EXAMINING THE IMPLEMENTATION AND RELEVANCE OF THE SKILLED BIRTH ATTENDANCE POLICY TO PREGNANT WOMEN IN RURAL UGANDA: A CASE STUDY OF KIBUKU HEALTH CENTER IV, KIBUKU DISTRICT

JOAN RITAR KASIDI

RM19M07/007

A DISSERTATION SUBMITTED TO THE FACULTY OF SOCIAL SCIENCES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF RESEARCH AND PUBLIC POLICY OF UGANDA CHRISTIAN UNIVERSITY

April, 2024

UGANDA CHRISTIAN UNIVERSITY

A Centre of Excellence in the Heart of Africa

ABSTRACT

The Skilled Birth Attendance Policy is the main strategy being used to ensure a reduction in maternal mortality in Uganda for achieving SDG3. Despite the policy, maternal mortality rates remain high in Uganda. This study aimed at examining the implementation and relevance of the Skilled Birth Attendance Policy to pregnant women in rural Uganda. The study used qualitative and quantitative methods and analysed data using Stata 14. The findings revealed that Kibuku HCIV was not well equipped and pregnant women were also not well prepared for skilled birth attendance. Over 70% had not been informed about birth and complication preparedness by a health worker and only 39% had prepared for emergencies that could occur in the current pregnancy though 88% had a positive attitude towards skilled birth attendance. The study recommends that policy implementation reforms should be made to ensure the policy interventions benefit more women and reduce maternal mortality.

DECLARATION

I, **Joan Ritar Kasidi,** declare that this dissertation was my original work and has never been submitted to any other institution for any academic award before. Where the work of others is referred to, it has been duly acknowledged accordingly.

Student's Signature

Date

04/04/2024

APPROVAL

I acknowledge that this dissertation has been compiled under my supervision and is fit to be submitted to the faculty of Social Sciences to the best of my knowledge.

Name of Supervisor

Mrs. Kasabiiti Jennifer

Signature

Date:

04/04/2024

DEDICATION

To my mother Nakoire Gertrude, whose inspiration and encouraging words always ring in my ears as I reach for my dreams.

ACKNOWLEDGEMENTS

My gratitude goes to my supervisor Mrs. Kasabiiti Jennifer for the tireless support and guidance throughout this project.

Many thanks go to my friend Nagawa Rehema and the team which helped with data collection.

I acknowledge the staff of Kibuku HCIV and the study respondents for their participation and engagement in this research.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

OPERATIONAL DEFINITIONS

Antenatal care: Care for the fetus and woman during pregnancy

Complication preparedness: Readiness for rapid action in case of birth complication or pregnancy.

Emergency obstetric care (EmOC): Care given to women with pregnancy or birth complications that threaten the lives of the mother and baby.

Maternal Mortality: Means deaths resulting from complications at childbirth or pregnancy.

Neo-natal mortality: Refers to deaths of babies in the first 28 days of their lives.

Obstetric care: Is care and treatment provided by a trained healthcare provider to women during pregnancy, labour, delivery, and postpartum period.

Obstetric emergencies: Are health problems that are life threatening for pregnant women and their babies.

Postnatal care: Care given to babies after childbirth and extends up to two weeks.

Postpartum care: Care for the woman provided in the postpartum period, e.g., from complete delivery of the placenta to 42 days after delivery.

Referral hospital: A health facility with a range of obstetric services that include blood transfusion, care for newborns with problems surgery, and. See Table 1.

Skilled birth attendant: Refers to persons with skills in midwifery (for example, nurses, doctors, midwives,) trained to provide competent care during childbirth and pregnancy.

ABBREVIATIONS AND ACRONYMS

AHSPR	Annual Health Sector Performance Report
ANC	Ante Natal Care
EmOC	Emergency Obstetric Care
HC	Health Center
HSDP	Health Sector Development Plan
JHPIEGO	Johns Hopkins Program for International Education in Gynecology and Obstetrics.
MDG	Millennium Development Goals
MMR	Maternal Mortality Ratio
MoH	Ministry of Health
SBA	Skilled Birth Attendance
SBAP	Skilled Birth Attendance Policy
SDG	Sustainable Development Goals
UBOS	Uganda Bureau of Statistics
UDHS	Uganda Demographic and Health Survey
UNICEF	United Nations International Children's Emergency Fund
WHO	World Health Organization

CHAPTER ONE

1.0 INTRODUCTION

This chapter presents a clear understanding of the problem which was investigated. It begins by presenting the background of the study, then the statement of the problem, the study purpose and objectives, the research questions, scope of the study, the justification of the study, significance, theoretical and conceptual framework of the study.

1.1 Background of the Study

Maternal mortality is a major global public health challenge. Estimates were made by World Health Organization (WHO) that in 2017, 810 expectant mothers died daily from pregnancy and childbirth-related preventable causes with 94% of these deaths taking place in the Least Developed Countries (WHO, 2019). Mothers who reside in rural areas and developing nations experience higher rates of maternal mortality. In Sub-Saharan Africa, there are 533 mothers who die for every 100,000 live births, which is an elevated level of maternal mortality (UNICEF 2019). Majority of these maternal deaths occur due to avoidable causes such as complications from childbirth, severe bleeding, high blood pressure during pregnancy, infections during or after delivery, preexisting disease or condition intensified by the pregnancy effects, among other causes (WHO, 2019). Regardless of the time or location of the pregnancy, maternal mortality is defined by the WHO as "the death of a pregnant woman or the death that occurs within forty-two days after terminating a pregnancy, from a cause connected to or worsened by the pregnancies or the way it was managed but not from related or unintentional causes" (WHO, 2004).

Progress has been made toward reducing the maternal mortality ratio (MMR). The global MMR decreased by 44% between 1990 and 2015. In Uganda, between the period 1995 to 2015, MMR dropped from 684 to 343 deaths per 100,000 live births (WHO, 2015). As of 2017, the MMR in Uganda stood at 336 deaths for every 100,000 live births (Ministry of Health [MoH], 2017). Though this is a reduction in the MMR, it still stands as one of the highest in the world.

"To decrease the worldwide maternal death ratio to less than Seventy per every 100,000 live births through 2016 and 2030," is one of the Sustainable Development Goals' targets (United Nations, 2015). The Ministry of Health in Uganda places a high premium on maternal health. For the sake of sustainable development Goal 3 (SDG 3) by 2030, the Ministry of Health has placed

emphasis on skilled birth attendance because one of the indicators used to gauge progress toward SDG 3 is the percentage of births attended by qualified health personnel.

As a result, several policy documents of the ministry of health such as the "Reproductive, Maternal, Newborn, Child and Adolescent Health Sharpened Plan For Uganda 2016/17-2019-2020" and the "Health Sector Development Plan (HSDP) 2015/16-2019/20" highlight skilled birth attendance as a policy focus for decreasing maternal mortality. The percentage of health facility births is used as a performance indicator in the HSDP. Efforts have been made in ensuring that women access skilled attendance during birth and as a result, progress has been made 73% of births are delivered from a health facility an increase from 57% in 2011 (MoH AHSPR, 2017). The ministry of health stresses that every pregnant woman should give birth at a health facility where they can receive skilled assistance in the event of a complication because life-threatening complications occur in 15% of all pregnancies some of which are undetectable during prenatal care and can be fatal if not managed properly (MoH, 2006).

Skilled Birth Attendance (SBA) became a policy priority in Uganda from the early 2000s as part of the safe motherhood programs. When the proportion of births attended by skilled attendants was selected as one of the indicators to measure progress towards the MDGs, Uganda just like many other countries focused its attention on Skilled Birth Attendance as the main approach for curbing high maternal mortality rates. Consequentially reforms were made in the health sector that included improving infrastructure and construction of new health facilities, increasing staffing and training of staff, a strengthening the referral system, extension of comprehensive emergency obstetric care to HCIVs and basic emergency obstetric care to HCIIIs, decentralization, among others.

However even with these health system reforms, many women were not utilizing health facilities, because of low utilization of health facilities for maternal care, the focus of the skilled birth attendance policy has evolved to a comprehensive intervention approach to ensure more women deliver at the health facility, women reach the medical facility in time and also receive quality care at the facility. This approach involves the employment of both community-based programs such as empowering communities through national sensitization campaigns on risks of delivery by unskilled attendants, women empowerment, encouraging male involvement, sensitization and disseminating health education materials on birth readiness, preparedness for

emergencies and danger signs and facility-based programs such as antenatal care and revamping facility services to improve the quality of care and facility experience for expecting mothers.
These strategies have led to enhanced utilization of maternal health services. There has been an upsurge in antenatal care attendance in Uganda growing to 97.3% those attending one visit but it goes down to 59.9% for those going for four or more care visits (UBOS, 2017), there is also a notable increase in facility-based deliveries with 73% giving birth at health facilities (MoH AHSPR, 2017). However, ensuring skilled birth attendance is more than increasing coverage, the care given must be woman-focused and of high quality. Therefore, there is a critical need to assess the implementation of the SBA policy at a rural facility such as Kibuku HCIV and its contribution to pregnant women's access to and utilization of skilled birth attendance services, with the aim of identifying areas for improvement and enhancing maternal healthcare outcomes in rural Uganda.

Woman-focused care involves empowering women to take an active role in their healthcare decisions. This includes equipping them with knowledge and preparation so that they have control of the process. Birth and complication preparedness package is a critical component of the SBAP. Birth and complication preparedness is a WHO recommended strategy for boosting the use of skilled labor during birth and the prompt utilization of medical care for obstetric complications. Birth and complication preparedness is “the process of planning for normal birth and anticipated the actions necessary for an emergency” (JHPIEGO, 2004). According to WHO, 2006, everyone woman faces risk of unpredicted complications that can lead to death or injury hence, it is important for every pregnant woman and their families to prepare to act in time on any scenario that may arise during pregnancy, during delivery or immediately after birth. The relevance of the skilled birth attendance policy to pregnant women can be measured through their readiness for prompt action to get to an obstetric facility during labor or when an emergency occurs. This can be done by evaluating pregnant women’s knowledge of danger-signs, their preparedness for birth and delivery complications and their attitudes towards skilled birth attendance. These can hinder or motivate women towards timely use of birth-related skilled care thereby reducing incidences of preventable maternal mortality.

The following components make up the delivery and difficulties readiness plan for an expecting woman: "the selection of a birth attendant, the selection of the birth location, and if case of a

complication, financing of costs in relation to childbirth and in case of a difficult birth; an address of the hospital that is close to offering everything that is needed to ensure the functioning properly of the place of birth; an identified labor and delivery companion; other infants while the mother is giving birth (WHO, 2015). To be ready for complications, one must also have sufficient understanding of pregnancy danger symptoms and birth complications.

According to studies (Doctor et al., 2013; Kabakyenga et al., 2012), being aware of pregnancy danger signs and preparing for complications increases access to skilled birth attendance. This emphasizes the importance of the delivery and complication readiness to the efficacy of the SBA policy.

Studies in Uganda have also shown that many health facilities lack enabling environment and personnel to offer emergency obstetric care. (Wilunda et al., 2015; Mbonye et al., 2007) There is also a 36% gap in midwifery staffing nationally (UNFPA, 2017).

This study therefore aimed to address gaps in our understanding of how well the SBA policy is being put into practice in a rural setting exploring factors such as quality of care and overall policy applicability to a pregnant woman. The need for this assessment stems from the potential implications for the well-being of pregnant women and the overall success of maternal health initiatives in Uganda. The purpose of this study is to gather data that may be used in policy debates to improve the Skilled Birth Attendant Policy's efficiency and, as a result, reduce the maternal mortality rate in Uganda.

1.2 Statement of the problem

Maternal health is crucial to achieving sustainable development goal 3 but at 336 maternal fatalities for every 100,000 live births and 27 neonatal deaths for every 1000 live births (MoH 2017), Uganda still has a very high burden of maternal and new-born mortality. Complications during and following pregnancy and deliveries cause the death of women. Most of these maternal deaths can be avoided because there are well known medical solutions to prevent or manage complications. Therefore, it is crucial that a trained health professional attend every birth since prompt care and treatment can help prevent adverse pregnancy outcomes.

The three delays proposed by Thaddeus and Maine (1994) i.e. delay to decide to "seek medical assistance that is appropriately necessary for obstetric emergencies", delay to "reach an appropriate obstetric facility" and delay to "receive adequate care when a facility is reached" hinder women from receiving timely skilled care leading to maternal mortality. Ever since the early 2000s Uganda has been implementing the Skilled Birth Attendance Policy to decrease maternal mortality and has made some significant strides. This policy is aimed at ensuring all mothers deliver with the aid of a trained birth attendant. The policy proposes use of several strategies in order to eliminate the three delays such as health sector reforms to raise the quality of care, and health promotion such as national campaigns on risks of delivery by unskilled attendants, birth readiness initiatives, and emergency preparedness to increase timely access to skilled care.

The presence of quality obstetric care at a health facility is as important as the ability for the woman to reach that facility on time in achieving the purpose of the SBA Policy. Complications that cause maternal deaths can occur at any moment and without warning during pregnancy and childbirth and these complications necessitate immediate access to quality obstetric care and so since every expectant mother faces risk of developing complications related to pregnancy, they need to be prepared for prompt action to reach an obstetric facility in case of an emergency however lack of knowledge on danger signs, insufficient preparation for birth and complications have hindered many women from reaching the health facility in a timely manner. As a result, many women in Uganda still die of preventable causes relating to pregnancy and childbirth while others suffer long term effects of pregnancy complications.

The availability of a birth attendant that is skilled at birth helps the mother receive emergency obstetric care (EmOC) in a timely manner in case of a complication however EmOC services are dysfunctional in many health facilities as evidenced by a national survey conducted in 2006 which revealed that 97.2% of the medical facilities required to offer basic emergencies obstetric care were not offering them (Mbonye et al., 2007) a more recent study conducted in Karamoja region revealed that none of the health facilities met the criteria for basic emergency obstetric care (Wilunda et al., 2015). Lack of EmOC at health facilities expected to offer it implies the health facility is not prepared to manage complications and this challenges the concept of skilled birth attendance however a lot of progress has been made since 2006 and more recent studies

need to be conducted to explore in what way the Skilled Birth Attendance Policy is being implemented in health facilities.

In Uganda, maternal mortality remains unacceptably high at 336 maternal fatalities for every 100,000 (MoH 2017), reflecting challenges in accessing quality maternal healthcare services. Mothers in rural areas are even more disadvantaged; according to UNICEF data, only 44% of mothers from poor households have a skilled attendant during delivery as compared to 88% from the richest households and only 53% of births are attended by a skilled personnel in rural communities compared to 89% in towns (UNICEF, 2021). Despite the implementation of the Skilled Birth Attendance (SBA) policy aimed at improving maternal health outcomes, pregnant women in rural areas, such as those served by Kibuku Health Center IV, continue to face barriers to accessing skilled birth attendance services. These barriers contribute to a significant number of births occurring without skilled care, posing a high risk to both mothers and newborns.

Consequently, there is an urgent need to comprehensively assess the implementation, and relevance of the SBA policy to pregnant women in rural areas to address existing gaps that have disproportionately impacted women in rural communities. Understanding the level of policy implementation, its impact on pregnant women's health-seeking behaviors for childbirth, and identifying the barriers to accessing skilled birth attendance services are crucial steps toward improving maternal and neonatal health outcomes.

The findings of this study can inform policy and programmatic interventions aimed at enhancing the quality and accessibility of skilled birth attendance services in rural areas, thereby contributing to the reduction of maternal mortality and morbidity.

1.3 Purpose of the study

This study’s objective was to examine the Implementation of the Skilled Birth Attendance Policy and its relevance to Pregnant Women in Rural Uganda. The study seeks to examine various aspects of the policy implementation process, including the availability of necessary resources and infrastructure, emergency obstetric care services provided, the level of preparedness, understanding and perceptions among pregnant women regarding skilled birth attendance, and any barriers or challenges encountered in implementation. Ultimately, the study intends to

identify areas for improvement and inform strategies to enhance the effectiveness of the policy in promoting safe childbirth and reducing maternal mortality in rural Uganda.

Specific objectives

1. To highlight the skilled birth attendance policy interventions implemented at Kibuku HCIV among pregnant women.
2. To assess the preparedness of pregnant women at Kibuku HCIV for skilled birth attendance
3. To explore pregnant women's perceptions towards skilled birth attendance at Kibuku HCIV
4. To examine the challenges in implementing the skilled birth attendance policy at Kibuku HCIV.

1.4 Research Questions

1. What specific interventions have been implemented at Kibuku HCIV under the Skilled Birth Attendance Policy to support pregnant women during the obstetric period?
2. How well prepared are pregnant women attending Kibuku HCIV for skilled birth attendance, considering factors such as knowledge, access to resources, and birth preparedness?
3. What are the attitudes, beliefs and preferences of pregnant women towards SBA at Kibuku HCIV and how do these perceptions influence their decision making regarding childbirth?
4. What are the main challenges encountered by healthcare facilities in rural Uganda, such as Kibuku HCIV in implementing the SBA policy?

1.5 Scope of the Study

The research was carried out at Kibuku health centre IV in Kibuku district which lies in the Eastern region of Uganda.

Pregnant women receiving prenatal care at Kibuku Health Center IV participated in the study. A descriptive cross-sectional study that combined qualitative and quantitative approaches was used. The study sample included women receiving antenatal care at Kibuku HC IV at the time of data gathering and health professionals at the facility.

The research's focus was on pregnant women's preparedness for skilled birth attendance and of the facility to offer skilled birth attendance. The researcher was interested in this aspect because of its significant contribution to the success of the Skilled Birth Attendance Policy.

The study was limited to one health facility in the district. The exploration of the term complication preparedness in this study was limited to pregnancy and birth complications.

1.6 Justification of the study

Achieving skilled birth attendance for all women in Uganda will greatly help reduce maternal mortality and hence achieve SDG 3 by 2030. Uganda still falls far below its set targets for births attended by a birth attendant that is skilled. The implementation of the SBA policy includes both health system interventions such as availability of trained staff and equipment, referral systems, and individual interventions such as sensitization on preparedness of birth and readiness for a complication (BPCR). The concept of birth and complication preparedness is crucial in the adoption of the policy for Skilled Birth Attendance (as it helps in reducing the three delays in accessing skilled care which often lead to maternal mortality). Even though one measure of progress in reducing maternal mortality is the percentage of deliveries attended by skilled personnel, Uganda is still below its targets for SBA with rural Uganda and poor households having the lowest percentages of births attended by a skilled staff. Few studies in the recent years have been conducted on skilled birth attendance let alone the policy's significant impact on the timely use of women's skilled care during the birth of a child. Examining the policy's applicability to expectant mothers and the healthcare facility is necessary given the strong correlation between SBA and achieving SDG 3. Therefore, this study was justified as it would help identify gaps at the health facility and among pregnant women regarding policy implementation and hence provide data for improving the execution of the Skilled Birth Attendance Policy in Uganda.

1.7 Significance of the study

The UDHS 2016 estimated that approximately 15 women die every day in Uganda because of complications related to pregnancy. Since most of these complications can be managed or prevented, every woman needs access to high standard of care during pregnancy, childbirth, and postpartum period. Prioritizing policies such as the Skilled Birth Attendance Policy is critical in reducing maternal mortality in Uganda. Complication preparedness is an important aspect of the

Skilled Birth Attendance Policy as it helps to minimize delays in accessing appropriate health care. This study was aimed at providing information on preparedness for skilled care at birth in rural areas which would help contribute to policy discussions on the strategies for implementation of the skilled birth attendance policy.

1.8 Theoretical Framework

Two theories that explain behaviour of individuals were used in this study. The Theory of Planned Behavior which was developed by Icek Azjen proposes that one's attitudes towards a particular behavior (personal attitudes), how an individual views other people's ideas about a behaviour (subjective norms); and the extent to which an individual believes they can control behavior (Perceived behavioural control), can predict subsequent behavior and influence intentions to engage in a behavior (Azjen, 1991). This theory was used to frame arguments on skilled birth attendance and the perception of pregnant women towards complication preparedness.

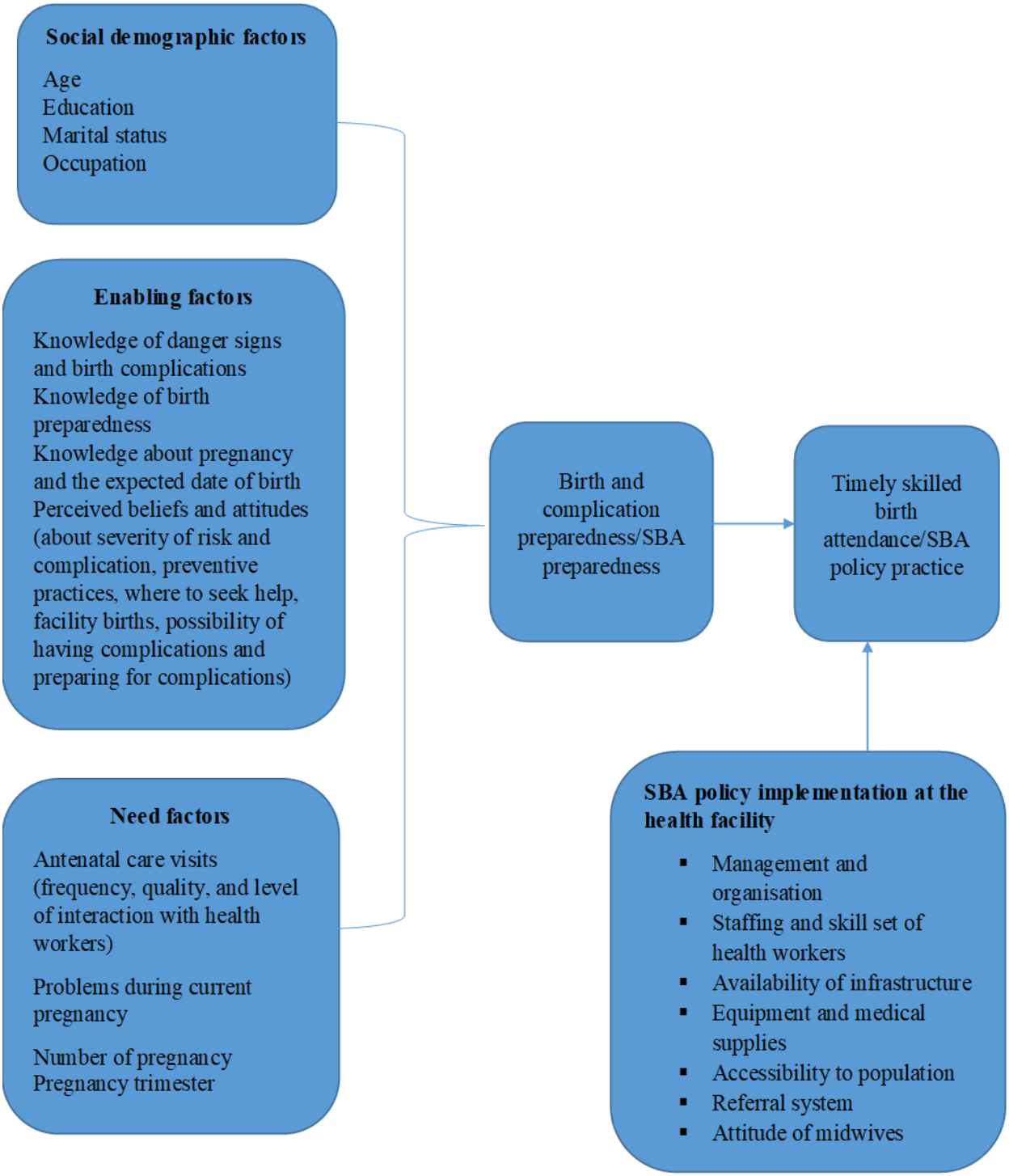
A health belief model which was developed by US psychologists in the 1950s was used. This model suggests that "an individual who perceives a given problem of health seriously is more likely to engage in a behavior that prevents the problem of health from its occurrence" (Perceived severity), and "an individual who perceives that s/he is susceptible to particular problems of health will engage in a behavior that reduces his/her risk of developing the problems of health" (Perceived susceptibility). "Individual' assessment of an obstacle to a change in behavior" such as cost, inconvenience, or side effects (Perceived barriers), "Individual traits which includes psychosocial, demographic, and structural variables may influence perceptions" (Modifying variables), "exposure to factors that prompt action" (Cues to action), and "individual' evaluation of the efficacy or value of participating in a health-promotional behavior to decrease the disease risk" - Percieved-Self-efficacy (Urich, 2022). For example if individuals perceive the severity of obstetric complications such as a woman and or the baby can die due to these complications, perceive that obstetric problems can affect any pregnant woman and realize the benefits of prompt action to seek care in case of an emergency and the potential obstacles to reach the facility in time like transport; these will determine if they put in place a complication preparedness plan to minimize delays brought on when women experience obstetric

complications. The relevance of the SBA policy to pregnant women can be understood through what is implemented to ensure mothers' perceptions about severity, susceptibility, benefit, barriers, and others drive them to engage in health seeking behavior that promotes skilled birth attendance, this was explored through the objectives of this study.

1.9 Conceptual Framework

Figure 1: Conceptual framework

(Modified from Kebede, A., et al (2016)



CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

Maternal deaths are caused because of complications during pregnancy, delivery, or postpartum period. The primary direct obstetric problems that result in maternal mortality in Uganda are hypertensive disorders, obstructed labor, hemorrhage, infection, and unsafe abortion. (MoH, 2006). Most of these complications are manageable if attended to early however majority of the maternal deaths are linked to the following three delays that were proposed by Thaddeus and Maine (1994).

1) Delay in deciding to seek out care. Having insufficient information about danger signs throughout pregnancy, a lack of a birth and complications readiness plan, and attitudes and perceptions that discourage women from seeking care are all major contributing factors to this delay. i.e., about the severity of the complication, women's lack of decision-making authority, lack of spousal and family support all contribute to this delay. (MoH, 2006; Serbanescu et al., 2019)
2) Delay in getting to an obstetric emergency care center. This is related to access to an obstetric facility such as lack of timely and efficient means of transport, lengthy distances to the facility, poor roads, poor communication, lack of knowledge of the nearest obstetric facility and inadequate support by the community. Having a complication preparedness plan can help brainstorm some of these issues and devise alternatives in time.
3) Delay in receiving quality obstetric treatment when a facility is reached. This is mostly related to lack of adequate skilled attendants, equipment, drugs and supplies and inadequate referral system at the health facility. Health facility readiness to respond to obstetric crises is critical in saving lives of mother and or baby.

The result of these three delays is often delivery without skilled attendance which increases the risk of deaths in case of a complication. Literature has shown that having knowledge of danger signs of pregnancy, birth and after delivery, awareness of the advantages of having a skilled attendant during delivery and a birth and complication preparedness plan increases women's utilization of skilled care at birth. Although literature covers a wide variety of strategies implemented in the SBA policy, this review focused on complication preparedness.

Complication preparedness refers to the readiness for rapid action in an event of a pregnancy or birth complication and this increases timely access to skilled attendance during birth which is the purpose of the policy. In this study the researcher assessed the status of complication preparedness of pregnant women and of the facility, the perceptions that influence their level of preparedness and how the policy on skilled birth attendance has impacted the status of complication preparedness.

The review therefore explored literature on Skilled Birth Attendance Policy, health facility complication preparedness, pregnant women complication preparedness and their perceptions on skilled birth attendance and complication preparedness.

2.2.1 Skilled Birth Attendance Policy

Skilled birth attendance (SBA) is widely recommended as a strategy to reduce maternal mortality, according to WHO, if women had access to a skilled delivery attendant, most obstetric problems could be avoided or treated. (WHO, 2019). One of the indicators chosen to gauge progress toward MDGs by 2015 was the percentage of births attended by qualified personnel and the same is now used to measure progress towards SDG 3 by 2030. Several studies show a correlation between an increase in the delivery proportions attended to by birth attendants that are trained with a decline in maternal mortality. (Graham, Bell & Bullough, 2000; Girum & Wasie, 2017; Prata et al 2011) This means having a skilled attendant present at delivery is critical in reducing maternal mortality.

