

DECLARATION

I Nabirye Susan, declare that the work presented in this research report is entirely my own and is being submitted for the degree of bachelors in Public Health at International Health Sciences University. It has not been published or submitted to any institution for any academic award before.

Signature..... Date.....

Lead researcher: Nabirye Susan.

Signature..... Date.....

Supervisor: Ms. Atuhairwe Christine

DEDICATION

I dedicate this research report to my sister and friend, Ms. Julie Namayengo for her undying love, care and support rendered to me through out this course. Thank you and May the Almighty God bless you abundantly.

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I would like to appreciate my supervisor and teacher Ms. Atuhairwe Christine for her time, guidance, teachings and tireless efforts through out this study.

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ACRONYMS AND ABBREVIATIONS

AHSPR	:	Annual Health Sector Performance Report
ANC	:	Antenatal care
EDHS	:	Ethiopian Demographic health Survey.
ESPS	:	Ethiopian Society of Population Studies.
HMIS	:	Health Management Information System
HSSP	:	Health Sector Strategic Policy
KDLG	:	Kaliro District Local Government
MDG	:	Millennium Development Goals
MMR	:	Maternal Mortality Rate
OVC	:	Orphans and Vulnerable Children
PNFP	:	Private Not For Profit
SPSS	:	Statistical Package for Social Scientists
TBA	:	Traditional Birth Attendant
UBOS	:	Uganda Bureau of Statistics
UDHS	:	Uganda Demographic Health Survey
WHO	:	World Health Organization

ABSTRACT

Background: The choice of place of delivery contributes to maternal mortality as it determines the care the mother receives during childbirth, and 80% of the deaths occur during this period (MDG report, 2010).

Objective: To establish the factors that contributed to the choice of place of delivery among mothers aged 15-49 years in Bumanya Sub County, Kaliro district in order to suggest functional interventions that would encourage institutional deliveries.

Method: A cross-sectional study design was employed with researcher administered questionnaire technique as method for collection of data from 380 respondents who had given birth within two years prior to the study. Data was collected on the background characteristics, choice of place of delivery, socio-demographic, health facility and individual factors. Descriptive, Bivariate and multivariate analyses were undertaken in SPSS and frequency tables, pie-charts, graphs, odds ratio and pvalue were generated.

Results: Health facility births were 74% which was higher than the national (38%), with 27.10% being private births. Yet only one Private health unit is registered that offer delivery services. Similarly, availability of birth attendants (OR=3674.11,95% CI=246.80-548.96, pvalue<0.0001), availability of supplies (OR=15.90, 95% CI=3.28-77.22, pvalue=0.001), health workers' attitude (OR=0.1, 95% CI=0.00-0.30, pvalue=0.008), accessibility to facilities (OR=0.02, 95% CI=0.00-0.48, pvalue=0.016), occupation (business, OR=0.05, 95% CI=0.00-0.121,pvalue=0.001) and education were revealed by the study as key predictors of choice of place of childbirth.

Conclusion: The socio demographic, health facility and individual factors act together to influence mothers' choice. Therefore, multi-sectoral approach should be adopted to improve maternal health.

OPERATIONAL DEFINITIONS

Skilled attendant: is an individual with midwifery skills or a person that has been trained to manage normal deliveries, diagnose, manage or refer complications.

Maternal death: death of a woman while pregnant or during delivery or within forty two days after delivery or termination of pregnancy due to any cause related to or aggravated by the pregnancy or its management (WHO, 2010).

Parity: number of children a woman has given birth to.

Traditional birth attendant: is one who has not received any modern training on how to attend to pregnant women, including how to recognize and respond appropriately to complications of pregnancy.

Place of delivery: a location where pregnant women give birth from, for example, public health facilities, private health facilities, own homes and traditional homes.

CHAPTER ONE: INTRODUCTION

1.1 Introduction

Child birth is one of the vital events that occur in life time though it claims many lives of women due to bleeding, infection, eclampsia, obstructed labor and sepsis that are preventable. The level of assistance a mother receives during childbirth contributes greatly to maternal and child health. However, the deliveries that occur at home are less likely to be assisted by trained personnel compared to those at health facility making process of childbirth very risky. Yet, according to Tuladhar (2009), home childbirth is one of the options available in most developing countries. This chapter, therefore, highlights the background to the study, statement of the problem, main objective and specific objectives of the study, research questions, significance, conceptual framework and scope of the study.

1.2 Background to the study

The place of delivery plays a vital role in pregnancy outcome and maternal mortality. Globally, maternal mortality is still unacceptably high with 500,000 deaths annually, of which 99% occur in the developing countries where Sub-Saharan Africa and Asia account for 57% and 30% respectively (WHO, 2010; Akanda, 2011). However, 80% of these deaths can be prevented if mothers seek care on time and deliver in health facilities under trained personnel with appropriate medicines, equipment, and referral services (MDG report, 2010).

In developing countries, health facility deliveries under trained personnel are still low compared to the developed regions as almost half of the births occur in non-health care settings (WHO, 2003). According to Akazili (2011), 58% of the pregnant women in Africa give birth at home and only 42% deliver under professional attention. Similarly, studies done in Tanzania and Kenya showed that only 33.8% of women delivered at health institutions, and 51.8% under unskilled care (Kruk *et al*, 2009; Wanjira *et al*, 2011).

