# FACTORS CONTRIBUTING TO MATERNAL DEATH IN BUKEDEA DISTRICT A CASE STUDY AT BUKEDEA HEALTH CENTRE IV

#### $\mathbf{B}\mathbf{Y}$

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# RESEARCH REPORT SUBMITTED TO THE COLLEGE OF ECONOMICS AND MANAGEMENT IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF A BACHELOR OF SCIENCE IN STATISTICS DEGREE OF KAMPALA INTERNATIONAL UNIVERSITY

**AUGUST 2019** 

# **DECLARATION**

I, Ijoot John Peter, do declare that the work presented here is my original work and to the best of my knowledge has never been presented to any Institution of Higher Learning for the purpose of awarding a Degree.

Sign. Date 14th 08 2019.

Ijoot John Peter (RESEARCHER)

# APPROVAL

This research study entitled "Factors contributing to maternal death in Bukedea district at Bukedea Health Center IV" is the work of Ijoot John Peter and has been under my supervision.

Signature Date 14/08/2019

MS.NAMATA GLADYS (SUPERVISOR)

# **DEDICATION**

This work is dedicated to my beloved wife; Nandago Norah, son; Lawrence Odeke Ijoot, parents; father Odeke Lawrence, mother Esaete Magdalena, family members, and all well-wishers for the support and patience witnessed during my study.

# **ACKNOWLEDGEMENT**

It may not be possible to thank everyone who assisted me in writing and compiling this report.

Special thanks go to my supervisor, Ms. Namata Gladys, for the technical guidance and constructive comments given in planning and writing this dissertation.

I also would like to acknowledge my classmates, friends for the assistance and advice rendered during time of study.

God bless you all.

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## LIST OF ACRONYMS AND ABBREVATIONS

F/P -Family Planning

HIV -Human Immunodeficiency Virus

ANC -Antenatal care

DHO -District Health Officer

DHE -District Health Educator

PHC -Primary Health Care

UMHCP -Uganda Minimum Health Care Package

UNEPI -Uganda National Expanded Program on Immunization

HRPS -Health Research Policy and Systems

MCH -Maternal and Child Health

WHO -World Health Organization

MDGs -Millennium Development Goals

MMR -Maternal Mortality Rate

MOH -Ministry of Health

GAVI -Global Alliance on Vaccines and Immunization

TBA -Traditional Birth Attendants

UNICEF -United Nations International Children's Emergency Fund

TASO -The AIDS Support Organization

SWAP -Sector Wide Approach

BMJ -British Medical Journal

#### ABSTRACT

The General Objective of the study was to determine the factors associated with maternal deaths at Bukedea Health Center IV in Bukedea district.

The specific objectives were: to determine the knowledge of expectant mothers on antenatal care and maternity services in Bukedea district, to establish the accessibility of maternal health services by mothers in Bukedea district, to establish the availability of necessary equipments and logistics at Bukedea Health Center IV and to establish the availability of adequate human resource at Bukedea Health Centre IV.

The findings of the study revealed that expectant mothers have knowledge on antenatal care and maternity services in Bukedea as respondents agreed with the statements with a mean greater mean response except that most of them rejected that they do not receive enough health facilities when they go for antenatal care, most of the respondents agreed that maternal health services are accessible by mothers at Bukedea Health Center IV, respondents accepted to a greater extent that the necessary equipments and logistics are available at Bukedea health center IV except the nutritional supplements and that the Caesarean section is not well equipped furthermore, the findings further revealed that that respondents moderately accepted that there is adequate human resource at Bukedea Health Centre IV whereas most of the employees rejected the statements that there are enough trained medical workers to provide antenatal services at Bukedea health Centre IV. The study recommended that; the government should make sure that it motivates the employees and provide all the necessary equipments in order to improve on the facilities given to mothers who go for antenatal care, the government should extend health centers to most areas as respondents gave evidence that the travel long distances to reach the health centers and also the means of transport should be improved. The government should provide nutritional supplements as the findings gave evidence that they are not provided, the government should equip the Caesarean section in order to reduce on maternal mortality rate and the study generally recommended that the government should hire enough employees and motivate them in order to provide enough services and reduce on the maternal mortality rate.

#### CHAPTER ONE

#### 1.0 Introduction

The burden of high maternal mortality rate is one of the global challenges especially among women of child bearing age (15 - 49 years), and more profound in developing countries, Uganda inclusive. A higher percentage of the mortality is caused by factors attributed to pregnancy and childbirth.

This chapter therefore, covers the study background, problem statement, objectives, research questions, scope, and significance of the study, conceptual framework and operational definitions of terms

# 1.1 Back ground

Maternal death or maternal mortality is defined by the World Health Organization (WHO) as "the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes. There are two performance indicators that are sometimes used interchangeably: maternal mortality ratio and maternal mortality rate, which confusingly both are, abbreviated "MMR". By 2017, the world maternal mortality rate had declined from 53.40% to 44% since 1990, but still every day 830 women die from pregnancy or childbirth related causes. According to the United Nations Population Fund (UNFPA) 2017 report, this is equivalent to "about one woman every two minutes and for every woman who dies, 20 to 30 encounter complications with serious or long-lasting consequences, yet most of these deaths and injuries are entirely preventable."

UNFPA estimated that 303,000 women died of pregnancy or childbirth related causes in 2015. These causes range from severe bleeding to obstructed labour, all of which have highly effective interventions. As women have gained access to family planning and skilled birth attendance with backup emergency obstetric care, the global maternal mortality ratio has fallen from 385 maternal deaths per 100,000 live births in 1990 to 216 deaths per 100,000 live births in 2015, and many countries halved their maternal death rates in the last 10 years.

Although attempts have been made in reducing maternal mortality, there is much room for improvement, particularly in impoverished regions. Over 85% of maternal deaths are from impoverished communities in Africa and Asia. The effect of a mother's death results in vulnerable families. Their infants, if they survive child birth, are more likely to die before reaching their second birthday.

Globally maternal mortality is unacceptably high, according to World Health Organization (2014). About 800 women die from pregnancy or birth-related complications around the world every day. These complications may include infections, injuries and disabilities. In 2014 according to World Health Organization, 289,000 women died during and after pregnancy and child birth. Almost all these deaths occurred due to limited resources yet it could have been prevented. Approximately every two minutes, a woman dies during pregnancy or child birth and yet about 80% of maternal deaths are preventable if interventions are in place.

Sub Saharan Africa is the most risky region in the world. Maternal deaths in the sub Saharan Africa occur mostly in young girls of below 18 years. According to UNICEF (2015), a 15 year old girl living in Sub Saharan Africa faces about 1 in 40 risk of dying during pregnancy and child birth, during her life time compared to 1 in 3300 living in Europe.

Sub Saharan region accounted for 62% of global death in 2013 according to UNICEF and Sierra Leon topping the list with an estimated 1,100 deaths per 100,000 live births.