In 2018, a combined statement by the International Conference of Midwives (ICM), the World Health Organization (WHO), the International Federation of Gynecology and Obstetrics (FIGO), the United Nations Population Fund (UNFPA), the International Council of Nurses (ICN), the United Nations Children's Fund (UNICEF) and the International Pediatric Association (IPA)" defined a Skilled Birth Attendant as.

> a "competent maternal and new-born health professional educated, trained and regulated to national and international standards".

The statement further goes on to say that personnel must be competent to provide intrapartum care which means they can.

> "provide and promote dignified care to women and new-borns, evidence-based human-rights, sociocultural sensitive, quality, and facilitate physiological processes during labour and delivery to ensure a clean and positive childbirth experience, identify and manage or refer women and/or new-borns with complications, perform (as part of a team) all signal functions of emergency maternal and new-born care (basic emergency obstetric and new-born care – BEmONC; comprehensive emergency obstetric and new-born care – CEmONC) to optimize their health and well-being". This should be supported by "appropriate standards of practice (education, training, and regulation), and operates within an enabling environment (a well-functioning health system)" (WHO, 2018)

To increase accessibility to skilled attendance at birth, several low-income and middle-income nations adopted several strategies i.e., some countries adopted community-based approaches like use of community midwives in Indonesia (Darmstadt et al., 2009) and use of community health workers in Ethiopia. While countries like India implemented a strategy using the private-public partnerships to provide healthcare in rural areas (Krupp & Madhavaram, 2009). Other countries like Uganda opted for strategies to increase access to emergency obstetric care through infrastructural expansion of health services and skills training of a health professionals.

In Uganda, the Skilled Birth Attendance Policy (SBAP) first appeared because of global, regional, and national influences specifically the late 1980s Safe Motherhood movement. At first, focus was put on training both traditional birth attendants as those were preferred by many women in rural areas and health workers in handling safe deliveries however reviews showed that traditional birth attendants weren't effective in reducing maternal mortality as they couldn't handle complications and so the focus shifted to ensuring women have access to skilled birth attendants. The United Nations adopted the 5th MDG in 2000 to "improve maternal health" which pushed skilled birth attendance on the policy agendas of many countries including Uganda.

The use of percentage of births attended by trained health personnel as an indicator for reduction in maternal mortality helped focus many governments' attention on skilled birth attendance as the major strategy for curbing high rates of maternal mortality. This strategy was first adopted at

a policy level in Uganda in the Health Sector Strategic Plan 2000/1–2004/2005. As seen in later Health Sector Strategic Plans and other health policy documents from the Ministry of Health in Uganda, such as the Health Care Sector Growth Plan, the Map to Action for the Increased decreases in Neonatal and Maternal Mortality and Morbidity in Uganda 2007-2015, and the Reproduction Maternal, the infant and Infant Health Sharpened Plan for Uganda 2013, this strategy persists to be a policy focus for reducing maternal and neonatal mortality.

As a result, there has been progress in ensuring that women deliver by a skilled attendant in Uganda. Seven out of ten women deliver their babies with the help of a trained delivery attendant. Notably there are discrepancies between urban and rural areas with 70% rural women receiving skilled birth attendance in comparison to 89.6% urban women (UDHS, 2016). This still falls below the ministry of health's targets.

A skilled birth attendant working together within an enabling environment of supplies, equipment drugs, and transportation for referral constitutes skilled birth attendance (Adegoke et al., 2011; Graham et al., 2000). Uganda uses the proportion of health facility births as an indicator for skilled birth attendance. There has been a general increase in facility births over the years however a decline in health facility births was recorded in the financial year 2019/2020 i.e., from 62% in 2018/2019 to 59% in 2019/2020 and this was far below the HSDP target of 89% by 2019/2020 (MoH, 2020). Even with the policy being implemented, targets are not being met hence a lot more needs to be done to ensure more women are utilizing health facilities for birth. Not only that but also ensuring there is an enabling environment at the facilities to constitute skilled birth attendance. Studies in Uganda have shown that many health facilities lack enabling environment and personnel to offer emergency obstetric care. (Wilunda et al., 2015; Mbonye et al., 2007) There is also a 36% gap in midwifery staffing nationally (UNFPA, 2017)

In the absence of an enabling environment and/or personnel to offer emergency obstetric care, pregnancy and birth complications can result into maternal death. Under objective one and four of this study, the research will explore the health facilities' implementation of the SBA policy and the challenges faced in doing so. This will help the researcher to concur or disagree with the previous done studies in other areas regarding the availability of a supportive environment at the facility for offering skilled birth attendance.

2.2.2 Skilled birth attendance policy and complication preparedness.

Birth and complication preparedness is designed to boost Skilled Birth Attendance (SBA) by reducing the three delays that often hinder pregnant women from using maternal health services in a timely manner. There is a significant relationship between a woman's preparedness for birth and complications and utilization of SBA. Complication preparedness is important to the implementation of the SBA policy for its significant impact on the usage of skilled birth attendance. As detailed later in this review, complication preparedness helps pregnant women take swift action to reach an obstetric facility in case of a pregnancy emergency. It is hence an important aspect in achieving the targets for women delivering with the aid of a trained birth attendant. The policy employs several strategies to increase the proportion of women receiving skilled attendance at birth and one of them is through delivering a birth and complication preparedness package to pregnant women. However how the policy has affected the status of complication preparedness especially in its implementation is not well documented.

A study conducted in Ethiopia revealed that birth preparedness was found to be one of the predicators of skilled birth attendance (Yohannes, Fasil & Chernet, 2016) another study conducted in Nigeria also revealed a significant link between SBA and birth and complication preparedness (Olowokere et al., 2020). For a pregnant woman, their level of preparedness for birth and complications has an influence on their choice of place to give birth and hence the elements of birth and complication readiness were used in this study to assess the level of preparedness for skilled birth attendance among expectant mothers attending antenatal care at Kibuku HCIV which the researcher studied in objective two of this study.

2.3 Complication Preparedness among Pregnant Women

Strengthening health systems is essential but inadequate in reducing MMR as there are other factors in rural population like poverty, great distance to facilities and inadequate transportation hence serious complications often result in the death of a mother and/or the newborn (Prata et al., 2011). Pregnancy and childbirth complications often result in urgent situations with a limited window of opportunity for intervention (Lassi et al., 2016). Therefore, it is necessary to close the gap that results in the decision to pursue appropriate care for a maternity emergencies and a

holdup in reaching a suitable obstetric facility, two of the three delays noted by Thaddeus and Maine (1994). Preparing for birth and its complications can help minimize delays that occur when mothers experience pregnancy-related complications.

Complication preparedness is the process of forecasting and planning out the necessary procedures required in the event of a pregnancy emergency. It goes hand in hand with birth preparedness which is the act of making plans for a normal birth. The application of these terms varies but both the WHO and JHPIEGO include the following elements in the standard elements of birth and complication preparedness.

1. "Finding help to watch over the residence as well as the kids while the mother is away."
2. "Making financial arrangements for any birth-related costs as well as in the event of complications."
3. "Scheduling transport to the hospital for delivery or in the event of a complication."
4. In an emergency, locating appropriate blood donors is number four.
5. “Identifying a labor and birth companion.”
6. “Obtaining basic safe birth supplies.”
7. “Knowing the location of the nearest skilled provider.”
8. “Choosing a birth location and provider.”
9. “Knowing the key danger signs.” (WHO, 2015; JHPIEGO, 2004)

All the elements listed above can play a vital role in minimizing delays in seeking and reaching required care.

Birth and complication preparedness is part of the universally accepted safe motherhood programs and endorsed by Uganda’s ministry of health as a strategy to increase utilization of SBA. It is part of the antennal care package given to pregnant women. Uganda has registered an increase in antenatal care attendance as reported by UDHS (2016) which in theory would signify an increased awareness of complication preparedness among pregnant women.

The implementation of the SBA policy includes both health system reforms and individual level reforms among pregnant women. Having a birth and complication preparedness plan is one of the individual level efforts made to prepare women for skilled attendance at birth. Even though

birth and complication preparedness awareness is expected to be delivered during antenatal care visits, few studies have been undertaken in Uganda to assess the knowledge and level of complication preparedness among women attending antennal care and so the researcher aimed at finding this out. That helped the researcher understand the level of preparedness among pregnant women for delivery with a skilled birth attendant as is objective two of this study.

Studies conducted in several developing countries have publicized that most pregnant women lack knowledge of danger signs and are unprepared for delivery and its complications. Pregnant women in Ethiopia had very little awareness about birth preparation and complication readiness, according to a systematic review and meta-analysis study conducted there which revealed that only 26% of expectant mothers knew of the pregnancy danger signs and only 32% were ready for birth and its associated problems (Berhe et al., 2018).

Similarly, studies conducted elsewhere have also showed lack of birth and complication preparedness among pregnant women. A study done among antennal care attendees in Kenya showed that only 6.9% were aware of three or more warning signs and majority of the participants had no definite plan on what to do in case of an obstetric emergency (Mutiso, Qureshi & Kinuthia, 2008). According to research on birth preparedness and complication readiness carried out in southern Ethiopia, only 17% of pregnant women were adequately prepared (Hailu et al., 2011). Only 6% of participants in a study carried out in Rwanda could name three or more critical danger signs throughout pregnancy, delivery, and postpartum (Smeele et al., 2018). Studies conducted in Tanzania, Nepal and India all revealed that women had limited awareness of key danger signs and that women were not adequately prepared. (Mwilike et al., 2018; Hari, et al., 2015; Acharya et al., 2015). All these studies show less than 50% of the respondents were well prepared.

However other studies have reported slightly higher percentages of above 50% for instance a study done in Northwestern Ethiopia reported that 55% of those surveyed were aware of overall danger signs during pregnancy, birth and after birth (Zerfu, Tewodros & Hinsermu, 2014) and in Tanzania a study reported that 58% of the respondents were prepared for birth and its complications (Bintabara et al., 2015). Though the percentages in these studies are higher they

are still inadequate and show many pregnant women don't plan for delivery and associated complications which increases the risk of maternal death.

Not very many studies have been conducted in Uganda on birth and complication preparedness however the few which have been done do not differ very much from the studies carried out in other countries. A study done in western Uganda in 2011 revealed that only 35% of the women were birth prepared with only 19% were knowledgeable in 3 or more danger signs of pregnancy, birth and post-delivery (Kabakyenga et al., 2011). These results do not differ very much from other studies conducted in western Uganda which similarly reported low percentages in birth and complication preparedness (Kabakyenga et al., 2012; Gustav et al., 2014). The researcher conducted research in Eastern Uganda to compare with the results from these studies done in western Uganda.

A study done in eastern Uganda publicized that of the respondents interviewed, only 25% had taken all the actions in preparing for birth (Timsa et al., 2015) however this study only considered three elements of the birth and complication preparedness which included; "chosen where to deliver from, saved money for transport and hospital costs and bought key birth materials" while this research looked at six elements of complication preparedness that is; knowledge of danger signs, saved funds for emergencies, located a facility closest for birth and in the event of a complication, identified a labor companion, made adequate arrangements for transport should an emergency occur, and identified a compatible blood donor.

In the previous studies done, vaginal bleeding was the most frequently cited key danger indicator of obstetric problems (Zerfu et al., 2014; Masudio et al., 2019; Smeele et al., 2018). And some studies have identified lack of transport arrangement and blood donor as the common lacking elements in birth and complication preparedness (Hailu et al., 2011; Agarwal et al., 2010; Berhe et al., 2018 Masudio et al., 2019)

A competent delivery assistant was listed by the majority of respondents in certain surveys to be one of the components of delivery and problem readiness (Agarwal et al., 2010, Masudio et al., 2019; Acharya et al., 2015). Other studies showed that majority of participants had not identified a skilled birth attendant (Hailu et al., 2011; Berhe et al., 2018; Smeele et al., 2018). Most studies reviewed showed that saving money was the most common practice of birth and complication

readiness (Kabakyenga et al., 2011; Agarwal et al., 2010; Berhe et al., 2018; Smeele et al., 2018) however another study completely differs from this as it reported none of the respondents knew saving money for emergencies as an essential requirement for birth preparedness (Okello, 2019). The researcher carried out research on the birth and complication preparedness of pregnant women in Kibuku district and compare the findings with the results from these previously done studies elsewhere.

This literature therefore leads the researcher to assume that majority of pregnant women are not well prepared for SBA which would affect the implementation of the SBA policy. The researcher set to prove or disprove this assumption through conducting this research under objective two.

2.4 Implementation of Skilled Birth Attendance Policy (SBAP) at the health facility level.

The goal of the SBAP is to ensure that a trained birth attendant is present for each delivery. The number of facility births is used to inform the progress towards achieving skilled birth attendance for all in Uganda hence the health facility's preparedness for swift action in case of an obstetric emergency is crucial to the reduction of maternal mortality.

Several efforts have been put in improving the availability and accessibility to quality care for pregnant women. Wider reforms in the health sector led to the enhancement in the quality of care, these reforms included decentralization i.e. the mandate for policy implementation moved from the ministry of health to the district and local authorities, renovation and expansion of health centers such as surgical theaters and maternity units were constructed, new health facilities were constructed and services extended closure to the people, staffing was increased at the health centers i.e. the number of doctors and nurses with midwifery skills increased and all nurses started receiving midwifery training, comprehensive emergency obstetric care was extended to level IV health centers while health center IIIs were to provide basic emergency obstetric care and inpatient maternal care, health center IIs were to provide outpatient maternal health care while level 1 were to offer birth preparedness and complication readiness.

These reforms greatly shaped the implementation of the SBA policy as the quality of care improved and more people were able to access skilled attendance at birth. The table below shows an overview of the health system in Uganda and what services are provided at what levels of the health care facility.

Table 1: Overview of the health system in Uganda

Health Facility	Roles	Obstetric services
Regional and National Referral hospitals	Provide comprehensive specialist services, conduct research and training of health workers. Provide all other services as district level hospital. Target population two million people	Maternity and Newborn care Comprehensive emergency obstetric and new born care
District (General) Hospitals	Provide curative, preventive, maternity, outpatient and inpatient services. Provide blood transfusion, medical imaging and laboratory services. Provide in service training, support community based programs through consultation and research. Target population 500,000 people	Maternity and Newborn care Comprehensive emergency obstetric and new born care
Health Centre IV (HCIV)	Provide curative, preventive, maternity, outpatient and inpatient services. Supervise, coordinate and plan for health center levels III and II. Target population 100,000 people.	Maternity and Newborn care Comprehensive emergency obstetric and new born care
Health Centre III (HCIII)	Provide basic preventive, promotive and curative care as well as basic obstetric care. Support supervision of community and health center level II. Target population 20,000 people.	Maternity and Newborn care Basic emergency obstetric and new born care
Health Centre II (HCII)	Provide outpatient care including antenatal care, preventive care and link with the community and village health teams. Target population 5000 people	Antenatal care including PMTC/IPT
Health Centre I (HCI)	Provide basic health promotion, preventive and curative services for malaria, pneumonia, and diarrhea by community and village health teams. Target population 1,000 people	Birth preparedness and complication readiness

Modified from *Munabi-Babigumira et al 2019 and Sensalire S et al 2019.*

As a result of these reforms, accessibility to maternal health care improved in many areas which has made a significant contribution to the decrease in maternal mortality in Uganda.

However, a lot remains to be desired, maternal mortality rates are still undesirably high in Uganda and this is largely due to poor maternal health services especially in rural areas. Access to high standard emergency obstetric care is crucial in reducing maternal mortality and yet lacking in most health facilities in Uganda. Several studies done in Uganda have revealed this; a 2006 national survey revealed that most health facilities that were supposed to provide basic EmOC services were not offering them (Mbonye et al., 2007), a ministry of health document recorded that "in most HC IVs, the theatres are either non-existent or non-functional due to lack

of equipment, staff and/or staff housing, hence intended basic surgery e.g. caesarean section is not carried out to those in need" (MoH, 2006). That agrees with a study conducted in Karamoja region that showed gaps in the availability of vital infrastructure, drugs, equipment, supplies, and staff for maternal and newborn care and that none of the medical facilities studied met the standards for basic EmOC (Wilunda et al., 2015) All these studies point to poor implementation of the SBAP at the health facility level and a lack of preparedness by health facilities to handle pregnancy and birth complications and though Eastern Uganda presents some of Uganda's highest maternal death rates, there is limited research on how health facilities in the region are implementing the SBAP hence the need for the researcher to highlight the skilled birth attendance policy interventions implemented at Kibuku HCIV and also examine the challenges in implementing the skilled birth attendance policy as is objective one and four of this study.

Human resource, infrastructure, equipment and supplies and good referral systems are some of the indicators of a well-prepared facility to provide EmOC. Two studies conducted in East African countries revealed that shortage of skilled staff, poor infrastructure, poor referral systems, inadequate supplies i.e., medicines and essential equipment, poor work environment and staff morale as well as a poor management system are all barriers to provision of EmOC. (Chi et al., 2015; Pearson &Shoo, 2005). A facility designed to offer emergency obstetric care (EmOC) such as Kibuku HCIV should be capable of performing the signal functions listed in table 2 below. EmOC signal functions are "key medical interventions that are used to treat the direct obstetric complications that cause most maternal deaths around the globe. The signal functions are indicators of the level of care being provided" (WHO, UNFPA, UNICEF & AMDD, 2009)

The availability and performance of these signal functions will be used to assess the preparedness of the facility under study to provide EmOC services as one of the major implementation strategies for the SBA policy.

Table 2: Signal functions used to identify basic and comprehensive emergency obstetric care services.

Basic services	Comprehensive services
(1) Administer parenteral antibiotics	**Perform signal functions 1–7, plus:**
(2) Administer uterotonic drugs (i.e., parenteral oxytocin)	(8) Perform surgery (e.g., caesarean section)
(3) Administer parenteral anticonvulsants for preeclampsia and eclampsia (i.e., magnesium sulfate)	(9) Perform blood transfusion
(4) Manually remove the placenta	
(5) Remove retained products (e.g. manual vacuum extraction, dilation and curettage	
6) Perform assisted vaginal delivery (e.g. vacuum extraction, forceps delivery)	
(7) Perform basic neonatal resuscitation (e.g., with bag and mask)	
A basic emergency obstetric care facility is one in which all functions 1–7 are performed. A comprehensive emergency obstetric care facility is one in which all functions 1–9 are performed.	

From WHO, UNFPA, UNICEF & AMDD *(2009) Pg 7*

A gap in using these signal functions in measuring preparedness of health facilities is that it doesn't put in consideration a number of factors such health centers may not be open 24hours, always have trained staff on duty or adequate capacity to deal with EmOC cases (Thwala, Blaauw,& Ssengooba, 2018) hence in addition to looking at the signal functions, the researcher explored information on the facility working hours, sufficient skilled staff, work load, electricity and water supply, inpatient wards and availability of a motorized functioning ambulance and communication system.

2.5 Perceptions on Skilled Birth Attendance (SBA) and Complication Preparedness

Perceptions are affected by several factors including past experiences, education, values, cultural beliefs, preconceived notions, and present circumstances. According to the Health Belief Model developed by US psychologists in the 1950s, "perceived benefits of action and barriers to action, people's beliefs about health problems, and lack of engagement in health-promoting behavior or self-efficacy explain engagement".

Pregnant women's perceptions about SBA and complication preparedness contributes to their intention to prepare for emergencies and delivery with the help of a trained personnel. The researcher explored perceptions of pregnant women towards SBA to understand their reasons for intention to participate or lack of participation in delivering at the health facility. Some women have intention to deliver at the facility, but it is not followed through due to the delays caused by lack of birth and complication preparedness plan hence their perception of birth and complication preparedness also greatly influences timely use of skilled care at birth.

Previous studies have reported that participants had positive perceptions towards birth preparedness and complication readiness.

A study done in Nigeria revealed that majority of respondents recognized the need for an expectant mother and her family to observe the several practices for preparing for birth and complications (Yunusa et al., 2017) Another study done in Nigeria showed that 94% of respondents had a favorable attitude towards preparing for complications and birth and were well-prepared concerning intended and actual birth plans (Obi, Okojje & Keshi, 2016).

Similarly, a study conducted in Tanzania among community members revealed that community members articulated a perceived need to prepare for childbirth (August et al., 2015). Other studies conducted also showed that perception towards birth preparedness and complication readiness and skilled birth attendance was good (Saidu et al., 2019; Ogboghodo et al., 2018). Similar findings were obtained from a survey conducted in western Uganda, where many respondents were observed to have a favorable attitude toward birth preparation however, this study also revealed that 87% of respondents had a negative perception towards blood donor identification as a component of birth and complication preparedness (Okello, 2019)

However, some studies do not agree with the above studies as they have reported poor perceptions towards birth preparedness and complication readiness. One study showed that some women do not make plans for birth and its complications because they believe making plans could bring bad luck and assume that transportation will be available by either a member of the family or neighbor when needed hence no need to plan for transportation in advance. (Choudhury & Ahmed, 2011)

According to a systematic review, some studies indicated that women perceived giving birth as a normal occurring event that can be carried out successfully at home, and thus this frequently diminished the need to make facility birth plans. It also reported beliefs such as "pregnancy outcomes are predetermined and 'in God's hands', therefore there was no perceived need to be prepared for birth" (Miltenburg et al., 2017)

In a qualitative study done in Tanzania participants preferred health facility delivery to home delivery because delivering at home was associated with some complications however it was also reported that "although facility delivery is preferred, the intention to do so is not always followed" (August et al., 2015). A study done in Gambia reported that 83% of pregnant women preferred a health professional attending their birth, however over 70% of the respondents' childbirths were attended to by a traditional birth attendant even though only 27% of women intended to give birth from home. (Lerberg et al., 2014).

Following through with the intention to give birth at the facility can be hindered by perceptions such as women believing that disclosing childbirth labour to the nearest person prematurely would prolong the progress of labour (Sumankuuro et al., 2019) and women's knowledge of their estimated due date of birth may prevent timely facility delivery preparations (Miltenburg et al., 2017). Such beliefs and perceptions can hinder women from engaging in SBA which increases risk of maternal mortality in case of a complication.

This led the researcher to find out the perceptions of pregnant women towards SBA and complication preparedness in rural Uganda.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Introduction

This chapter presents the methodology which was used in the study. In this study, methodology referred to the roadmap that guided the researcher in accomplishing the research activities. Presented in this chapter is the study design, area of study, information sources, population, sampling techniques, variables and indicators, procedures for data collection, data collection instruments, quality/error control procedure, strategy for data processing and analysis, anticipated methodological constraints and ethical considerations in the study.

3.2 Study design

A descriptive cross-sectional design was used employing a mixed methods study with quantitative data collected using questionnaires and analyzed using stata 14 and qualitative data collected using in-depth interviews and analyzed using thematic analysis.

3.3 Area of study

The research was conducted in Kibuku district which is situated in the Eastern region of Uganda with predominant tribe of Bagwere. It is bordered by the districts of Budaka to the east, Namutumba to the west, Pallisa to the north, and Butaleja to the south. The district is mainly an agricultural area with majority of the population practicing subsistence farming. It has a total population of 202,033 (National population and Housing Census 2014)

Kibuku district has a total of eleven government aided health facilities namely, three HC II, seven HC III, one HC IV and zero hospital. The HC IV which is located near Kibuku district headquarters was the study site.

3.4 Information sources

The research relied on primary sources of information that included face to face interviews with participants and observations.

3.5 Population

Pregnant women receiving antenatal care at Kibuku HC IV in Kibuku district participated in the study. The women targeted were those between the reproductive ages of 15-49 but for ethical

purposes only those above 18 years were interviewed. Key health facility staff who engage with maternity services were also interviewed.

3.6 Sampling techniques

The sample size for the quantitative respondents was determined using Yamane's formula (1967)

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

Where n=sample size, N=population which is the number of people who have attended antenatal care at Kibuku HCIV in the last three months prior to data collection i.e., July, August and September 2021 hence N=403 and e=Margin of error, e=0.05
Therefore, sample size for the questionnaires = 201

For qualitative interviews, 6 respondents were selected for in depth interviews, two women from each of the three stages of pregnancy i.e. 1st, 2nd and 3rd trimester. These respondents were selected from those interviewed in the quantitative survey who had scored highly and or had scored low on knowledge of danger signs and complication preparedness and agreed to participate in the qualitative interview.
Three healthcare professionals, including one from administration and two from the maternity unit, participated in semi-structured interviews.

The participants were randomly selected using a simple probability sampling technique for the questionnaires and a non-probability sampling called purposive sampling was used for qualitative interviews. Using the simple random sampling, women present at the facility for antenatal care on each day of data collection were given information about the study, those willing to consent to interviews were selected, screened and interviewed.

Table 3: Table of sampled groups

Sample category	Sampling method	Population	Sample size Planned	Reached	Data collection instruments used
Pregnant women at Kibuku HCIV	Simple random sampling	403	201	201	Questionnaires
	Purposive sampling	201	6	6	Interviews
Healthcare professionals	Purposive sampling	7	4	3	Interviews

3.7 Variables and indicators

Socio-demographic and obstetric related variables were collected like age, occupation, education, marital status, number of pregnancies, trimester of pregnancy, ANC attendance and knowledge of expected date of delivery. These were used to assess the determinants of knowledge and perception of complication preparedness.

Knowledge of danger signs and status of complication preparedness were used to assess the level of preparedness for skilled birth attendance among pregnant women.

Knowledge of danger signs and birth complications were assessed; severe vaginal bleeding, swollen hands, feet, and face, blurred vision, severe abdominal pain, convulsions, high fever, and no fetal movements were considered as danger signs of pregnancy. Convulsions, retained placenta, severe vaginal bleeding, prolonged labor (> 12 hours) were considered as danger signs of labor. Convulsions, severe abdominal pain, difficulty in breathing, high fever and excessive bleeding were considered as danger signs in the post-natal period.

The following aspects of "birth and complication preparedness" were evaluated: preferred birth attendants; desired birth location; funds for any birth-related expenses; proximity to a nearby facility for childbirth and in case of a complication; materials and supplies that must be put to the healthcare facility; transport to the facility for childbirth or in case of a complication; identified labor and birth companion; identified support person.

The SBA policy strategies implemented at the health facility were assessed based on the availability and performance of the nine-emergency obstetric care signal functions (table 2), facility working hours, availability of skilled staff, staff workload, electricity and water supply, hygiene of the facility, status of maternity wards, availability of motorized ambulance and information given on birth preparedness at antenatal care sessions. The health facility was considered well prepared if it met the nine-emergency obstetric care signal functions as it is a level IV health facility and scored highly on the other variables listed here.

A woman who didn't name any danger sign was classified as having no knowledge of key danger signs, a woman who named one or two danger signs was classified as having some knowledge while a woman who mentioned three or more key danger signs was classified as having sufficient knowledge of danger signs for each of the three stages of pregnancy, birth and postpartum. A woman who named three or more elements of birth and complication preparedness was classified as having sufficient knowledge, a woman who named one or two was classified as having some knowledge and a woman who named none was classified as having no knowledge of the elements.

A woman was categorized as complication prepared if she had sufficient knowledge of danger signs during pregnancy and birth and had made three or more arrangements of the following: saved funds for emergencies, located a closet facility for birth and in case of complication, identified a labor companion, made adequate arrangements for transport in case of emergencies, and identified a compatible blood donor.

The perceptions of pregnant women towards skilled birth attendance and complication preparedness were categorized as positive or negative. Women who do not favor skilled birth attendance and or preparing for birth complications were considered as having negative perceptions and those who favor it were considered as having positive perceptions.

3.8 Procedure for Data Collection

Data collection tools for both quantitative and qualitative data were developed by the researcher and presented to the university ethics committee for approval. The tools were pilot tested at a non-study site to ensure the questions are clear and address the objectives of the study.

After the data collection tools were approved by the university ethics committee, the researcher headed to the study site for data collection.

With approval from the district health officer, and the health facility administration, data was gathered through face-to-face interviews and observations. Participants were then selected from those attending antenatal care at Kibuku HC IV at the time of data collection and were interviewed at the facility for quantitative and qualitative data. Key health facility staff were also selected for interviews.

Quantitative data was collected using electronic questionnaires, and then transferred to Stata for analysis. Qualitative data employing semi-structured interviews were audio recorded during data collection and later transcribed for analysis. An interview guide was used to gather qualitative information from pregnant women. An observation checklist was used to gather data on infrastructure and functioning of the facility. Observations and field notes were handwritten and later typed and organized for analysis.