In Uganda (Oyam district), only 41% of the deliveries took place in health facilities, 44% at the Traditional Birth Attendants and 3.2% were self-delivered (Birungi *et al.*, 2009). However, several studies on predictors of place of childbirth have been conducted in different parts of the world and variations in findings have been observed. It is, therefore, due to these gaps that the researcher seeks to identify determinants of mothers' choice of location of delivery in Bumanya Sub County as such studies have never been carried out there.

1.3 Statement of the problem

Poor choices of place of childbirth (home and TBA) by mothers is one of the contributory factors to the unacceptably high MMR in Uganda currently at 435 deaths per 100,000 live births (AHSPR, 2010/2011) and 615 deaths per 100,000 live births in Kaliro (KDLG OVC, 2008/2009 –2012/2013) and presumably the high neonatal deaths. In Uganda, mothers reported to have delivered at the health facilities is 38% nationally and 19% for Kaliro district which is still far below the MDG target of 100% by 2015 (AHSPR, 2010/2011). This is, therefore, cause for concern given that 94% of pregnant women attend ANC at

health facilities (UDHS, 2006). Thus posing a challenge to achieving the set targets of MDG 5 of reduction of MMR to 131/100,000 live births by 2015 (MDG Report, 2010).

The government has constructed and upgraded health facilities, trained and recruited more health workers, standardized ANC package and distributed free 'mama kits' in order to encourage health facility births. In spite of all the efforts, health facility childbirths are still low. The difference between the targeted 100% health facility deliveries under trained personnel and the current (38%) prompted the researcher to establish the predictors of mothers' choice of place of delivery. Therefore, the results may contribute to improvement of pregnancy outcome and maternal health and consequently reduce maternal deaths.

1.4 Main Objective

The main objective of the study was to establish factors contributing to the choice of place of delivery by mothers aged 15 to 49 years in Bumanya sub-county, Kaliro District in order to suggest functional interventions that would encourage mothers to deliver at health facilities.

1.4.1 Specific objectives

The specific objectives are to:

1. Identify the choices of place of delivery by mothers aged 15 to 49 years in Bumanya Sub County between June and July 2012.
2. Determine the socio-demographic factors that influence the choices of place of

delivery by mothers aged 15 to 49 years in Bumanya Sub County between June and July 2012.

3. Establish the health facility factors that influence choices of place of delivery by mothers aged 15 to 49 years in Bumanya Sub County between June and July 2012.
4. Find the personal factors that influence the choice of place of delivery by mothers aged 15 to 49 years in Bumanya Sub County between June and July 2012.

1.5 Research questions

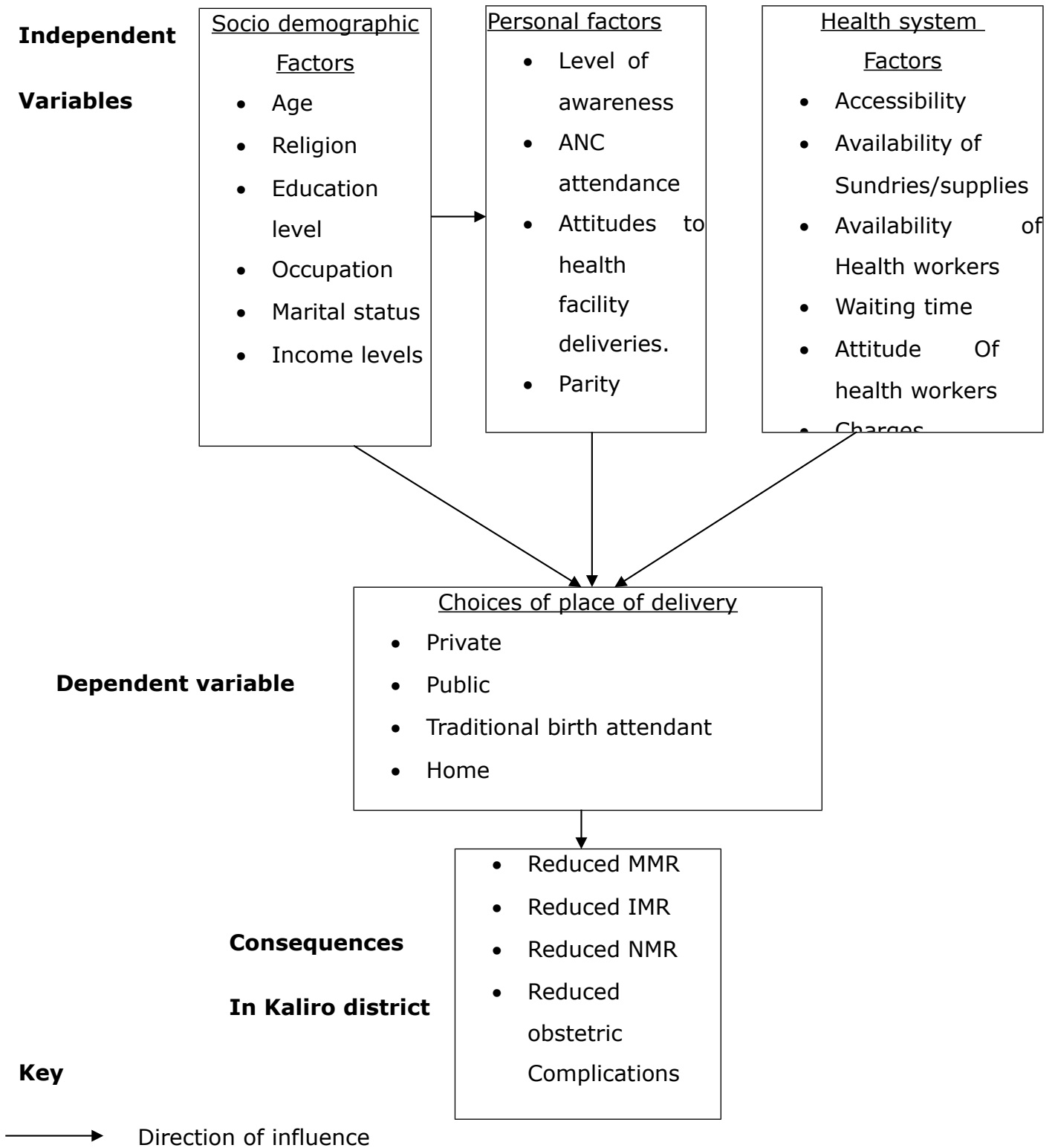
1. What are the choices of place of delivery by mothers aged 15 to 49 years in Bumanya Sub County between June and July 2012?
2. What are the socio-demographic factors that influence the choices of place of delivery by mothers aged 15 to 49 years in Bumanya Sub County between June and July 2012?
3. What are the health facility factors that influence choices of place of delivery by mothers aged 15 to 49 years in Bumanya Sub County between June and July 2012?
4. What are personal factors that influence the choices of place of delivery by mothers aged 15 to 49 years in Bumanya Sub County between June and July 2012?