According to World Health Organization's report (2013), Uganda's maternal death has reduced from 600 in 1990 to 438 deaths in 2017 per 100,000 live births.

According to the health management information system (HMIS) for 2017 of Bukedea District, more than 160 of expectant women die due to pregnancy related complications per year. Other cases normally happen in the villages and end up not being reported /recorded.

#### 1.2 Problem statement

In Bukedea District, maternal mortality is still high, according to the HMIS report for 2017. Around 160 mothers in the district died due to delays in accessing medical facilities and related services. This mostly affects the rural population. According to the

survey carried out by Uganda Nasklxhjet work of AIDS Service commission (2008), it was found that 38% of the expectant mothers in Bukedea district die in child labour per annum. Here, mothers have a practice of delivering at home or unskilled traditional birth attendants (TBAs). This is coupled with failure to go for the four antenatal cares during pregnancy. Such mothers are at risk of developing complications during pregnancy and child birth. The mothers who died are associated with early marriage, poor maternity facilities, lack of delivery items in the maternity wards especially in rural health units, lack of beds and mattresses, gloves and other necessities, poor communication networks and low health education and sensitization.

Therefore this study, shall aim at recommendations advocating for interventions to promote maternal health services so as to reduce maternal deaths depending on the findings so that in-charge at Bukedea Health Center IV can use them to implement appropriate maternal health.

# 1.3 Objectives

# 1.3.1 General Objective

To determine the factors associated with maternal deaths at Bukedea Health Center IV in Bukedea district.

# 1.3.2 Specific objectives

- i) To determine the knowledge of expectant mothers on antenatal care and maternity services in Bukedea district.
- ii) To establish the accessibility of maternal health services by mothers in Bukedea district.
- iii) To establish the availability of necessary equipments and logistics at Bukedea Health Center IV
- iv) To establish the availability of adequate human resource at Bukedea Health Centre IV.

# 1.4 Research questions

- i) Are expectant mothers having knowledge on antenatal care and maternity services in Bukedea district?
- ii) Are mothers accessing the maternal health services in Bukedea district?
- iii) Are the necessary equipment and logistics available at Bukedea Health Center IV?
- iv) Is there adequate human resource at Bukedea Health Center IV?

# 1.5 Research scope.

#### 1.5.1 Geographical scope.

This study was carried out at Bukedea Health Centre IV in Bukedea district, Uganda where the researcher expects to collect the required data for the study

## 1.5.2 Content scope.

The study focused on the factors as independent variables and maternal death as a dependent variable. The independent variables will focus on the barriers mothers face in accessing maternal health services.

## 1.5.3 Time scope.

The study was done for a period of about two to three months, that is; March, April and May of 2019. The researcher will utilize the time period to acquire relevant and valid information necessary to complete this study.

#### 1.6 Justification of the study

- i) Findings from this research project may promote effective, accessible, affordable and acceptable health service delivery in Uganda.
- ii) The findings of the study may contribute to the existing literature about the study variables that will be used for future reference by future researchers.
- iii) The findings of the study may enable the government to come with better policies that can improve maternal mortality rate especially in Bukedea District.

# Independent variable **Demographic information** Age Education/level of education Beliefs Dependent variable Accessibility of facility Nature of roads MATERNAL MORTALITY Distance to the facility Means of transport Registered deliveries in Number of timely ANC visits health facilities Availability of equipment & logistics Blood bank Operational theatre Testing kits Family planning services Availability of adequate human resource Critical cadres (midwives, doctors, anesthetist, etc.) Staff houses Attitude of health workers

Figure 1: Conceptual framework

1.7 Conceptual framework

High maternal mortality in Bukedea district, a case study of Bukedea health center IV, is associated with a matrix of factors, which are individual, geographical and institutional. These factors include inadequate items and supplies for maternal health especially in rural health facilities, inadequate personnel such as midwives in rural health centers, inadequate communication and sensitization, inadequate funding at health facilities, lack of enough knowledge. Other factors are barriers that mothers face to access maternal health care, for instance, means of transport amongst others.

# 1.8 Operational definitions of terms

Maternal health - refers to health of a woman during delivery, childbirth and postpartum Period.

**Utilization** - means the extent to which a given group of people uses particular service in a specific period of time.

Maternal death- is the death of a woman while pregnant or within 42 days of termination of Pregnancy, irrespective of the duration and site of the pregnancy, from any Cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes.

Skilled attendants -refer to people with midwifery skills (midwives, doctors and nurses with additional midwifery education) who have been trained with proficiency in the skills necessary to manage normal deliveries and diagnose, manage or refer Obstetric complications' (WHO).

Intra-partum care -refers to care given to an expectant mother during child birth/delivery

Labour - refers to the act of child birth.

#### **CHAPTER TWO**

#### LITERATURE REVIEW

## 2.0 Introduction

This chapter explains the theoretical review and empirical review of the study.

#### 2.1 Theoretical Review

# 2.1.1 New Public Management Theory

The theoretical underpinnings in public services come from the new public management theory (NPM) which originated in the late 1970s in the United Kingdom, Australia and New Zealand. Since then, it has come to dominate thinking about the public sector reform and is hailed as a new paradigm. Different factors led to the emergence of NPM. some of which are: fiscal crises of governments, poor performance of the public sector in different arenas, imperious bureaucracy, lack of accountability, corruption, changes of people's expectations and the emergence of better alternative forms of staff performance (Common 1998 & Minogue 1998 cited in Sarker 2006). In other words, large government was poorly performing health wise being non accountable and irresponsive to the beneficiaries, while on the other hand there has been a wave of competitive private sector customer oriented strategy; all this called for customer oriented, result driven and effectively enterprising government especially in the health sector. NPM emphasized the need for "modern" bureaucracy with no "traditional" bureaucracy so as to "reinvent" government and changing its role from "rowing" to steering. Thus, NPM heralds the transformation of the citizen into a customer of public services including health services that can reduce maternal mortality rate; the populace pays for public services, and hence has choice and the exit option, and the opportunity to give feedback on health services (Prakash & Singh). As per NPM philosophy modern government should be customer oriented, competitive and result oriented, and thus new techniques of service delivery like the adoption ICT has a room to play for enhancing the effectiveness health services especially in public hospitals. In short, as a strong theoretical foundation, the concept of new public management is used to strengthen the need and importance of improving health services in the public health institutions.

# 2.2 Empirical Review

# 2.2.1Knowledge of the expectant mothers

According to Shankwaya (2008), age is also a determinant on the knowledge of maternal services. In a study conducted in Zambia, the results showed that 55% of the women who delivered in the health facilities were younger and adhered to the information they got when they were pregnant, and out of which 65% those were having their first baby. The study further showed that women aged 35 years and above tends to deliver at home because they consider themselves as having experience so they do not need assistance from skilled health workers. This was evidenced by a study conducted by Mrisho, et al. (2007) in southern part of Tanzania as results revealed that older women tend to deliver at home compared to young women as the young women have no experience in child births and they tend to fear complications related to pregnancy and child birth.