3.9 Data collection instruments.

To gather quantitative information from the study participants, the researcher created a structured questionnaire. The "Monitoring Birth Preparedness and complications Readiness: Instruments and Determinants for Maternity and Neonatal Health; 2004" report by JHPIEGO served as the inspiration for this questionnaire. The questionnaire was used to gather data on socio-demographic factors, pregnancy information, knowledge of danger signs; elements of birth and complication preparedness, perceptions on skilled birth attendance and complication preparedness, perceptions of the facility and preferred sources of information from pregnant women.

Using a semi structured questionnaire, data on facility preparedness to offer SBA was collected from key health workers.

To facilitate in-depth discussions with the respondents, an interview guide was used. Using a recorder, the interviews were audio recorded, and later transcribed.

Observations at the facility were made using an observation guide to ensure focus during observation. The researcher's focus during observation was on availability of the following: 24-hour power source, water source, hygiene, toilets, motorized ambulance, delivery room, recovery/post-natal care room, theater, beds, staff housing, waiting area and staff present. The researcher also observed the health talks held at the clinic to know the information shared to pregnant women about skilled birth attendance.

3.10 Quality/error control

A clear questionnaire was designed by the researcher with a well-organized structure addressing the research objectives in a systematic manner and concise but clear explanations and instructions were written along the questions to aide in filling the questionnaire. The senior researcher providing supervision of this research process looked at it to help identify errors.

The interviewers were given a training to understand the study objectives, concepts used and instructions on filling the questionnaires. The training also helped them understand how to check for errors during data collection.

Prior to gathering actual data, the data collection tools were pilot tested, and revisions were made based on the feedback gathered during pretesting. This was to ensure that the interview guide for qualitative data addressed the research questions and that the questions were well interpreted by the participants.

Interviews were carried out in a language well understood by the participants and all interviewers were able to fluently speak both Lugwere and English. The questionnaire had both English and Lugwere versions. These minimized errors in misinterpretation of questions and responses given.

Observations were made and recorded during data collection to make comparisons with responses.

Interviewers were closely monitored by the researcher during data collection. The researcher cross checked filled in questionnaires for data omissions, missing responses, errors, inconsistencies, and illogical responses. Incase such was found the participant was contacted for clarification as soon as possible. In the event where the participant was not reachable for clarification, the questionnaire was disregarded for analysis.

To ensure quality control during data entry, a data verification mechanism was used during data entry to indicate data omissions and errors.

To ensure quality of data interpretation and analytical results, a research supervisor assigned by the university reviewed them and helped to identify data anomalies.

3.11 Strategy for data processing and analysis

Stata 14 was used to analyze quantitative data. Both descriptive and inferential analysis were done.

Qualitative data which had been audio recorded was transcribed and together with field notes from observations analyzed using thematic analysis.

3.12 Anticipated methodological constraints.

The study was conducted at one health facility hence a small sample size that may not be a generalizable representation of the population under study. Further research should be conducted on a wider scale in many health facilities across many districts in rural areas.

3.13 Ethical considerations

Potential risk to participants; There was no major potential risk to participants from taking part in the study. Minor risks included time consuming in that participants may spend more time at the facility than they usually do due to the time to answer a questionnaire or participate in a qualitative interview. Participants were informed of the potential amount of time the engagement with them would take so they could decide if they could give in that time or not. The in-depth interviews took 25-30 minutes and questionnaires took 15-20 minutes.

Data protection: No participant-identifiable data was collected in this study i.e. names, residence, telephone numbers were not collected. Unique identifiers were used to identify participants. The data generated was kept with outmost confidentiality and has been used for research purposes only. All surveys/interview transcripts were kept in a password-protected database. Audio recordings of interviews were destroyed after transcription. The transcripts were checked to remove any names or other identifying information before being stored in a password-protected database.

Informed Consent: An information sheet detailing the purpose of the study, risks and benefits and confidentiality was read to potential participants and only those who gave consent to participate in the study were included.

Potential benefits of the study to participants; The participants received no direct benefits however the results from this research can be used by policy makers to design better strategies for implementing the skilled birth attendance policy.

CHAPTER FOUR

4.0 PRESENTATION AND ANALYSIS OF DATA

4.1 Introduction

This chapter presents an analysis of the findings from the research conducted which was to examine the implementation and relevance of the skilled birth Attendance policy to pregnant women in rural Uganda. It begins by presenting the social demographic characteristics of the study respondents then the obstetric characteristics. Findings about the Skilled Birth Attendance Policy interventions implemented at Kibuku HCIV among pregnant women then follows, then the preparedness of pregnant women at Kibuku HCIV for skilled birth attendance, pregnant women's perceptions towards skilled birth attendance at Kibuku HCIV and the chapter closes with the challenges in implementing the skilled birth attendance policy at Kibuku HCIV.

The data presented was collected using a combination of both qualitative and quantitative methods. It has been analyzed and presented in form of charts and tables and the interpretation and analysis of results follows the findings.

4.2 Social demographic characteristics of the respondents

These were relating to their age, education level, marital status, and their current occupation. The findings have been presented in the table below.

It was necessary to find out the social demographic characteristics in the table below because they give a clear picture of the demographic distribution of the women attending antenatal care at Kibuku HCIV who the study group were. Social demographic factors as stated in the researcher's conceptual framework are one of the key factors in influencing birth and complication preparedness as well as skilled birth attendance hence this information was vital in contextualizing the findings. This data was also useful for defining the population which was studied as often different demographic groups have different needs, preferences, and behaviours and so demographic data helped in understanding the relevance of the SBA to the different demographics to ensure that samples are representative of the population being studied increasing validity of the findings.

Table 4: Social demographic characteristics of respondents.

Variable		Frequency	Percentage (%)
Age in years	18-24	91	45.27
	25-35	93	46.27
	36-45	17	8.46
	Total	**201**	**100.0**
Marital status	Single/never married	55	27.36
	Married/cohabiting	131	65.17
	Widowed/divorced/separated	15	7.46
	Total	**201**	**100.00**
Education of respondent	None	26	12.94
	Primary	94	46.77
	Secondary O'level	55	27.36
	Secondary A'level	9	4.48
	University	10	4.98
	Other(specify) -Tertiary	7	3.48
	Total	**201**	**100.00**
Current occupation of respondent	Salaried employment	27	13.43
	Informal/business/petty trade	74	36.82
	Unemployed	100	49.75
	Total	**201**	**100.00**

Source: Primary data

4.2.1 Age distribution

As seen in the table above, majority of the respondents were young particularly below 35 years with 45% being between 18-24 years, 46% between 25-35 years while only 8% of the respondents were between 36-45 years and none of the respondents was above 45 years.

From the data collected the youngest participant was 18 years even though there were younger pregnant women, 18 years was the minimum age required for participation in this research and the oldest respondent was 41 years old. This data shows that a significant number of people receiving antenatal care from Kibuku HCIV are a young population.

4.2.2 Marital status

It was discovered that 65% of the respondents were married or cohabiting, 27% single or never married and 7% widowed/separated/divorced. This implies that majority of the pregnant women receiving antenatal care at Kibuku HCIV are either married or cohabiting. It was also discovered that majority of those who fell in the category of single or never married were 18-19 years old.

4.2.3 Education

Majority of the respondents had reached some level of primary 46% (94 out of 201), 27% (55 out of 201) had reached O 'level secondary education while a few respondents had gone higher; 4% (9 out of 201) had reached A 'level secondary education, 5% (10 out of 201) had reached university, 3% had reached tertiary education while 12% of the respondents had not received any education. This meant that most of the respondents had low literacy levels.

4.2.4 Occupation

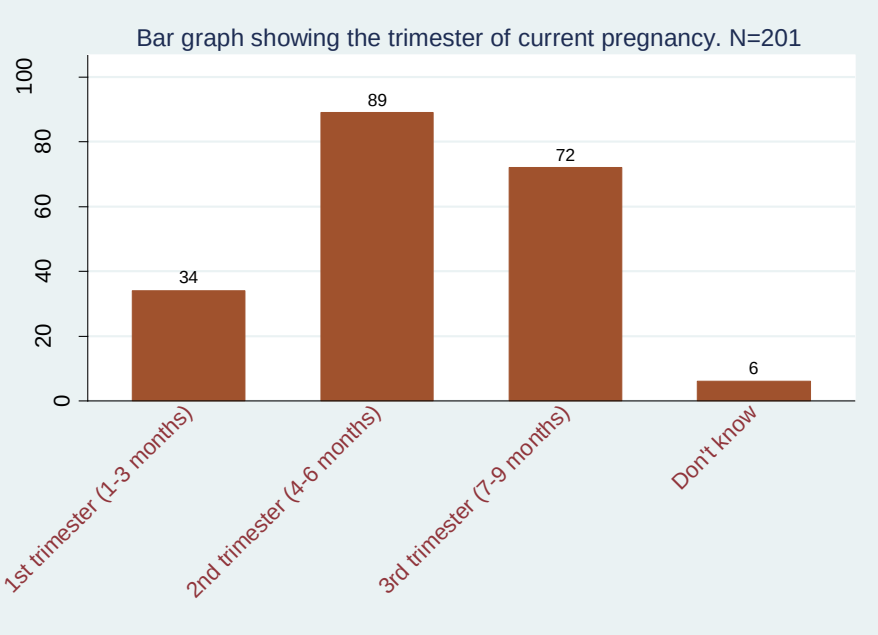
It was discovered that 49% of the respondents were unemployed, followed by 36% in informal/business/petty trade, and 13% were in salaried employment. This information shows that a significant number of the respondents had no income of their own by the unemployment percentage.

4.3 Obstetric characteristics

The researcher intended to collect data on obstetric variables because knowledge about pregnancy by pregnant women is an enabling factor for birth and complication preparedness and skilled birth attendance.

4.3.1 Trimester of current pregnancy

Figure 2: Bar graph showing the trimester of current pregnancy.



Source: primary data

The researcher intended to interview an equivalent number of respondents from the 3 trimesters however as the researcher discovered during data collection, there were fewer people attending antenatal care in the first trimester which made it difficult to have an equivalent number in all trimesters. The researcher resolved to interview randomly the available people.

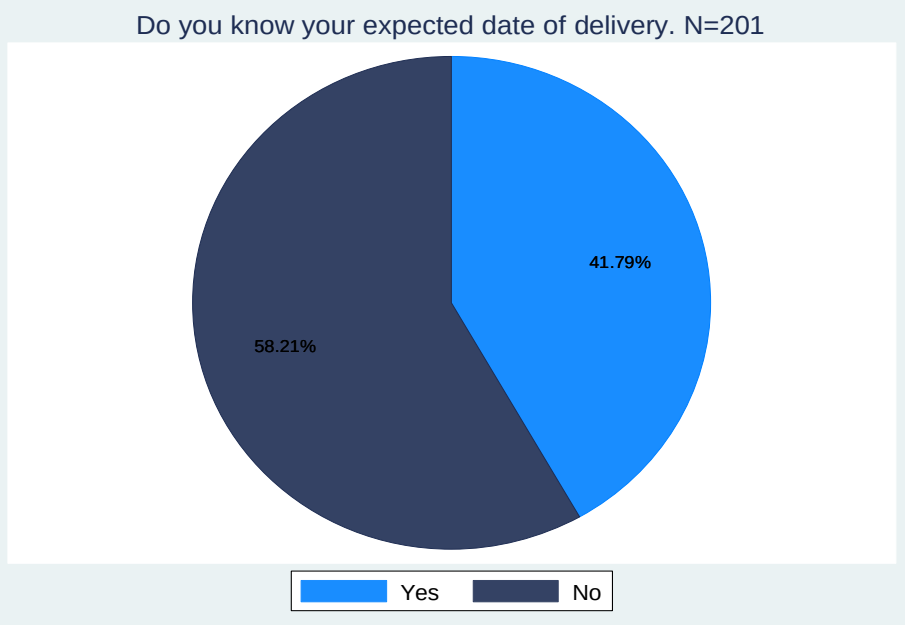
This provided information in understanding what stage of pregnancy majority of the woman were who attended antenatal care in that period at Kibuku HCIV. From the graph above, it was discovered that 34 out of 201(16%) of the respondents were in their first trimester of pregnancy, 89 out of 201(44%) were in their second trimester of pregnancy, 72 out of 201 (35%) were in their 3rd trimester while 6 out of 201(2%) didn't know which trimester of pregnancy they were in. This implies that majority of the pregnant women who received prenatal care in that period (of data collection) were in their second trimester. It was also found out that most women started antenatal care in their second trimester which explains why there were fewer women attending antenatal care in their first trimester.

4.3.2 Expected date of birth.

Knowledge of the expected delivery date enables women make timely preparations for birth and possible emergencies which facilitates their ability to receive skilled birth attendance in a timely

manner. The researcher hence sought to understand their knowledge of the expected date of birth.

Figure 3: Pie chart showing expected date of delivery.



Source: primary data

As shown in the pie chart above, many respondents did not know their anticipated delivery date as just 42% were aware and 58% didn't know.

Table 5: A cross tabulation between trimester of current pregnancy and knowledge of expected date of birth.

Trimester of current pregnancy	Do you know your expected date of delivery Yes	No	Total
1st trimester (1-3 mo	2.94	97.06	100.00
2nd trimester (4-6 mo	43.82	56.18	100.00
3rd trimester (7-9 mo	61.11	38.89	100.00
Don't know	0.00	100.00	100.00
Total	41.79	58.21	100.00

Pearson chi2(3) = 36.6014 Pr = 0.000

Source: primary data

The results displayed in the table above show that there is a significant relationship i.e., Pr = 0.000 between the trimester of pregnancy and women's knowledge of expected data of birth. It is shown that only 3% of the people in their first trimester knew their expected date of birth while 97% did not, 44% in their second trimester knew their predicated date of birth while 56% did not and 61% in their third trimester knew their expected delivery date while 39% did not. This implies that majority of people got to know their expected delivery date in the later stages of their pregnancy.

4.3.3 Number of pregnancies

Table 6: Is this your first pregnancy?

.

First pregnancy?	Freq.	Percent	Cum.
Yes	84	41.79	41.79
No	117	58.21	100.00
Total	201	100.00	

Source: primary data

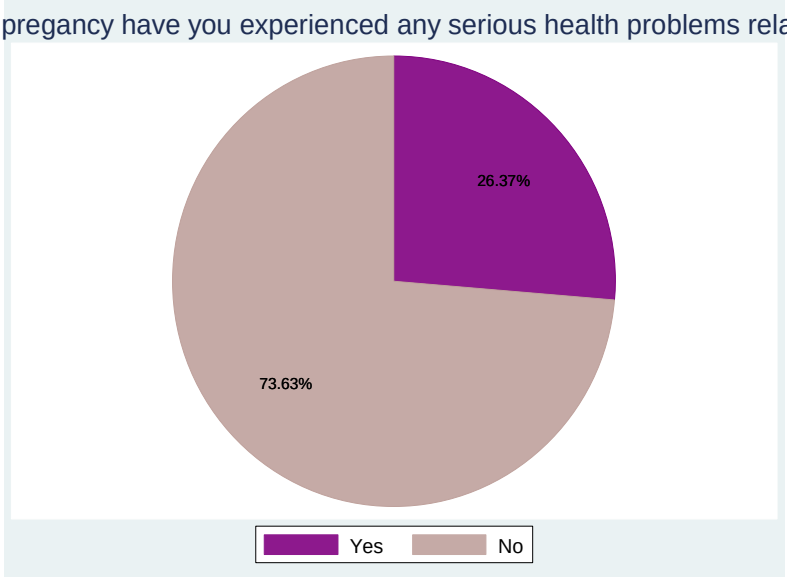
The table above indicates that most of the respondents had been pregnant before, in fact 58% of the respondents were not on their first pregnancy while 41% were pregnant for their first time.

From the data collected, of the 58% who were not having the first pregnancy, majority of them were having between 2nd and 5th pregnancy (82%) while there were a few respondents who had been pregnant more than 6 times before (17%).

It was also found out that 67% of women who had prepared for pregnancy emergencies had been pregnant before as compared to only 33% of those on their first pregnancy. This indicates that women are better prepared in their subsequent pregnancies as compared to the first pregnancy.

4.3.4 Problems during current pregnancy

Figure 4: Experience of health problems during current pregnancy



Source: primary data **N=201**

From the pie chart shown above, 26% of the respondents had experienced serious health problems during current pregnancy while 74% had not. Of those who had experienced problems, the most mentioned health problem experienced was severe abdominal pain which was experienced by 47%, followed by swollen hand and feet by 19%, high fever by 15%, then other by 14 % other problems mentioned included back pain, painful breasts, severe vomiting, headaches, and loss of body weight. Only 2% experienced severe vaginal bleeding and 1% blurred vision.

The analysis also showed that among those who experienced health problems during current pregnancy, 55% had made birth preparations while only 33% had made birth preparations among those who had not experienced health problems during current pregnancy. This shows that women who experience pregnancy health problems are more likely to be prepared for delivery and associated complications.

4.3.5 Antenatal care visits

This is a need factor for planning for birth and its complications and for having a trained attendant during delivery. This is because of the information passed on during antenatal care that

is supposed to include information about danger signs in the three stages of pregnancy, birth and immediately after, and birth and complication preparedness. From the table below, only 18% of the respondents had attended 4 or more antenatal care visits while 17% had attended 3 times, 33% twice and 31% had attended only once. This shows poor antenatal care attendance considering that from the data presented above, majority of the respondents were in their second and third trimesters.

Table 7: Antenatal care visits

Variable		Frequency	Percentage (%)
Number of times attended antenatal care	1	63	31.34
	2	66	32.84
	3	35	17.41
	4 or more times	37	18.40
	Total	**201**	**100.00**

Source: primary data

4.3.6 Months pregnant when first attended antenatal care.

Table 8: Months pregnant when first attended antenatal care.

Variable	Months	Frequency	Percentage (%)
Months pregnant when first attended antenatal care	0-3	71	35.32
	4-6	118	58.71
	7-9	8	3.98
	Don't know/don't remember	4	1.99
	Total	**201**	**100.00**

Source: primary data

The table above shows that 35% of the respondents first attended antenatal care in their first trimester, 58% in their second trimester, 3% in their third while 1% didn't know or couldn't remember when they started antenatal care. This implies that majority of the respondents started

antenatal care in their second trimester and around 6 months of pregnancy. Pregnant women delayed starting antenatal care because they did not want to frequent visits to the health facility. Below is an excerpt from an in-depth interview with an 18-year-old respondent.

INT: Why did you decide to start at four months?

RESP: I decided to start at four months because most people were telling me it's not good to start antenatal care in the earlier stages of pregnancy.

INT: Which reason were they giving you for that?

RESP: That if you come in the earlier stages then you will have to come too many times to the hospital.

4.4 Skilled Birth Attendance Policy (SBAP) interventions implemented at Kibuku HCIV among pregnant women.

Information was collected on the SBAP interventions being implemented at Kibuku HCIV. In order to answer this objective, data was collected on the nine signal functions of EmOC, staffing and resources at the facility. Information was also collected on birth and complication preparedness as an SBA intervention. The findings are presented below starting with information on obstetric care which gives the reader a picture of where the facility is standing in terms of maternity treatment and care, then findings on the signal functions are presented which are used to determine the level of preparation of a facility to provide EmOC services. Information on what elements of birth and complication preparedness are delivered to expectant mothers during antenatal care was also collected and all these together show how SBAP is being implemented at Kibuku HCIV.

4.4.1 Obstetric services information of Kibuku HCIV

Table 9: Obstetric care information of Kibuku HCIV

Number of pregnant women given birth at the facility in the last 3 months (July, August and September 2021)	Live births	412
	Still births	3
	Total	416
Number of women with direct obstetric complications received at facility in the last three months (July ,August, September 2021)		143
Number of women with obstetric complications managed at the facility in the last three months minus referral outs		113
Number of obstetric complications referred in the last three months	Referral ins	128
	Referral outs	30
Number of maternal deaths in the last three months (refer WHO definition)		0
Number of women attended antenatal care at least once in the last three months (July, August, September 2021)		403

Source: health facility records

The information in the table above is about the obstetric information regarding Kibuku HCIV. Kibuku HCIV is the largest government health facility in the district and so receives many patients from within and without the district. The total of pregnant women who had given birth at the facility in the last three months was 416, and 99% of those were live births. The facility receives a large proportion of women with direct pregnancy-related complications which was 143 in the last three months preceding data collection, 113 of those (79%) were managed at the facility and 30 (21%) were referred elsewhere. This implies the facility manages majority of the cases they receive. From the data received, in the last three months prior to data collection, the facility had not recorded any maternal death which is a good indicator. The facility also receives many referrals to the clinic as seen in the table above that they had received 128 obstetric complication referrals and they referred out 30 in the last three months. The reasons given for the referral outs were mostly for cases that required admission to a high dependence unit or intensive care unit or blood transfusion as the facility often has limited supply of blood and limited capacity to provide specialized care. The patients are normally referred to either Pallisa hospital which is about 20kms away or Mbale referral hospital which is about 48kms away.

4.4.2 Signal functions

Table 10: Signal functions for emergency obstetric care at Kibuku HCIV.

	Signal function	Capacity to perform		Performed in the last three months (July, August, September 2021)	
		Yes	No	Yes	No
1)	Administer parenteral antibiotics	✓		✓	
2)	Administer uterotonic drugs (i.e., parenteral oxytocin)	✓		✓	
3)	Administer parenteral anticonvulsants for preeclampsia and eclampsia (i.e., magnesium sulfate)	✓			✓
4)	Manually remove the placenta	✓			✓
5)	Remove retained products (e.g. manual vacuum extraction, dilation and curettage	✓			✓
6)	Perform assisted vaginal delivery (e.g. vacuum extraction, forceps delivery)	✓			✓
7)	Perform basic neonatal resuscitation (e.g., with bag and mask)	✓		✓	
8)	Perform surgery (e.g. caesarean section)	✓		✓	
9)	Perform blood transfusion	✓			✓

Source: Primary data

The capacity to perform was defined as having the necessary equipment and personnel to conduct the exercise. Kibuku HCIV being a health center IV is supposed to provide comprehensive services for obstetrics and new-born care (refer to table 1). As seen in the table above, it was found out that the facility has the capacity to conduct all the nine signal functions for emergency obstetric care which means the facility has at least a qualified staff and equipment to conduct the exercise. In last 3 months preceding data collection, not all the nine signal functions had been conducted at the facility as seen in the table above. The reasons given by the health care providers interviewed were no woman in need of the procedure visited the health center during the specified period, supplies and needed drugs were not available, and

inadequate number of staff with the required level of expertise are posted to the facility i.e. anesthesiologist and doctors. As explained later under the challenges of implementing SBAP at Kibuku HCIV, the inadequate number of personnel who are trained to carry out the signal functions and shortage of supplies i.e., blood and drugs largely accounted for some of the signal functions to not be conducted as is in the table above. This implies that the health facility is not well equipped to comprehensively conduct EmOC services.

Besides signal functions, the researcher also explored other implementation strategies for SBAP at the facility namely infrastructure, facility working hours, electricity and water supply, hygiene, and availability of functioning ambulance. Using observation method and semi structured interviews with facility staff, it was established that the maternity section of the facility had limited space, this meant limited space for client waiting area where it was observed that there was only one bench which could sit about 3 people at the waiting area for antenatal session and so majority of the women who came for antenatal care would either stand or find other spaces in the compound to sit as they wait for their turn to see the health worker.

There was availability of an exam room with adequate privacy for pregnant women, the facility has limited space for maternity inpatient ward, it was observed that the facility has 1 recovery room which contains women who have had c-cesarean section and virginal delivery. The room contains 4 beds and 1 more bed is placed in the corridor towards the door. Some women sleep on the floor due to inadequate number of beds.

The facility has a functioning operation theatre. The maternity unit is open 24 hours. There is always one nurse at the unit at night who attends to deliveries and if called upon for an emergency attend to the post-natal unit. Antenatal sessions are carried out from Monday to Wednesday. Antenatal care sessions were observed to start at around 11am and end 12pm (1 hour), many women arrived as early as 8am and had to wait because there was no nurse to attend to them. The nurse on arrival would attend to only the women on the waiting bench (which carries about 3 to 4 women) and leave. Many women were not attended to because they either came late (after the nurse had left) or they had been waiting outside in the compound, so they didn't know when the nurse came in. When asked why the nurse gave little time for antenatal care, she said she had to attend to deliveries as she was the only midwife available, she also expressed that they were understaffed.

It was observed that one nurse on duty would attend to antenatal care, post-natal care and delivery ward and the nurse would give priority to the delivery ward. A woman who came with a pregnancy complication (severe abdominal pain) had to go to the main out-patient area which had a long waiting list to be seen because there was no nurse at the maternity ward as the available nurse was attending to deliveries. The delivery room has only one delivery bed and some women deliver on the floor.

The facility has tap water however as told by the health care provider, it is not 24-hour water supply sometimes there is no water which presents challenges, the alternative is using borehole water from a nearby borehole, there is a 24-hour light source as they have both hydroelectricity and solar system. Two ambulances (provided by politicians) were observed parked at the facility however as explained by one of the health care providers, the ambulances do not have fuel or a driver to transport patients so patients who require the services of the ambulance must hire both a driver and buy fuel which makes it unaffordable for majority of the patients. It was observed that there are two staff housing units at the health facility one housing a midwife however other EmOC staff do not have housing close by which makes it difficult for them to get to the facility in time in case of an emergency. The facility has toilets for both men and women separately.
The lack of adequate space in the recovery room, client waiting area, free or low-cost ambulance services, delivery beds, inadequate staff housing for EmOC staff, inadequate staff in the maternity unit for EmOC and antenatal care imply gaps at the facility in the implementation of the SBA policy.

4.4.3 Information given to pregnant women on birth and complication preparedness during antenatal sessions.

The following below are expected to be communicated to women during antenatal care as part of the interventions for SBA policy. This is meant to reduce on the first two delays that hinder pregnant women from accessing SBA in a timely manner. Through a questionnaire, pregnant women were asked if during their current pregnancy a health worker had advised them at least once about any of the listed below in the table. They responded as follows.

Table 11: Information given to pregnant women on birth and complication preparedness during antenatal sessions

Variable		Frequency	Percentage (%)
Danger signs of serious health problems during pregnancy, childbirth, or soon after delivery?	Yes	31	15.42
	No	157	78.11
	Don't know/don't remember	13	6.47
	Total	**201**	**100.00**
Where to go if you had danger signs of serious health problems?	Yes	40	19.90
	No	150	74.63
	Don't know/don't remember	11	5.47
	Total	**201**	**100.00**
Where you should give birth to your baby	Yes	79	39.30
	No	113	56.22
	Don't know/don't remember	9	4.48
	Total	**201**	**100.00**
Arrangements for transportation?	Yes	56	27.86
	No	139	69.15
	Don't know/don't remember	6	2.99
	Total	**201**	**100.00**
Arrangements for funds/finances?	Yes	89	44.28
	No	108	53.73
	Don't know/don't remember	4	1.99
	Total	**201**	**100.00**
Arrangements for a blood donor?	**Yes**	**3**	**1.49**
	No	186	92.54
	Don't know/don't remember	12	5.97
	Total	**201**	**100.00**
Arrangements for a healthcare professional to deliver your child?	Yes	22	10.95
	No	166	82.59
	Don't know/don't remember	13	6.47
	Total	**201**	**100.00**

Source: primary data

The findings presented in the table above show that on average, over 70% of respondents had not received information on birth and complication preparedness from a health worker. 78% had not

been told by a health worker about danger signs during pregnancy, childbirth and soon after birth and only 15% had been told during their current pregnancy. 74% had not been told about where to go if they had danger signs of serious health problems and 19% had been told. 56% had not been told about where to give birth to their baby and 39% had been told. 69% had not been told about deciding for transport and 27%% had been told. 53% had not been told about deciding for funds while 44% had been told. 92% had not been told about arrangements for a blood donor while 1% had been told. 82% had not been told about deciding to have a health care professional deliver their baby while 10% had been told. There was also a small number as seen in the table who didn't know or couldn't remember if a health worker had told them about the above.