1.6 Significance of the study

The purpose of this research was to determine the factors contributing to the choices of place of delivery by mothers aged between 15 to 49 years in Bumanya Sub County,

Kaliro district. This study provided information that contributed to knowledge pertaining mothers' choice of place of delivery and consequently would lead to improvement of maternal health by reducing child birth complications and maternal deaths.

1.7 Conceptual framework



Description of the conceptual framework

The conceptual frame work showed that the researcher's line of inquiry was on the socio-demographic factors (age, education level, occupation, marital status, income and religion), health system factors (accessibility to health facility, availability of sundries/supplies and health workers, waiting time, attitude of health workers and charges) and personal factors (knowledge, ANC attendance, attitude towards health facility delivery and parity and birth orders) that determined the choice of place of delivery among mothers aged 15 to 49 years . The researcher will focus on the private and public health facilities, TBA and home as the key mothers' choice of place of delivery in the study area.

However, the researcher recognized that if interventions were put in place to encourage health facility childbirths then, prevalence of obstetric complications and mortality rates (maternal, infant, and neonatal) would decrease.

1.8 Scope of the study

The study focused on the different choices of place of childbirth for mothers aged 15 to 49 years and the socio-demographic, health system and personal factors that could have contributed to their choices and it was a week's study.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter comprises of the review of available literature on mothers' choices of place of delivery, socio-demographic, health system and personal factors that influence their choices.

2.2 Place of delivery.

The place of delivery refers to a location where mothers deliver from and include: homes, TBA, public and private health facilities. The private and public facilities are supposedly run by skilled personnel and owned by individuals or organizations and government respectively. However, most of the childbirths in developing countries occur at non-health facility settings (TBAs and homes) where assistance of trained personnel is usually limited.

In Africa, 58% of deliveries occur at home and only 42% are supervised by skilled personnel (Akazili *et al*, 2011). This is also similar to Rwanda where 70% of pregnant women delivered at non-health care facilities, of which 44% were home deliveries under unskilled birth attendant (Umurungi, 2010). Other studies conducted in Nigeria, Kenya, and rural India also showed low health facility deliveries (Kesterton *et al*, 2010, Moore *et al*, 2011 and Ngigi, 2009). Also in Uganda (Entebbe, Rakai, and Oyam), studies depicted low health facility deliveries without skilled attendance (Amooti-Kaguna and Nuwaha, 2000; Birungi *et al.*, 2009 and Tann *et al.*, 2007).

On the other hand, a study done in western Nigeria, revealed that a highest portion(54.8%) of women who were involved in the study delivered at government

facilities, 24.5% private hospital, 13.5% traditional/herbal homes, 5.6% delivered at spiritual healing homes and the least (1.5%) at home (Iyaniwura and Yussuf, 2009). The researcher noticed these deviations and therefore sought to determine the available options of place of delivery at Bumanya Sub County.

2.3 Socio-demographic factors.

Previous studies have shown that socio-demographic status of mothers is one of the vital determinants of place of delivery and maternal deaths (Idris *et al.*, 2006) and these include:

2.3.1 Mothers' age

According to UDHS (2006) report and ESPS (2008), births under skilled care were higher among young women than the older ones. However, in western Kenya, the study indicated that skilled care during birth was common among women of 35 years and above (Ngigi, 2009). Notably, findings in several studies are in line with Ngigi's results (2009) that older women are more likely to seek care from health facilities than the young (Thind, 2008; Fotso *et al.*, 2009.) The researcher notices this controversy and sets to find out whether mother's age is a determinant of institutional delivery in the study area.