According to Belam, et al. (2006), a mother's literacy level was also important determinant of place of delivery as those with non-formal education tend to deliver at home, and those educated tend to give birth's in health facilities. A study conducted in Nepal showed that there exists a relationship between education and place of deliver as those with less educated women were more likely to deliver at home compared to their educated counterparts who tends to deliver at health facilities. Yanagasawa, et al. (2006), in a study conducted in Cambodia asserted that women who attended at least seven years of school are six times more likely to deliver in health facilities compared to those who did not attended. The same findings obtained in a study conducted in Kenya and concluded that community based antenatal education might be targeted at poorly educated mother to enable them make informed decision of delivering in a health facility. It has also been suggested that there may be community effects of education, with more highly educated communities organizing themselves and demanding better public services and higher position for health on the political agenda (Grosse, 1999). In contrast, better awareness of poor quality health care services in many facilities and higher confidence in self-care may delay health care seeking among educated women. Education is likely to be associated with wealth and even residence (Bolam, et al., 2006).

Several literature shows that level of education were strongly associated with informed decision for a mother to deliver in health facility where by more educated women tends

to deliver in health facility compared to non-educated, therefore increased enrolment of girls to secondary education and above could help to increase on their knowledge and deliver in health facility.

According to Magoma (2010), in a study conducted in northern part of Tanzania, it showed that traditional births attendants are source of information for a mother to make a decision to go for maternal services especially among the Masai tribe. It is also common in Uganda especially in Bukedea district. They believe that TBAs and relatives have firsthand information compared to health workers in health facilities. It was suggested that in order to improve health facilities deliveries; TBAs must be empowered with information to give expectant mothers according to Thaddeus (1994).

# 2.2.2Accessibility to health facility for maternal health services

According to the Malawi Medical Journal (2011), conducted a research on the barriers mothers face in accessing maternal health services, utilization amongst others and found out walking long distances to access health facilities, long stay in the health facilities, limit mothers to go to health facilities. This attributed to mothers seeking help from the traditional birth attendants (TBAs) during time of delivery. This is because TBAs are within their reach and do not demand a lot of items from them as they treat them with respect.

A study conducted in Nigeria found out that expectant mother getting means of transport to a health facility requires money, yet the biggest population on the African continent leaves below the poverty line. This has greatly hindered women from accessing maternal health services (Demographic and Health Survey Nigeria, 2008)

According to Health Research Policy and systems (2013) conducted a survey from South Western Uganda on assess men to opportunities and challenges for public sector involvement in the maternal health voucher program in Uganda showed that continued inequalities in coverage, high quality of care and high out of pocket expenses for health threaten attainment of MDGS 4 and 5 in many developing countries especially in Africa and this would be achieved through intensifying continuous health education and integrating the voucher program with other services so as to address the barriers that mothers face in accessing maternal health care.

According to the study conducted in Uganda at Nsambya hospital and Bukedea health center IV, found out that several barriers were a challenge for mothers in an attempt to access maternal health care especially the four ANC visits to the facility. Some of the barriers included cultural practices, lack of privacy, delays at health facilities, staff attitudes and amenities available. Also delay of mothers to health facilities was found at both hospital and health Centre IV, which was attributed to limited means of transport (Romano, 2011).

# 2.2.3 Availability of equipment and logistics

The World Health Organization (2015) conducted country studies to examine barriers to maternal health supplies in Uganda through Population Action International to trace the availability of the four commodities that are a key on combating maternal mortality. These commodities include Oxytocin, Misoprostol, Magnesium sulphate and Manual Vacuum Aspirations (MVAs).

In order to reduce on the maternal mortality rate in the country, it requires access and effective use of essential commodities, implement policies, and improve on the financing for health care and supplies. The reduction of maternal death is one of the key goals of the Millennium Declaration. An important factor in reaching this goal is the distribution of clinical guidelines and manuals for the clinical management of major causes of maternal mortality.

In an attempt of mothers to access maternal healthcare services from health facilities, there is a challenge of lack of adequate equipment to handle the health care needs of mothers especially in rural areas. To the worse, some of these health facilities do not provide the health services that are required of them. Equipment, supplies and essential drugs for maternal health were identified to be some of the intuitional factors affecting maternal health delivery (Rogo, et al., 2006).

# 2.2.4 Availability of adequate human resource

Lack of enough trained heath personnel such as midwives, medical doctors and anesthetists in some health care facilities compromise healthcare standards and mothers do not meet the requirements as set by World Health Organization.

The attitude of health workers also determines the quality of service delivery and therefore linked to institutional delivery to minimize maternal mortality (Muleki, 2014).

World Health Organization is working hard to reduce maternal mortality by providing evidence based clinical and programmatic guidance, setting global standards and providing technical support to member states. In addition, World Health Organization advocates for more affordable and effective treatment and designs, training materials and guide lines for health workers and support countries to implement policies and programs and monitor the progress.

According to Nair et al. (2015), delays in the identification of high risk status and inappropriate management and referral, inadequate antenatal care and suboptimal clinical care during delivery by health workers, leads to maternal mortality.

In South Sudan, according to the study conducted by Mandy (2013) found out that it has one of the worst maternal mortality ratio, which was estimated to be 2024 maternal deaths for every 100,000 live births, which was linked to inadequate medical staff, supplies and contextual direct obstetric causes and conditions as aggravated by pregnancy or delivery.

There have been some determinants of maternal mortality in Ethiopia. The survey found out that poorly financed and unaccountable health systems, including weak referral systems, lack of skilled health care providers, negative attitudes towards handling expectant mothers, lack of enough treatment guide lines and protocols contribute to maternal mortality.

In the access to maternal health care, Amnesty International (2014) conducted a survey in South Africa about barriers to Antenatal care and found out that privacy was concerning patients, confidentiality and informed consent at health facilities especially in HIV testing during Antenatal care, were contributing factors.

#### CHAPTER THREE

#### **METHODOLOGY**

#### 3.0 Introduction

This chapter therefore, covers the following aspects; the study area, study designs, study population, sampling size, study variables, sampling procedure, data collection tools, data management and storage, data analysis, Ethical consideration, study limitations

#### 3.1 Study area

The study was carried out at Bukedea Health Center IV, where by health workers and expectant mothers were interviewed in the maternity, antenatal care clinic and delivery or labour room. Health workers include; Doctors, midwives among others. Expectant mothers include; the ones who gave birth during data collection and pregnant mothers. Bukedea Health Center IV is an Anglican Church founded hospital and it is located in Corner ward, Corner cell, Bukedea town council in Bukedea district, in the western outskirts of the district. It is the only health center IV in the district and owned by government, serving a total population of about 220,000 people.