The least talked about birth and complication preparedness practices by health workers were making arrangements for a blood donor, arrangements for health care provider to deliver their baby, danger signs during pregnancy, childbirth and soon after, and where to go if they get signs of serious health problems. Even though not to a satisfactory number, these were mentioned to more women; arrangements for funds, where to give birth to their baby, and deciding for transportation.

Based on the low percentages of women who have been advised about the birth and complication preparedness practices by health workers at Kibuku HCIV, it implies that providing birth and complication preparedness information to pregnant women is not prioritized at the facility.

4.5 The preparedness of pregnant women at Kibuku HCIV for skilled birth attendance

Pregnant women were asked using a questionnaire about their knowledge of danger signs, knowledge of birth and complication preparedness practices and the practices they have made for birth and possible complications. These were used to answer the second research question which was aimed at understanding how prepared pregnant women are for SBA. This in turn helped in assessing the relevance of the policy to pregnant women, whether the way the policy is being implemented at this facility is empowering women to take charge of their maternal health.. The findings are presented below.

4.5.1 Knowledge of danger signs

Respondents were asked what serious health problems they knew that could pose danger to the life of a pregnant woman during the three phases i.e., during pregnancy, during labour and childbirth and the immediate post-birth period. The percentages represent the number of times a health problem was mentioned as the respondents were allowed to mention as many as they could.

Table 12: Knowledge of serious health problems that can occur during pregnancy.

	Frequency	*Percent of responses (%)*
Severe vaginal bleeding	45	10.77
Swollen hand, feet and face	59	14.11
Blurred vision	21	5.02
Severe abdominal pain	76	18.18
Convulsions	13	3.11
High fever	52	12.44
Reduced or no fetal movement	50	11.96
Other	34	8.13
Don't know	68	16.27
Total	**418**	**100.00**

Source: primary data

The table above shows that severe abdominal pain was the most known health problem during pregnancy mentioned by 18%, followed by swollen hand, feet and face mentioned by 14%, then high fever by 12%, reduced or no fetal movement by 12%, severe vaginal bleeding was mentioned by 11%. The least known health problems during pregnancy were blurred vision 5% and convulsions by 3%, other which included the baby being breached, severe vomiting, malaria, diabetes in pregnancy, high blood pressure, still birth or miscarriages by 8% and those who didn't know any were 16%.

It was found out that 50 out of 201 (25%) named one danger sign, 37 (18%) pointed out two danger signs, 46 (23%) pointed out 3 or more danger signs while 68 (33%) didn't know any danger sign. This shows only 23% of the respondents who mentioned 3 or more had sufficient knowledge of danger signs during pregnancy while 33% who didn't know had no knowledge at all and 43% who mentioned 1 or 2 danger signs had insufficient knowledge implying majority of the pregnant women had little or no knowledge of pregnancy danger signs.

Table 13: Knowledge of serious health problems that can occur during labour and childbirth.

	Frequency	*Percent of responses (%)*
Convulsions	17	4.70
Retained placenta	47	12.90
Severe vaginal bleeding	127	35.08
Prolonged labour >12 hours	97	26.80
Other	43	11.88
Don't know	31	8.56
Total	**362**	**100.00**

Source: primary data

As shown in the table above, the most mentioned health problem was severe vaginal bleeding which was mentioned 35% of the total responses, then prolonged labour 26% and least mentioned were retained placenta which was mentioned by 12% of the responses, 11% by other that included; baby being breached, high blood pressure, narrow pelvic bones, water breaking early, child having umbilical cord tied around neck, failure of cervix to open and 4% mentioned convulsions and 8% didn't know.

It was also established that only 37 (18%) of the respondents had sufficient knowledge of danger signs during labour and birth because they knew 3 or more danger signs compared to 64 (31%) who mentioned two danger signs and 69 (34%) who mentioned one danger sign. 31(15%) didn't know any danger sign in this stage. This implies a substantial number of pregnant women (66%) had insufficient knowledge of danger signs in the period of labour and childbirth because they knew only one or two of the danger signs.

Table 14: Knowledge of serious health problems that can occur during the first two days after birth.

	Frequency	*Percent of responses (%)*
Convulsions	3	0.97
Severe abdominal pain	85	27.60
Difficulty in breathing	7	2.27
High fever	53	17.21
Excessive bleeding	94	30.52
Other	5	1.62
Don't know	61	19.81
Total	**308**	**100.00**

Source: primary data

Excessive bleeding was the most known health problem postpartum by 30% of the responses, followed by severe abdominal pain which was mentioned by 27%, then high fever by 17% while the least mentioned were convulsions 0.9%, difficulty in breathing 2% and 1% other which included back pain. 19% of the respondents didn't know any health problem after birth**.**

Pregnant women lacked awareness of dangers signs in the immediate period after delivery. Only 3% knew 3 or more danger signs in the period after birth, 38 (19%) knew 2 danger signs, 74 (37%) knew one danger sign and 82 (41%) didn't know any danger sign. This means only 3% who knew 3 or more had sufficient knowledge of the danger signs in the immediate post-partum period, 41% had no knowledge at all while majority which is 56% had little knowledge since, they knew only one or two danger signs in the post-birth period implying pregnant women had insufficient knowledge of danger signs in regard to the first two days after birth.

4.5.2 Knowledge of elements of birth and complication preparedness

Before being asked about their knowledge of the elements of birth and complication preparedness, respondents were asked about their familiarity with the concepts of birth preparedness and complication preparedness. The table below shows their responses.

Table 15: Have you ever heard about these terms?

		Frequency	Percentage (%)
Have you ever heard of the term "birth preparedness"	Yes	168	83.58
	No	33	16.42
	Total	201	100.00
Have you ever heard of the term "complication preparedness"	Yes	68	33.83
	No	133	66.17
	Total	201	100.00

Source: Primary data

From the table above, more women had knowledge on birth preparedness (84%) as compared to only 34% for complication preparedness. This implies pregnant women were more familiar with the term birth preparedness than complication preparedness.

Table 16: Knowledge of birth and complication preparedness elements

	Frequency	*Percent of responses (%)*
Make arrangements for transport	67	18.46
Save funds for emergencies	151	41.60
Locate a closest facility for birth and in case of a complication	26	7.16
Identify a labor companion	28	7.71
Identify a skilled provider	14	3.86
Identify a blood donor	4	1.10
Other	57	15.70
Don't know	16	4.41
Total	**363**	**100.00**

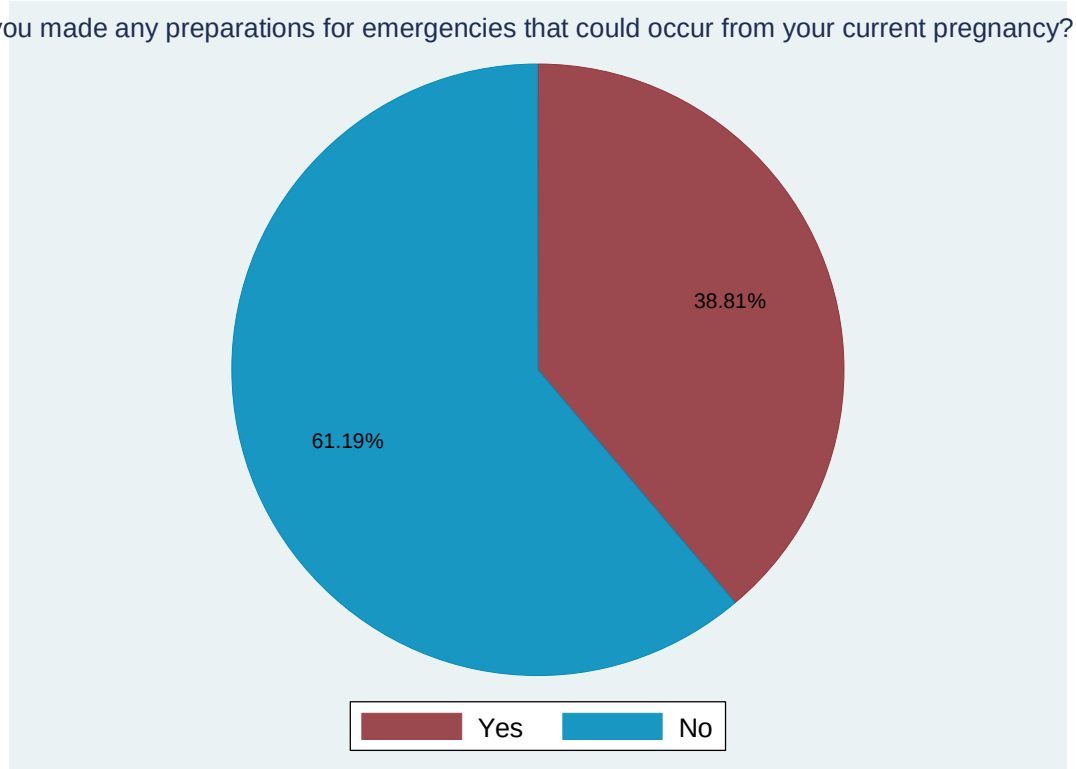
Source: Primary data

The table above shows less than 2% could mention identifying a blood donor as an element of birth preparedness while saving funds for emergencies was the most known element of birth preparedness mentioned by 41% of the responses. Deciding for transport was mentioned by 18% then other which included obtaining basic birth supplies by 15%. The least known elements were locating a closest facility for birth and in case of a complication by 7%, identifying a labor companion by 7%, identifying a skilled provider by 3% and identifying a blood donor by only 1%. 4% of the responses were for those who didn't know any birth and complication preparedness element.

It was also found out that only 17% had sufficient knowledge on the elements of birth and complication preparedness since they could mention three or more elements while 28% who could mention at least two elements and 45% who could mention at least one element had some knowledge on the elements as compared to 7% who didn't know any. This implies that majority of pregnant women at Kibuku HCIV had insufficient knowledge about the elements of birth and complication preparedness.

4.5.3 Preparations made for emergencies that could occur from current pregnancy.

Figure 5: Prepared for emergencies?



Source: Primary data

Pregnant women were asked if they had made any preparations for emergencies that could occur from their current pregnancy to determine if they were prepared for possible complications. The figure above demonstrates that many the respondents (61%) had not made any preparations for birth and emergencies at the time of the interview as compared to only 39% who had made any preparations. This implies that majority of respondents were unprepared for possible pregnancy and birth complications. It was also noted during the qualitative interviews that some women do not prepare because it is their husbands to make those arrangements such as saving funds, choosing a facility to give birth and making transport arrangements.

Table 17: Preparations made for emergencies that could occur from current pregnancy.

	Frequency	*Percent of responses (%)*
Made arrangements for transport	27	15.70
Saved funds for emergencies	68	39.53
Located a closest facility for birth and in case of a complication	21	12.21
Identified a labor companion	32	18.60
Identified a skilled provider	7	4.07
Identified a blood donor	0	0.00
Other	17	9.88
Total	**172**	**100.00**

Source: Primary data

Majority of those who had prepared had saved funds for emergencies (39%) while none (0%) had identified a blood donor. 15% of them had decided for transport, 12% had located a facility for birth, 18% had identified a labour companion, 4% had identified a skilled provider and 9% had mentioned other which was obtaining basic birth supplies. It can therefore be said that saving funds for emergencies was the most practiced element and identifying a blood donor was not being practiced as a birth and complication preparedness element at Kibuku HCIV.

It was also found out that a significant number 28 out of 78 (35%) had made only one preparation with 7% having prepared only basic birth supplies and the 28% having saved funds. 25 out of 78 (32%) had made at least two preparations and 25 out of 78 (32%) had prepared in three or more elements.

4.5.4 Relationship between complication preparedness among pregnant women and the demographic factors.

To find out whether there is a significant association between the demographic factors and women's complication preparedness, the researcher used a Pearson chi square test in Stata to analyze the relationship between the demographic factors and whether the women had made any preparations for emergences that could occur from their current pregnancy. Below are the results; $P<0.05$

Age

Pearson chi2(2) = 6.8120 Pr = 0.033

Marital status
Pearson chi2(2) = 4.3283 Pr = 0.115

Education
Pearson chi2(5) = 8.8218 Pr = 0.116

Occupation
Pearson chi2(2) = 9.2947 Pr = 0.010

Pregnancy trimester
Pearson chi2(3) = 26.3294 Pr = 0.000

These results show that age, occupation, and pregnancy trimester have a significant relationship with making preparations for emergencies while marital status and education have no significant relationship with making preparations for emergencies.

4.6 Pregnant women's perceptions towards Skilled Birth Attendance (SBA) at Kibuku HCIV

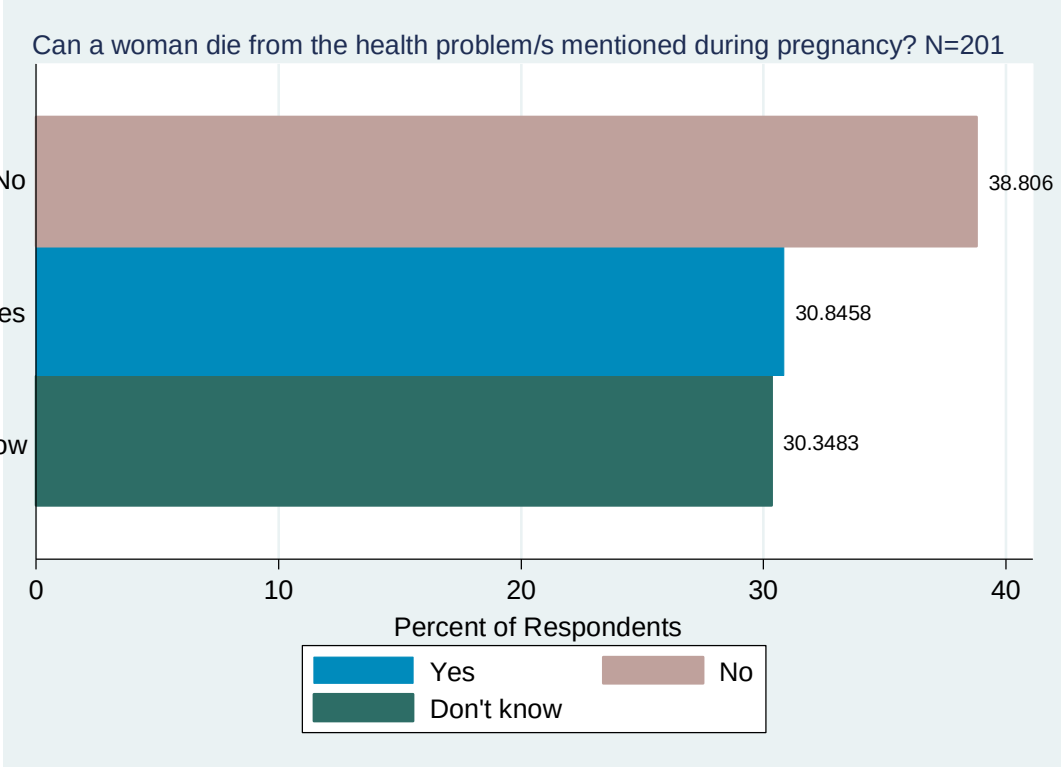
In one of the study's objectives, the researcher set out to explore pregnant women's perceptions towards skilled birth attendance at Kibuku HCIV. Perceptions of expecting women towards SBA can be assessed through understanding their perceptions on severity of risk, perceptions on possibility of having complications, beliefs about preparing for delivery and difficulties and attitudes about delivering at a health facility. These perceptions help in assessing the relevance of the policy to expecting mothers. In doing so, data was collected on the above and has been presented as follows; perception of the severity of risk and a stacked bar chart presenting findings from a Likert scale on perceived possibility of having complications, key birth and complication preparedness elements, SBA and prenatal care attendance. Information on the perceptions towards Kibuku HCIV is also presented to understand how their perceptions influence their decision making regarding childbirth.

4.6.1 Perceived severity of risk

Pregnant women were asked if they thought a pregnant woman would die from pregnancy complications that they had been asked to mention in the three stages of pregnancy, childbirth and the first two days after delivery.

4.6.1.1 During pregnancy

Figure 6: Can a woman die from the health problem mentioned during pregnancy?



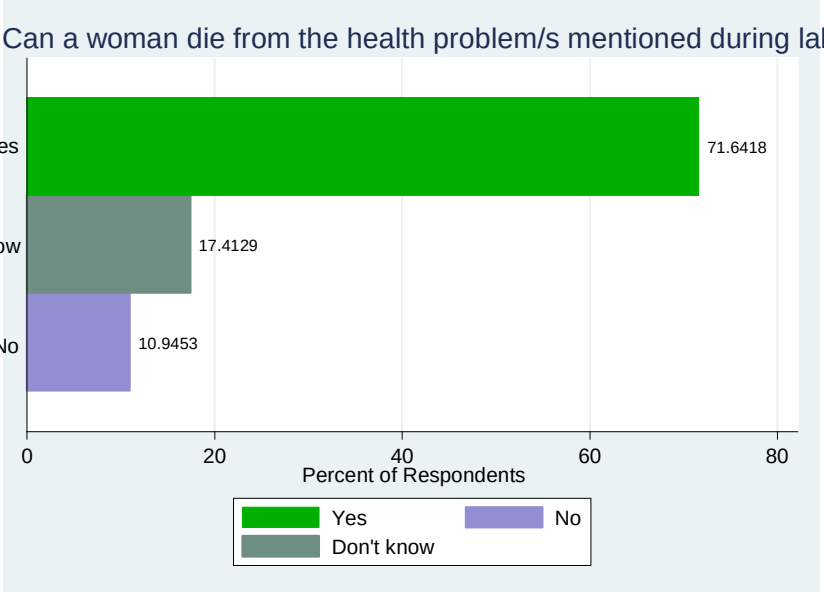
Source: Primary data

The graph shown above indicates majority of pregnant women i.e., those who said no and those who did not know (69%) did not perceive health problems during pregnancy as severe as compared to 31% who thought a pregnant woman can die from a health problem during pregnancy. A 30-year-old woman who was having her second pregnancy said in an in-depth interview that the reason she didn't think a pregnant woman can die from pregnancy related complications is because she had never seen any pregnant woman who had died from pregnancy complications. Here is a quote from the interview 006.

"A woman dying because of pregnancy? no that can't happen, I have never heard of that. Pregnancy has problems but they are minor they can't kill you unless you are bewitched (laughs) the dangerous part madam is giving birth, that's when women die."

4.6.1.2 During labour and childbirth

Figure 7: Can a woman die from the health problem mentioned during labour and childbirth?



Source: Primary data

From the graph above, majority of the respondents were informed about the severity of risk during childbirth i.e., 72% of respondents said a woman can die from a complication during labour and birth as compared to 11% who said no, she can't and 17% who didn't know. This shows majority of the woman are aware of the risks involved from complications during labour and childbirth and this is an enabler in the timely use of SBA.

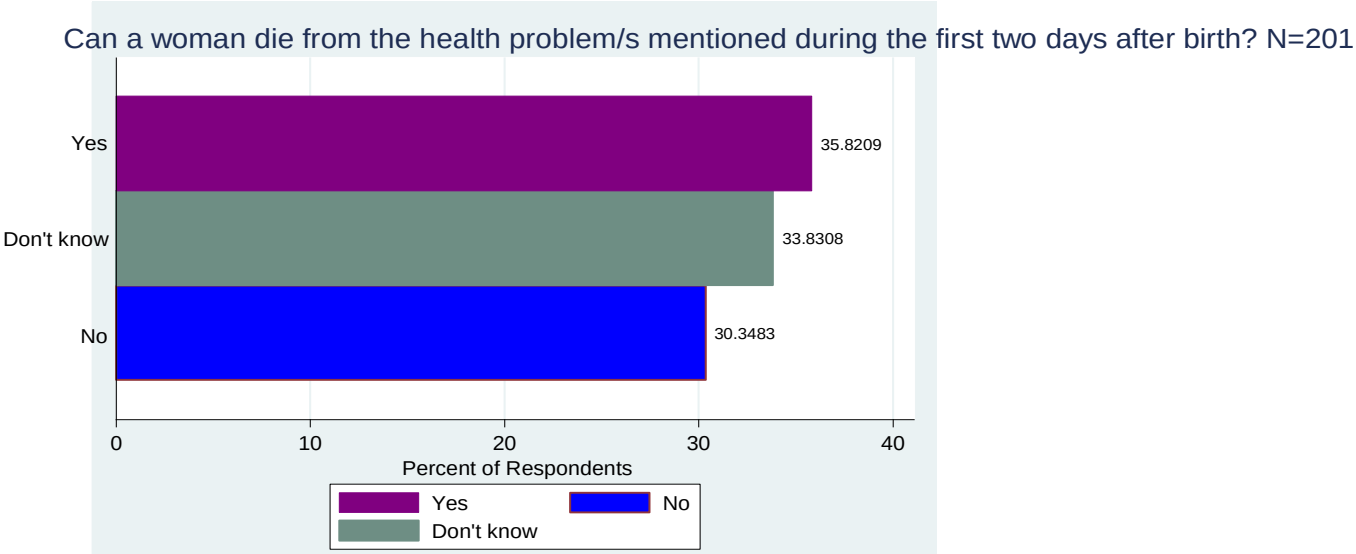
It can be noted that in comparison to only 31% who thought a pregnant woman could die in a complication arising from the pregnancy, there is more awareness of the risks associated with childbirth and labour than the risks of pregnancy. Women perceived giving birth as a life-or-death experience and many concurred in the in-depth interviews that there was an increased risk of dying while giving birth and that is the reason, they would choose to deliver with the assistance of a skilled birth attendant where they can get quick emergency care.

A mother of three on her fourth pregnancy who had given birth to her first child from home at the age of 17 had this to say when asked about her experience with giving birth from home; *"I was scared, I was really scared, I was young and didn't know how things would go. I had heard that women die in childbirth, and I was so scared that what if I fail to push? but I learnt my*

lesson, for the other times I wouldn't delay, I would come to the hospital on the slightest pain because I fear to die." Interview 005

4.6.1.3 During the first two days after birth

Figure 8: Can a woman die from the health problem mentioned during the first two days after birth?



Source: Primary data

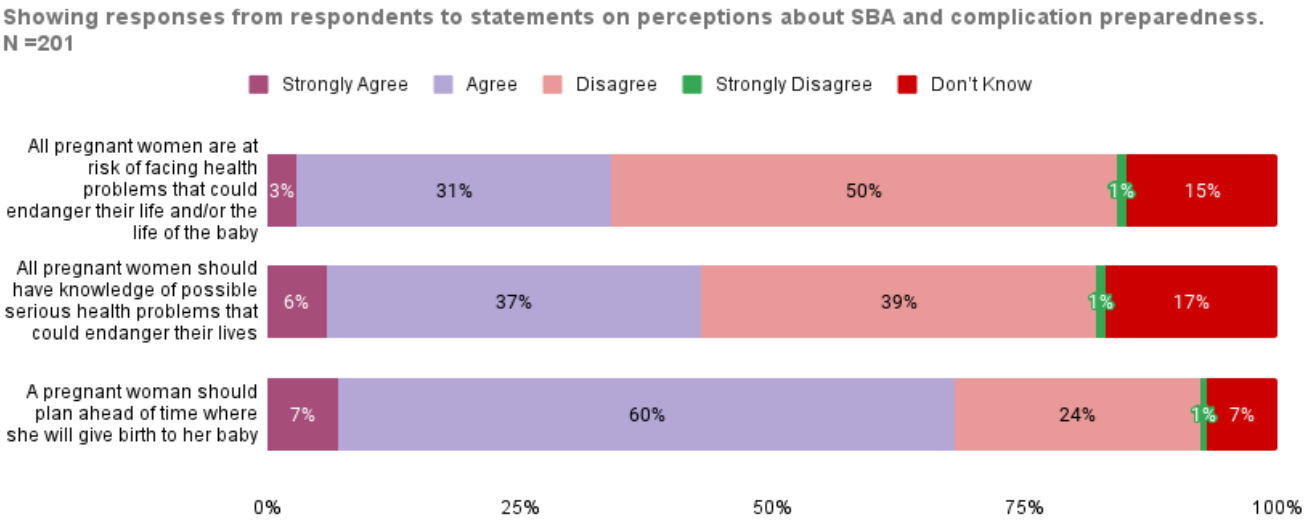
The graph above indicates that majority of respondents did not comprehend the severity of risk of health problems in the postpartum period i.e., 30% said a woman could not die from a pregnancy related health problem during the first two days after birth while 34% didn't know. Only 36% of the respondents said a woman could die. This shows a gap in awareness of the risk a woman has after giving birth among pregnant women at Kibuku HCIV.

4.6.2 Perceptions about SBA and Complication Preparedness.

A Likert scale was used to collect responses from respondents to statements on perceptions about SBA and complication preparedness. For better visualization, the researcher used stacked bar charts to present the results as seen below.

For interpretation, strongly agree and agree were combined to mean those who agreed with the statement and disagree and strongly disagree to mean those who disagreed with the statement while don't know remained.

Figure 9: Responses to statements on SBA and complication preparedness



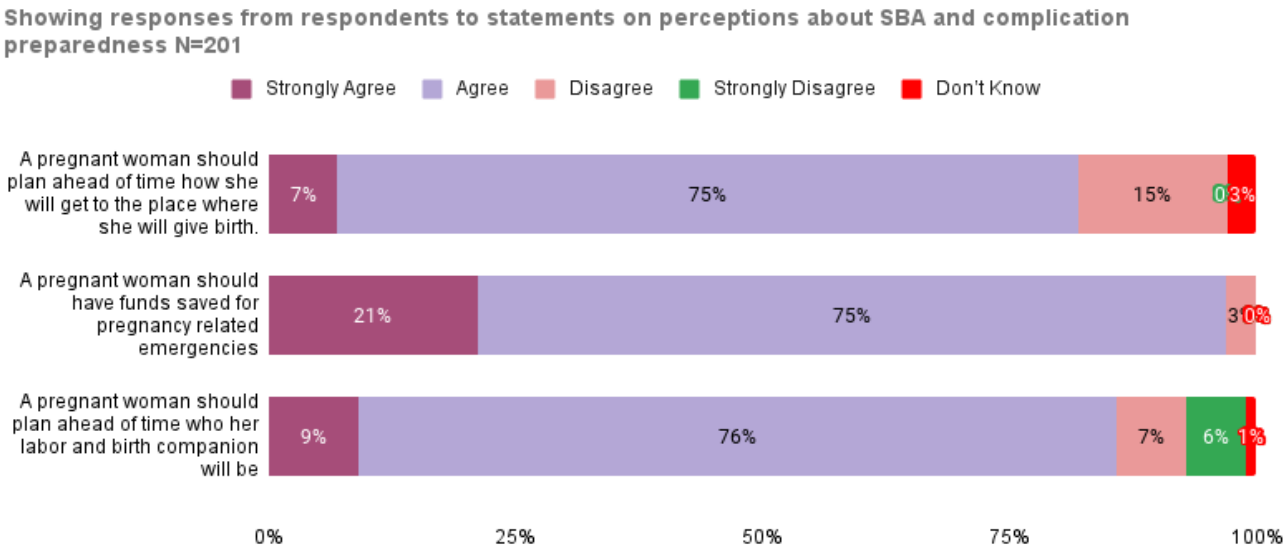
Source: Primary data

From the graph above, only 34% of the respondents knew that all pregnant women are at risk of facing health problems that could endanger their life, while majority 66% (51% who disagreed and 15% who didn't know) do not perceive that all pregnant women are at risk of facing health problems.

It was found out that slightly more women 43% have a positive perception on all pregnant women getting knowledge of possible serious health problems that could endanger their lives as compared to 40% who disagreed with the statement and the 17% who did not know whether to agree or disagree implying, they did not have enough knowledge on the statement to make an informed choice. From the qualitative interviews it was noted that women thought only those who have pregnancy health problems with their current pregnancy should have knowledge on danger signs while those who are in perfect health do not need knowledge on health problems.

Majority of the expectant mothers 68% had a positive attitude towards making prior plans for where she will give birth from as they agreed with the statement that a pregnant woman should plan ahead of time where she will give birth to her baby as compared to 24% who disagreed with that statement and 7% didn't know.