2.3.2 Mothers' education level

Education level ranges from no education, primary, secondary and tertiary level. It is among the important predictors of peoples' choices in life, such as place of delivery as it reportedly increases the knowledge, awareness and decision making power. Therefore, institutional births increase with increasing education level. Various studies are in line with the researcher's view of the existence of a positive association between mothers'

education level and utilization of institutional childbirth services (Bbaale, 2011; Stephenson *et al.*, 2006; Idris *et al.*, 2006 and Moore *et al.*, 2011), for example, women with secondary education or above in Ethiopia had higher odds (7.1 times) of giving birth at health facility than those with no education. Likewise those with primary education were 2.09 times more likely to have health institution births compared to those with none (ESPS, 2008). Whereas in Uganda, post-secondary education had a 33% marginal effect on utilization of health institutions for childbirth by mothers.

On the other hand, studies in Thailand and Bangladesh demonstrated no significant association between education level and location of childbirths (Babalola and Fatusi, 2009). This is comparable to Uganda, where the health facility deliveries (38%) do not correlate with the Female literacy rate (56.3%) for women aged 15 to 49 years which would presumably be equal (Strides for Family health, 2009). This therefore, triggered the researcher to investigate whether education level of mothers contributed to their choices of place of delivery in the study area.

2.3.3 Religion

Religion also contributes to the mothers' choice of place of delivery as it shapes peoples practices and beliefs. According to Bbaale (2011) and Thind (2008), Muslim women had greater odds of giving birth at health facilities compared to women of other religious sects (Catholics, Hindu). However, in Bangladesh, studies revealed that many Muslim mothers had homebirths compared to their counterparts and a chi square test showed a significant association between religion and place of delivery (Shabnam *et al.*, 2011). This is consistent with findings in Ghana, Ivory cost, Burkina Faso, Malawi, Kenya and

Tanzania (Stephenson *et al*, 2006). This propelled the researcher to set out and investigate whether religion influenced the choice of location of childbirth.

2.3.4 Mothers' marital status

The marital status of mothers also influences their choices of place of delivery. This was evident in Wong (2010) and Mpembeni *et al* (2007) findings where unmarried women were more likely to seek trained personnel during delivery than the married mothers. This was because unmarried women were more able to make independent decisions compared to their counterparts. Other studies depicted no significant association of marital status and choice of place of delivery (Gabrysch, 2009; Hazemba and Siziya, 2009). The inconsistencies in the findings, therefore, prompted researcher to carry out the study.

2.3.5 Occupation

The mothers' type of occupation may determine the choice of location of delivery. Mothers, who were farmers as revealed by Gabrysch and Campbell (2009), usually had higher likelihood of utilizing unskilled birth attendants at birth compared to mothers who were formally employed. This is normally attributed to the limited financial resources and health services in the rural areas. Abor *et al* (2011) also showed that 35.4% women who were employed delivered under trained personnel compared to 25.3% who were unemployed.

On the other hand, study done in Nepal showed that home deliveries were highest (60.5%) among the house wives and least (1.8%) among the business women (Tuladhar, 2009). Similar findings were suggested by Hazemba and Siziya (2009). However, Osubor (2005) found no association between mother's type of occupation and choice of place of

delivery. Thus researcher's line of inquiry was to find whether form of occupation influenced place of delivery.

2.3.6 Level of income

Income (the amount of money earned), is a significant positive predictor of mothers' choice of place of delivery. Women who were economically independent had higher ability to pay off the health facility delivery charges, so more likely gave birth in a facility unlike their counterparts who were not economically independent. Akanda (2011) demonstrated a significant relationship between income and utilization of health services, where women from households within the highest income quintile were 8.56 times more likely to demand institutional delivery than women from the poorest income quintile. However, Mpembeni *et al.*, (2007) found no significant statistical association of income variables with skilled attendance at delivery. This implored the researcher to investigate the relevance of income in choice of place of delivery.

2.4 Health system factors

Institutional factors play a key role in influencing the utilization of the health services for childbirth and include: accessibility, health workers' attitude, health care charges, availability of health workers, waiting time and availability of supplies and medicines. These health system factors are elaborated below:

2.4.1 Accessibility

Accessibility in this study referred to distance between areas of residence to health facility and was one of the determinants of the choices of childbirth location. Women who stayed near were 10 times more likely to give birth at health facilities unlike those who stay far (20km) (Gabrysch *et al.*, 2011). A study on women's perception of home births

in Burkina Faso showed that women who lived beyond 5km from health facilities usually delivered from home because of impassable roads during rainy seasons and lack of any faster means (Some *et al.*, 2011). This was in line with studies done in Tanzania, Uganda, and Nigeria which indicated a higher proportion of home births among mothers who lived further.