It has currently 56 beds with over 19,000 annual outpatient visits and about 10,000 annual inpatient admissions with several wards and departments like; Pediatric ward, female ward, male ward, maternity ward, antenatal clinic, and a theatre. Other departments include; laboratory, dental and maternal health block.

# 3.2 Study designs

This study used a cross-sectional design consisting of both qualitative and quantitative methods of data collection.

# 3.3 Study Population

The study population consisted of 100 pregnant mothers attending antenatal care and at the ANC clinic, pregnant mothers admitted in the maternity ward and those mothers waited to deliver in the labour suit, and also health workers in the health facilities like midwives who were on duty at the time of interview.

#### 3.4 Sampling size

The sample size was determined using Slovene's formula of sample determination. Under this, a target population of 100 was zeroed down to a sample size of 80 respondents respectively as stated by Slovene's (1978). The Slovene's formula was used to determine the minimum sample size.

$$n = \frac{N}{1 + N(e^2)} = \frac{100}{1 + 100(0.05^2)} = 80$$
 respondents

Where n = sample size, N = a target population, e = level of significance.

# 3.5 Study variable

The dependent variable was maternal deaths and required to have the number of registered deaths. The independent variables were age, knowledge of expectant mothers, accessibility to the health facility, availability of equipment and logistics and lastly the availability of adequate human resource for health.

## 3.6 Sampling procedure

Simple random and purposive probability sampling techniques were applied relatively to the target population. This involved key informants, interviews and observation.

## 3.7 Data collection tools

The following tools were used; self and structured administered questionnaires, Interview guide and Check list.

## 3.8 Data management and storage

The data collected was edited and checked for consistency. The data entry was performed using frequencies and cross tabulation that are applied for checking missing variables, errors were identified and corrected using the original questionnaires.

#### 3.9 Data analysis

Both qualitative and quantitative data analysis procedures and processes were used. Themes and sub-themes in line with the objectives of the study were developed to aid analysis of qualitative data. Quantitative data analysis includes coding, groupings, tabulation. The data was analyzed using SSPS and Microsoft Excel data base.

#### 3.10 Ethical consideration

Research clearance was obtained from Kampala International University, Faculty of Economics and Management, Department of Economics and Statistics. The researcher obtained a permission letter from the District health officer Bukedea district which was then presented to the In-charge Bukedea Health Centre IV. This gave the researcher permission to carry out the study. The researcher also requested forthe consent of target respondents in the selected departments to participate in the research. Confidentiality was highly observed and above all cultural practices of the respondents were respected.

## 3.11 Study limitations

Some people are evasive about their social lives and in particular reproductive health issues; the researcher used expert knowledge and experience in order to obtain more reliable information since it was a sensitive area of study. There was a possibility to recall bias in the study, some of the respondents were unable to recall well the various information concerning antenatal clinic visits.

Some respondents chose not to participate in the study hence denying us information which could probably be important.

#### CHAPTER FOUR

# PRESENTATION, DATA ANALYSIS AND INTERPRETATION OF FINDINGS

## 4.0 Introduction

This Chapter presents data analysis, tables and figures, and interpretation made in accordance with the research objectives of the study. The chapter was divided into subchapters namely: Demographic characteristics of respondents and findings on objectives of the study.

## 4.1 Demographic characteristics of respondents

The respondents demographic characteristics include; age, gender, level of education, nature of employment and salary scale of employees.

## 4.1.1 Age of the respondents

The distribution of the respondents by age was presented in the study as shown in table 1 below.

Table 1: Age of respondents

	Frequency	Percentage	Cumulative
			percentage
Below 17	7	8.75	8.75
18-25 years	25	31.25	40
26-33 years	30	37.5	77.5
34-45 years	15	18.75	96.25
Above 45	3	3.75	100
Total	80	100	

From table 1, majority of the respondents (30) were aged between 26-33 years contributing 37.5% of the sample, followed by those between 18-25years (25) contributing 31.25% of the total sample, those between 34- 45 were 15 contributing 18.75%, those below 17 years were 7 contributing 8.75% and the least were those aged above 45 years (3) contributing only 3.75% of the entire sample. This implies that majority of the respondents were in the right age range of delivering thereby giving evidence for collection of relevant data for this study.

# 4.1.2 Marital Status of Respondents

Table 2: Marital status of respondents

	Frequency	Percentage	Cumulative percentage
Single	3	3.75	3.75
Married	60	75	78.75
Divorced	10	12.5	91.25
Widowed	7	8.75	100
Total	80	100	

According to table 2, majority of the respondents were the married with 75% followed by the divorced with 12.5%, the widowed contributed 8.75% and then the singles contributed only 3.75%. This shows that the reliable data was collected since most of the respondents were married and thus had more knowledge about the factors that contribute to maternal death in Bukedea District.

# 4.1.3 Education level of respondents

Table 3: Education level of respondents

Education Level	Frequency	Percentage	Cumulative
			percentage
None	5	6.25	100
Primary	30	37.5	8.75
Secondary	20	25	40
Tertiary	15	18.75	77.5
University	10	12.5	96.25
Total	80	100	

From table 3, the findings show that most of the respondents (30) had attained primary level as their highest level of education contributing 37.75% of the entire population, followed by secondary (20) contributing 25% of the sample, those of tertiary institutions was 15 contributing 18.75%, those of university were 10 contributing 12.5% and the illiterates were 5 contributing only 6.25%. This implies that most of the respondents are those who didn't go far academic wise.

# 4.1.4 Employment of respondents

Table 4: Employment level of respondents

Economic	Frequency	Percentage	Cumulative
activity			percentage
Farmers	50	62.5	62.5
Teachers	10	12.5	75
Doctors	15 .	18.75	93.75
Others	5	6.25	100
Total	80	100	

From table 4, most of the respondents were farmers(50) contributing 62.5%, the doctors were 15 contributing 18.25%, the teachers were 10 contributing 10% and finally others were 5 contributing only 6.25%. This implies that most of the respondents were those who carry out farming specifically to earn a living.

# 4.1.5 Salary scale of respondents

Table 5: Salary level of respondents

Salary per month	Frequency	Percentage	Cumulative
			percentage
More than 90000	15	18.75	18.75
60000-90000	30	37.5	56.25
30000-60000	25	31.25	87.5
Less 30000	10	12.5	100
Total	80	100	

Table 5 shows that most of the respondents(30) earn between 60000-90000 ,followed by those who earn between 30000-60000. Those who earn more than 90000 were 15 contributing 18.75% while those who earn less than 30000 were 10 contributing only 12.5% of the entire sample. This means that most of the local women earn less than 90000 as this gives evidence that with the current inflation in Uganda women may not afford to get necessary antenatal services thereby stimulating the increase in maternal death.

4.2 Determining the knowledge of expectant mothers on antenatal care and maternity services in Bukedea district.

Table 1: Percentage response for the knowledge of expectant mothers on antenatal care and maternity services in Bukedea district.