Figure 10: Responses to statements on SBA and complication preparedness



Source: Primary data

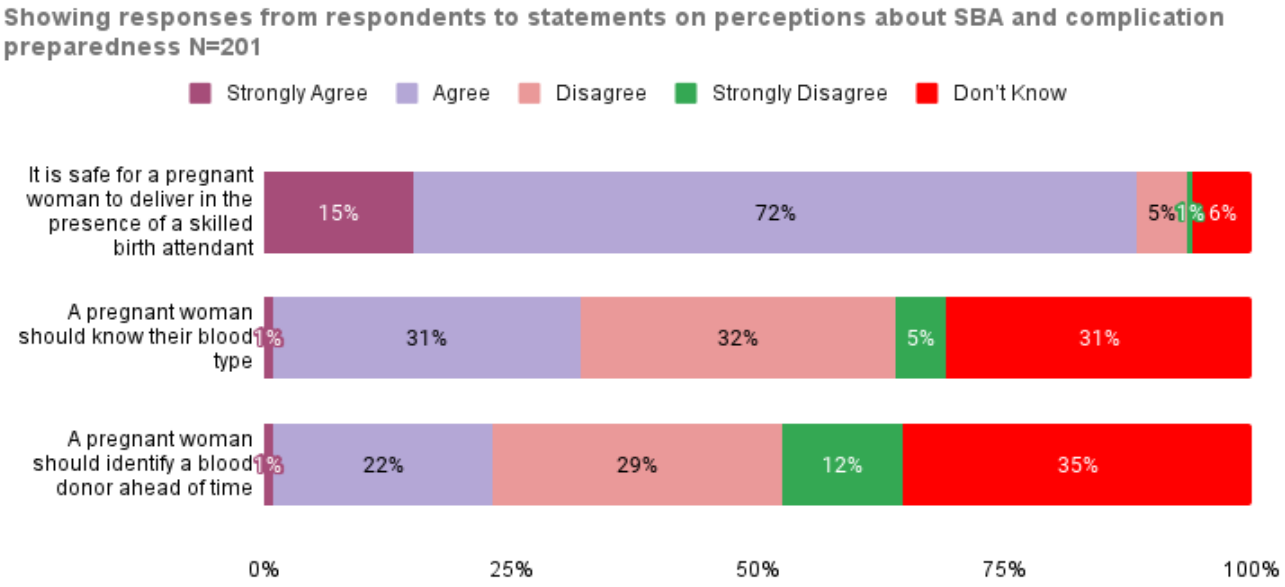
82% of the respondents agreed that a pregnant woman should plan ahead of time how she will get to the place where she will give birth, 15% disagreed and 3% didn't know. This shows that majority of the pregnant women knew the importance of preparing transportation.

96% of the respondents agreed with the statement that said that a pregnant woman should have funds saved for pregnancy related emergencies while 3% disagreed with that statement. This was the most agreed with statement and it shows that majority of the pregnant women perceived saving money for emergencies with a positive attitude. It should also be noted that saving funds for emergencies was the most known birth and complication preparedness element and most of the women who had prepared had saved funds.

During semi structured interviews, women considered saving funds as the most helpful element in preparing for birth and or complications. An 18-year-old who was on her first pregnancy had this to say; *"I think the most important thing is saving money because that is what can help in any situation. Because even if you have a safe delivery, the midwife will ask you for detergent to clean the delivery room so you will still need money to buy things like jik (detergent) and soap"* Interview 001

There was also a positive response to the statement a pregnant woman should plan ahead of time who her labor and birth companion will be as 85% agreed with it, and only 14% disagreed with it while 1% didn't know. This implies that pregnant women had a positive perception towards planning for a labor companion.

Figure 11: Responses to statements on SBA and complication preparedness



Source: Primary data

Delivering under the care of a competent birth attendant is the essence of skilled birth attendance; Majority of the pregnant women had a positive attitude towards delivering with the help of a skilled birth attendant as 88% agreed with the statement that it is safe for a pregnant woman to deliver in the presence of a skilled birth attendant compared to 6% who disagreed with that statement and 6% who didn't know. Qualitative interviews explored the reasons why women wanted to give birth at the health facility and some of the reasons were because they found it safe, could easily get care for complications and they would receive support from health workers.

A 24-year-old woman who was seven months pregnant had this to say, "*I want to give birth from here because in case of a complication, you get immediate help; if you need a C-section then its*

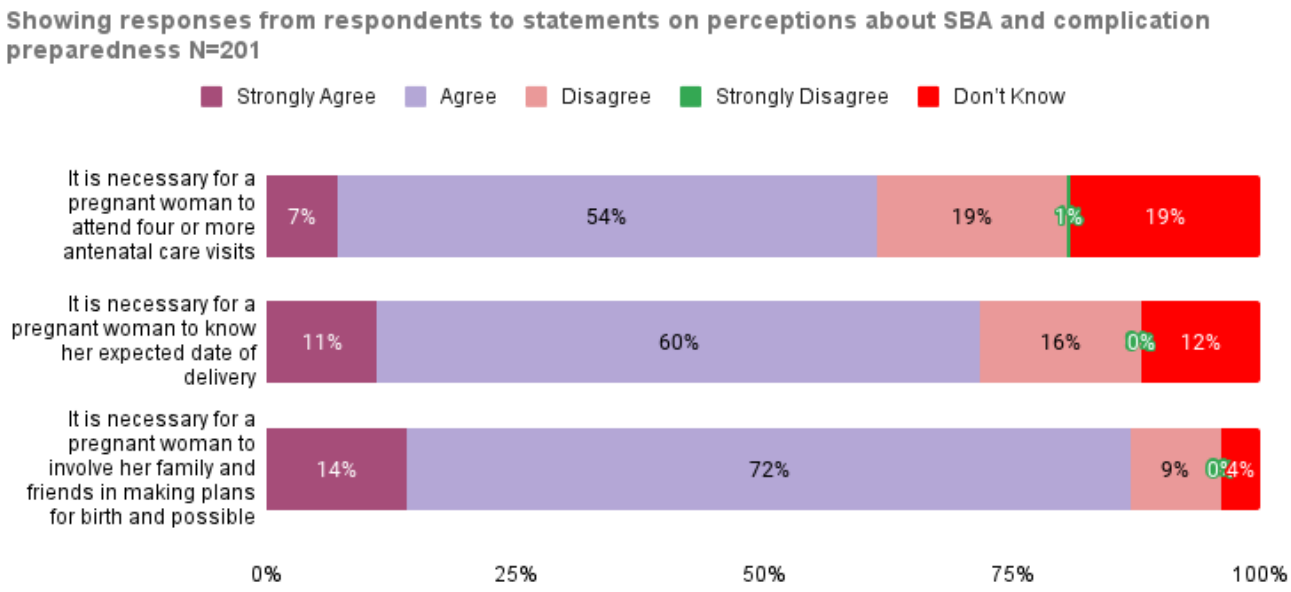
performed on time and in case you need a referral to Mbale hospital then you get it in time". Interviews 003

A 23-year-old woman who was two months pregnant when asked about what she thought was the advantage of giving birth at the facility went on to say, *"you get more support when you give birth from the health facility than at home"* Interview 002

Majority of the women had a negative perception about pregnant women having to know their blood type as 37% disagreed with the assertion that a pregnant woman should know their blood type, 31% didn't know and only 32% thought a pregnant woman should know their blood type.

Similarly, majority had a negative perception about identifying a blood donor as 41% disagreed with the assertion that a pregnant woman should identify a blood donor ahead of time and 35% didn't know as compared to only 23% who agreed with the statement.

Figure 12: Responses to statements on SBA and complication preparedness



Source: Primary data

Attending antenatal care is vital for pregnant women because among other things it is where they are taught about birth and complication preparedness so knowing how many antenatal care visits are needed for a pregnant woman was important in understanding their perceptions towards

SBA. As seen in the table above, majority of pregnant women knew about the frequency of antenatal care visits needed as 62% agreed with the statement that it is necessary for a pregnant woman to attend four or more antenatal care visits, while there was a small number 19% who disagreed with that statement and 19% didn't know.

Knowing the expected date of birth can help a pregnant woman in making early arrangements which reduces on the delays hence the statement it is necessary for a pregnant woman to know her expected date of delivery was asked to help know if they understood the necessity of that. The figure above shows that 72% agreed with that statement, 16% disagreed with the statement and 12% didn't know. This implies majority of the pregnant woman perceived knowing their expected date of delivery as necessary hence positive.

A significant number of respondents had a positive attitude towards involving their family and friends in making plans for birth and complications as 87% of the pregnant woman agreed with the statement that It is necessary for a pregnant woman to involve her family and friends in making plans for birth and possible emergencies compared to9% who disagreed with the statement and 4% who didn't know.

Overall, it was noted that the most common answer was agreed, and out of 12 statements that were used to test their perceptions and attitudes, in nine of these statements there were more people who agreed than disagreed while in three of the statements there were more who disagreed than agreed. This implies pregnant women at Kibuku HCIV had positive perceptions towards skilled birth attendance and complication preparedness.

4.6.3 Perception of health facility

Getting to understand the women's perceptions towards the facility was important in understanding their perceptions towards SBA as the proportion of facility births is used in Uganda to measure SBA hence their perceptions gave us a glimpse into whether they would be willing to use this health facility for birth.

Table 18: Where do you think a woman can get care in case, they experience a health problem?

	Frequency	*Percent of responses (%)*
From a skilled health provider (nurse/doctor/midwife)	176	68.22
From traditional birth attendants	58	22.48
From family/friends/neighbors	18	6.98
Other	6	2.33
Don't know	18	8.96
Total	**276**	**100.00**

Source: primary data

From the table above, majority (68%) of the respondents mentioned that they would go to a skilled health provider in case they experienced a health problem during pregnancy, birth or immediately after birth. 22% mentioned they would seek care from a traditional birth attendant, 6% said they would seek help from family/friends /neighbors while 2% mentioned other which included Herbalist or witch doctor, VHT. 8 % of the respondents mentioned they didn't know where to seek help from. Though a significant number of people recognize that seeking care from a health care provider for a health problem is the right thing, there was also those who mentioned they would seek help from other sources as well or entirely.

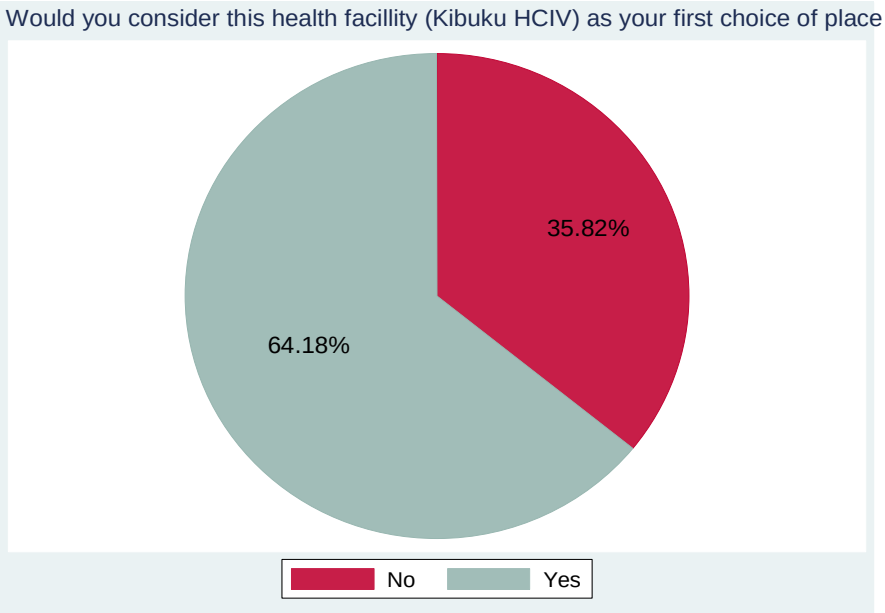
Table 19: Where would you prefer to give birth to this baby?

	Frequency	*Percent (%)*
Govt hospital/health facility/dispensary	146	72.64
Private health facility/clinic	31	15.42
Respondent's home	3	1.49
Traditional birth attendant home	20	9.95
Don't know	1	0.5
Total	**201**	**100.00**

Source: Primary source

From the table above, majority of the respondents have a positive attitude towards facility births as 73% of the respondents said they would like to give birth to their current pregnancy at a government facility and 15% said in a private facility. A small number 10% said traditional birth attendant, 1% said respondent's home and only 1 person (0.5%) didn't know where they wanted to give birth from.

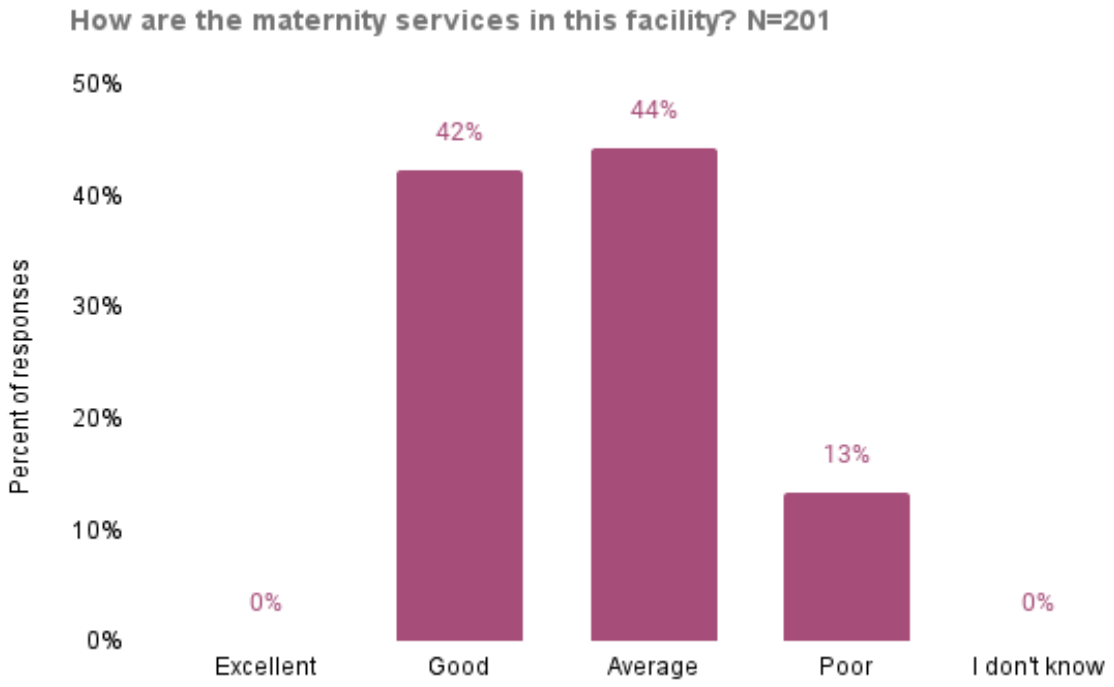
Figure 13: Would you consider this health facility as your first choice of place to give birth.



Source: Primary data

Regarding Kibuku HCIV, 64% said they would consider Kibuku HCIV as their first choice for giving birth while 36% said they would not. Those who said they wouldn't consider it gave the following reasons in order of the most common responses selected. 37% said it's too far for them, 22% said it doesn't have the services they require, 17% said they don't like the health workers there, 12% said their previous experience with the facility was not good, 7% said other which included; the nurses are rude to them, the facility is not well equipped or has poor quality services, it is unhygienic and about 3% said it is too expensive. These findings reveal that not all women receiving antenatal care at Kibuku HCIV would like to give birth from there due to the reasons given above.

Figure 14: How do you rate the maternity care services given in this facility during pregnancy, childbirth and immediately after birth?



Source: Primary data

The pregnant women were asked about their opinions on the maternity services provided at Kibuku HCIV and no one said they were excellent, 42% said they were good, 44% said they were average and 13% said they were poor.

The respondents gave their reasons as to why they ranked the maternity services at Kibuku HCIV as seen in the graph above i.e., good, average and poor, and these were their reasons; The most mentioned positive reasons for the ranking were; facility is always open by 26% of the respondents. The most mentioned negative reasons for the ranking where facility does not have necessarily medicines by 15% of the respondents followed by long wait to be seen by 13% and staff treat women poorly by 11%.

Table 20: Cross tabulation between service ranking and first choice facility for birthing.

Would you consider this health facility as your first choice of place to give birth	*How are the maternity services in this facility*			
	Good	Average	Poor	Total
Yes	83	45	1	129
No	2	44	26	72
Total	85	89	27	201

Pearson chi2(2) = 91.5454 Pr = 0.000

The table above shows that, of the 85 respondents who found the maternity services good, 83 (98%) would consider Kibuku HCIV as their first choice to give birth and 2 (2%) would not consider it. Of the 89 who found the maternity services to be average 45 (51%) would consider Kibuku HCIV as their first choice and 44 (49%) would not consider it. Of the 27 who found the maternity services poor 1(4%) would consider the facility as their first choice while 26 (96%) would not consider it.

Pr =0.000 which points to a significant relationship between the assumed quality of services and the decision on where to give birth from.

The correlation between service ranking and first choice facility for birthing is positive (0.6749) which implies that as service delivery improves, selecting that facility as first choice for giving birth also increases. It also implies that a woman's perceived quality of care is significant to their decision making regarding childbirth.

4.7 Challenges in implementing the Skilled Birth Attendance Policy (SBAP) at Kibuku HCIV.

The researcher sought to understand the challenges in implementing the SBAP at Kibuku HCIV to get a full picture of how the policy is being implemented at the facility. Interviews with facility staff revealed the following challenges at the facility in implementing SBA.

Inadequate infrastructure. Limited space for the maternity ward was noted as one of the main challenges in implementing the SBAP at Kibuku HCIV. During interviews with the health workers, they explained that there is limited room for conducting all the activities of the department such as limited room in the recovery ward and this leads the health workers to discharge women prematurely especially those who have had vaginal births to create space for caesarean section patients. The delivery room also has inadequate room to accommodate the increasing volume of women who come to the facility for deliveries. During observation, it was noted that women who come for antenatal care have no waiting area. The midwife who was interviewed also reported that "due to lack of space, holding group health talks during antenatal care is very difficult" hence the health worker is only able to speak to women individually during their examination and this often doesn't allow enough time for interaction, and this leads to women not receiving thorough advice on birth and complication preparedness during antenatal care attendance.

Inadequate housing facilities for staff is also a limitation in implementation of SBA. It was observed that the health facility has only two housing units and as explained by the one of the health workers that, "these are not enough to accommodate emergency staff especially for EmOC". The facility finds itself lagging in response time when a pregnancy emergency happens at night because EmOC staff stay away from the facility.

Inadequate staff for maternity unit. The unit is understaffed, and the available health workers are overworked. From observation and health worker interviews, it was found out that, staffs are overwhelmed with duties as one staff finds themselves attending to the deliveries, post-natal care, and antenatal care. The priority is often given to the delivery ward while post-natal and antenatal services are given less time. The facility has three qualified midwives who alternate between day and night, and these are often supported by nursing assistants and interns who do not have comprehensive skills in midwifery and so are not confident enough in doing some EmOC signal functions. The facility has two medical doctors and one anaesthesiologist who are not fully stationed at the facility and hence cannot effectively respond to emergencies such as emergency caesarean operations.

Inadequate equipment supplies and drugs. As explained during the health worker interviews, the facility has inadequate equipment for the services needed at the maternity unit i.e., has only one

delivery bed and yet there are many women who come to give birth. This leads to some women giving birth on the floor and discourages some women from coming to this facility for birth. It was also found out that the facility often does not have enough supplies and drugs and hence women are often told to come along with some supplies or buy drugs when they come for birth. The health facility also often has a shortage of blood for blood transfusions which is a challenge in the provision of EmOC services.

Poor referral system. There are challenges with the referral process that include transportation and communication between the referring and receiving facility. A health worker noted that "the most challenging thing with referrals is swift transportation to the receiving facility". Even though there is an ambulance at Kibuku HCIV, most patients cannot afford the charges of the ambulance that include hiring a driver and paying for fuel hence they are left to find their way to the referred facility. This often causes delays ranging from hours to days as they must solicit for funds for transportation. In the process, some women reach care when it's too late due to delays in transportation and other women get side tracked by family and friends who advise them on cheaper options like use of tradition birth attendants or private clinics which also leads to fatal outcomes sometimes and in such instances such maternal deaths go unrecorded since they happen under unlicensed practitioners. It was also mentioned that lack of proper communication channels leads to delays in getting required care once a health facility is reached.

"*Sometimes patients are referred from lower-level facilities to Kibuku HCIV however due to lack of timely communication from the referring facility, when patients reach the facility, there may be delays in attending to them as the nurses try to prepare the required supplies and equipment to attend to the emergency*" from a health worker interview.

Cultural beliefs and practises are also a hindrance to implementation of SBAP at Kibuku HCIV. This was explained by the health workers in a way that there are cultural practices of women in this area which hinder them from accessing care in a timely manner. The health workers explained that such beliefs include belief that some pregnancy complications are a result of witchcraft, curses or unappeased ancestors rather than medical hence when women come to the facility and are told of the complications of their pregnancy, they resort to seek care from herbalists rather than medical care.

A 26-year-old who was 9 months pregnant said during a semi structured interview that when she was told by a health worker that her child was breached, she went to a traditional birth attendant who repositioned her baby as the health workers had not offered her a solution. She continued to say.

"You see madam, not all pregnancy problems are to be treated in the hospital, some of those problems can only be solved by herbalists" (Interview 004).

It was also noted as seen in table 17 and table 18 that some women go to traditional birth attendants for treatment of pregnancy complications and to give birth. These practises hence challenge the implementation of the SBA policy as most of these traditional birth attendants are not skilled professionals.

CHAPTER FIVE

5.0 DISCUSSION AND INTEPRETATION OF RESULTS

5.1 Introduction

This chapter provides an interpretation and discussion of the results presented in chapter four. The chapter starts by providing an interpretation of the demographic factors, then obstetric factors, then discussion on the following study objectives respectively; To highlight the skilled birth attendance policy interventions implemented at Kibuku HCIV among pregnant women: To assess the preparedness of pregnant women at Kibuku HCIV for skilled birth attendance: To explore pregnant women's perceptions towards skilled birth attendance at Kibuku HCIV: To examine the challenges in implementing the skilled birth attendance policy at Kibuku HCIV.

5.2 Demographic factors

These factors help us to understand the population under study. The conceptual framework stated that social demographic factors were associated with birth and complication preparedness and SBA. As seen in chapter 4 table 3, the population under study was a young population with majority of respondents being below 35 years and only 8% being 36 years and above with the youngest being 18 years while the oldest was 41 years. Regarding marital status, the biggest number of respondents were either married or cohabiting, followed by those who had never been married and lastly the widowed/separated/divorced. Most of the respondents had reached some level of primary, and a few had gone higher while there were some participants who had not attended any school. And for their occupation, majority were unemployed followed by those in informal/petty trade and a small number were salaried earners. These demographic factors of respondents provided an understanding of the population under study and to understand the association between these factors and birth and complication preparedness and SBA, a Pearson chi-square test was conducted in chapter 4.5.4 which revealed that in this population, age and occupation were significantly associated with making preparations for birth while marital status and education had no significant relationship with making preparations for birth. This therefore means that the hypothesis in the conceptual framework that age and occupation are associated with birth and complication preparedness was found true while the hypothesis that marital status and education are associated with birth and complication preparedness was found false in the study population.

5.3 Obstetric factors

Obstetric factors such as pregnancy trimester, expected date of birth, number of pregnancies, problems during current pregnancy and antenatal care visits were said to be need factors for birth and complication preparedness and skilled birth attendance in the conceptual framework As presented in chapter 4, figure2, the respondents were mostly in their second and third trimester with a few in their first trimester. As shown in figure 3, there were more women who did not know their expected date of birth than those who knew, it was also found out that the trimester one is in had an influence on their knowledge of expected date of birth i.e. more women in their third trimester knew their delivery expected date than women in their second trimester and more women in their second trimester knew their delivery expected date than women in their first trimester. Table 5 showed that most of the respondents were not having their first pregnancy meaning there were more respondents who had been pregnant before than those who hadn't. While majority of the respondents had not had pregnancy problems with their current pregnancy, most of those who had, had experienced severe abdominal pain as the health problem. This shows that the most common pregnancy health problem was severe abdominal pain. And antenatal care which is supposed to be the main avenue for passing on information on birth and complication preparedness, the findings in table 6 showed that a small number of respondents only 18% had attended 4 or more antenatal visits with table 7 showing many of them started antenatal care in their second trimester.

5.4 Objective one: To highlight the skilled birth attendance policy interventions implemented at Kibuku HCIV among pregnant women.

The percentage of births attended by a trained birth attendant is used as an indicator to measure progress towards SDG 3 by 2030. Skilled Birth Attendance (SBA) became a policy focus in Uganda for reducing maternal mortality. As seen in the literature review, strategies for this policy in Uganda included increasing access to emergency obstetric care which led to several reforms such as innovations and expansion of health facilities, increasing staffing, extending comprehensive emergency obstetric care to level IV health centres such as Kibuku HCIV and provision of information on birth and complication preparedness. This objective set out to understand the process and quality measures in place, addressing the "how" of implementation.

Implementation of comprehensive emergency obstetric care was measured using the 9 signal functions as presented in table 9. It was discovered that the facility had the capacity to conduct

the 9 signal functions namely, administering uterotonic drugs, administering parenteral antibiotics, manually removing the placenta, administering parenteral anticonvulsants for preeclampsia and eclampsia, removing retained products, performing basic neonatal resuscitation, performing assisted vaginal delivery, performing surgery and performing blood transfusion. It was also noted that even though the facility had the capacity which was referred to as having the necessary equipment and personnel to conduct the exercise, only 4 of the 9 signal functions had been performed at the facility in the three months preceding data collection. The reasons for this which included inadequate trained staff and shortage of supplies implies that even though the facility has the equipment and staff to conduct the signal supplies, the staff is inadequate to meet the demand and supplies needed such as drugs and blood which were lacking showed the facility was lacking in its implementation of emergency obstetric care.

The findings also revealed that the facility had inadequate infrastructure such as staff housing and space in the maternity unit, inadequate staff for EmOC, inadequate supplies such as drugs and blood, inadequate equipment such as delivery beds and beds in the recovery room, unavailability of affordable ambulance services, plus a poor referral system. This implied the facility had major gaps in implementation of the SBA policy.

These results are consistent with the findings from research conducted earlier in other parts of Uganda such as a study that was conducted in Karamoja that showed gaps in the accessibility of vital infrastructure, medications, supplies, equipment, and personnel for maternal and new-born care. (Wilunda et al., 2015). Another study conducted at a health Center IV in Yumbe district had similar results as it showed the facility had performed 5 out of the 9 signal functions and did not meet the WHO standard for an EmOC health facility (Omona., 2021).

However, on the other hand, it was found out that the facility had good hygiene, an exam room with adequate privacy, an operational theatre, the maternity department was open 24 hours a day with a midwife on duty in the night and had a 24-hour light source with both solar and hydro power. These showed that the facility could offer maternity services and attend to pregnant women 24 hours a day.

Provision of information on birth and complication preparedness was also looked at as an intervention for implementing the policy at Kibuku HCIV. From the findings in chapter 4 table 10, it was revealed that majority (over 70%) of women were not given information about the

following by a health worker during their current pregnancy i.e. childbirth, or soon after delivery, danger signs of serious health problems during pregnancy, transportation arrangements, where to go if they had danger signs of serious health problems, preparations for funds/finances, arrangements for a blood donor and preparations for a healthcare professional to deliver their child. Unlike the study conducted in western Uganda which revealed that majority (98%) of the respondents had received information on the components of birth and complication preparedness and the danger signs (Kabakyenga et al., 2011).

Even though according to the ministry of health guidelines, birth and complication preparedness is meant to be part of the antenatal care package, women at Kibuku HCIV are not receiving this information from a health worker during antenatal care visits. This indicates that there is a gap at the facility in implementation of interventions for SBA policy.

5.5 Objective two: To assess the preparedness of pregnant women at Kibuku HCIV for Skilled Birth Attendance (SBA)

Birth and complication preparedness is endorsed by Uganda's Ministry of Health as a strategy to increase the utilization of SBA. Women's preparedness for SBA was looked at through the lenses of their preparedness for birth and complications. The results in chapter 4.5 revealed the following.