Conversely, institutional birth rate was extremely low even among people living within easy reach (5Km) of a hospital in India (Kesterton *et al.*, 2010). Worth noting is adoption of a concept of primary Health Care of bringing health services including maternal services close to people in Uganda where approximately 72% of the populations live within radius of 5km from health facilities, yet only 42% of women are assisted by skilled attendants in health facilities (HSSP III,2010). Besides the above, Chakraborty *et al.*, (2003) in Bangladesh did not find any significant relationship between accessibility and choice of place of delivery. The differences in results, therefore, compelled the researcher to investigate accessibility to facility as a predictor of choice of place of delivery.

2.4.2 Attitude of health workers

Attitude of health workers has for long featured as a key issue in most studies of service utilization on quality of care. Studies done in Uganda, Nepal, and Tanzania revealed that attitude of staff contributes the biggest portion of perceived health care quality. Poor treatment by health workers (morally, psychologically, or physically) had an effect on perception of care among women, particularly the perception of quality of care (Some *et al.*, 2011). Additionally, many women report dissatisfaction with rude, arrogant and neglectful behavior of staff at health facilities and preferred the care of a TBA or relative

(Gabrysch and Campbell, 2009).

Furthermore, results from the study done in Nigeria indicated that a largest number of women blamed their non-utilization of medical institutions for child birth on unfriendly attitude of staff (70.8%), unavailability of staff (64%) and unsatisfactory services at health facilities (54.2%)(Moore *et al.*,2011). In view of the above, the researcher's line of inquiry was identification of mothers' perception of health workers attitude and its impact on location of delivery selection.

2.4.3 Waiting time

The period one takes to be attended to by a health worker influences the utilization of delivery services in health institution. The longer the waiting time for mothers, the higher the likelihood of home births. Iyaniwura and Yussuf (2009) revealed that out of the 177 home births in western Nigeria, 29.4% were due to long waiting hours. Additionally, a relatively big portion of homebirths in Kenya were due to long waiting hours (Wanjira et al, 2011). This therefore, implored the researcher to find out whether waiting time also influenced the choice of place of delivery among the mothers in Bumanya Sub County.

2.4.4 Costs

The costs of seeking health care included: transportation, medications, supplies, official and unofficial provider fees. A study done in Chongwe by Hazemba and Siziya (2009) showed that the cost of delivery was much higher at the health facilities compared to the TBA homes and this could have contributed to the high home births. Worth noting was the sudden decline in the institutional births in Nigeria that followed introduction of user

service fee in the 1980s. This depicted a negative association between health care costs and health facility delivery services (Gabrysch and Campbell, 2009).

Similarly, mothers in Afghanistan who lived in areas with fee-charging health facilities were less likely to have institutional childbirths compared to those who stayed near health facilities with free services (Gabrysch and Campbell, 2009). Hence need to find out whether health care costs also predicted mothers' choice of place of delivery in Bumanya Sub County.

2.4.5 Availability of supplies/sundries

Availability of supplies or sundries that were used during delivery in a health facility may have contributed to the mothers' choice of place of childbirth. According to Moore et al., (2011) few deliveries were recorded in public health institutions in Nigeria compared to the non-orthodox because many of these Public Health facilities lacked equipment and experienced frequent stock-outs of essential supplies. Kruk *et al.*, (2009) findings were also in line with the above results. This therefore, triggered researcher to find out whether availability of supplies or sundries in the health facility influenced women's choice of place of delivery.

2.4.6 Availability of health workers

Availability of health workers at health facilities plays a role in the selection of place of delivery among mothers. The unavailability of health staff at the health facilities as revealed by Moore *et al* (2011) contributed to 64% homebirths under untrained personnel. Additionally, the above results were consistent with Gabrysch and Campbell (2009) where health institution deliveries were associated with the number of doctors in

the facility.

On the contrary, Studies in Morocco and Burkina Faso found no significant relationship between number of health workers at health Centers and choice of place of childbirths among mothers (Gabrysch and Campbell, 2009). The differences in these findings motivated researcher to determine whether availability of staff at health facilities influenced mothers' preference of place of childbirth.

2.5 Personal or individual factors

The mothers' individual factors could also have contributed to their choice of place of delivery and these included: parity, ANC attendance, level of awareness and attitude of mothers to health facility deliveries.

2.5.1 Parity

Parity is the number of children ever born and is one of the predictors of institutional births. Previous studies indicated that women with higher parity were more likely to select a homebirth than those of low parity (Fotso *et al.*, 2009, Wanjira *et al.*, 2011, Owino, 2009). In Rwanda, the odds of giving birth from home were 2.93 times higher among the women of higher parity compared to their counterparts. Women who had produced many children assumed to have accumulated experience and saw no need to seek trained care (Umurungi, 2010).

On the other hand, a study conducted in Botswana by Letamo *et al.*, (2003), revealed that low parity mothers had a higher likelihood of delivering at home than mothers of high parity. This was especially linked to teenage mothers who were known to have poor

seeking habits.

2.5.2 Antenatal care attendance

Antenatal care attendance was one of the determinants of health institution childbirth as it's an indicator of increased interaction of mothers with the health system. This was found in a number of studies done in Nigeria, Ghana, Ethiopia, Kenya and Uganda (Gabrysch and Campbell, 2009; Doctor *et al*, 2011). Mothers who utilized ANC services were more likely to deliver at health facilities as health workers presumably used this opportunity to promote facility deliveries.