	Strongly	Disagree	Not	Agree	Strongly	Mean
N	Disagree	(%)	Sure	(%)	Agree	
	(%)		(%)		(%)	
80	15.8	10		35	39.2	3.72
80	10.3	20		30.7	39	3.48
80	30	45	5	15	5 ·	2.2
80	12.4	10		27.6	50	3.92
80	2.7	10		37.3·	50	4.12
80	29.67	10		30.33	30	3.21
80	10	7.66		42.34	40	3.95
	80 80 80 80 80 80	N Disagree (%)  80 15.8  80 30  80 12.4  80 2.7  80 29.67	N Disagree (%) (%)  80 15.8 10  80 10.3 20  80 30 45  80 12.4 10  80 29.67 10  80 10 7.66	N Disagree (%) Sure (%) 80 15.8 10 80 10.3 20 80 30 45 80 12.4 10 80 29.67 10 80 10 7.66	N Disagree (%) Sure (%) (%)  80 15.8 10 35  80 10.3 20 30.7  80 30 45 5 15  80 12.4 10 27.6  80 2.7 10 30.33  80 29.67 10 30.33	N Disagree (%) Sure (%) Agree (%)  80 15.8 10 35 39.2  80 10.3 20 30.7 39  80 30 45 5 15 5  80 12.4 10 27.6 50  80 29.67 10 30.33 30  80 10 7.66 42.34 40

The likert scale is 1 -strongly Disagree 2- Disagree 3- not sure 4- agree 5-Strongly agree.

The response mean is 1.00-1.80- strongly Disagree, 1.81-2.60- Disagree, 2.61-3.40 Not sure, 3.41-4.20- Agree, 4.21- 5.00 – Strongly Agree.

From table 6, it is evident that most of the respondents accepted that expectant mothers have the knowledge on antenatal care and maternity services in Bukedea district as most of them agreed with the statements used to measure this objective with the highest percentage. This is based from the fact that most 74.2% of the respondents agreed that they were referred to Bukedea health center IV for antenatal care with a mean of 3.72. 69.7% agreed that they have visited the health facility for Antenatal care of their pregnancy timely with a mean of 3.48, 87.3% agreed that the coverage time taken while waiting for a medical staff to attend them when they visited antenatal care clinic at Bukedea H/C IV was short and they were given enough time for attending to them with a mean of 4.12, 77.6% agreed that there was a complication detected during antenatal care visit of their pregnancy with a mean of 3.92, 60.33% agreed with the statement that On average, they were satisfied with maternal health services they have been receiving at Bukedea H/C IV with a mean of 3.21 and 82.34% agreed that there are barriers/ challenges that they faced as they were accessing maternal health services (antenatal care) at Bukedea H/C IV with a mean of 3.95 while 75% of the respondents disagreed that they have received enough health facilities while attending for antenatal care of their pregnancy with a rejection mean of 2.2.

# 4.3 Establishing the accessibility of maternal health services by mothers in Bukedea district.

Table 7: Percentage response for accessibility of maternal health services by mothers in Bukedea district.

Statements		Strongly	Disagree	Not	Agree	Strongly	Mean
	NT.	Disagree	(%)	Sure	(%)	Agree	
	N	(%)		(%)		(%)	
I visited a government health facility	80	10	3.0		50	37.2	4.02
I visited a private health facility	80	10	1.4		50	38.3	4.04
It takes me long to travel from home	.80	5	4.24		44	40.8	4.37
	.00	)	4.24		44	40.8	4.37
to the government health facility?							
The means of transport used to go to	80	28.4			21	50.6	3.65
the government health care facility							
are poor							
Trigital a parameter hoolth facility	90	10	8.6		60.4	01	2.772
I visited a government health facility	80	10	8.6		60.4	21	3.73
timely during my previous pregnancy							
my husband accompanied me to the	80	6.2	10		53.8	30	3.88
health facility during my previous							
pregnancy							
T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	00	11.6			40		4.00
I received medical care during my	80	11.6	4		40	44.4	4.02
previous pregnancy at the		~					***************************************
government hospital or facility							
T 1111 11		00.4				0.5.0	
I received all health services when	80	20.4	4.4		50	25.2	3.55
you I visited the health facility							
during my previous pregnancy							
							1

The likert scale is 1 -strongly Disagree 2- Disagree 3- not sure 4- agree 5-Strongly agree.

The response mean is 1.00-1.80- strongly Disagree, 1.81-2.60- Disagree, 2.61-3.40 Not sure, 3.41-4.20- Agree, 4.21- 5.00 – Strongly Agree.

From table 7 above, results show that most of the respondents agreed that maternal health services are accessible by mothers in Bukedea district.

This is backed by the fact that 87.2% of the respondents agreed that they have visited a government health facility with a mean of 4.02, 88.3% agreed that they have visited a private health facility with a mean of 4.04 and 84.4% agreed with the statement that it takes them long to travel from home to the government health facility with a mean of 4.37, 71.6% agreed with the statement that the means of transport used to go to the government health care facility are poor with a mean of 3.65, 81.4% agreed with the statement that they have visited a government health facility timely during their previous pregnancy with a mean of 3.73, 83.8% agreed that their husbands accompanied them to the health facility during their previous pregnancy with a mean of 3.88, 84.4% that they received medical care during their previous pregnancy at the agreed government hospital or facility with a mean of 4.02 and 75.2% of the respondents accepted that they received all health services when they visited the health facility during their previous pregnancy with a mean of 3.55.All of the statements used to measure this objective gave positive results thus this implies that to a great extent, maternal health services are accessible to mothers in Bukedea district.

# 4 .4 Establishing the availability of necessary equipments and logistics at Bukedea health center IV

Table 8: Percentage response for the availability of necessary equipments and logistics at Bukedea health center IV.

QN	Statements		Strongly	Disagree	Not	Agree	Strongly	Mean
		N	Disagree	(%)	Sure	(%)	Agree	
		11	(%)		(%)		(%)	
1	Physical examination including	80	3.6	12		44.4	40	4.05
	blood pressure, weight, heart							
	beat rate and many more.							
2	Gynecological examination	80	2.2	7		62	30.8	4.18
	including urine test							
3	Ultra sound	80	20	8.4		50	21.6	3.58
1	Blood test	80	9.8	10		50.2	30	3.81
5	Nutritional supplements	80	40.4	43		10	6.6	1.99
5	HIV/AIDS, STIs testing and	80	11	5.4		50.6	33 ·	3.89
	screening etc							
7	Caesarean section is well	80	30	45		10	15	2.35
	equipped							

The likert scale is 1- strongly Disagree 2- Disagree 3- not sure 4- agree 5-Strongly agree.

The response means are 1-1.8- strongly Disagree, 1.81-2.6- Disagree, 2.61-3.4 Not sure, 3.41-4.2- Agree, 4.21-4.5 —Strongly Agree.

From table 8, results show that respondents accepted to a greater extent that the necessary equipments and logistics are available at Bukedea health center IV.