Only 23% of the respondents had sufficient knowledge of key pregnancy danger signs because they mentioned 3 or more danger signs, 43% had some knowledge and 33% did not have any knowledge of pregnancy danger signs. For the period during labour and delivery, only 18% had sufficient knowledge of key labour and delivery danger signs, 66% had some knowledge while 15% lacked awareness of the danger signs during this period. In the first two days after birth, only 3% had sufficient knowledge of danger signs, 56% had some knowledge while 41% had no knowledge of danger signs in the first two days after birth. From these findings it can be seen that danger signs during the first two days after births were the least known while most people had some knowledge of danger signs during labour and childbirth. It can be noted that women at Kibuku HCIV had low knowledge of the danger signs in the three stages.

Even though the measure of what is considered sufficient knowledge differed according to the different studies, it was noted that studies done elsewhere had also revealed that women had low knowledge of danger signs in the three stages i.e., a study done in Ethiopia revealed that only 26% of women had knowledge of danger signs during pregnancy (Berhe et al., 2018). A study done among antennal care attendees in Kenya showed that only 6.9% had knowledge of three or more danger signs (Mutiso, Qureshi & Kinuthia, 2008). In a study done in Rwanda only 6% of participants could mention three or more key danger signs during pregnancy, labour and postpartum (Smeele et al., 2018). Here in Uganda, a study conducted in Western Uganda revealed similar results, in that study 19% had knowledge of 3 or more danger signs during pregnancy, delivery and postpartum (Kabakyenga et al., 2011). However, for some studies like the study, which was done in Northwestern Ethiopia, more women were knowledgeable about over all danger signs during pregnancy, delivery and postpartum (Zerfu et al., 2014)

Like earlier research that found vaginal bleeding to be the most known danger sign of obstetric complications, severe vaginal bleeding was the most known key danger sign in this study. (Zerfu et al., 2014; Masudio et al., 2019; Smeele et al., 2018).

One of the constructs of the health belief model is cue to action which refers to a stimulus needed to trigger the decision-making process. In this case cues to action would be the danger signs that would trigger the pregnant woman to seek for skilled birth attendance however when women lack knowledge of danger signs as was found out in this study, it will delay the decision making process because they may not recognise the cues to take action to seek skilled care which will lead to low utilisation of skilled birth attendance hence affecting the policy's goal.

From the findings it was also noted that while majority of the respondents (84%) were familiar with the term birth preparedness, only 34% were familiar with the term complication preparedness. This points to the lack of emphasis on complication preparedness in the information given to pregnant women even though according to WHO, 2006, everyone woman faces risk of unpredicted health problems that could end in death or harm and yet the women at Kibuku HCIV were not familiar with the term complication preparedness.

Unlike another study conducted in south-western Uganda which found that none of the participants knew saving money for emergencies as a requirement for birth readiness (Okello, 2019), the findings in chapter 4 table 15 of this study showed that the most well-known aspect of

birth and complication preparedness was saving money for emergencies. The least known in this study were identifying a skilled provider and identifying a blood donor. Many of the respondents could not name three or more elements of birth preparedness as only 17% mentioned three or more. However, majority (74%) could name at least one or two elements of birth and complication preparedness. According to the health belief model, a person will engage in behaviour which they perceive has value or benefit in decreasing the risk or seriousness of disease. Knowledge of birth and complication preparedness elements would inform pregnant women of the benefits of preparing for birth and possible complications and this would motivate them to engage in preparing for birth and possible complications.

Figure 5 shows that many of the pregnant women (61%) had not prepared for possible emergencies while only 39% had made any preparations. It was also revealed that only 32% of those who prepared had prepared in 3 or more elements of birth and complication preparedness and these were considered well prepared while 35% had made at last one preparation, and 32% had made at least two preparations. This reveals that even the small number of women who prepared were not well prepared. In general women at Kibuku HCIV were not prepared for possible emergencies that could occur from their current pregnancy.

The results from this study which indicate that the majority (61%) of women had not prepared for birth and possible complications are consistent with studies conducted elsewhere which also revealed that women had not adequately planned for childbirth and complications. A study conducted in Eastern Uganda that looked at three elements i.e., choice of where to deliver from, saving money for transport & hospital costs and buying key birth materials, reported that only 25% of the participants were well prepared (Timsa et al., 2015). Similarly, research conducted in Kenya showed that majority of the participants lacked a clear strategy on what to do in the event of an obstetric complication (Mutiso, Qureshi & Kinuthia, 2008). Other research from Tanzania, Ethiopia, Nepal, and India all demonstrated that women were not appropriately prepared for childbirth and its complications (Hailu et al., 2011; Mwilike et al., 2018; Hari, et al., 2015; Acharya et al., 2015). However, contrary to this study, many of the participants (58%) in a study done in Tanzania were reported to having been adequately prepared for birth and its complications (Bintabara et al., 2015)

Among the elements of birth and complication preparedness, saving funds was the most practiced element by 39% of those who had prepared. This finding was like findings in other

studies that had revealed that saving money was the most common practice of birth preparedness and complication readiness (Kabakyenga et al., 2011; Agarwal et al., 2010; Berhe et al., 2018; Smeele et al., 2018). The least practiced was identifying a blood donor by none of the participants and identifying a skilled provider by only 4%. This was consistent with other studies conducted that had shown that most of the respondents had not identified a skilled birth attendant (Hailu et al., 2011; Berhe et al., 2018; Smeele et al., 2018). However, there were studies that had different results and had revealed that most of the respondents had found a trained birth attendant unlike in this study (Agarwal et al., 2010, Masudio et al., 2019; Acharya et al., 2015,). Other studies reviewed concur with the results from this study that identifying a blood donor is the most lacking element of pregnant women's delivery and complication preparedness plan (Hailu et al., 2011; Agarwal et al., 2010; Berhe et al., 2018 Masudio et al., 2019)

5.6 Objective three: To explore pregnant women's perceptions towards Skilled Birth Attendance (SBA) at Kibuku HCIV

One of the tenets of the paradigm of medical belief holds that someone who takes a particular health issue serious is prone to act in a way that avoids the issue altogether. Similarly if individuals perceive the severity of obstetric complications such as a woman and or the baby can die due to these complications then they will engage in health behaviours that promote skilled birth attendance (SBA) hence respondents were asked about their perceived severity of obstetric complications.

In chapter 4.6.1, the findings revealed that only 31% thought a pregnant woman can die from a health problem during pregnancy, majority (72%) of respondents said a woman can die from a complication during labour and birth and 36% of the respondents said a woman could die from a pregnancy related health problem during the first two days after birth. The rest of the women either had said they did not think a woman could die or did not know both of which can be classified as perceiving the complications as not severe. From these results, we can say that majority of the women did not perceive health problems during pregnancy and the first two days after childbirth as severe while majority perceived health complications during labour and birth as severe. This would mean women would be more willing to prepare for complications and seek care during labour and delivery than during pregnancy and in the first two days post-delivery and

yet these stages are as likely to lead to maternal death as the stage of labour and birth. One of the top causes of maternal deaths according to ministry of health in Uganda is infection which could happen after birth and hypertensive disorders which could happen during pregnancy. Hence the lack of awareness of severity of risk during pregnancy and in the first two days following delivery puts women at risk of maternal death.

Another construct of the model of health belief states that an individual who perceives that s/he is susceptible to a particular problem of health will engage in a behaviour that reduces the risk of developing the problem of health. This is why women were asked about their perceived susceptibility to pregnancy complications. From the findings in chapter 4 figure 9, 51% of women interviewed disagreed with the statement that all pregnant women are at risk of facing health problems that could endanger their life. Those who did not know and those who disagreed with the statement which is 66% do not perceive themselves as susceptible to pregnancy health problems that could endanger their lives. This would mean that they are unlikely to engage in behavior such as birth and complication preparedness to reduce on the delays that could happen when they face a pregnancy complication. This explains why 61% of the respondents had not made any preparations for possible emergencies.

According to the theory of planned behavior by Azjen, a person's attitude towards a certain behavior influences their intention to engage in that behavior. Azjen noted that "the stronger the intention to engage in a behavior, the more likely should be its performance" (Azjen, 1991 pg. 181). Women's attitudes towards statements on birth and complication preparedness and skilled birth attendance and their attitudes towards facility births and Kibuku HCIV were examined using a Likert scale. It was assumed in relation to this theory of planned behavior that women who had positive attitudes were most likely to engage in preparing for birth and complications and if they had positive attitudes towards facility births and Kibuku HCIV, they were more likely to engage in skilled birth attendance and deliver at Kibuku HCIV that is why their perceptions were examined. The findings in chapter 4.6.2 revealed the following.

43% of the pregnant woman agreed that all pregnant women should have knowledge of possible serious health problems that could endanger their lives thus showing that 43% had a positive attitude towards getting knowledge of pregnancy danger signs. The findings from the qualitative study also showed a flawed thinking among pregnant women that only women who have health problems with their current pregnancy should have knowledge about possible serious health

problems. This reveals that women who had such reasoning and the 57% who either disagreed with that statement or didn't know are unlikely to look for information about danger signs.

A significant number of women (68%) agreed with the statement that a pregnant woman should plan ahead of time where she will give birth to her baby which meant they had a positive attitude towards making prior plans for a place to give birth in. These results contradict with the theory of planned action which proposes that person's attitudes influence intention and predict actual behavior however in this study even though 68% of expectant mothers had a positive attitude towards making plans for where to give birth from, only 12% of those who had made preparations had located a facility for birth which means even though majority of the respondents had a favourable attitude, the actual behavior did not reflect the attitudes.

Majority (82%) of women agreed that a pregnant woman should plan ahead of time how she will get to the place where she will give birth. This is relating to deciding for transportation hence the results show that majority of women had a positive attitude towards deciding for transportation which would mean majority of women would have the intention to prepare for transportation.

The most agreed with statement was the statement that a pregnant woman should have funds saved for pregnancy related emergencies by 96% of the respondents. This showed that majority of the women had a positive attitude towards saving funds for emergencies and hence would have the intention to do so. These findings agree with the theory of planned behavior as it was seen that majority of the women who had prepared had saved funds.

85% of the women agreed to the statement a pregnant woman should plan ahead of time who her labor and birth companion will be. This showed majority of pregnant women had positive attitudes towards identifying a birth companion hence implying according to the theory of planned behavior that majority of women would be likely to identify a birth companion.

88% of the pregnant women agreed with the statement that it is safe for a pregnant woman to deliver in the presence of a skilled birth attendant. This implied that majority of pregnant women had a positive attitude towards skilled birth attendance. These positive attitudes were also reflected in their choice of place to give birth as 88% of the respondents said they would like to give birth at a private and government health facility.

Only 32% of the pregnant women agreed with the statement a pregnant woman should know their blood type and the 68% either disagreed or didn't know which meant most of the pregnant women had negative attitudes towards a pregnant woman knowing their blood type.

In a similar way, the statement a pregnant woman should identify a blood donor ahead of time had more people who disagreed with it than those who agreed with it as 23% agreed and the 76% were those who disagreed and those who didn't know. This means majority of respondents had a negative attitude towards identifying a blood donor. It was also revealed that none of the women had identified a blood donor as a birth and complication preparedness plan and only 1% had mentioned identifying a blood donor as a birth and complication preparedness element. This implies that the negative attitudes towards identifying a blood donor influenced they're not engaging in identifying a blood donor as a practice of birth and complication preparedness hence agrees with the theory of planned behavior.

62% of women agreed with the statement that it is necessary for a pregnant woman to attend four or more antenatal care visits which shows that a substantial number of women are aware of the recommended number of antenatal visits by the ministry of health. If the women are aware of the recommended number of visits, it will prompt women to make those number of visits and this will mean they engage more with the health services which is skilled attendance.

72% of the respondents agreed with the statement it is necessary for a pregnant woman to know her expected date of delivery while a small number did not. This shows pregnant women had a positive attitude towards knowing their expected date of delivery. Even though majority of the women had a positive attitude towards knowing their expected date of delivery, 58% of them didn't know their expected delivery date. This shows there is a gap in information sharing to pregnant during antenatal care visits since they would like to know this information, but it is possibly not shared with them.

Majority (87%) agreed with the statement that It is necessary for a pregnant woman to involve her family and friends in making plans for birth and possible emergencies. This implied that women had a positive attitude towards involving family members in making plans and so they would be likely to involve their family and friends in making plans.

Overall, women had a positive attitude towards most of the elements of birth and complication preparedness except for knowing their blood type and identifying a blood donor. Women also

had a positive attitude towards skilled birth attendance. This study produced results that agreed to studies conducted elsewhere that had also shown that pregnant women had positive attitudes towards birth and complication preparedness. (Obi, Okojje & Keshi, 2016; Saidu et al., 2019; Ogboghodo et al., 2018). Just like this study which revealed that women had negative attitudes towards identifying a blood donor, another study which was done in southwestern Uganda also revealed that majority of the respondents had negative attitudes towards identification of a blood donor as a component of birth and complication preparedness (Okello, 2019)

For perceptions about the health facility, 68% said they would go to a health care provider in case they got a health problem. 73% said they would prefer to give birth at a government health facility and 15% at a private facility which means there is a preference for government facilities. These show positive perceptions from pregnant women towards the health facility.

For Kibuku HCIV in particular, there were more women who said they would consider it as their first place of choice to give birth than those who wouldn't. However, this also showed that not all those receiving antenatal care from Kibuku HCIV wanted to give birth from there. More women ranked the facility maternity services as average. It was also found out that there was a correlation between how they ranked the services and their intention to give birth from there. This implies improving the services at the facility will motivate more women to come and give birth from there.

5.7 Objective four: To examine the challenges in implementing the Skilled Birth Attendance Policy (SBAP) at Kibuku HCIV

In chapter 4.7, it was found out that the health facility was experiencing several challenges in implementing SBAP. The challenges found included inadequate infrastructure such as lack of space for the maternity unit operations and inadequate housing for EmOC staff, inadequate staffing, inadequate equipment, supplies and drugs, poor referral system, and cultural beliefs and practices of pregnant women. These challenges have undermined the quality of care at Kibuku HCIV. In as much as the proportion of health facility births has increased in Uganda, and Uganda uses proportion of facility births as an indicator for skilled birth attendance, facility births does not constitute skilled birth attendance unless there is an enabling environment. Skilled birth attendance has been defined as a skilled birth attendant working together within a

supportive atmosphere with tools, drugs, supplies, and transport for referral. (Adegoke et al., 2011; Graham et al., 2000).

UNFPA, 2017 reported that there is a 36% gap in midwifery staffing and the findings of this study agree with that report as it was revealed that the facility had only three trained midwifes with only one available at a time as they must alternate between day and night. The findings from this study agree with findings from other studies which have also reported the lack of enabling environment and personnel to offer emergency obstetric care at the health facilities. (Wilunda et al., 2015; Mbonye et al., 2007). This implies there is a challenge at the institutional level in implementing the SBA policy.

CHAPTER SIX

6.0 RECOMMENDATIONS AND CONCLUSION

6.1 Introduction

This chapter offers first, recommendations for policy makers and implementers about the lessons learnt from this research. Then gives a conclusion of the study and suggestions for further research.

6.2 Recommendations

The target of SDG 3 is to lower the ratio of maternity mortality globally to less than 70 per 100,000 live births. To achieve this, the WHO developed "a standard for the improvement of the quality of new-born and maternal care in Health Facilities" in 2016. In addition, Uganda itself has policies to tackle maternal mortality such as the Skilled Birth Attendance Policy (SBAP). However as evidenced from this research, which was conducted at a rural health facility, there are gaps in the implementation of the SBAP which undermines its relevance to pregnant women and hence the overall goal of reducing maternal mortality. Therefore, policy makers and policy implementers can benefit from the recommendations offered below.

The government should ensure that the execution of obstetric care signal functions at medical facilities is routinely monitored and evaluated to make certain that the necessary requirements are available at these facilities to provide EmOC services and that services are being provided to the people. Monitoring will also check to ensure women are receiving information on how to prepare for birth and complications while attending antenatal care.

Staffing for health facilities that attend to large volumes of people should be revised. Staffing should be based on workload as different health facilities have different staffing needs. In a district with no hospital like Kibuku, a health center IV receives high volume of people and hence has different staffing needs which should be investigated.

Facilities like Kibuku HCIV require rehabilitation and equipping. Expansion of the health facilities to create space for the operation of skilled birth attendance activities should be done. Creating space for things like staff housing for EmOC staff, maternity wards, antenatal care waiting area, delivery room and post-natal care will enable the facilities to properly implement the policy objectives. The facilities must also be equipped with drugs, more beds for both

delivery and recovery room to meet demand, equipment, and supplies. These will make the health facilities attract women to go and give birth from the facility.

Even though there is a robust well written document about the referral system by the ministry, the case is not the same in facilities in the rural area due to lack of proper communication and transport services at the facility. The government should therefore provide health facilities with the necessary tools to ensure a swift communication system and free or low-cost ambulance services to cater for the delays in transportation.

There is a gap in birth and complication preparedness among pregnant women. The pregnant women are neither well informed nor are they well prepared regarding birth and complications. The government should therefore diversify the sources of information for expecting mothers and their families to receive information on birth and complication preparedness. The pregnant women provided these three sources of information as their most preferred for delivering messages on birth and complication preparedness. These included the health facility/antenatal sessions as their first choice of source of information regarding preparations for delivery and complications, Radio/TV as the second and through VHT/community health workers as the third choice. The government can use those sources to deliver messages to women on birth and complication preparedness.

6.3 Conclusion

Skilled Birth Attendance is imperative to the reduction in maternal mortality in Uganda and hence achieving SDG 3. This study has provided valuable insights into the implementation of the Skilled Birth Attendance (SBA) policy and its relevance to pregnant women in rural Uganda, with a specific focus on Kibuku Health Center IV.

Through comprehensive analysis, the study revealed both pluses and minuses in the implementation of this policy and its relevance to expectant mothers. The study revealed that Kibuku HCIV was not well equipped and not well prepared to effectively offer the services of a comprehensive emergency obstetric care facility. The pregnant women had not adequately prepared for SBA as majority did not have sufficient knowledge of danger signs in any of the three stages of pregnancy, labour and childbirth and the period after birth, could not name three or more birth and complication preparedness elements and had not made any preparations for normal delivery and possible complications. On the plus side, the study revealed that majority of

the women had positive perceptions towards birth and complication preparedness and skilled birth attendance which was a plus in the policy's implementation efforts. Challenges in implementing the policy at Kibuku HCIV were also examined which included inadequate infrastructure, inadequate staffing, inadequate equipment, supplies and drugs, poor referral system, and cultural beliefs and practices of pregnant women.

These findings underscore the importance of continued efforts to strengthen the implementation of the SBA policy in rural areas, ensuring that pregnant women have equitable access to skilled birth attendance services. Addressing challenges such as knowledge gaps, inadequate infrastructure, limited availability of essential resources, staffing shortages, and cultural barriers is essential for improving maternal health outcomes and reducing maternal mortality rates in these settings.

Moving forward, it is imperative to translate the findings of this study into actionable interventions aimed at strengthening the implementation of the SBA policy, addressing the identified challenges, and promoting woman-centred maternity care practices. By doing so, we can contribute to the realization of universal access to quality maternal healthcare services and the fulfilment of the reproductive rights and health needs of women in rural Uganda and beyond.

More research should be conducted on a wider scale in Uganda to provide a larger view of the general situation in the country and research should also be conducted to understand why the government struggles with effectively implementing the policy even though there is a well thought out intelligible policy. These will provide policy makers with answers to the unanswered questions of poor policy implementation. This research focused on the health facility and women attending antenatal care, future research can be carried out at community level and to include the extended community of a pregnant woman.

REFERENCES

Acharya, A. S., Kaur, R., Prasuna, J. G., & Rasheed, N. (2015). Making pregnancy safer- birth preparedness and complication readiness study among antenatal women attendees of a primary health center, Delhi, *Indian journal of community medicine: official publication of Indian Association of Preventive & Social Medicine*, 40(2), 127-134. https://doi.org/10.4103/0970-0218.153881

Adegoke AA, Hofman JJ, Kongnyuy EJ, van den Broek N (2011) Monitoring and evaluation of skilled birth attendance: A proposed new framework. Midwifery 27:350-359

Agarwal S, Sethi V, Srivastava K, Jha PK, Baqui AH (2010): Birth preparedness and complication readiness among slum women in Indore city, India.

Ajzen Icek, (1991). The theory of planned behavior. Organizational behavior and human processes

Allen, Urich. (2022) *Methods for stress management* available from https://psu.pb.unizin.org/kines082/chapter/the-health-belief-model/

Berhe, A. K., Muche, A. A., Fekadu, G. A., & Kassa, G. M. (2018). Birth preparedness and complication readiness among pregnant women in Ethiopia: a systematic review and Meta-analysis. *Reproductive health*, *15*(1), 182. https://doi.org/10.1186/s12978-018-0624-2

Bintabara, D., Mohamed, M. A., Mghamba, J., Wasswa, P., & Mpembeni, R. N. (2015). Birth preparedness and complication readiness among recently delivered women in chamwino district, central Tanzania: a cross sectional study. *Reproductive health*, *12*, 44. https://doi.org/10.1186/s12978-015-0041-8

Chi PC, Bulage P, Urdal H, Sundby J (2015) Barriers in the delivery of Emergency Obstetric and Neonatal Care in Post-Conflict Africa: Qualitative Case Studies of Burundi and Northern Uganda. PLOS ONE 10(9): e0139120 https://doi.org/10.1371/journal.pone.0139120

Choudhury, N., Ahmed, S.M. (2011) Maternal care practices among the ultra poor households in rural Bangladesh: a qualitative exploratory study. *BMC Pregnancy Childbirth* **11,** 15. https://doi.org/10.1186/1471-2393-11-15

Darmstadt, G. L., Lee, A. C., Cousens, S., Sibley, L., Bhutta, Z. A., Donnay, F., Osrin, D., Bang, A., Kumar, V., Wall, S. N., Baqui, A., & Lawn, J. E. (2009). 60 Million non-facility births: who can deliver in community settings to reduce intrapartum-related deaths?. International journal of gynaecology and obstetrics: the official organ of the International Federation of Gynaecology and Obstetrics, 107 Suppl 1(Suppl 1), S89–S112. https://doi.org/10.1016/j.ijgo.2009.07.010

Doctor, H. V., Findley, S. E., Cometto, G., & Afenyadu, G. Y. (2013). Awareness of critical danger signs of pregnancy and delivery, preparations for delivery, and utilization of skilled birth attendants in Nigeria. *Journal of health care for the poor and underserved*, *24*(1), 152–170. https://doi.org/10.1353/hpu.2013.0032

Furaha August, Andrea B. Pembe, Edmund Kayombo, Columba Mbekenga, Pia Axemo & Elisabeth Darj (2015) Birth preparedness and complication readiness – a qualitative study among community members in rural Tanzania, Global Health Action, 8:1, DOI: 10.3402/gha.v8.26922

Girum, T., Wasie, A. (2017) Correlates of maternal mortality in developing countries: an ecological study in 82 countries. *matern health, neonatal and perinatal 3, 19.* https://doi.org/10.1186/s40748-017-0059-8

Graham, Wendy & Bell, Jacqueline & Bullough, Colin. (2000). Can Skilled Attendance at Delivery Reduce Maternal Mortality in Developing Countries?. Stud Health Serv Organ Policy 17.

Gustav, A, Karen, O.P., Jacob, S., Jerome, K., Anette, A., (2014) Associations between mass media exposure and birth preparedness among women in southwestern Uganda: a community-based survey, Global Health Action

Hailu M, Gebremariam A, Alemseged F, Deribe K (2011) Birth Preparedness and Complication Readiness among Pregnant Women in Southern Ethiopia.

Hari, P. K., Nirmala, N., Lal, B. K., Ajaya, A. (2015) Birth preparedness and complications readiness among women in LekhnathMuniciaplity, Nepal. http://gjmedph.com/uploads/O1-Vo4No3.pdf

Hiluf M, Fantahun M (2007): Birth Preparedness and Complication Readiness among women in Adigrat town, north Ethiopia. Ethiopian Journal of Health Development.

Hofmeyr, G. J., Haws, R. A., Bergström, S., Lee, A. C., Okong, P., Darmstadt, G. L., Mullany, L. C., Oo, E. K., & Lawn, J. E. (2009). Obstetric care in low-resource settings: what, who, and how to overcome challenges to scale up? International journal of gynaecology and obstetrics: the official organ of the International Federation of Gynaecology and Obstetrics, 107 Suppl 1, S21–S45. https://doi.org/10.1016/j.ijgo.2009.07.017

JHPIEGO. (2004). Maternal and neonatal health program. Birth preparedness and complication readiness: a matrix of shared responsibilities.

JHPIEGO. (2004). Monitoring birth preparedness and complication readiness. Tools and indicators for maternal and newborn health. Baltimore:

Kabakyenga JK, Östergren P-O, Turyakira E, Pettersson KO (2011). Knowledge of obstetric danger signs and birth preparedness practices among women in rural Uganda.

Kabakyenga JK, Östergren P-O, Turyakira E, Pettersson KO (2012) Influence of Birth Preparedness, Decision-Making on Location of Birth and Assistance by Skilled Birth Attendants among Women in South-Western Uganda. PLoS ONE 7(4): e35747. https://doi.org/10.1371/journal.pone.0035747

Kebede, A., Hassen, K., & Teklehaymanot, A.N. (2016). Factors associated with institutional delivery service utilization in Ethiopia. International Journal of Women's Health, 8, 463 - 475.

Kizito Omona., (2021). Using Signal Functions to Measure Third Delays in the Management of Obstetric Emergencies: A Study of Midigo Health Centre IV: *Cognizance Journal of Multidisciplinary Studies, Vol.1, Issue.5.*

https://ir.umu.ac.ug/bitstream/handle/20.500.12280/2827/Omona_ARTICLE_HSM_2021_Using.pdf?sequence=1&isAllowed=y

Krupp, K., & Madhivanan, P. (2009). Leveraging human capital to reduce maternal mortality in India: enhanced public health system or public-private partnership? Human resources for health, 7, 18. https://doi.org/10.1186/1478-4491-7-18

Lassi, Z. S., Middleton, P. F., Bhutta, Z. A., & Crowther, C. (2016). Strategies for improving health care seeking for maternal and newborn illnesses in low- and middle-income countries: a systematic review and meta-analysis. *Global health action*, *9*, 31408. https://doi.org/10.3402/gha.v9.31408

Lerberg, P., Sundby, J., Jammeh, A., & Fretheim, A. (2014). Barriers to Skilled Birth Attendance: A Survey among Mothers in Rural Gambia. *African Journal of Reproductive Health / La Revue Africaine De La Santé Reproductive*, *18*(1), 35-43. Retrieved August 2, 2021, from http://www.jstor.org/stable/24362491

Masudio, F., Atuhaire, C., Nkfusai, C. N., Shirinde, J., & Cumber, S. N. (2019) Knowledge and practice of birth preparedness and complication readiness among pregnant women attending antennal clinic in Openzinzi Hciii, Adjumani district, Uganda. The pan African medical journal, 34, 46. https://doi.org/10.11604/pamj.2019.34.46.16869

Mbonye, A.K., Asimwe, J.B., Kabarangira, J., G., & Orinda, V., (2007). Emergency obstetric care as the priority intervention to reduce maternal mortality in Uganda.

McPherson RA, Khadka N, Moore JM, Sharma M (2006). Are birth-preparedness programmes effective? Results from a field trial in Siraha district, Nepal.

Ministry of Health (MOH) 1999. Health sub-districts in Uganda. Concept paper.

Ministry of Health; Annual Health Sector Performance Report (2019/2020)

Ministry of Health; Roadmap for accelerating the reduction of maternal and neonatal mortality and morbidity in Uganda (2007-2015)

Moran AC, Sangli G, Dineen R, Rawlins B, Yaméogo M, Baya B (2006). Birth-preparedness for maternal health: Findings from Koupéla district, Burkina Faso.

Munabi-Babigumira, S., Nabudere, H., Asiimwe, D., et al (2019) Implementing the skilled birth attendance strategy in Uganda: a policy analysis. BMC Health Serv Res 19, 655. https://doi.org/10.1186/s12913-019-4503-5

Mutiso SM, Qureshi Z, Kinuthia J (2008): Birth preparedness among antenatal clients.

