for services; and significant impact in reduction in measles, neonatal tetanus and Hib morbidity and mortality. However, several challenges experienced over the past 2-3 years (2007-2009) in delivery of EPI services have threatened to reverse the achievements of the programme. (JHPIEGO/MNH programme 2006).

A decline in immunization coverage with variations in sub national performance has posed a threat to sustainability of low morbidity and mortality due to vaccine preventable diseases. The continued circulation of wild polio virus in south Sudan coupled with the population immunity gaps among under-five children in Uganda, led to the re-emergence of wild polio virus in early 2009 after 13 polio-free years. (WHO 2005).

The process of development of the new strategic multiyear plan 2010-2014, has accorded the programme and partners an opportunity to rethink approaches to address the current challenges, to explore opportunities for more efficient delivery of services and to devise strategies conforming to the global vision for immunization as we strive to achieve the Millennium Development Goal of reduction of childhood morbidity and mortality by 2015, and the national goals as articulated in the Health Sector Strategic Plan. (WHO 2005).

Focus will be made on sustaining availability of current vaccines offered by the programme; introduction of pneumococcal and rotavirus vaccines; maintaining a high immunization coverage in a rapidly growing population and reaching all un-immunized children particularly with re-emergence in local areas including Bushenyi south western Uganda. (UNEPI 2003),

C) CHAPTER THREE

MATERIALS AND METHODOLOGY

a) SAMPLE SIZE DETERMINATION

The sample size will be determined using the formula

$$S = z^2 * pq / d^2$$

Where;

S=the sample size

Z=a number relating to the degree of confidence you wish in the results. Where z is 1.96 if the degree of confidence is 95%

d= the error you are prepared to accept, it is measured as a proportion of the standard deviation.

P= an estimate of the proportion of the people falling into the group in which you are interested in the population. (In our case this represents the estimate of the proportion of the mothers in reproductive age in Kyabugimbi health centre IV Kyabugimbi town Bushenyi District south western Uganda.)

$$q = 1 - p$$

Therefore my sample size was;

If $z = 1.96$, $p = 93\%$ (0.93), $q = 7\%$ (0.07), and $d = 5(0.05)$

$$s = 1.96^2 * (0.93 * 0.07) / 0.05^2$$

$$s = 100$$

From the above formula my sample size was 100 mothers.

b) Study design

A cross sectional study was carried out between June and October 2014

c) Study area

This study was conducted at Kyabugimbi health centre IV which is located in Bushenyi district, Igara East constituency. It is about 5km away from Bushenyi town which is along Mbarara-Kasese highway. It is inhabited by the Ankole tribe. It serves the Kyabugimbi sub-county within Bushenyi district which has a population of about 916,400 inhabitants.

Its referral centers are Ishaka Adventist hospital, Kampala International University-Teaching Hospital and Kitagata Hospital 60% of the population is within one hour's walk of a public health facility. Administratively, Bushenyi district is divided into 5 counties 27 sub-counties (third level local councils-LC3), 161 parishes (LC2s) and 2052 villages (LC1s). The district is served by 3 hospitals (one public and two for non-governmental organizations (NGOs). 49 health centers, many private clinics. According to Uganda population and Housing Census Report 2002, 77% of the population engages in agriculture. However, there are other activities like trade addition to agriculture (peasantry, plantations, animal husbandry and fishing).

Kyabugimbi town is located 4 kilometers from Bushenyi town which is located in western part of Uganda covering an area of about 339km by road west of capital Kampala, which lies on the altitude of 1,300m above sea level. It is found to be 65km south west of Mbarara municipality along Mbarara-Kasese road. Bushenyi has equatorial type of climate with heavy rainfall which is interfered with a bit of dry seasons in April, May and July. It has two hospitals; Kampala International University Teaching Hospital and Ishaka Adventist Hospital. Others are privately owned clinics. It has Safe water coverage of 60.9%, However, in urban areas its 93%, and rural areas 56% (UPPHC 2002).

d) Data collection methods.

The data was collected using a semi structured questionnaire. Both open and close ended questions were used, participants were given questionnaires which they filled and Kyabugimbi health centre records were used to assess the frequency of immunization of children.

e) Pre-Testing

Pre-testing was done on 10 people in Bushenyi town. Self administration of questionnaires to randomly selected ten people was done by me in Kyabugimbi town. This assisted me the to correct mistakes in the questionnaires and avoided confusions during the research time.

f) Data Collection Tools

My assistants and I used the following tools to collect data; open ended questionnaires, pens, pencils, eraser, ruler, calculators, notebooks and plain papers.

g) Data Quality Control

The information was collected by asking individual (mothers) directly and also using questionnaires; , participants were given questionnaires which they were required to fill, and Kyabugimbi health centre immunization records were used to assess frequency of immunization of children this method was easy to use and reduced bias.

h) Inclusion and exclusion criteria

The study included mothers within the reproductive age (between 15-45 years of age), any mother out of the reproductive age was excluded and those who had not delivered.

i) Sampling procedure

A random sampling method was used to select the respondents, regardless of marital status, ethnicity, nationality, and educational back ground.