On the contrally, Idris *et al* (2006) found no statistical significance of ANC attendance and institutional delivery as a P-value of greater than 0.05 was got. Furthermore, ANC attendance in the previous pregnancy did not influence health institution delivery as most of the mothers who had at least four ANC attendance (46%) delivered at home. Following the variations in research findings, the researcher was implored to determine whether ANC attendance influenced location of place of delivery.

2.5.3 Mothers' level of awareness on health facility delivery

Level of awareness on the relevance of delivering at health facility could contribute to mothers' choice of location of child birth, as it empowers them in making prompt decisions to seek skilled care during childbirth. In a qualitative study conducted in Indonesia on why some women preferred TBA's and home delivery, a number of respondents reported that institutional deliveries were aimed at women who experienced obstetric emergencies which depicted limited level of awareness on importance of health facility delivery (Titanley *et al*, 2010).

Additionally, Proportion of health institution deliveries among mothers with knowledge on dangers of home births was 68% compared to those who did not mention any (39%). This finding was statistically significant with a P-value of less than 0.05. These results were consistent with studies in Tanzania, Ethiopia, and Burkina Faso where low levels of awareness of obstetric danger signs during pregnancy, delivery and after birth favored homebirths (Stephen *et al*, 2006). Hence need to establish whether awareness on importance of institutional birth influenced mothers' preference.

2.5.4 Mothers attitude towards health facility deliveries

The attitude of mothers towards delivering at health facilities also may determine their choice of place of child birth. This is congruent with studies done by Stephenson *et al* (2006) on the contextual influences on the Use of Health facilities for Childbirth across the six African countries.

2.6 Conclusion

Generally, results from several studies showed inconsistencies in the association of choice of place of delivery (dependent variable) and the different independent variables like accessibility, marital status, age, religion, parity, education level, and ANC attendance. These differences further affirmed the need to carry out the study.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter consists of methods and techniques that were used to obtain data about the research problem. It defines and describes the study design, study area, sources of data, study population, sample size calculation, sampling procedures, study variables, data collection techniques, data collection tools, plan for data analysis, quality control issues, ethical issues, limitations of study and plan for dissemination.

3.2 Study design

This was a cross-sectional study design as data was collected at a point in time using a researcher administered questionnaire and follow up of respondents was not done.

3.3 Study area

The study was carried out in Bumanya Sub County, one of the five sub counties in Kaliro district, Eastern Uganda because it was more convenient to the researcher. Bumanya sub county is made up of six parishes namely: Bumanya, Budomero, Kasuleta, Bulumba, Kiyunga and Kyani and her inhabitants are predominantly subsistence farmers with a population of approximately 31,360 (UBOS, 2007). This sub County has three functional health facilities and includes: one government owned health center four and the two level two (two public and the one PNFP). It also has several drug shops which illegally offer delivery services.

3.4 Study population

The study population included all mothers aged 15 to 49 years in Bumanya Sub County who gave birth within a period of two years prior to the study in order to reduce errors

that may have resulted from memory loss.

3.5 Population and sample size calculation

The sample size was calculated using the Kish and Leslie formula (1965) as shown below:

$$n = \frac{z^2 pq}{d^2}$$

Where:

n = the sample size

z = the standard normal deviate at required confidence interval (1.96)

p = proportion of women 15-49 years who had at least a delivery (0.5)

q = proportion of women 15-49 years who had not had a delivery (1-p)

d = the level of statistical significance (0.05)

Therefore,

$$\begin{aligned} n &= \frac{(1.96)^2 \times 0.5 \times 0.5}{(0.05)^2} = 384 \\ &= \underline{384 \text{ respondents}} \end{aligned}$$

The 384 respondents were divided among the twelve villages to get approximately 32 respondents from each selected village.

3.6 Sampling procedure

A simple random sampling method was used. A Lottery was conducted to choose the two

villages from each parish that ensured equal chance of selection for all villages. Then a random number table was used to select the first house which acted as the starting house in each selected village. A house to house survey was conducted and 32 mothers aged 15 to 49 years who had at least a birth two years prior to the study were interviewed.

3.7 Sources of data

The source of data was the selected mothers aged 15 to 49 years who had at least a birth two years before the study.

3.8 Study variables

This included both dependent and independent variables, namely:

3.8.1 Dependent variable

The dependent variable was choice of place of delivery by mothers aged 15 to 49 years and was categorized into health care setting (public and private health facilities) and non-health care setting (TBA and Home).

3.8.2 Independent variables

These included: socio-demographic factors (age, education level, occupation, marital status, income and religion), health system factors (accessibility, availability of sundries and health workers, waiting time, attitudes of health workers and charges) and individual factors (level of awareness, ANC attendance, attitude of mothers and parity).

3.9 Data Collection techniques

A researcher administered questionnaire technique was adopted as some respondents in the community were illiterates and also lowered possibility of question

misinterpretation by the respondents. A lead researcher and assistant researchers administered the questionnaires.

3.10 Data Collection tools

Questionnaires containing both open and closed questions were developed. This ensured uniformity of responses hence, eases in data analysis.