Mwilike, B., Nalwadda, G., Kagawa, M., et al. (2018) Knowledge of danger signs during pregnancy and subsequent healthcare seeking actions among women in Urban Tanzania: a cross-sectional study. BMC Pregnancy Childbirth 18, 4. https://doi.org/10.1186/s12884-017-1628-6

Obi, Andrew & Obehi, Okojie & Richard, Keshi. (2016). Birth Preparedness and Complication Readiness: Attitude and Level of Preparedness among Pregnant Women in Benin City, Edo State, Nigeria. British Journal of Medicine and Medical Research. 15. 1-14. 10.9734/BJMMR/2016/25127.

Ogboghodo, Esohe & Adam, Vincent & Omuemu, Vivian & Okojie, Obehi. (2018). Knowledge, attitude, and utilization of skilled birth attendants in a rural community in Southern

Nigeria: A mixed method survey. International Journal of Medical Science and Public Health. 7. 1. 10.5455/ijmsph.2019.1028620102018.

Okello, Samuel. (2019). Knowledge and Attitude Towards Birth Preparedness Among Prime Gravid Mothers Attending Antenatal Clinic at Bwindi Community Hospital. 10.7176/JHMN/58-02.

Olowokere, A. E., Oyedele, A. T., Komolafe, A. O., Olajubu, A. O. (2020). Birth preparedness, utilization of skilled birth attendants and delivery outcomes among pregnant women in Ogun State, Nigeria. European Journal of Midwifery, 4(May). https://doi.org/10.18332/ejm/120116

Pearson, L., & Shoo, R. (2005) Availability and use of emergency obstetric services: Kenya, Rwanda, South Sudan and Uganda. Internal journal of gynecology and obstetrics: the official organ of the Internal Federation of Gynecology and Obstetrics, 88(2), 208-215 https://doi.org/10.1016/j.ijgo.2004.09.027

Prata, N., Passano, P., Rowen, T., Bell, S., Walsh, J., & Potts, M., (2011). Where there are (few) skilled birth attendants. Journal of health, population, and nutrition, 29(2), 81-91. https://doi.org/10.3329/jhpn.v29i2.7812

Reproductive, Maternal, New-born, Child and Adolescent Health Sharpened Plan For Uganda 2016/17-2019-2020

Saidu AD, Oche MO, Raji MO, Nnadi DC, Mohammed BA, Garba JA, Amin J, Raji I. (2019) Perception and determinants of knowledge and practice of birth preparedness and complication readiness in a rural community. Sahel Med J 2019;22:179-87

Sensalire, Simon & Isabirye, Paul & Karamagi, Esther & Byabagambi, John & Rahimzai, Mirwais & Calnan, Jacqueline. (2019). Saving Mothers, Giving Life Approach for Strengthening Health Systems to Reduce Maternal and Newborn Deaths in 7 Scale-up Districts in Northern Uganda. Global Health: Science and Practice. 7. S168-S187. 10.9745/GHSP-D-18-00263.

Serbanescu, F., Goodwin, M.M., Binzen, S., et al (2019) Addressing the first delay in saving mothers, giving life districts in Uganda and Zambia: Approaches and results for increasing demand for facility delivery services.

Smeele, P., Kalisa, R., van Elteren, M., van Roosmalen, J., & van den Akker, T. (2018). Birth preparedness and complication readiness among pregnant women admitted in a rural hospital in Rwanda. *BMC pregnancy and childbirth*, *18*(1), 190. https://doi.org/10.1186/s12884-018-1818-x

Solnes Miltenburg, A., Roggeveen, Y., van Roosmalen, J., & Smith, H. (2017). Factors influencing implementation of interventions to promote birth preparedness and complication readiness. *BMC pregnancy and childbirth*, *17*(1), 270. https://doi.org/10.1186/s12884-017-1448-8

Sumankuuro, Joshua & Mahama, Memuna & Crockett, Judith & Wang, Shaoyu & Young, Jeanine. (2019). Narratives on why pregnant women delay seeking maternal health care during delivery and obstetric complications in rural Ghana. BMC Pregnancy and Childbirth. 19. 10.1186/s12884-019-2414-4.

Thaddeus, S., Maine, D., (1994) Too far to walk: Maternal mortality in context Social Science and Medicine; 38(8):1091-110

The Ottawa Charter for Health Promotion [website]. Geneva: World Health Organization; 1986. [04 July 2019] http://wwwwhoint/healthpromotion/conferences/previous/ottawa/en/.

Thwala, S.B.P., Blaauw, D., Ssengooba. F., (2018) Measuring the preparedness of health facilities to deliver emergency obstetric care in a South African district. PLOS ONE. 13. E0194576. 10.1371/journal.pone.0194576

Timša, L., Marrone, G., Ekirapa, E., & Waiswa, P. (2015). Strategies for helping families prepare for birth: experiences from eastern central Uganda. *Global health action, 8*, 23969. https://doi.org/10.3402/gha.v8.23969

Uganda Bureau of Statistics (2017), The National Population and Housing Census 2014 –Health status and Associated factors. Thematic Report Series, Kampala, Uganda

Uganda Bureau of Statistics (UBOS) and ICF (2017). Uganda demographic and health survey 2016: key indicators report. Kampala: UBOS, and Rockville, Maryland, USA: UBOS and ICF; 2017.

UNFPA, Population matters. Midwifery services in Uganda (2017) https://uganda.unfpa.org/sites/default/files/pub-pdf/Issue%20Brief%202%20-%20Midwifery%20Final.pdf

Van Lonkhuijzen, L., Stekelenburg, J., & van Roosmalen, J. (2009). Maternity waiting facilities for improving maternal and neonatal outcome in low-resource countries. The Cochrane database of systematic reviews, (3), CD006759. https://doi.org/10.1002/14651858.CD006759

Wilunda, C., Oyerinde, K., Putoto, G., et al (2015). Availability, utilisation and quality of maternal and neonatal health care services in Karamoja region, Uganda: A health facility-based survey. Reprod Health 12, 30 https://doi.org/10.1186/s12978-015-0018-7

World Health Organisation (2004). Making pregnancy safer the critical role of the skilled attendant: a joint statement by WHO, ICM, FIGO. Geneva: World Health Organization (WHO). Department of Reproductive Health and Research (RHR)

World Health Organisation. (2016). Standards for Improving Quality of Maternal and Newborn Care in Health Facilities

World Health Organisation; (2006). Birth and emergency preparedness in antenatal care; Department of making pregnancy safer.

World Health Organisation; (2015). Trends in maternal mortality: 1990 to 2015: estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division.

World Health Organization, United Nations Population Fund, Mailman School of Public Health. Averting Maternal Death and Disability & United Nations Children's Fund (UNICEF). (2009). Monitoring emergency obstetric care : a handbook. World Health Organization. https://apps.who.int/iris/handle/10665/44121

World Health Organization. World Health Report 2000. Geneva, 2000.

World Health Organization; (2010). Working with individuals, families, and communities to improve maternal and new-born health. Geneva

World Health Organization; (2015). WHO recommendation on birth preparedness and complication readiness interventions. WHO Reproductive Health Library; Geneva.

World Health Organization; (2015). WHO recommendations on health promotion interventions for maternal and newborn health 2015.

World Health Organization; (2019). Trends in maternal mortality: 2000 to 2017: estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division. Geneva:

Yohannes,L., Fasil, T., Chernet, H., (2016) "Birth Preparedness and Its Association with Skilled Birth Attendance and Postpartum Checkups among Mothers in Gibe Wereda, Hadiya Zone, South Ethiopia", Journal of Environmental and Public Health, vol. 2016, Article ID 6458283, 11 pages, 2016. https://doi.org/10.1155/2016/6458283

Yunusa, EU & Awosan, Kehinde & Tunau, Karima & Mainasara, R & Dangusau, A & Garba, M. (2017). Knowledge, Perception and Practice of Birth Preparedness and Complication Readiness among Pregnant Women Attending a Tertiary Healthcare Facility in Sokoto, Nigeria. Asian Journal of Medicine and Health. 7. 1-12. 10.9734/AJMAH/2017/36705.

Zerfu, M., Tewodros, S., Hinsermu, B. (2014) Knowledge about danger signs of obstetric complications and associated factors among postnatal mothers of Mechekel district health centres, East Gojjam zone, Northwest Ethiopia.

APPENDICES

APPENDIX A: Letter of approval from UCU ethics committee

07/09/2021

To: Joan Kasidi

Uganda Christian
University
+256789630055

Type: Initial Review

Re: UCUREC-2021-152: Examining the relevance of the Skilled Birth Attendance Policy to pregnant women in rural Uganda; a case of Kibuku health centre IV, Kibuku district., Version 1, 2021-06-10

I am pleased to inform you that the Uganda Christian University REC, through expedited review held on **02/09/2021** approved the above referenced study.
Approval of the research is for the period of **07/09/2021** to **07/09/2022.**

As Principal Investigator of the research, you are responsible for fulfilling the following requirements of approval:

1. All co-investigators must be kept informed of the status of the research.
2. Changes, amendments, and addenda to the protocol or the consent form must be submitted to the REC for review and approval **prior** to the activation of the changes.
3. Reports of unanticipated problems involving risks to participants or any new information which could change the risk benefit: ratio must be submitted to the REC.
4. Only approved consent forms are to be used in the enrollment of participants. All consent forms signed by participants and/or witnesses should be retained on file. The REC may conduct audits of all study records, and consent documentation may be part of such audits.
5. Continuing review application must be submitted to the REC **eight weeks** prior to the expiration date of **07/09/2022** in order to continue the study beyond the approved

period. Failure to submit a continuing review application in a timely fashion may result in suspension or termination of the study.

6. The REC application number assigned to the research should be cited in any correspondence with the REC of record.
7. You are required to register the research protocol with the Uganda National Council for Science and Technology (UNCST) for final clearance to undertake the study in Uganda.

The following is the list of all documents approved in this application by Uganda Christian University REC:

No.	Document Title	Language	Version Number	Version Dat
1	Data collection tools	Lugwere	Version 1	2021-06-10
2	Data collection tools	English	Version 1	2021-06-10
3	Data collection tools	English	Version 1	2021-06-10
4	Data collection tools	English	Version 1	2021-06-10
5	Data collection tools	English	Version 1	2021-06-10
6	Informed Consent forms	Lugwere	Version 1	2021-06-10
7	Informed Consent forms	Lugwere	Version 1	2021-06-10
8	Informed Consent forms	English	Version 1	2021-06-10
9	Informed Consent forms	English	Version 1	2021-06-10
10	Informed Consent forms	English	Version 1	2021-06-10
11	Protocol	English	Version 1	2021-06-10

Yours Sincerely

Peter Waiswa
For: Uganda Christian
University REC

APPENDIX B: Introductory letter from the university

UGANDA CHRISTIAN UNIVERSITY

A Centre of Excellence in the Heart of Africa

10th September, 2021

To whom It May Concern
Dear Sir/Madam,

RE: INTRODUCTORY LETTER FOR MS KASIDI JOAN RITAR

Warm greetings from Uganda Christian University!

This serves to introduce the above named; Kasidi Joan Ritar, as our student pursuing a Master's degree of Research and Public Policy registered number RM19M07/007.

Ms Kasidi is conducting a research as a requirement for the award of the above mentioned degree entitled; Examining the relevance of the Skilled Birth Attendance Policy to pregnant women in rural Uganda; a case of Kibuku health centre IV, Kibuku district.

She has fulfilled all clearance requirements such as getting Research Ethics Approval from UCUREC which is accredited and regulated by Uganda National Council for Science and Technology (UNCST).

Any assistance given to her to achieving this goal will be highly welcome.
Thank you so much.

Yours faithfully,

UGANDA CHRISTIAN UNIVERSITY
10 SEP 2021
SCHOOL OF RESEARCH & POST GRADUATE STUDIES

.....
Prof. Peter Ubomba-Jaswa
Head, Research, Grants Publications
Uganda Christian University
pubombajaswa.ucu.ac.ue
cc. Executive Secretary, UNCST

A Complete Education for A Complete Person

P.O. Box 4, Mukono, Uganda (East Africa), Plot 67-173, Bishop Tucker Road, Mukono Hill,
Tel: +256 (O) 31 235 0800, Web: www.ucu.ac.ug UgandaChristianUniversity O@UCUniversity
Founded by the Province of the Church of Uganda. Chartered by the Government of Uganda

APPENDIX C: Consent forms

English_health worker interviews_verbal consent_V1_10 June 2021

For health workers

Examining the relevance of the Skilled Birth Attendance Policy to pregnant women in rural Uganda; a case of Kibuku health centre IV, Kibuku district.

Respondent ID			

Date……/……. /2021

Verbal consent

Hello, my name is ……
Thank you for agreeing to speak with me today.
I am a Researcher conducting research on a study that is exploring how the skilled birth attendance policy is relevant to pregnant women in preparing them for skilled birth attendance and ensuring they get appropriate skilled care when a facility is reached with this health facility as the study site. This research is being conducted for a student of Uganda Christian University pursuing a master's degree in Research and Public Policy.

I would like to know a few things in regard to this facility's implementation of the skilled birth attendance policy and the challenges faced in implementing the policy. I will also be interviewing pregnant women attending antenatal care at this facility about their preparedness for skilled birth attendance.

You have been selected purposively because you have information about obstetric care at this facility. If you agree I would like to ask you a few questions. This interview will not take more than 30 minutes. You have a choice to refuse to answer any question or participate entirely.

The information I collect from you will be strictly confidential. Your names will not be used anywhere in this study. There are no risks or direct benefits to you from participating in this study.

This is not an audit or aimed at critiquing the wonderful efforts by the health workers at this facility. It is aimed at helping me understand the functioning of the facility for research purposes only.

If you have any questions about this study you may contact UCU ethics committee through Mr. Osborn Ahimbisibwe 0704482044/0775737627, oahimbisibwe@ucu.ac.ug

May I proceed with the questions? Yes/No (if yes continue, if no stop and let the respondent go)

Tick as applicable

Yes	
No	

For study participants

Skilled birth attendance policy and complication preparedness among pregnant women in rural Uganda; a case of Kibuku HCIV, Kibuku district.

Verbal Consent

Hello, my name is ……
Thank you for agreeing to meet and speak with me today.
I am a Researcher conducting research on a study that is exploring the preparedness of pregnant women for pregnancy related emergencies, the preparedness of the health facility to handle pregnancy related emergencies and also pregnant women's perceptions about skilled birth attendance and complication preparedness. This research is being conducted for a student of Uganda Christian University pursuing a master's degree in Research and Public Policy.

We are speaking to pregnant women who attend antenatal care at this health facility. You have been selected for this interview by a means of random chance. If you agree I would like to ask you a few questions. This interview will take approximately 30 to 45 minutes. You have a right to refuse to answer any question and you can end the interview at any time. You can also refuse to participate in the study entirely.
The information that I will collect from you is confidential. Your identity and name will not be revealed to anyone as we will only use codes to identify participants. Your names will not be used anywhere in the study. There are no risks or direct benefits to you from participating in this study.

If you are happy, I would like to record our discussion. This is so I can remember what you say afterwards. No one except the research team will hear the recordings. Please remember that what you tell me will be confidential and so feel free to answer in your own words, and let me know if you need to stop for any reason. If there are any questions you don't feel comfortable answering that's okay; we can skip to the next question.

If you have any questions about this study you may contact UCU ethics committee through Mr. Osborn Ahimbisibwe 0704482044/0775737627, oahimbisibwe@ucu.ac.ug

May I proceed with the questions? Yes/No (if yes continue, if no stop and let the respondent go)

English_questionnaire_verbal consent_V1_10JUNE2021

For study participants

Skilled birth attendance policy and complication preparedness among pregnant women in rural Uganda; a case of Kibuku HCIV, Kibuku district.

Respondent ID

Date……/……. /2021

Verbal Consent

Hello, my name is……..

Thank you for agreeing to speak with me today.

I am a Researcher conducting research on a study that is exploring the preparedness of pregnant women for pregnancy related emergencies, the preparedness of the health facility to handle pregnancy related emergencies and also pregnant women's perceptions about skilled birth attendance and complication preparedness. This research is being conducted for a student of Uganda Christian University pursuing a master's degree in Research and Public Policy.

We are speaking to pregnant women who attend antenatal care at this health facility. You have been selected for this interview by a means of random chance. If you agree I would like to ask you a few questions. This interview will not take more than 30 minutes. You have a right to refuse to answer any question and you can end the interview at any time. You can also refuse to participate in the study entirely.

The information that I will collect from you is confidential. Your identity and name will not be revealed to anyone as we will only use codes to identify participants. Your names will not be used anywhere in the study. There are no risks or direct benefits to you from participating in this study.

If you have any questions about this study you may contact UCU ethics committee through Mr. Osborn Ahimbisibwe 0704482044/0775737627, oahimbisibwe@ucu.ac.ug

May I proceed with the questions? Yes/No (if yes continue, if no stop and let the respondent go)

Tick as applicable

Yes	
No	

For study participants

Skilled birth attendance policy and complication preparedness among pregnant women in rural Uganda; a case of Kibuku HCIV, Kibuku district.

Respondent ID

Date……/……. /2021

Ekiwandiiko ekyokwikililya

Koizeyo ssebo/nyabo, amalina ninze……...

Webale okwikililya okutumulaku nanze olwatyanu lunu.

Ndi moiza kwabo abanonelerya era tuli kukola okunonelerya ku mugaso gwa eiteka elikoba nti bulimukali alinakubalila mugalo gyomusawo eyasomele ebyokubyalisya eli abakali bebida mugeri yakubategeka okubalisiwa nomusawo omutendeke era ne kuwonati bafuna obujanjabi obwetagisya nga batukile okwidwaliro.

Tuli kutumulaku na bakali bebida abeiza okwidwalilo linu okunywa obulezi bwekida. Olondewele okwegaita omukunonelerya kunu mugeri ya kalulu. Obba nga oikililye ndi kwaaba kukubulyaku ebibuzo. Okunyumyamuku nanze tikwatwale edakika egibitamu 30. Oli weidembe okugaana okwilamu ekibuzo kyona kyona era osobola okukomya emboozi enu ekisera kyona kyona. Osobola nokugaanila kimo okwegaita omukunonelerya kunu.

Ebintu ebinaaba ntumwileku neiwe byakumiwa nga byakyama. Ewula muntu eyategela ebikumanyikisya na amalinago lwakubanga twaaba kukozesa namba okumaikya abantu abetutumwileku naabo. Titwakozese amalinago awatu wonawona omukunonelerya kunu. Wabula buziwu oba okuganyiwamu nga iwe omuntu okwaaza omukwegaitako omukunonelerya kunu.

Singa oba nekibuzo kyona kyona ekikwatagaana nokunonelerya kunu, osobola okutukilila abatwala ebya empiisa omukunonelerya ku UCU okunamba eya Mr. Osborn Ahimbisibwe 0704482044/0775737627, oahimbisibwe@ucu.ac.ug

Njaabe omumaiso okukubulyaku ebibuuzo? Kitufu/Kadi (if yes continue, if no stop and let the respondent go) Tick as applicable

Kitufu	
Kadi	

APPENDIX D: Questionnaire

English_Questionnaire_V1_10JUNE2021

PARTICIPANT QUESTIONNAIRE

QUESTIONS

Section 1: Socio demographic and obstetric related variables.

First, I would like to ask you some questions about yourself

1	How old are you	Age in complete years	……	
2	What is your marital status	Single/never married	1	
		Married/cohabiting	2	
		Widowed/divorced/seperated	3	
3	What is the highest level of education that you have attained	None	1	
		Primary	2	
		secondary 0'level	3	
		secodary A'level	4	
		University	5	
		Other (specify)……..	98	
4	What is your current occupation	Salaried employment	1	
		Informal/business/petty trade	2	
		Unemployed	3	

Pregnancy information. Now I am going to ask you questions about your current pregnancy and previous pregnancies you have had if any

5	How many months pregnant are you	1st trimester (1-3 months)	1	
		2nd trimester (4-6 months)	2	
		3rd trimester (7-9 months)	3	
		Don't know	99	
6	Do you know your expected date of delivery?	Yes	1	
		No	2	
7	Is this your first pregnancy	Yes	1	**If yes skip qn 8**
		No	2	
8	What number of pregnancy is your current pregnancy?	……..		
9	During your current pregnancy, have you experienced any serious health problems related to the pregnancy?	Yes	1	
		No	2	**If no skip qn 10**
		Don't know	99	**If don't know skip qn 10**

10	If yes, what health problem was it (circle all responses given) then probe did you experience (any not mentioned)	severe vaginal bleeding	1	
		Swolen hand and feet	2	
		Blurred vision	3	
		Severe abdominal pain	4	
		Convulsions	5	
		High fever	6	
		Reduced or no fetal movement	7	
		Other (specify)……..	98	
		Don't know/don't remember	99	
11	How many times have you attended antenatal care (record in numbers)	……		
12	How many months pregnant were you when you first received antenatal care for this pregnancy	……..…..months		
		Don't know/don't remember	99	

Section 2: Knowledge of danger signs. Now I am going to ask you questions about your knowledge of the health problems in the three phases women go through when having a child. The three phases are the period of being pregnant, the period of labour and birth, and the period immediately after the birth of the child.

13	In your opinion, can unforeseen problems related to pregnancy occur during any pregnancy or childbirth that could endanger the life of a woman?	Yes	1	
		No	2	
		Don't know	99	
14	In your opinion what are some of the serious health problems that can occur during pregnancy that could endanger the life of a pregnant woman (don't read them out loud to the respondent, circle all the responses given)	Severe vaginal bleeding	1	
		Swolen hand, feet and face	2	
		Blurred vision	3	
		Severe abdominal pain	4	
		Convulsions	5	
		High fever	6	
		Reduced or no fetal movement	7	
		Other (specify)……..	98	
		Don't know	99	
15	In your opinion could a woman die from (this problem) any of these problems?	Yes	1	
		No	2	
		Don't know	99	
16	In your opinion what are some of the health problems that can occur during labour and child birth that could endanger the life of a pregnant woman (don't read them out loud to the respondent, circle all the responses given)	Convulsions	1	
		Retained placenta	2	
		severe vaginal bleeding	3	
		Prolonged labour >12 hours	4	
		Other (specify)……..……..	98	
		Don't know	99	

17	In your opinion could a woman die from (this problem) any of these problems?	Yes	1	
		No	2	
		Don't know	99	
18	In your opinion what are some of the health problems that can occur during the first two days after birth that could endanger the life of the woman (don't read them out loud to the respondent, circle all the responses given)	Convulsions	1	
		Severe abdominal pain	2	
		Difficulty in breathing	3	
		High fever	4	
		Excessive bleeding	5	
		Other (specify)……	98	
		Don't know	99	
19	In your opinion could a woman die from (this problem) any of these problems?	Yes	1	
		No	2	
		Don't know	99	
20	In your opinion where do you think a woman can get care incase they experience any of the health problems mentioned above in qns 14,16 & 18 (circle all responses given)	From a skilled health provider (nurse/doctor/midwife)	1	
		From traditional birth attendants	2	
		From family/friends/neigbours	3	
		Other (specify)……	98	
		Don't know	99	
21	During this pregnancy, has a health worker advised you about any of the following at least once?	Yes=1	No=2	Don't know/don't remember =99
	Danger signs of serious health problems during pregnancy, childbirth, or soon after delivery?			
	Where to go if you had danger signs of serious health problems?			
	Where you should give birth to your baby			
	Arrangements for transportation?			
	Arrangements for funds/finances?			
	Arrangements for a blood donor?			
	Arrangements for a healthcare professional to deliver your child?			

Section 3: Complication preparedness. Now I would like to ask you questions about the arrangements if any that you have made to prepare in case of serious health problems during pregnancy, childbirth or immediately after birth

22	Have you ever heard of the term "birth preparedness"	Yes	1	
		No	2	
23	Have you ever heard of the term "complication preparedness"	Yes	1	
		No	2	
24	In your opinion what are some of the things a pregnant woman can do to be ready for pregnancy emergencies that can occur at any time during pregnancy, labour and immediately after delivery (circle all responses given, don't probe)	Make arrangements for transport	1	
		Save funds for emergencies	2	
		Locate a closest facility for birth and incase of a complication	3	
		Identify a labor companion	4	
		Identify a skilled provider	5	
		Identify a blood donor	6	
		Other (specify)……..	98	
		Don't know	99	
25	Have you made any preparations for emergencies that could occur from your current pregnancy	Yes	1	
		No	2	**If no skip qn 26**
26	What preparations have you made? (circle all the responses given then probe have you (any remaining arrangements)	Made arrangements for transport	1	
		Saved funds for emergencies	2	
		Located a closest facility for birth and incase of a complication	3	
		Identified a labor companion	4	
		Identified a skilled provider	5	
		Identified a blood donor	6	
		Other (specify)……..	98	

Section 4: Perceptions about complication preparedness and skilled birth attendant. Now I am going to read out a list of common perceptions about pregnancy, childbirth, and the period immediately after childbirth. I would like to know whether you strongly agree, agree, disagree, or strongly disagree with these statements. There is no right or wrong answer to any of these questions. We are only interested in hearing your opinion

strongly agree=1, agree=2, disagree=3, strongly disagree=4, don't know=99

		Strongly agree	Agree	Disagree	Strongly disagree	Don't know
27	All pregnant women are at risk of facing health problems that could endanger their life and/or the life of the baby					
28	All pregnant women should have knowledge of possible serious health problems that could endanger their lives					
29	A pregnant woman should plan ahead of time where she will give birth to her baby					
30	A pregnant woman should plan ahead of time how she will get to the place where she will give birth.					
31	A pregnant woman should have funds saved for pregnancy related emergencies					
32	A pregnant woman should plan ahead of time who her labor and birth companion will be					
33	It is safe for a pregnant woman to deliver in the presence of a skilled birth attendant					
34	A pregnant woman should know their blood type					
35	A pregnant woman should identify a blood donor ahead of time					
36	It is necessary for a pregnant woman to attend four or more antenatal care visits					
37	It is necessary for a pregnant woman to know her expected date of delivery					
38	It is necessary for a pregnant woman to involve her family and friends in making plans for birth and possible emergencies					

Perceptions of the health facility. Now I am going to ask you some questions about a place where a pregnant woman can give birth to a baby

39	Where would you prefer to give birth to this baby	Govt hospital/health facility/dispensary	1	
		Private health facility/clinic	2	
		Respondent's home	3	
		Traditional birth attendant home	4	
		Other (specify)……..	98	
		Don't know	99	
40	Would you consider this health facility (Kibuku HCIV) as your first choice of place to give birth from	Yes	1	**If yes skip qn 41**
		No	2	

41	If no, why (circle all responses given)	Its too far for me	1	
		I don't like the health workers here	2	
		My previous experience with the facility was not good	3	
		Its too expensive	4	
		It doesn't have the services I require	5	
		Other (specify)……	98	
42	In your opinion, how do you rate the maternity care services given to pregnant women in this facility? Would you say they are excellent, good, average, or poor?	Excellent	1	
		Good	2	
		Average	3	
		Poor	4	
		I don't know	99	
43	Can you tell me why you have ranked the services as (check qn above) Record all responses given probe: what else?	Doctors always there	1	
		Facility always open	2	
		Staff respond to my questions	3	
		Facility always has necessary medicines	4	
		Not a long wait	5	
		Staff treat women with respect	6	
		Often doctor not there	7	
		Often facility is closed	8	
		Staff do not answer my questions	9	
		Facility does not have necessary medicines	10	
		Long wait to be seen	11	
		Staff treat women poorly	12	
		Other (specify)……..	98	

Finally, I would like to ask you about sources of information

44	Which sources of information would be appropriate for delivering messages on preparing for birth and complications to you? (CIRCLE ALL RESPONSES GIVEN) PROBE: Any other sources?	Health facility/antenatal sessions	1	
		Radio/TV	2	
		Newspapers/magazines	3	
		Friends/neighbours	4	
		Traditional birth attendants	5	
		VHT/community health workers	6	
		Family member	7	
		Other (specify)……..……..	98	
		Don't know	99	

45	Of the above mentioned sources, which one do you prefer the most? (RANK THE TOP THREE SOURCES.)	Health facility/antenatal sessions	1	
		Radio/TV	2	
		Newspapers/magazines	3	
		Friends/neighbours	4	
		Traditional birth attendants	5	
		VHT/community health workers	6	
		Family member	7	
		Other (specify)……..	98	

The End. Thank the respondent

PARTICIPANT QUESTIONNAIRE

QUESTIONS:

Section 1: Socio demographic and obstetric related variables.