All 100 mothers were interviewed either at antenatal clinic, ward or at outpatient department and questionnaires were used.

Anyone to participate was requested at free will.

j) Data analysis

Manual method of data analysis, where calculators were used to derive frequencies, percentages and other variables and Microsoft excel.

k) Validity of data.

Information was collected by questionnaires from the respondents; Kyabugimbi Health centre IV records on immunization as well as child's immunization cards were used to assess the frequency of immunization of children less than five years.

l) Reliability of data.

Data provided by this research was reliable enough based on the consultations made from Kyabugimbi health centre IV records and information obtained using questionnaires from different respondents.

m) Ethical considerations.

Approval was obtained from the Faculty of clinical medicine and dentistry of KIU-WC as well as my supervisor Professor Begumya, the respondents, and from Kyabugimbi health centre IV

n) Limitations of the study.

- a) Resources in terms of time were limited
- b) There was lack of cooperation from a few respondents who found it time wasting and inconveniencing.

o) Dissemination of results. The information was disseminated to the university and Faculty of Clinical Medicine and Dentistry.

ANNEX 1: QUESTIONNAIRES

Interviewers schedule for asking the mothers about knowledge and attitude towards immunization of children under five years in KYABUGIMBI health centre IV Kyabugimbi town Bushenyi district.

Introduction

I am by names: NABUKALU SANDRA, a student at Kampala international university who is trying to carry out a research that intends to find out **the mothers' knowledge and attitude towards immunization of children under five years**, so I am going to ask you some question that you will please help me to answer and the information you are giving me will be kept confidential and will help the ministry, hospitals in improving in the above services in the district.

- 1 Put a tick in the space provided for an appropriate answer.
- 2 Name of the respondent are not required.
- 3 Write down the answers in the spaces provided.

Socio-demographic data

I. Age of the respondent

a) 15-20 ☐ b) 21-25 ☐ c) 26-30 ☐ d) 31-35 ☐ e) 36-40 ☐

F) 41-45 ☐

ii. Tribe

a) Munyankore ☐ b).Bakiga ☐ c). Mukonjo ☐
d). Muganda ☐ e). Others ☐ specify.....)

iii. Level of education

a) Primary ☐ b). Secondary ☐ c). College ☐
d). others ☐ (specify.....)

iv. Religion of the respondent

- a) Protestant ☐ b).Seventh day Adventist ☐ c).Catholic ☐
d).Muslim ☐ e).Others ☐ (specify.....)

v. Occupations

- a) Cattle keeper ☐ b). Peasant ☐ c). Employed ☐
d).None ☐

vi. Marital status

- a) Married ☐ b). Single ☐ c). Divorced ☐
d).Widow ☐ e). Others ☐ (specify.....)

vii. Awareness

Have you ever heard about the immunization services offered?

Yes ☐ No ☐

If yes mention the different types offered.

.....
.....

8. Where did you get information about immunization?

- a) Clinic ☐ b). Health center ☐ c). Traditional birth attendant(TBA) ☐
d). Mass media ☐ e). Others ☐ (specify.....)

9. Do you take your children for immunization?

Yes.....

No.....

If yes at what age do you take your children for immunization?

.....

If no, give reasons.

.....

10. How many times did you take your children for immunization?

a).Once

b).Twice

c). Thrice

d). Four times

e). More

than four times

11. Which type of immunization did your child receive?

.....

viii. Accessibility

12. Where do you take your children for immunization?

a) Hospital ☐

b). Health center ☐

c). Clinic ☐

d). others (specify.....)

13. How far is the place of immunization (Kyabugimbi health centre) from your home?

a) 0-2 km ☐

b) 3-4 km ☐

c) 5 or more ☐

14. What means of transport do you use?

a) Bicycle ☐

b). Motor cycle ☐

c). Vehicle ☐

d). Foot ☐

e). others ☐ (specify.....)

ix. Quality

15. Which of services are offered at your health facility?

- a) Family planning ☐ b). Immunization ☐ c). Examination ☐
- d).Health education ☐ e) Counseling ☐ f). Blood testing ☐
- g).Urine testing ☐ h) others (specify).....)

Are there any benefits you get from immunizing your child? if yes mention them.

- a).....
- b).....
- c).....

16. How long does it take for you to access the immunization services at the facility?

- a) One hour ☐ b). One and half ☐ c). Two ☐ d). More ☐

17. When are the immunization services offered?

18. How best would you like the services to be offered?

- a).....
- b).....
- c).....

19.Suggest any reasons for improvement.

- a).....
- b).....

x.Affordability

20. Do you pay for immunization services?

Yes ☐ No ☐

If yes how much?

.....

Is the immunization fee affordable?

Yes ☐ No ☐

21. If no how much would you suggest as the affordable amount?

.....

22. How can immunization be improved according to your suggestion?

a).....
.....

b).....
.....

xi. Attitude

How do the health workers treat you when you are for immunization services?

.....

What is their attitude?

.....

xii. Culture

What happens when you carry out immunization of children?

.....

.....

Where do you go?

- a) Traditional birth attendants (TBA) ☐ b) Traditional healers ☐
c). Health facility ☐ d) others ☐ (specify.....)