3.11 Plan for data analysis

The cleaned and validated data were entered in computer software using EPI data 3.1 program; exported to SPSS windows version 16 for analysis. In analysis of data, both Bivariate and multivariate logistical analyses were employed. In Bivariate analysis, association between choice of place of delivery and each independent variable were assessed using cross tabulation and odds ratios. However, Bivariate analysis did not consider confounding effects; therefore, multivariate logistical regression was employed to examine the individual net effect of each significant independent variables on choice of place of delivery while adjusting for potential confounding variable. P-values of less than 0.05 were considered significant.

3.11 Quality Control Issues

To ensure quality in the study, the following were done:

- Research assistants were oriented in questionnaire administration for ease of data collection.
- A pretest of questionnaire was done to ensure clarity and right interpretation of questions and responses.
- Review of filled in questionnaires was done on daily basis during data collection

period and this ensured completeness, accuracy, validity, and consistency of data.

- The village and date on which data was collected was captured for ease of tracing in case of errors.
- Each research assistant was given questionnaires with registered serial numbers and this helped in easier identification of persons who had administered a particular questionnaire in case of inconsistencies.
- Proof reading of draft report by colleagues before submission to supervisor to reduce on grammar errors was done.

3.12 Measures to eliminate bias

To eliminate bias the following were done:

- Simple random sampling was emphasized and this ensured equal opportunity for all villages and respondents.
- To limit recall bias, only women who had at least a birth two years prior to study were interviewed.

3.13 Plan for dissemination

Copies of completely marked report were distributed, one to the university to fulfill the regulation, a copy to each of the two in charges of health facilities in sub county for them to know the findings of study in their area and retain one for own satisfaction.

3.14 Ethical Issues

- A letter of introduction was sought from the university that indicated approval of the study.

- Permission to carry out the study was sought from the Sub county authorities.
- Informed consent was sought from respondents after self-introduction and explanation of the purpose of the study.
- Signatures or thumbprints of respondents were used instead of names to cater for privacy and confidentiality.

3.15 Limitations of the study

- Since study was based on self-report, there might have been possibilities of respondents giving wrong information.
- Possibility of memory loss as study was based on recall capabilities.

CHAPTER FOUR: RESULTS OF THE STUDY

4.1 Introduction

This chapter presents findings on the study of factors influencing choice of place of delivery among mothers aged 15 to 49 years in Bumanya sub county, Kaliro district which was conducted between 6th 04 2012 to 12th 04 2012. The findings are arranged in three sections, namely: description of respondents' characteristics, choice of place of delivery and factors influencing choice of place of delivery.

4.2 Descriptive analysis

4.2.1 Description of respondents' characteristics

A total of 380 mothers who had given birth two years prior to study were interviewed. The overall mean age was 27.95 years and ranged from 16 to 44 years. These mothers had children ranging from 1 to 13 with a mean of 4 children.

Table 4.1: Summary of age and parity of respondents

Variables	N=380
Age	
Mean	27.95
Range	16-44
Parity	
Mean	4
Range	1-13

4.2.2 Socio demographic characteristics

Table 4.2 focuses on the socio demographic characteristics of mothers who were involved

in the study. The majority (47.1%) 181 of the respondents was in age group of 25-34 years, of which (49.6%) 139 said delivered at the health facility. Furthermore, of the 72 respondents in age group of 35-44 years, 30 (41.7%) delivered at non health care settings which is cause for concern. The mothers with more than four children were 205 (53.6%), of which 64 (64%) delivered at non health care setting. Most of the mothers were in marital unions (79.5%) 302. The respondents who said that had obtained primary education level were 56.1% (213) and those who had acquired tertiary level of education were 6.6% (25). A higher percentage of mothers said that they were Christians (67.6%), peasants (68.7%), and 78.9% (315) said earned less or equal to Shillings 75,000 monthly.

Table 4.2: Socio-demographic characteristics of mothers aged 15-49 years in Bumanya Sub County, Kaliro.

Variables	Choice of place of delivery		
		Healthcare setting	Non-health setting
	N (%)	n (%)	n (%)
Age			
15-24 years	127 (33.4)	99 (35.4)	28 (28.0)
25-34 years	181 (47.6)	139 (49.6)	42 (42.0)
35-44 years	72 (18.9)	42 (15.0)	30 (30.0)
Parity			
≤ 4 children	175 (46.1)	139 (49.6)	36 (36.0)
> 4 children	205 (53.9)	141 (50.4)	64 (64.0)
Marital status			
Single	51 (13.4)	42 (15.0)	9 (9.0)
Separated/divorce	25 (6.6)	19 (6.8)	6 (6.0)
Married	302 (79.5)	217 (77.5)	85 (85.0)
Widow	2 (0.5)	2 (0.7)	0 (0.0)
Educational level			
None	65 (17.1)	37 (13.2)	28 (28.0)
Primary	213 (56.1)	153 (54.6)	60 (60.0)
Secondary	77 (20.3)	69 (24.6)	8 (8.0)
Tertiary	25 (6.6)	21 (7.5)	4 (4.0)
Religion			
Christians	257 (67.6)	184 (65.7)	73 (73.0)
Moslems	103 (27.1)	80 (28.6)	23 (23.0)
Others	20 (5.3)	16 (5.7)	4 (4.0)
Occupation			
Peasant	259 (68.2)	178 (63.6)	81 (81.0)
Business	49 (12.9)	46 (16.4)	3 (3.0)
Housewife	50 (13.2)	36 (12.9)	14 (14)
Employed	22 (5.8)	20 (7.1)	2 (2.0)
Income			
≤75,000	315 (82.9)	221 (78.9)	94 (94.0)
>75,000	65 (17.1)	59 (21.1)	6 (6.0)

4.2.3 Choice of Place of delivery

Figure 4.1 describes the various choices of places of delivery in Bumanya Sub County. The majority of the respondents (46.80%) reported to have delivered at government facilities, 27.10% at private, 18.4% at home and 7.60% delivered at TBAs.