Ngatutandiika ntaka kukubulyaku ebikukwataku

1	Oline'myaka imeka?	Age in complete years	.....	
2	Olimufumbo?	Tinfumbilyangaku	1	
		Ndimufumbo wempeta/Tubaamo nomunange	2	
		Ndi namwandu/Twawukaine	3	
3	Wasomele notuka yeina?	None	1	
		Primary	2	
		secondary 0'level	3	
		secodary A'level	4	
		University	5	
		Other (specify)……..	98	
4	Esawa enu okola niki ekikuwaku esente?	Mulimo gwa musala	1	
		Milimo gyange/buzinesi/kupakasa	2	
		Mbula mulimo gwonagwona	3	

Pregnancy information. Atyaanu ndikwaaba kukubulyaku ebibuzo ebikwatagana okukida kinu ekyolinakyo ne ku bidda ebindi ebyobeileku nabyo enyuma eyo singa oba obeileku nabyo

5	Olina ekida kyemyeli imeka	1st trimester (1-3 months)	1	
		2nd trimester (4-6 months)	2	
		3rd trimester (7-9 months)	3	
		Timaite	99	
6	Omeita olunaku olwosubila okubyalilaku?	Iyee	1	
		Kadi	2	
7	Gunu nigwo omulundi gwo ogusooka okufuna ekida?	Iyee	1	**If yes skip qns 8**
		Kadi	2	
8	Kinu kida kyakumeka?	……...		
9	Okukida kinu okyolinakyo, ofunilemuku obuzibu bwobuloire bwonabwona nga bukwatagana nakida kinu	Iyee	1	
		Kadi	2	**If no skip qn 10**
		Timaite	99	**If don't know skip qn 10**

10	Nga kitufu, wabaile bulweire ki (circle all responses given) then probe wafunileku obuloire wa.. (any not mentioned)	Okusuka omusaye mungiinno okuzwa	1	
		Kubimba engalo ne bigele	2	
		Kutawona kusa	3	
		Obulumi waamani mundera	4	
		Kubalika	5	
		Omubiri okwochelelya	6	
		Omwana okwechusa katono oba okutechusira kiimo	7	
		Other (specify)……..	98	
		Timaite/Tinewukilya	99	
11	Wakeiza emilundi imeka okunywa obulezi okukida kinu (record in numbers)	……		
12	Wabeile nekida kyemyeli imeka owasokeila okwiza okwidwaliro okunya owulezi oku kida kinu	……..…..months		
		Timaite/Tinewukilya	99	

Section 2: Knowledge of danger signs. Atyanu ndi kwaaba kukuwulyaku oku byomaite kubiziwu byowomi omu mitendela omukali gyabitamu okutuuka okubyala omwana. Emitendela egyo ninjjo ginu; Ekisera nga omukali alina ekida, ekisera nga omukali alumwa nekisera kya ku byaala, n'ekisera nga omukali yakamala okubyala

13	Okusinzilila omundowozayo, ebizibu ebitebeleka ebikwatagana okukida kyo mwana bisobola okutukawo okukida kyona kyona oba omukubyaala ebisobola okuteka owomi wamukali wekida omukabenje?	Iyee	1	
		Kadi	2	
		Timaite	99	
14	Okusinzilila omundowozayo, bizibu kyi ebyowomi ebyamaani ebisobola okutukawo okukida kyomwana ebisobola okuteka owomi wamukali wekida omukabenje? (don't read them out loud to the respondent, circle all the responses given	Okusuka omusaye mungiinno okuzwa	1	
		Swolen hand, feet and face	2	
		Kutawona kusa	3	
		Obulumi waamani mundera	4	
		Kubalika	5	
		Omubiri okwochelelya	6	
		Omwana okwechusa katono oba okutechusira kiimo	7	
		Other (specify)……..	98	
		Timaite	99	
15	Olowoza nti ekizibu ekyo oba ebizubu ebyo bisobola okwiita omukali wekida?	Iyee	1	
		Kadi	2	
		Timaite	99	

16	Okusinzilila omundowozayo, bizibu kyi ebyowomi ebyamaani ebisobola okutukawo omukisera kyokulumwa no kusindika omwana ebisobola okuteka owomi wamukali wekida omukaberje? (don't read them out loud to the respondent, circle all the responses given)	Kubalika	1	
		Kitani wugana okuzwayo	2	
		Okusuka omusaye mungiinno okuzwa omubukali	3	
		Okulumwa eibanga einene inno okubitta omusawa eikumi naibiri	4	
		Other (specify)…….……..……....	98	
		Timaite	99	
17	Olowoza nti ekizibu ekyo oba ebizubu ebyo bisobola okwiita omukali wekida?	Iyee	1	
		Kadi	2	
		Timaite	99	
18	Okusinzilila omundowozayo, bizibu kyi ebyowomi ebyamaani ebisobola okutukawo omunaku eibili egisoka nga omukali yakabyala ebisobola okuteka owomi wamukali wekida omukaberje? (don't read them out loud to the respondent, circle all the responses given)	Kubalika	1	
		Obulumi waamani mundera	2	
		Buzibu mukuyela	3	
		Omubiri okwochelelya	4	
		Okusuka omusaye mungiino	5	
		Other (specify)…….…….……..	98	
		Don't know Timaite	99	
19	Olowoza nti ekizibu ekyo oba ebizubu ebyo bisobola okwiita omukali wekida?	Iyee	1	
		Kadi	2	
		Timaite	99	
20	Okusinzilila omundowozayo, olowoza nti omukali wekida asobola kufuna yeina obuyambi singa ebizubu ebyetuzwa okutumulaku omu bibuzo 28,30&32 biba bimutukileku? (circle all responses given)	Wamusawo omutendeke(musawo oba omubyalisi owokwidwaliro)	1	
		Wamubyalisya owokukyalo	2	
		Wa bekiika/bakagwa/bamulilano	3	
		Other (specify)…….…….……..	98	
		Timaite	99	
21	Nga olinekida kinu, omusawo wakwidwaliro akuweileku amagezi gona gona wade mulundi gumo okubintu binu?	Iyee =1	Kadi=2	Timaite/Tine wulkilya=99
	Ebilagilo byobuziwu wamaani ino eli owomi wamukali wekida omukisera nga olinekida, omukisera ekyokubyaala oba nga yakamala okubyaala?			
	Omukali wekida ejasobola okwaaba singa afuna ebilagilo byobuziwu wamaani ino eli owomi we?			
	Egyolina okubyalila omwana wo			
	Entegeka y'entambula?			
	Entegeka ye sente?			
	Entegeka yokufuna omusaaye?			
	Entegeka y'omusawo omutendeke okukubyalisa?			

Section 3: Complication preparedness. Atyaanu ntaka kukubulya okuntegeka egiba ngagiliyo egyokolele okwetegekela obuzibu obwamaani obukwatagana nekida kinu obusobola okukutukaku omukyisela kinu nga oli nekida, omukisela kyokubyaala oba nga wakamala okubyaala

22	Wali owulileku ekigambo "kutegekela okubyaala"	Iyee	1	
		Kadi	2	
23	Wali owulileku ekigambo "kutegekela ebizibu byekida ebisobola okutukawo kumukali wekida"	Iyee	1	
		Kadi	2	
24	Okusinzilila mundowozayo, bintu ki omukali wekida ebyasobola okukola okwetegekela ebizibu byekida ebugwawo ngatibisubile nga ali nekidda, nga alumwa nekisera nga yakamala okubyaala (circle all responses given, don't probe)	Kutegeka ntambula	1	
		Kutegeka sente gye bitebeleka	2	
		Kumaikya idwaliro elili okumpi ino ejjasobola okubyalila oba okufuna obujjanjjabi singa aba afunile obuzibu	3	
		Kufuna muntu eya mwelekela okubyaala	4	
		Kumaikya musawo omutendeke abyalisya	5	
		Kumaikya muntu asobola okumuwa omusaaye	6	
		Other (specify)……..	98	
		Timaite	99	
25	Wetengekeire ku ebiziwu ebitebeleka ebiyinza okukutukaku nga olina ekidda ekyo?	Iyee	1	
		Kadi	2	**If no skip qn 26**
26	Okolele ntegeka ki (circle all the responses given then probe have you (any remaining arrangements)	Ntegekele ntambula	1	
		Ntegekele sente egye bitebeleka	2	
		Nfunile idwaliro elindi okumpi eino egyensobola okubyalila oba okufuna obujjanjjabi singa mba ifunile obuzibu	3	
		Nfunile omuntu eyanjeleka okubyaala	4	
		Nfunile omusaawo omutendeke eyambyaalisya	5	
		Nfunile omuntu asobola okumpa omusaaye	6	
		Other (specify)……..	98	

Section 4: Perceptions about complication preparedness and skilled birth attendant.
Atyaanu ndikwaaba kukusomelamu olunyilili lwendowooza ejenjawulo okukisela nga omukali alinakida, nga abyaala ne mukisela nga yakabyaala. Ntaka kumanya oba oikililya nakimo, oikililya, toikililya oba toikililya nakimo nabyo. Wawula kyokwilamu eli ebubuzo binu ekitufu oba ekitalikitifu wabula tutaka kumanyaku ndiwoozayo okubintu binu.

Njikililya nakimo=1, Njikililya=2, Tinjikililya=3, Tinjikililya nakimo=4, Timaite=99

		Njikililya nakimo	Njikililya	Tinjikililya	Tinjikililya nakimo	Timaite
27	Buli mukali wekida ali mukatyabaga ka kufuna obulyeile obusobola okuteka obwomiwe oba nowamwana we omukabenje					
28	Buli mukali wekida alina kumanya okundweile egyamaani egisobola okuteka obwomiwe omukabenjje					
29	Omukali wekida alina kwetegekela nga wukali egyeyabyalila omwana we					
30	Omukali wekida alina kwetegekela nga wukali engeri egiyalituuka omukifo egiyalibyalila					
31	Omukali wekida alina okubisa esente ejokumuyambaku omubiziwu ebitebeleka					
32	Omukali wekida alina kutegeke mubwiire omuntu eyali mwelekela omwidwaliro okubyaala					
33	Kiisaino omukali wekidda okubyalila omugalo gyomuntu eyasomere ebyokubyalisya					
34	Omukali wekida alina kumanya ekika kya musaye gwe					
35	Omukali wekida alina kumaikya mubwiire omuntu asobola okumuwa omusaye					
36	Kyetyagisya omukali wekida okwaaba okunywa obulezi okwidwaliro emilundi eena oba egibitamu					
37	Kyetyagisya omukali wekida okumanya olunaku olyasubilwa okubyalilaku					
38	Kyetyagisya omukali wekida okwingilyamu ebekidalakye nabakwagwabbe omukwetengekela olubyalo lye nebitebeleka					

Perceptions of the health facility. Atyaanu ndikwaaba kukubulyaku ebibuzo ebikwatagana nekifu omukali wekida egya sobola okubyalila omwana

39	Otaaka kubyalila yeina omwana onu	Mwindwaliro lya gavumenti	1	
		Mwindwaliro ya nakyewa	2	
		Ika wange	3	
		Ika wamubyalisya wakukyalo	4	
		Other (specify)……	98	
		Timaite	99	
40	Wanditakila eidwaliro linu elye Kibuku okuba nilyo elyosokelaku okulonda nga owokubyalila	Iyee	1	**If yes skip qn 41**
		Kadi	2	
41	Nga kadi, lyaki? (circle all responses given)	Yala ino kunze	1	
		Abasawo baanu timbataka	2	
		Ebinabitilemu okwidwaliro linu ekyuma eyo tibyabeile bisa	3	
		Webeyi ino	4	
		Wawulawo obuyambi obunetaga	5	
		Other (specify)……	98	
42	Omundowoza yo, obujanjabi wa bakali bebida no mukubyalisya buli butya okwi idwalilo linu?olowoza nti wamulembe ino, wusa, wusa mukku oba wubibi?	Wamulembe ino	1	
		Wusa	2	
		Wusa mukku	3	
		Wubibi	4	
		Timaite	99	
43	Osobola okunkobelaku lyaki okobele nti (check qn above) Record all responses given then probe: niki ekindi?	Abasawo babaawo bulikisera	1	
		Idwaliro liba liigule bulikisera	2	
		Abasawo beilamu ebibuzo byange	3	
		Idwaliro libaku owulezi obwetagisya bulikisera	4	
		Tibatulwisyawo ino	5	
		Abasawo bawa abakali ekitibwa	6	
		Abasawo tibabawo ebisera ebisinga	7	
		Idwaliro libba ligale ebisera ebisanga	8	
		Abasawo tibeilamu ebibuzo byange	9	
		Idwaliro liwula malezi agetagisya	10	
		Tukuma ino nga bakaali okutukolaku	11	
		Abasawo babitya abakali kubibi	12	
		Other (specify)……..	98	

Ngatumalilya ntaka kukubulayku ebikwatagana ne'gyofuna obubaka

44	Mikutu ki egyandibeile misa kwiwe okufunilaku obubaka obukwatagana ne'ngeri yokwetegekelamu okubyaala ne bizibu byomukubyaala (circle all responses given) probe: Waliwo emikuti egindi?	Kwi dwaliro/nga twiizile okutukebela ebidda	1	
		Ladiyo / tivi	2	
		Mumpapula gyamawulile	3	
		Bakwagwa/bakumulilano	4	
		Babyalisya abokukyalo	5	
		VHT/basawo bakukyalo	6	
		Bantu bamukidaala	7	
		Other (specify)…….……..	98	
		Timaite	99	
45	Okumikuti egyokobele, gilina eisatu egyosinga okutaka gikozesebwe (Rank the top three sources)	Kwi dwaliro/nga twiizile okutukebela ebidda	1	
		Ladiyo / tivi	2	
		Mumpapula gyamawulile	3	
		Friends/neighbours Bakwagwa/bakumulilano	4	
		Babyalisya abokukyalo	5	
		VHT/basawo bakukyalo	6	
		Bantu bamukidaala	7	
		Other (specify)……..	98	

The End. Thank the respondent

APPENDIX E: Interview guide for participants

In-depth interview guide_V1_10 June 2021

In-depth interview guide questions

1. Can you tell me a little about yourself (age, education level, marital status, occupation)?
2. Tell me about your pregnancy (probe; how far long are they, wanted or unwanted, father involved or not, first or not- which number of pregnancy, when is her expected date of birth)
3. When did you first attend antenatal care for this pregnancy. (what stage in their pregnancy, why did they choose to start it then)
4. What do you learn during antenatal care (probe if they are taught about danger signs during pregnancy, childbirth and postpartum period, birth and complication preparedness, delivering at the facility and what they are taught in those areas)?
5. Have you learned about what a pregnant woman can do to be ready for pregnancy emergencies anywhere else (where)?
6. Have you made any preparations for emergencies that could occur from your current pregnancy? if made preparations: what preparations have you made, how did you know which preparations to make? if not: why have you not made preparations (probe lack of support from partner, beliefs about making preparations, poverty, lack of information on what preparations to make)
7. In your opinion do you think all pregnant women should have knowledge of possible serious health problems that could endanger their lives, why do you think so
8. In your opinion do you think all pregnant should make preparations for emergencies that could occur during pregnancy, childbirth and the period immediately after birth? Why do you think so? What preparations are most important according to you and why? (saving funds for emergencies, locating a closet facility for birth and in case of complication, identifying a labor companion, making arrangements for transport in case of emergencies, and identifying a compatible blood donor)
9. Where would you like to deliver this baby from and why. Where do you think would be the best place to deliver a baby and why (at the facility, at home, at private clinic, at traditional birth attendant)

1. Have you ever heard of the skilled birth attendance policy? Where did you hear about it? What have you heard about it (what is being done to enforce it)
2. What do you think can be done by the government to improve the implementation of the SBA policy? (what should be done to make this facility more convenient to you for pregnancy, delivery and after delivery care, what should be done to equip you to be prepared for delivery with a skilled care)

APPENDIX F: Interview tool for health workers

Semi-structured interview for health workers_V1_10 June 2021

Interview tool for health workers

Questions

1. First I would like to know your role at this health facility (position, qualification and duties)

---

2. How long have you been working at this health facility?

I would like to know the numbers of the following, you are free to crosscheck with the records or your colleagues

3. What is the number of women who have given birth at this health facility in the last three months (normal vaginal births + assisted vaginal deliveries +caesarean deliveries)
---

4. What is the number of women with direct obstetric complications received at this health facility in the last three months? ----------

5. What is the number of obstetric complications managed at this health facility in the last three months minus referrals? ----------

6. What is the number of obstetric complications referred in the last three months? ----------

7. What obstetric complications do you normally refer? ----------
---

---

8. Where do you normally refer them to?

---

9. What are the reasons for the referrals?

---

10. How many women have attended antenatal care at this facility in the last three months?

……

11. What is the number of maternal deaths due to direct obstetric causes in the last three months at this health facility? The WHO definition of 'maternal death' should be used: "The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration or site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental causes."

---

12. I would like to know if this health facility has the following;

Does the facility have the following	**Yes**	**No**	**Comments**
Client waiting area with shelter			
Exam room with adequate privacy			
24 hour water supply			
24 hour light source/electricity supply			
Functioning operation theatre			
Maternity Inpatient wards			
Motorized ambulance			
Staff housing for EmOC health workers close to the facility			

13. Now I would like to know if this health facility has the capacity to perform the following signal functions. In case the answer is no, I would like to know why

	Signal function	Yes	No	Comment
1)	Administer parenteral antibiotics			
2)	Administer uterotonic drugs (i.e., parenteral oxytocin)			
3)	Administer parenteral anticonvulsants for preeclampsia and eclampsia (i.e., magnesium sulfate)			
4)	Manually remove the placenta			
5)	Remove retained products (e.g. manual vacuum extraction, dilation and curettage			
6)	Perform assisted vaginal delivery (e.g. vacuum extraction, forceps delivery)			
7)	Perform basic neonatal resuscitation (e.g., with bag and mask)			
8)	Perform surgery (e.g. caesarean section)			
9)	Perform blood transfusion			

14. Has this health facility performed the following signal functions in the last three months? If no, I would like to know why

	Signal function	Yes	No	Comment
1)	Administer parenteral antibiotics			
2)	Administer uterotonic drugs (i.e., parenteral oxytocin)			

3)	Administer parenteral anticonvulsants for preeclampsia and eclampsia (i.e., magnesium sulfate)			
4)	Manually remove the placenta			
5)	Remove retained products (e.g. manual vacuum extraction, dilation and curettage			
6)	Perform assisted vaginal delivery (e.g. vacuum extraction, forceps delivery)			
7)	Perform basic neonatal resuscitation (e.g., with bag and mask)			
8)	Perform surgery (e.g. caesarean section)			
9)	Perform blood transfusion			

❖ **If signal function not performed probe why not and record in the comment section**

1. No woman needing this procedure came to the facility during the period.
2. The required level of staff is not posted to this facility in adequate numbers (or at all);
3. National or hospital policies do not allow the function to be performed
4. Supplies or equipment are not available, not functional or broken;
5. Needed drugs are unavailable.
6. Authorized cadre is available, but not trained
7. Providers lack confidence in their skills
8. Providers demand compensation to perform this function
9. Providers are uncomfortable or unwilling to perform the procedure for reasons unrelated to training
10. Other……

15. How many qualified health personnel do you have at the facility who can offer emergency obstetric care/signal functions mentioned above

Health professional	**Number available**	**Roles**	**Comments**
Doctors			
Nurses/midwives			
Other (specify)			

16. What are the working hours and days of the maternity unit?

1) Antenatal care ----------
2) Delivery ward----------
3) Postnatal care ----------
4) EmOC ----------

17. Are you familiar with the skilled birth attendance policy? Yes/No…….

In your opinion, do you think this facility is well equipped to offer skilled birth attendance (according to the services offered by this level of facility)? Yes/No…… Why do you think so? (Skilled birth attendance policy is the government policy to ensure all women deliver with the help of a skilled health personnel).

……
……
……
……
……
……
……
……
……

18. How would you rate the quality of obstetric care given at this facility?

Excellent	
Good	
Average	
Poor	

19. Why have you rated it as above?

.....

.....

.....

.....

20. What are the key messages taught to pregnant women during antenatal care?

.....
.....
.....
.....
.....
.....
.....
.....

21. In your opinion do you think enough emphasis is put in preparing women to deliver with the help of a skilled attendant during antenatal care? Yes/No ----------
Why do you think so? ----------

22. What challenges does this facility face in implementing the skilled birth attendance policy?

.....
.....
.....
.....
.....
.....
.....

23. What recommendations do you give to policy makers to ensure proper implementation of the skilled birth attendance policy?

……
……
……
……
……
……
……
……....

24. Do you have any other comments? ----------

Thank you for your time

APPENDIX G: Observation checklist

Observation checklist

Domain	Feature checked	Comment
Infrastructure	Electricity	
	Backup power source	
	Designated rooms for delivery and post-delivery care	
	Privacy of maternity ward	
	Latrines (adequate, clean, availability of water, waste disposal, privacy)	
	Cleanliness of the maternity clinic	
	Motorised ambulance	
	Waiting area	
	Staff housing	
Health care staff at the maternity clinic	Attitude towards women	
	No of staff on duty visa vi no of women present	

Sensitization	Nature of health talks given at antenatal clinic	
Any other observations		

UGANDA CHRISTIAN UNIVERSITY

A Centre of Excellence in the Heart of Africa

UGANDA CHRISTIAN UNIVERSITY

SCHOOL OF RESEARCH & POSTGRADUATE STUDIES

DISSERTATION CORRECTION COMPLIANCE REPORT BY THE CANDIDATE (POST VIVA FORM)

Date: 04/04/2024

Name of Candidate: KASIDI JOAN RITAR **Reg.No:** RM19M07/007

Title of Dissertation: EXAMINING THE IMPLEMENTATION AND RELEVANCE OF THE SKILLED BIRTH ATTENDANCE POLICY TO PREGNANT WOMEN IN RURAL UGANDA: A CASE STUDY OF KIBUKU HEALTH CENTER IV, KIBUKU DISTRICT

SN	COMMENTS BY EXTERNAL EXAMINER	ACTION TAKEN	INDICATOR
1	The title is ambiguous. Did the candidate examine RELEVANCE of Skilled Birth attendance policy or something else?	The aim of the study was to make a comprehensive analysis of how the policy has been put into practice and the effects of this implementation on pregnant women's preparedness for skilled birth attendance. The title has been improved to make it clearer	Cover page
2	STRUCTURE OF THE REPORT: Organized well	I have kept it organized	The whole document
3	CHAPTER ONE: INTRODUCTION BACKGROUND: The study	The study aimed to address gaps in our understanding of how well the policy translates into practice at the health	Pages 1, 2, 3 & 4 corrected

	problem is well introduced. However, it gets off line- whether the problem is on the Expectant mothers to use skilled birth attendants OR the policy gaps on skilled birth attendants	facility and its effects on pregnant women's knowledge, attitudes, and preparedness for skilled birth attendance. This has been made clear in the background	
4	STATEMENT OF THE PROBLEM Provide statistics- Uganda still has a very high burden of maternal and new-born mortality. It is stated that "Uganda's persistently high rate of maternal mortality is not due to the lack of adequate policy measures but to poor implementation of them". With this statement it doesn't show problem in the policy. Improve to state exactly What is the problem? How big is the problem?	This has been improved and statistics added	Pages 4, 5 & 6 corrected
5	RESEARCH QUESTIONS / HYPOTHESIS There is NO Validity on research questions: 1. What interventions are being implemented at Kibuku HCIV among pregnant women regarding the Skilled Birth Attendance Policy? 2. What is the level of preparedness for skilled birth attendance among pregnant woman attending antenatal care at Kibuku HCIV? 3. What perceptions do pregnant women at Kibuku HCIV	The research questions have been improved upon 3. Experiences and perceptions of pregnant women were useful in measuring the subjective quality and accessibility of care, which are central to assessing the relevance of the policy.	Page 7 corrected

	have on use of skilled birth attendance? [WHY perceptions? You didn't state as a problem 4. What challenges are being faced at the facility in implementing the skilled birth attendance policy? This is not a research question	Examining pregnant women's perceptions towards SBA provided valuable insights into their attitudes, beliefs and preferences regarding childbirth and maternal healthcare services. This enriched my research by providing a deeper understanding of pregnant women's perceptions which in part informed my recommendations for improving SBA policy implementation. I have left this question in 4. It has been changed into a research question and improved upon.	
6	CHAPTER II: LITERATURE REVIEW: OK, move conceptual framework to chapter 2	According to UCU manual, conceptual framework is supposed to be in chapter one so I have left it in chapter one basing on the guidance from Dr Waiswa Jeremy	Page 11
7	CHAPTER III: METHODOLOGY: Show the sampling technique, and the table of sampled groups Data should have also been collected to Skilled birth attendants	The sampling technique and table of sampled groups has been added. Data was collected from health facility staff in the maternity department. Those are the skilled birth attendants	Page 26 corrected See table of sampled groups on page 26
8	CHAPTER IV: PRESENTATION & ANALYSIS OF DATA Data presented on Education, Marital status and employment; to what extent help in the research questions / statement of the	This has been made clear	Page 32 corrected

	problem? NOT Clear There is HUGE difference between Research questions and Data presentations. Looks like the presented data is for another study. This section should be improved OR Research questions should be improved to match them	Research questions have been improved to match the findings.	Page 7 corrected
9	CHAPTER V: DISCUSSION OF FINDINGS Improve discussion based on research questions and findings. They should match	The discussion has been improved	Pages 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79 & 80 corrected
10	CHAPTER VI: Conclusion and recommendations Improve conclusion based on presented data and your discussion	The conclusion has been improved	Pages 82 & 83 corrected

SN	**COMMENTS BY INTERNAL EXAMINER**	**ACTION TAKEN**	**INDICATOR**
1	You need to edit through the whole document to make sure that the citations are well captured and there are pages that overlap, this should not be the case	The document was edited and citations are captured well	Whole document edited
2	Citations in-text should be done properly.	APA referencing style was used consistently and properly	Whole document corrected

3	Chapter IV: PRESENTATION & ANALYSIS OF DATA Learn to report findings. Usually n/% i.e. 37(18%)… If these are voices of respondents, they need to be under quotation marks------, if they're findings gotten from the observation check list, they need to be stated as so , to avoid the confusion	Findings were reported correctly Interview excerpts were put in quotation marks and the observations were stated as observations	Pages 32 to 68 corrected Pages 54, 55, 56, 58, 59, 60, 67, 68 corrected
4	CHAPTER V: DISCUSSION OF FINDINGS Poor flow edit the language	The language was edited	Page 74 corrected
5	Include the data collection tools as indexes i.e. checklists, questionnaires etc	Appendices were added	Pages 90 to 121 added

SN	**COMMENTS BY VIVA VOCE PANNEL**	**ACTION TAKEN**	**INDICATOR**
1	The presenter was very audible and confident however, The presenter consistently used the pronouns WE and US. These words disturbed the panelists and they wondered if the work was done by many people	The work was done by me Joan Ritar Kasidi and supervised by Ms Kasabiiti Jenifer. I apologized to the panelists about this slip of the tongue. The dissertation is written in third person	The whole document
2	Enhance problem statement by incorporating literature	The problem statement has been enhanced and literature added	Pages 4, 5 & 6 corrected

3	Clearly state the sampling technique used for the study	This has been stated	Page 26 corrected
4	Under Quantitative findings, there was no correlation analysis	It wasn't presented in the PowerPoint but it is there in the dissertation	Pages 36, 52, 53, 65
5	Differentiate between qualitative approach with its methods and quantitative approach.	This has been done	Pages 25 & 26 corrected
6	Inferential analysis statistics were missing in the presentation	Cross tabulations and correlation analysis is in the dissertation	Pages 36, 52, 53 & 65
7	There were no new findings recorded apart from the obvious so need to improve	I improved on the presentation of the findings	Pages 32 to 68 corrected

KASIDI JOAN RITAR  **KASABIITI JENNIFER** 

Candidate's Name Signature Supervisor's Name Signature