Is your husband cooperative when you want to come and attend immunization services?

- a) Yes ☐ b) No ☐

Does he come with you?

- a) Yes ☐ b) No ☐

()

If yes how often?

.....

ANNEX 2: REFERENCES

1. Abdul Latif Jameel Poverty Action Lab (3 February 2014), Poor Economics.
2. Andrew Wakefield (3 April 2014) ,He also urged viewers to read his book, Callous Disregard, which he ... autism controversy's effect on immunization rates".
3. Birth in Benin (30 September 2013),significant decrease in immunization coverage Many children in Benin start immunization courses but do not complete them. ... References: Category: Childbirth.
4. Cinematography in healthcare (11 February 2014)
5. Compendium of Pharmaceuticals and Specialties (4 March 2014), known by its abbreviation CPS is a reference book that contains drug monographs and ... immunization schedules, and other quick reference.
6. Edward Bliss (28 April 2013), Bliss spent much of his time in China focusing on the immunization of ... Edward's legacy was also preserved through a book, Beyond the Stone.

In his review of Banerjee and Duflo's book, Bill ... found that full immunization rates increased dramatically.

7. Jane Aronson,October 2013 Evaluating acceptability ad completeness of overseas immunization records of internationally adopted children
8. Journal of Epidemiology and Community Health maternal iso-immunization, jaundice associated with ... Book reviews started being added to the journal in the January 1948 ...

9. Learned helplessness (12 March 2014) minimized by "immunization" and, when present, may be reversed by therapy. ... The US sociologist Harrison White.
10. Measles (5 April 2014) ,may rise to 20–30% Increased immunization has led to a 78% drop in ... (860–932), who published The Book of Smallpox and Measles.
 - a. Medicine In 1995 Demir co-authored a book chapter entitled “Methods ... The principal goal of the Foundation was to fund immunizations for ...
11. 'Michael Maccoby Healthy narcissism (2013) the innate immunization vacillates between well-being, in the ... In a separate but related distinction.
12. Northwest Portland Area Indian Health Board (4 May 2013)
,org/epicenter/project/northwest_tribal_immunization_project/) Northwest Tribal Cancer Control Project (<http://www> ... References: date April 2012 .
13. Passive immunization: In 1950, William Hammon at the University of Pittsburgh purified the gamma globulin component. April 2014
14. patient-years Current WHO guidelines recommend immunization with PPV-23 for HIV patients in clinical ... Notes and references
 - a. published an article regarding immunization propaganda in the US: “Dr. ... could take a leaf out of Papworth's book and tell a story on the ...
15. Richard Demir (, 1 December 2013)
16. SV40 (2002), study performed by The National Academy of Sciences Immunization Safety Review committee that stated, "The committee ... References.

17. Viera Scheibner (20 March 2014), statements of a link between vaccination and SIDS in the early 1990s, and in a book "Vaccination" published in 1993.

ANNEX 3: INFORMED CONSENT

I am Nabukalu Sandra, I request you to participate in the knowledge and attitude of mothers toward immunization of children under 5 years in Kyabugimbi health center IV in Kyabugimbi town in Bushenyi district. You will be asked for some information about the above mentioned study for few minutes. The information you will provide during the study is totally confidential and will not be disclosed to anyone. Your name is not required. Your participation in this study is voluntary and you have the right to refuse to participate or answer any questions that you feel uncomfortable with. If you change your mind about participating during the course of the study you have the right to withdraw at any time. If there is anything thing that is unclear or you need further information, I will be happy to provide it.

Declaration of the participant.

I have read the above information and I have understood the purpose of the study. I have had the opportunity to ask questions about it and every question has been answered to my satisfaction.

I now consent voluntarily to participate in this research.

.....

Participant.

ANNEX 4: PROPOSED BUDGET

Below is the estimate of money that will be spent during research project.

Description	No-per item	Estimate cost in shillings.
Ream of papers	1	25,000
Pens	20	6000
Printing the research, questionnaire and consent form	1 Copy each of the 3	100,000
Binding	3Copies of the research	24,000
Photocopying research, questionnaires, consent forms	3 Copies of the research,100 questionnaires,100 consent forms	100,000
Transport to and from the health centre for 1 month		300,000
Allowance of research assistants	20,000 for Each of the 5 participants	150,000
TOTAL		705,000

ANNEX 5: WORK PLAN.

Date	Activity	Duration
June 2014	Writing of the research proposal	1 month
July 2014	Submission of research proposal and its approval	1 month
August –September 2014	Data collection, entry, analysis and discussion of results	2months
October	Correction of dissertation and its submission	1 month

D) CHAPTER FOUR

a) STUDY FINDINGS

i) INTRODUCTION

This chapter consists of results of data collection, which were analyzed in terms of tables, pie charts, bar graphs and SPSS data presentation. It involved editing, coding and tabulation of data.

ii) AGE OF RESPONDENTS

Table 1: Age distribution of the respondents

AGE IN YEARS	NUMBER OF RESPONDENTS	PERCENTAGE%
15-20	8	8
21-25	48	48
26-30	20	20
31-35	12	12
36-40	7	7
41-45	5	5
TOTAL	100	100