This is from the fact that 84.4% of the respondents agreed with the statement that there is physical examination including blood pressure, weight, heart beat rate and many more with a mean of 4.05, 92.8% of the respondents agreed that there is Gynecological examination including urine test with a mean of 4.18, 71.6% of the respondents agreed that there is an ultra sound with a mean of 3.58, 80.2% of the respondents agreed that there is blood test with a mean of 3.81, 83.6% of the respondents also agreed with the statement that there is HIV/AIDS, STIs testing and screening with a mean of 3.89 whereas 83.4% of the respondents disagreed with the statement that there are nutritional supplements with a mean of 1.99 and 75% of the respondents disagreed with the statement that the Caesarean section is well equipped with a mean of 2.35.

# 4.5 Establish the availability of adequate human resource at Bukedea health Centre IV.

Table 9: Percentage response for establishing the availability of adequate human resource at Bukedea health Centre IV.

Qn	Statements		Strongly	Disagree	Not	Agree	Strongly	Mea
		N	Disagree	(%)	Sure	(%)	Agree	n
		11/	(%)		(%)		(%)	
1	There are enough trained	80	47	30.2		10.8	12	2.11
	medical workers to provide							
	antenatal services at Bukedea							
	health centre IV		٠					•
2	The medical workers attend to	80	40.4	33		16.6	10.6	2.26
	all patients at any time				:			
3	Medical workers are not	80	5.2	10		40.8	44	4.08
	corrupt							
4	Medical workers are fully	80	10.4	18		50.6	21	3.54
	sensitized							
5	Medical workers often get	80	18.6	***************************************		41.4	40	3.84
	information about antenatal							
	care							
6	Medical workers often get	80	12	4.2		53	30.8	3.86
	information and reports about							
	maternal mortality rate							
7	Employees are fully	80	40	34.4		10.6	15	2.23
	motivated in terms of salaries,							
	rent and many more							
	***************************************							

The likert scale is 1 -strongly Disagree 2- Disagree 3- not sure 4- agree 5-Strongly agree.

The response mean is 1.00-1.80- strongly Disagree, 1.81-2.60- Disagree, 2.61-3.40 Not sure, 3.41-4.20- Agree, 4.21-5.00 –Strongly Agree.

Table 9 shows that that respondents moderately accepted that there is adequate human resource at Bukedea Health Centre IV. This is from the fact that 84.8% of the respondents agreed that Medical workers are not corrupt with a mean of 4.08, 71.6% of the respondents agreed that medical workers are fully sensitized with a mean of 3.54, 81.4% of the respondents agreed that medical workers often get information about antenatal care with a mean of 3.84, 83.8% agreed with the statement that medical workers often get reports about maternal mortality rate with a mean of 3.86 whereas 77.2% of the respondents disagreed that there are enough trained medical workers to provide antenatal services at Bukedea health centre IV with a rejection mean of 2.11,73.4% of the respondents disagreed that the medical workers attend to all patients at any time with a mean a rejection mean of 2.26 and 74.4% of the respondents disagreed with the statement that employees are fully motivated in terms of salaries, rent and many more with a rejection mean of 2.23.

#### **CHAPTER FIVE**

### DISCUSSION OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

#### 5.0 Introduction

This chapter discusses the findings on each objective of the study and it further gives conclusions and recommendations.

#### 5.1 Discussion of the findings

# 5.1.1 Determining the knowledge of expectant mothers on antenatal care and maternity services in Bukedea district.

The findings show that most of the respondents accepted that expectant mothers have the knowledge on antenatal care and maternity services in Bukedea district as most of them agreed with the statements used to measure this objective with the highest percentage. This is based from the fact that most 74.2% of the respondents agreed that they were referred to Bukedea health center IV for antenatal care with a mean of 3.72, 69.7% agreed that they have visited the health facility for Antenatal care of their pregnancy timely with a mean of 3.48, 87.3% agreed that the coverage time taken while waiting for a medical staff to attend them when they visited antenatal care clinic at Bukedea H/C IV was short and they were given enough time for attending to them with a mean of 4.12, 77.6% agreed that there was a complication detected during antenatal care visit of their pregnancy with a mean of 3.92, 60.33% agreed with the statement that On average, they were satisfied with maternal health services they have been receiving at Bukedea H/C IV with a mean of 3.21 and 82.34% agreed that there are barriers/ challenges that they faced as they were accessing maternal health services (antenatal care) at Bukedea H/C IV with a mean of 3.95 while 75% of the respondents disagreed that they have received enough health facilities while attending for antenatal care of their pregnancy with a rejection mean of 2.2.

### 5.1.2 Establishing the accessibility of maternal health services by mothers in Bukedea district.

From the study, results show that most of the respondents agreed that maternal health services are accessible by mothers in Bukedea district.

This is backed by the fact that 67.2% of the respondents agreed that they have visited a government health facility with a mean of 4.02, 88.3% agreed that they have visited a private health facility with a mean of 4.04 and 84.4% of the respondents strongly agreed with the statement that it takes them long to travel from home to the government health facility with a mean of 4.37, 71.6% of the respondents agreed with the statement that the means of transport used to go to the government health care facility are poor with a mean of 3.65, 81.4% agreed with the statement that they have visited a government health facility timely during their previous pregnancy with a mean of 3.73. 83.8% agreed that their husbands accompanied them to the health facility during their previous pregnancy with a mean of 3.88, 84.4% strongly agreed that they received medical care during their previous pregnancy at the government hospital or facility with a mean of 4.02 and 75.2% of the respondents accepted that they received all health services when they visited the health facility during their previous pregnancy with a mean of 3.55. Most of the statements used to measure this objective gave positive results thus this implies that to a great extent, maternal health services are accessible to mothers in Bukedea district.

### 5.1.3 Establishing the availability of necessary equipments and logistics at Bukedea health center IV

Results show that respondents accepted to a greater extent that the necessary equipments and logistics are available at Bukedea health center IV.

This is from the fact that 84.4% of the respondents agreed with the statement that there is physical examination including blood pressure, weight, heart beat rate and many more with a mean of 4.05, 92.8% of the respondents agreed that there is Gynecological examination including urine test with a mean of 4.18, 71.6% of the respondents agreed that there is an ultra sound with a mean of 3.58, 80.2% of the respondents agreed that there is blood test with a mean of 3.81, 83.6% of the respondents also agreed with the statement that there is HIV/AIDS, STIs testing and screening with a mean of 3.89 whereas 83.4% of the respondents disagreed with the

statement that there are nutritional supplements with a mean of 1.99 and 75% of the respondents disagreed with the statement that that the Caesarean section is well equipped with a mean of 2.35.