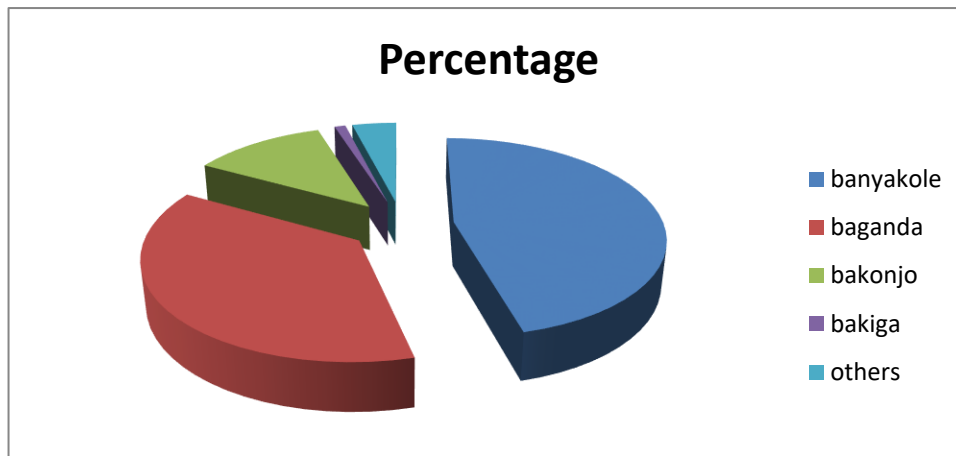
The table above shows the age of respondents, 21-25 years 48(48%), followed by those of 26-30years 20(20%), then age of 31-35years 12(12%), 36-40 years 7(7%), and lastly 41-45years 5(5%).

iii)TRIBE OF RESPONDENTS

Tribe of the respondents

Most of my respondents were Banyankole 46(46%) followed by Bakonjo who were 36 (36%) then 12(12%) were Baganda, 4(4%) were Bakiga and lastly others who contributed 2%

Pie chart representing the respondents by tribe



iv) LEVEL OF EDUCATION

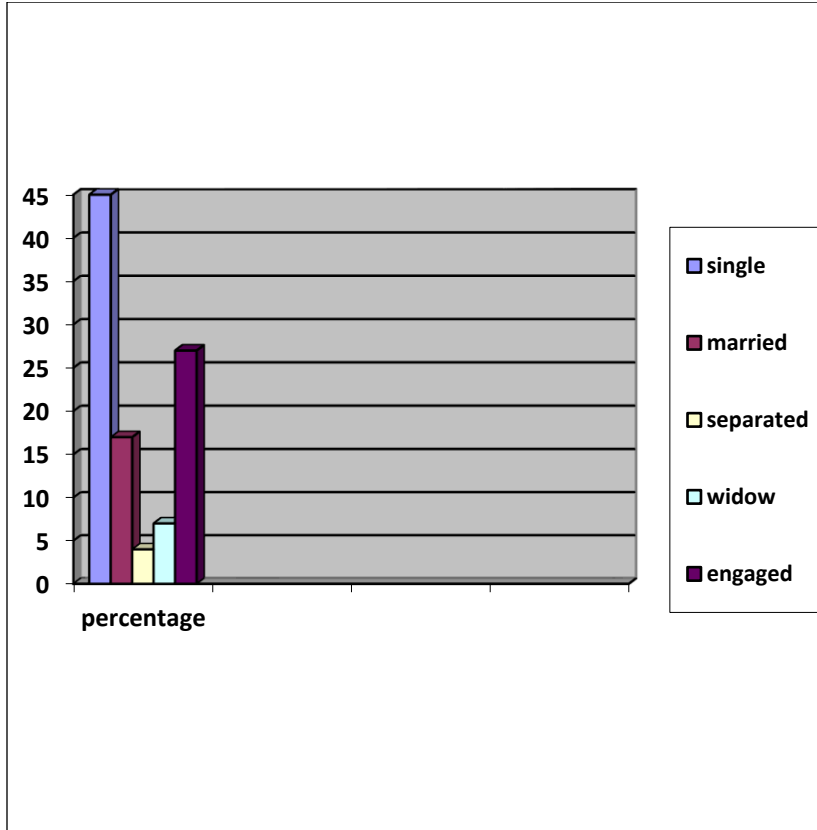
Table 2: level of education of the respondents

EDUCATION LEVEL	FREQUENCY	PERCENTAGE (%)
No formal education	5	5
Primary	11	11
Secondary	25	25
Tertiary	59	59
TOTAL	100	100

The table above shows that the majority of the respondents 59(59%) had tertiary education, 25(25%) who had the secondary school education, 11(11%) had primary level of education and lastly 5(5%) did not acquire formal education.

vi) MARITAL STATUS

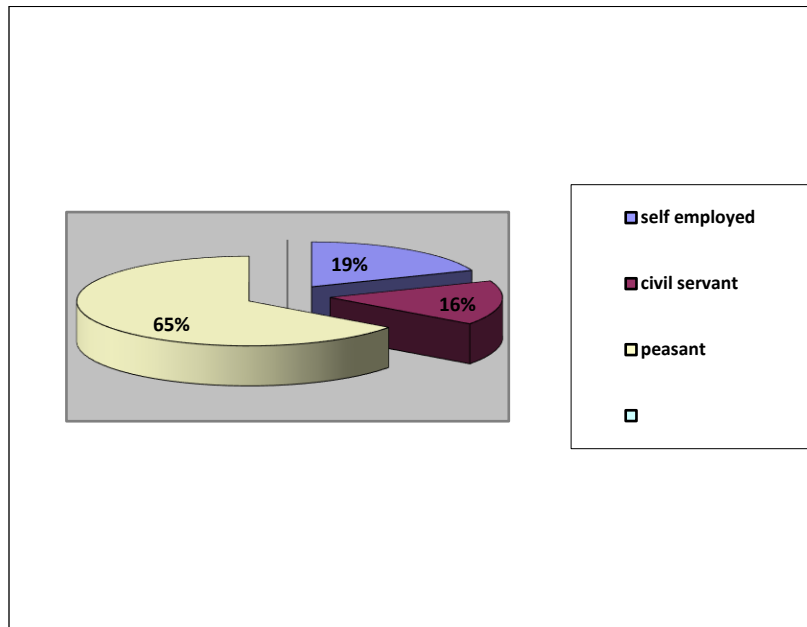
Fig. 2: Marital status of the respondents



From the findings, most of the respondents were young female who were single 46(46%) followed by the engaged respondents who were 18(18%), the third category were the married who were 16(16%), the other category was the widowed female who were 8(8%) and finally those who separated from their partners and they represented 4(4%).

vi) OCCUPATION OF THE RESPONDENT

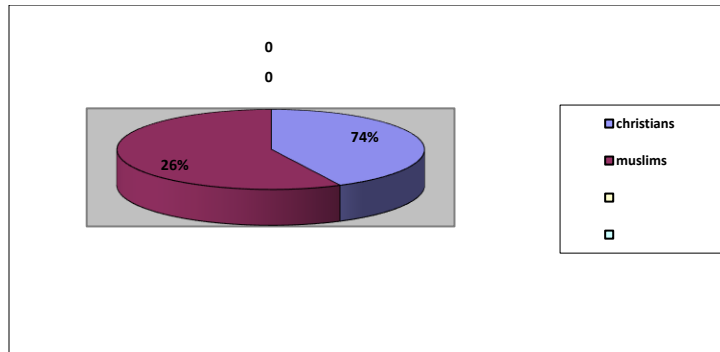
Fig. 3: respondent's occupation



Most of my respondents were peasants 65(65%) followed by self employed people who reported to be involved in small income generating activities 18(18%), and finally 16(16%) were civil servants who reported to be employed and paid by various organizations like schools, banks and others

vii) RELIGION OF RESPONDENTS

Fig. 4 Respondent's religion



The majority of my respondents were Christians 74(74%) while the minority 26(26%) were Muslims.

viii) KNOWLEDGE OF MOTHERS TOWARDS IMMUNISATION

Table 3: Respondents' knowledge on immunization

KNOWLEDGE ON IMMUNIZATION	FREQUENCY	PERCENTAGE (%)
Had knowledge	87	87
Had no knowledge	13	13
TOTAL	100	100

During my research, 87(87%) of the respondents had knowledge while 13(13%) had no knowledge about immunization.

ix) SOURCE OF KNOWLEDGE ABOUT IMMUNISATION.

Table below showing the source of knowledge about immunization to respondents.

Source of knowledge	Frequency	
Clinic	26	26
Health centre	48	48
Traditional birth attendant	1	1
Mass media	20	20
Others	5	5

26(26%) Acquired knowledge about immunization from the clinic,48(48%) from the health centre,1(1%) from the traditional birth attendant,20(20%) from the mass media and 5(5%)from other sources.

x) ATTENDANCE OF IMMUNISATION

Table below shows whether or not mothers take children for immunization

Attendance of immunization	Frequency	Percentage (%)
Yes	73	73
No	27	27
Total	100	100

73(73%) reported that they have always taken their children for immunization and 27(27%) had never.

xi) AGE AT WHICH CHILDREN ARE TAKEN FOR IMMUNISATION

Age(years)	Frequency	Percentage
0-1	55	55
2-3	25	25
4-5	19	19
>5	0	0
Total	100	100

55(55%) reported to have taken their children for immunization between 0-1 year, 25(25%) at 2-3years, 16(16%) at 4-5years while none took theirs took theirs at > 5years.

xii) NUMBER OF TIMES THE CHILDREN ARE TAKEN FOR IMMUNISATION.

Table showing number of times the children are taken for immunization

Number of times	Frequency	Percentage (%)
Once	4	4
Twice	8	8
Thrice	10	10
Four times	31	31
More than four times	47	47

4(4%)of the children were immunized once,8(8%)were immunized twice,10(10%) were immunized thrice,31(31%)were immunized four times and finally 47(47%)were immunized more than four times.

xiii) OUTCOMES OF IMMUNISATION

Table showing the benefits of immunization to respondents' children.