# 5.1.4 Establishing the availability of adequate human resource at Bukedea health Centre IV.

The findings show that respondents moderately accepted that there is adequate human resource at Bukedea Health Centre IV. This is from the fact that 84.8% of the respondents agreed that Medical workers are not corrupt with a mean of 4.08, 71.6% of the respondents agreed that medical workers are fully sensitized with a mean of 3.54, 81.4% of the respondents agreed that medical workers often get information about antenatal care with a mean of 3.84, 83.8% agreed with the statement that medical workers often get reports about maternal mortality rate with a mean of 3.86 whereas 77.2% of the respondents disagreed that there are enough trained medical workers to provide antenatal services at Bukedea health centre IV with a rejection mean of 2.11, 73.4% of the respondents disagreed that the medical workers attend to all patients at any time with a mean a rejection mean of 2.26 and 74.4% of the respondents disagreed with the statement that employees are fully motivated in terms of salaries, rent and many more with a rejection mean of 2.23.

#### 5.2 Conclusion

# 5.2.1 Determining the knowledge of expectant mothers on antenatal care and maternity services in Bukedea district.

Most of the indicators used to measure this objective revealed that expectant mothers have knowledge on antenatal care and maternity services in Bukedea as respondents agreed with most of the statements with a greater acceptance mean response except that most of them rejected that they do not receive enough health facilities when they go for antenatal care.

## 5.2.2 Establishing the accessibility of maternal health services by mothers in Bukedea district.

From the study, results show that most of the respondents agreed that maternal health services are accessible to mothers in Bukedea district except that most of the respondents revealed that it takes them long time to reach government health institutions and that the means of transport used are poor.

# 5.2.3 Establishing the availability of necessary equipments and logistics at Bukedea health center IV

Results show that respondents accepted to a greater extent that the necessary equipments and logistics are available at Bukedea health center IV except the nutritional supplements and that that the Caesarean section is well not equipped.

# 5.2.4 Establishing the availability of adequate human resource at Bukedea health Centre IV.

The findings show that that respondents moderately accepted that there is adequate human resource at Bukedea Health Centre IV whereas most of the employees rejected the statements that there are enough trained medical workers to provide antenatal services at Bukedea Health Centre, the medical workers attend to all patients at any time and also respondents rejected that employees are fully motivated in terms of salaries, rent and many others.

#### 5.3 Recommendations

# 5.3.1 Determining the knowledge of expectant mothers on antenatal care and maternity services in Bukedea district.

The government should make sure that it motivates the employees and provide all the necessary equipments in order to improve on the facilities given to mothers who go for antenatal care.

### 5.3.2 Establishing the accessibility of maternal health services by mothers in Bukedea district.

The government should extend health centers in most areas as respondents gave evidence that they travel long distances to reach the health centers and also the means of transport should be improved.

# 5.3.3 Establishing the availability of necessary equipments and logistics at Bukedea health center IV

The government should provide nutritional supplements as the findings gave evidence that they are not provided.

The government should equip the Caesarean section in order to reduce on maternal mortality rate.

### 5.3.4 Establishing the availability of adequate human resource at Bukedea health Centre IV.

The government should recruit enough trained medical workers to provide antenatal services at Bukedea Health Centre in order to reduce on the maternal mortality rate.

The government should formulate policies that can make sure that medical workers attend to all patients at any time.

The employees should be fully motivated in terms of salaries, rent and many more in order to boost their morale for working.

#### REFERENCES

Amnesty International. (2014). Struggle for Maternal Health, barriers to antenatal care in South Africa, P.10

Anna M van Eijk Hanneke M Bles, Frank Odhiambo, John G Ayisi, Ilse E Blokland, Daniel H Rosen, Kubaje Adazu, Laurence Slutsker and Kim A Lindblade (2006) Use of antenatal services and delivery care among women in rural western Kenya: a community based survey.

Bicego G, Curtis S, Raggers H, Kapiga S & Ngallaba S (1997) survey on adult and childhood mortality, Tanzania.

Bolam A, Manandhar DS, Shrestha P, Elis M, Malla K & Costello A (1998) Factors affecting home delivery in the Kathmandu Valley, Nepal

DeAllegri, M, Riddeb, V, Valérie, R. MalabikaSarkera, L, Tiendrebéogoc, J, et al, (2009), Determinants of utilization of maternal care services after the reduction of user fees: A case study from rural Burkina Faso.

Duong.V, D, Binns. C, W, Lee. H, A and. Hipgrave. B, D (2004), measuring client perceived quality of maternity services in rural Vietnam. *International Journal forQuality in Health Care*; Volume 16, Number 6: pp. 447–452

Gabrysch& Campbell (2009): The influence of distance and level of care on delivery place in rural Zambia.

Gabrysch, S. Cousens, S., Cox, J. and Campbell, O. (2011). Distance and quality of care strongly influence choice of delivery place in rural Zambia: A study linking national data in a Geographic Information System. *J Epidemiol Community Health*, 65, A42–A42.

Hogan MC, Foreman KJ, Naghavi M, Ahn SY, Wang M, Makela SM, et al. (2010). Maternal mortality for 181 countries, 1980–2008: a systematic analysis of progress towards Millennium Development Goal 5. Lancet; 375(May (9726)):1609–23.

Magoma, M., Requejo, J., Oona M.R, Simon, C, and Filippi,V ,(2010) High ANC coverage and low skilled attendance in a rural Tanzanian district: a case for implementing a birth plan intervention.

Mair, M, karinezuk, J, Brockleh .P, Stellers. S, Lewis, .G and Knight M (2015).Factors associated with maternal death from direct pregnancy complications, aUK National case control study.

Mandy Noonan (2013). Perceived challenges of using maternal health care services in Nigeria, department of Sociology, University of Ibadan, Nigeria (2013), Arts and Social science journal, VOL4, p.65.

Maternal Morbidity and Mortality in Uganda-MOH 2008 http://www.unicef.org/infobycountry/uganda\_statistics.html

Moore BM, Alex-Hart BA, George IO, (2011), Utilization of Health Care Services by Pregnant Mothers during Delivery: A community based study in Nigeria

Mrisho,M, Schellenberg, J.A, Mushi, A.K, Obrist, B., Mshinda, H., Tanner, M., and Schellenberg, D., (2007). Factors affecting home delivery in rural Tanzania

Sara Shankwaya,(2009), Study to explore barriers to utilization of maternal delivery services in Kazungula district in Zambia. Tanzania Demographic Health Survey, (2010).

Thaddeus, S. and Maine, D. (1994), "Too far to walk: maternal mortality in context", *Social Science and Medicine*, vol. 38, no. 8, pp. 1091-1110.

Urassa E, Lindmark G, Nystrom L (1995). Maternal Mortality in Dar-es Salaam, Tanzania: Socio-economic, obstetric history and accessibility of health care factors. Afr J Health Sci.; 2(1):242–9.

Wagle RR, Sabroe S & Nielsen BB (2004). Socioeconomic and physical distance to the maternity hospital as predictors for place of delivery: an observation study from Nepal. BMC Pregnancy and Childbirth 4, 8.