Benefits	Frequency	Percentage
Positive	83	83
Negative	17	17
Total	100	100

83(83%) of respondents reported positive benefits like protection of their children against the immunizable diseases while the 17(17%) reported negative outcomes like fever and abscesses at the injection sites.

Xv) ACCESSIBILITY

Table showing the places where mothers take their children for immunization.

VENUE	FREQUENCY	PERCENTAGE (%)
Hospital	8	8
Health centre	92	92
Clinic	0	0
Others	0	0
Total	100	100

8(8%) reported to have taken their children to the neighboring hospitals of Mbarara and Kampala International Teaching Hospitals especially when the health centre had run out of vaccines, but the 92(92%) reported to have immunized their children from Kyabugimbi Health centre IV, while none of them reported to have gone to clinics and other venues for child immunization.

xvi) DISTANCE BETWEEN THE HEALTH CENTRE AND THE RESPONDENTS HOMES

Table showing the distance between the health centre and the respondents' home.

DISTANCE APART(KM)	FREQUENCY	PERCENTAGE
0-2	45	45
3-4	28	28
5 or more	27	27
Total	100	100

45(45%) of the respondents reported to live between 0-2 kilometers away from the health center, 28(28%) between 3-4kilometres, and 27(27%) lived 5 or more kilometers away.

xvii) MEANS OF TRANSPORT USED BY THE RESPONDENTS.

Table showing the means of transport used by the respondents to bring children for immunization.

MEANS OF TRANSPORT	FREQUENCY	PERCENTAGE (%)
Foot	73	73
Other means	27	27
TOTAL	100	100

73(73%) reported to have walked on foot to the health centre for immunization while the 27(27%) used other means like bicycles, motor cycles and cars.

xviii) OUTCOMES OF IMMUNISATION

Table below shows the outcomes of immunization reported by the respondents.

OUTCOME	FREQUENCY	PERCENTAGE (%)
Good	92	92
Bad(e.g. fever and abscesses)	8	8
Total	100	100

92(92%) reported good benefits from immunization while the 8(8%) reported bad effects like fever and abscesses especially for BCG and DPT vaccines.

xix) DURATION TAKEN TO ACCESS THE IMMUNISATION SERVICES

Table showing the duration taken before accessing the immunization services.

Duration(hour)	Frequency	Percentage
1	63	63
1 and a half	25	25
2	10	10
More than 2 hours.	2	2
Total	100	100

63(63%) reported to have accessed the immunization services within 1 hour, 25(25%) within 1 and a half hours, 10(10%) within 2 hours while 2(2%) reported to have accessed them within more than 2 hours after their arrival to the health centre.

xx) AFFORDABILITY OF IMMUNIZATION SERVICES

PAYING FOR IMMUNISATION	FREQUENCY	PERCENTAGE
Yes	0	0
No	100	100
Total		

All the respondents 100(100%) reported to have afforded the services because they are free. Some only reported incurring transport expenses to and from the health centre.

xxi) ATTITUDE OF RESPONDENTS TOWARDS IMMUNIZATION

Table representing the attitude of respondents towards immunization.

ATTITUDE	FREQUENCY	PERCENTAGE (%)
Positive attitude	72	72
Negative attitude	28	28
No response	0	0
Total	100	100

During my research, 72(72%) had positive attitude towards immunization, 28(28%) had negative attitude towards immunization and finally none of them had no response.

xxii) BARRIERS TO IMMUNISATION SERVICES

EXPERIENCE OF EQUIPMENT SHORTAGE

Majority of the respondents 57 (57%) reported to have not had shortage of immunization services equipments, which they provide within their Units. while 43(43%) were experiencing shortage of equipment in services.

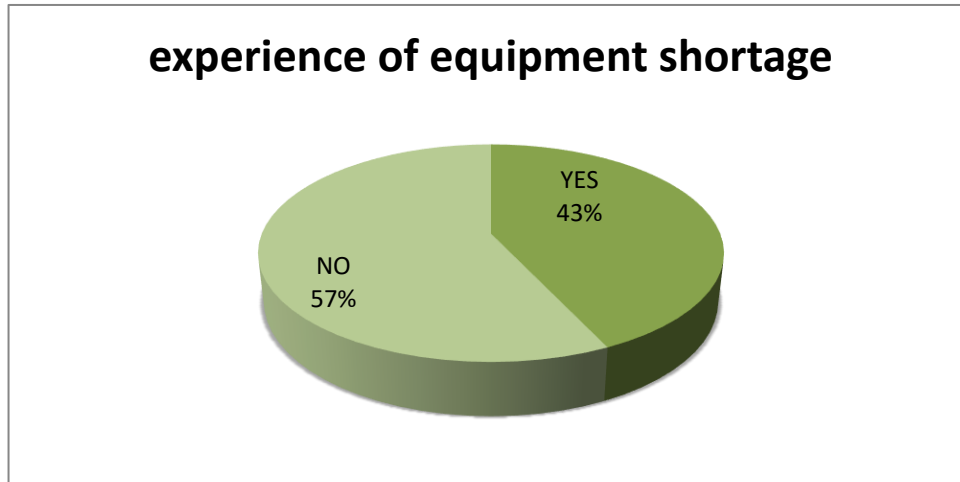


Figure 5: showing the respondents opinion on their experience on shortage of equipment

Among the 43(43%) who were experiencing shortage, majority reported to be experiencing this problem after every 3 days while few experiencing this problem monthly and others 2 monthly. The least were experiencing the problem yearly.

xxiii) RESPONSE ON ATTENDANCE TO IMMUNISATION APPOINTMENTS

Table 8: showing respondents' response on attendance to immunization appointment

Have ever missed an immunization appointment	PERCENTAGE (%)
YES	38
NO	62
TOTAL	100

38(38%) reported to have missed an immunization appointment while the 62(62%) had never.

xxiv) ATTITUDE OF HEALTH WORKERS WHO OFFER THE SERVICES TOWARDS THE MOTHERS.

Table 11: Showing respondents' response to attitude of health workers who offer immunization services

Were hindered because health workers were rude	PERCENTAGE (%)
YES	25
NO	75
TOTAL	100

25(25%) reported that they were hindered to access the immunization services because some health workers were rude while the 75(75%) did not.

xxv) EFFECT OF CULTURE ON IMMUNISATION

The table below shows the respondents' response to the effect of culture on immunization of children.

Were hindered because of culture.	FREQUENCY	PERCENTAGE (%)
Yes	0	0
No	100	100
Total	100	100

100(100%) of the patients reported that their cultures do not prevent them to immunize their children and none of them reported about cultural hindrance.

xxvi) COOPERATION OF HUSBANDS WITH MOTHERS DURING IMMUNISATION

The table below shows the respondents' reports in the cooperation of husbands with the mothers during immunization

Whether or not husbands are cooperative	Frequency	Percentage
Yes	67	67
No	33	33
Total	100	100

67(67%) reported that their husbands were cooperative and supportive of them to take the children for immunization while the 33(33%) reported about their husbands' lack of support and cooperation.

E) CHAPTER FIVE

DISCUSSION OF THE FINDINGS, CONCLUSION AND RECOMMENDATION.

a) DISCUSSION OF STUDY FINDINGS

This chapter discusses the study findings. According to the study findings in chapter four respondents by age indicated that majority of respondents 48% were between the age ranges of 21-25 because this is the age which is the most reproductively active then those of 26-30 contributed 20% then 31-35 which contributed 12%, followed by those of 15-20 who contributed 8% followed 36 -40 who contributed 7%, followed by those of 40-45 who contributed 5% .The study was carried out on mothers between 15-45 years because they were the reproductively active group and so were involved directly in child immunization.

The respondents by sex indicated that all respondents were females.

Most of respondents in terms of tribe were Banyankole 46(46%), because they are the habitants of the area of study, followed by Bakonjo 36(36 %), Baganda 12(12 %), and Bakiga 4 (4%) and lastly others who contributed 2(2 %)

Respondents by education level showed that most of respondents 59(59%) had tertiary education which showed that at least they had ever heard of or participated in immunization, followed by 25(25 %) who had secondary education, which showed that they had some knowledge on immunization, primary level of education were 11(11%) and finally without formal education were 5(5%) who did not have knowledge on immunization.

About the marital status of respondents, 46(46%) were single followed by the engaged who were 18(18%), then 16(16%) were married, then 8(8%) were widowed and finally 4(4%) were separated and so did not have support from the children's fathers.

Respondents by occupation showed that majority of respondents 65(65%) were peasants because farming and agriculture was reported to be the major source of income, followed by self employed who reported to be involved in small income generating activities were 18(18%) and finally civil servants who were 16(16%) who reported to be employed by various organizations like schools, banks and others.

Respondents by religion showed that most of respondents 74(74%) were Christians, followed by 26(26%) who were Muslims, this showed that most of the residents were Christians who are either involved directly or indirectly in immunization.

According to the knowledge of respondents it showed that 87(87%) had knowledge on immunization, followed by 13(13%) who had no knowledge about immunization.

Concerning the source of knowledge about immunization, 26(26%) acquired knowledge about immunization from the clinics where they would sometimes go for treatment of children and would be advised by the health workers there to take their children to Kyabugimbi Health centre and neighboring hospitals for immunization, 48% acquired it from the Health centre especially after child delivery when they would be advised to bring the children back for immunization as well as when they used to come for child treatment and thus reveal how which revealed a great role played by the health workers in the sensitization of the general public towards immunization of children. 20% acquired it from the mass media for example radio stations, news papers where which revealed a great role played by the Ministry of Health which sponsors such adverts on

radios and news papers.,1(1%)acquired it from the traditional birth attendant whom she reported to have advised her about taking the child for immunization after assisting her in delivery,5% reported to have acquired the knowledge from other sources for example from friends and relatives.

Concerning attendance of immunization appointments, 73(73%) reported that they had always taken their children for immunization while 27(27%) had never. This showed that most children were immunized and thus providing a high herd immunity.

About the age at which children are taken for immunization, 55(55%) reported to have taken their children between 0-1year which meant that the majority began immunizing their children as early as possible, while 25(25%) took theirs between 2-3years,while the minority took theirs between 4-5years and none of them took them at more than 5 years.