### APPENDEXES.

### APPENDIX I: WORK PLAN

ACTIVITY	April	May-July	Responsible Person
Proposal Writing			Researcher
Submission & approval of Proposal			Researcher & Supervisors
Seeking permission from DHO &			Researcher
local leaders			
Selection and Training of		***************************************	Researcher
Interviewers			
Data collection			Researcher & Supervisors
Data Entry			Researcher
Data Analysis		Ministration (Sec.)	Researcher & Supervisors
Report Writing			Researcher & Supervisors
Report Dissemination &			Researcher
Publication		6 (200) 2 (200) 6 (200) 2 (200)	

### APPENDIX II: BUDGET ESTIMATE

S/N	ITEMS	QTY	UNIT COST	FREQ	TOTAL
1	Stationeries				
A	Ream of papers	1	18,000	1	18,000
В	Pens	6	500	1	3,000
С	Note book	2	2,000	1	4,000
D	Flash disc	1	20,000	1	20,000
Е	Rewritable CD	2	2,000	1	4,000
	Sub-total				49,000
2	Secretarial services				
A	Typing	75	800	2	120,000
В	Photocopying	150	100	1	15,000
С	Printing	100	200	1	20,000
D	Binding	4	4000	1	16,000
	Sub-total				171,000
3	Research Assistants	2	50,000	5	500,000
4	Data Analyst	1	50,000	3	150,000
5	Communication	1	30,000	1	30,000
6	Transport	3 .	50,000	1	150,000
7	Contingency	1	100,000		100,000
	GRAND TOTAL				1,150,000

#### APPENDIX III. QUESTIONNAIRE

QUSTIONANAIRE FOR EXPECTANT MOTHERS ON FACTORS
CONTRIBUTING TO MATERNAL DEATH AT BUKEDEA HEALTH CENTER
IV IN BUKEDEA DISTRICT

#### INTRODUCTION

Damagnahia information

I greet you in Jesus' name; my name is Ijoot John Peter, am a student at Kampala International University carrying out a study on factors contributing to maternal death at Bukedea health Centre IV in Bukedea district. I kindly request you to share with me the information about barriers/ challenges you face in accessing maternal health services. The information you will give me shall be used to improve on the quality of service delivery in relation to maternal health care, as an attempt to reduce maternal death at Bukedea health center IV and particularly in Bukedea district

I will be grateful if you grant me part of your time and respond to the questions to be asked.

Everything you will say will be confidential, so feel free to express yourself

#### SECTION A

Demographic information	•
Serial number of the respondent	
VillageParish	Sub county
Please tick appropriately	
1. Marital status of the respondent	
a) Single	
b) Married	
c) Divorced	
d) Widowed	
e) Others specify	

2. Age of the respondent	
a) Below 17 year	
b) Between 18-25 years	
c) Between 26-33 years	
d) Between 34-45 years	
e) Above 45 years	
3. Education level of the respondent	
a) Primary level	
b) Secondary level	
c) Tertiary level	
d) University level	
e) None of the above	
4. Employment of the respondent	·
a) Farmer	
b) Teacher	
c) Doctor/Nurse	
d) Others specify	•••••
5. What is your monthly income?	
a) More than 90,000 Uganda shillings	
b) Between 60,000-90,000 Uganda shillings	
c) Between 30,000-60,000 Uganda shillings	
d) I ess than 30 000 Haanda shillings	

### SECTION B

Determining the knowledge of expectant mothers on antenatal care and maternity services in Bukedea district.

### Please tick appropriately

QN	Statements	Strongly	Disagree	Not	Agree	Strongly
		Disagree		Sure		Agree
1	I was referred to Bukedea health center IV					
	for antenatal care					
2	I have visited the health facility for	MARKET AND A STATE OF THE STATE	***************************************			
	Antenatal care of this pregnancy timely.		•			
3	I have received enough health facilities					
	while attending for antenatal care of this					
	pregnancy					
4	There was a complication detected during					
	antenatal care visit of this pregnancy	·				
5	The coverage time taken while waiting					
	for a medical staff to attend me when I					
	visited antenatal care clinic at Bukedea					
	H/C IV was short and I was given enough					
	time for attending to me					
6	On average, I was satisfied with maternal					
	health services I have been receiving at					
	Bukedea H/C IV					
7	There are barriers/ challenges that I faced					
	as I was access maternal health services					
	(antenatal care) at Bukedea H/C IV					

### SECTION C

Establishing the accessibility of maternal health services by mothers in Bukedea district.

### Please tick appropriately

Qn	Statements	Strongly	Disagree	Not	Agree	Strongly
		Disagree		Sure		Agree
1	I visited a government health facility					
1	1 visited a government nearth facility					
2	I visited a private health facility					
2	I visited a private hearth facility					
3	It takes me long to travel from home to the					
	government health facility?		•			
4	The means of transport used to go to the			••••••••••••••••••••••••••••••••••••••		
4	·					
	government health care facility are poor					
5	I visited a government health facility timely					
•	during my previous pregnancy					
6	my husband accompanied me to the health					
	facility during my previous pregnancy					
7	I received medical care during my previous					
	pregnancy at the government hospital or facility					
B8	I received all health services when you I					
	visited the health facility during my previous					
	pregnancy					THE STATE OF THE S
	I - G					

## APPENDIX IV: QUESTIONNAIRE FOR HEALTH WORKERS INTRODUCTION

I greet you in Jesus' name; my name is Ijoot John Peter, am a student at Kampala International University carrying out a study on factors contributing to maternal death at Bukedea health Centre IV in Bukedea district. I kindly request you to answer these few questions and your responses will be treated with utmost confidentiality.

Everything you will say will be confidential, so feel free to express yourself

# SECTION A: Establishing the availability of necessary equipments and logistics at Bukedea health center IV

#### Please tick appropriately

$\overline{QN}$	Statements	Strongly	Disagree	Not	Agree	Strongly
	•	Disagree	•	Sure		Agree
ī	Physical examination including blood					
L						
	pressure, weight, heart beat rate and many					
	more.					
?	Gynecological examination including urine					
	test	•				
;	Ultra sound					
	Blood test					
	Nutritional supplements					
	HIV/AIDS, STIs testing and screening etc					
	Caesarean section is well equipped					

# SECTION B:Establish the availability of adequate human resource at Bukedea health Centre IV.

### Please tick appropriately

n	Statements	Strongly	Disagree	Not Sure	Agree	Strongly
		Disagree				Agree
1	There are enough trained medical					
	workers to provide antenatal services at					
	Bukedea health centre IV					
2	The medical workers attend to all					
	patients at any time					
3	Medical workers are not corrupt		•			
1	Medical workers are fully sensitized					
;	Medical workers often get information					
	about antenatal care					
5	Medical workers often get information					
	and reports about maternal mortality rate					
7	Employees are fully motivated in terms					
	of salaries, rent and many more					

Thank you for your time

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