Concerning the number of times children are taken for immunization, majority 47(47%) were immunized more than 4 times meaning they had full immunization, 31(31%) were immunized 4 times,10(10%) were immunized 3times,8(8%)were immunized twice while 4(4%)were immunized once. This showed that 78% of children were immunized at least 4times thus providing a high herd immunity against most of the immunisable diseases.

Concerning the outcomes of immunization,92(92%) reported good benefits of immunization like protection against the immunisable diseases while the 8(8%) complained of the bad effects like fever and abscesses at the injection sites and that these scared them from taking their children for more immunization.

Concerning the accessibility, 92(92%) reported to have accessed the health centre for child immunization because most of time the vaccines were available and would postpone

immunization incase the vaccines were unavailable in rare cases. This showed that most of the respondents utilized the immunization services at the health centre. While the 8(8%) would attend from Kampala International teaching hospital and Mbarara Regional referral hospitals especially when these vaccines were not available because they could afford the transport expenses to and from which shown that sometimes the health centre could ran out of vaccines which prompted mothers to seek the services elsewhere.

Concerning distance between the health centre and respondents homes,45(45%) reported to be living between 0-2kilometeres away from the health centre,28(28%) lived 3-4 kilometers away while 27(27%) lived 5 or more kilometers away. This indicated that at least 73% Of the respondents lived between 0-4kilometres which was a short distance from the health centre and so would easily access the services without incurring any transport expenses and thus would not be hindered by distance.

Concerning means of transport used by the respondents, 73(73%) which were the majority reported to have walked on foot because the distance between the health centre and their homes was short while and so did not have to incur any transport expenses making it cheap and easy to access the services while 27(27%) used other means like motor cycles, bicycles and cars.

Concerning the duration taken to access the immunization services, 63(63%) reported to have accessed the services within I hour after arrival to the health centre which indicated that the dedication of health workers was fairly good, 25(25%) reported to have accessed it within 1 and a half, 10 (10%) within 2 hours while 2(2%) reported to have accessed them in more than 2

Concerning affordability of immunization services, 100(100%) reported to have afforded the services because they were free and a few only incurred transport fees to and from the health centre.

Concerning the attitude of respondents towards immunization, 72(72%) had positive attitude and explained that it provided protection to their children especially during disease outbreaks compared to the other children who were not immunized, while 28(28%) had a negative attitude towards immunization and reported that it causes adverse effects to their children like fever, abscesses which make them and their children very uncomfortable. They also added that it is time consuming because there are several appointments and yet some of them live far from the health center and yet they cannot afford transport expenses.

Concerning barriers to immunization, 43(43%) reported to have experienced immunization equipment shortage many times in a year which sometimes prompted them to seek the services from the neighboring hospitals of Kampala International University Teaching Hospital and Mbarara regional Referral hospital while 57(57%) reported that the equipments were adequate and available.

Concerning attendance of immunization appointments, 62(62%) reported that they had never missed any appointments while 38(38%) admitted that they missed some appointments because of distance and yet they lacked money for transport to the health centre and some thought that it was not so important to finish the appointments now that they had already taken their children for some immunization previously.

Concerning the attitude of health workers who offered the immunization services, 25(25%) reported that they were hindered by the rude health workers who would bark and disrespect them

during service delivery and so would lose the morale of going back next time for the services, while 75(75%) did not report this problem.

Concerning the effect of culture on immunization, all the respondents (100) reported that their cultures were not against immunization and thus were not hindered by it.

Concerning the cooperation of husbands with the mothers during immunization, 67(67%) reported that their husbands were supportive of them in taking the children for immunization while the 33(33%) reported that their husbands were never supportive of them in the way that they would never provide any money for transport, or even accompany them to the health centre.

b) CONCLUSION

Majority of respondents 87(87%) had knowledge about immunization and, its advantages and complications that resulted from not immunizing while a few 13(13%) had no knowledge that immunization existed and so did not know the advantages and complications that resulted from not immunizing.

Majority 72(72%) had a positive attitude towards immunization and reported that It was good as it provided protection against immunisable diseases as evidenced by their children not acquiring the diseases during the outbreaks. However, 28(28%) had a negative attitude towards immunization and reported that it caused abscesses and fever to their children which made them scared and uncomfortable and thus were against it.

The respondents also reported that mentioned they do not only acquire immunization for their children but also acquired knowledge about family planning, counseling, child nutrition, use of mosquito nets, safe water use from the health workers.

c) **RECOMMENDATION.**

- ✚ Government should carry out more public sensitization about the advantages of immunization as well as the disadvantages of not doing it.
- ✚ The Government should invest more resources in the health sector so that health facilities do not run short of vaccines and also to allow out reaches in areas that are distant from the health facilities.
- ✚ Mothers and fathers should take immunization seriously by massive education on immunization and its advantages .Fathers should be informed that they are as responsible as the mothers concerning child immunization and wellbeing.
- ✚ Mothers should be encouraged to deliver in the hospital so that children are immunized right from birth.

Health workers should increase rapport with patients to minimize bias and also inform mothers of the expected short term side effects of immunization like fever and abscesses. They should also teach the mothers on how to take care of the injection