Figure 4.1: Choices of Place of delivery for mothers aged 15 to 49 years in Bumanya Sub County.

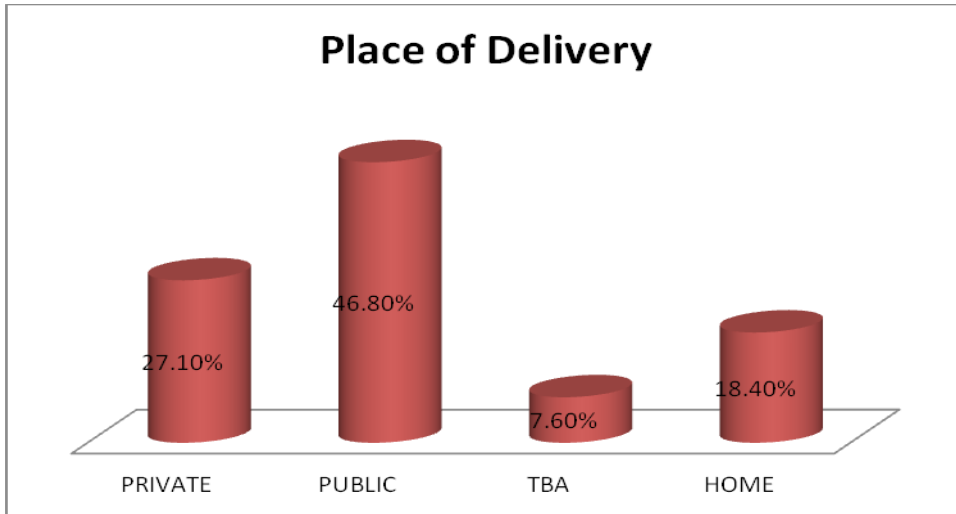
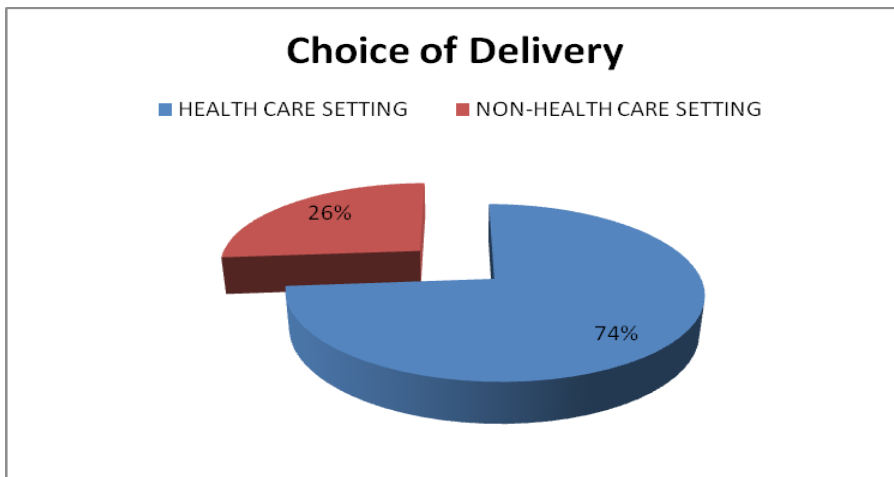


Figure 4.2: Choices of place of delivery for mothers aged 15-49 years in Bumanya sub county, Kaliro.



4.3 Choice of place of delivery

Majority (74%) of the respondents reported to have delivered at health care settings and only 26% delivered at non health care settings (Figure 4.2).

4.4 Bivariate analysis

4.4.1 Socio demographic factors influencing choice of place of delivery for mothers aged 15-49 years in Bumanya Sub County, Kaliro district (Table 4.3)

The women who were in the age group of 35-44 years were 2.5 times more likely to give birth at health care settings than their counter parts with p-value of 0.004 which was found to be statistically significant at 0.05 level of significance (95% CI=1.35-4.74).

The odds of giving birth at health institutions decreased with increasing parity, with mothers of four children and below having 1.75 odds higher of delivering at health facility than mothers with more than four children and pvalue was 0.019 which was significant at level of 0.05 (95% CI=1.09-2.81).

The odds of delivering at health facility were higher among the women who said had attained tertiary level of education than those who had attained primary level, with pvalue of 0.003 and 0.025 respectively which was statistically significant (primary level; OR=0.30, 95% CI=0.13-0.65; tertiary level, OR=1.93, 95% CI=1.09-3.43).

The findings of the study revealed that occupation was one of the predictors of location of childbirth, with business women having a pvalue of 0.001 (95% CI=0.04-0.47) and employed having a pvalue of 0.04 (95% CI=0.50-0.96). This observed difference was found to be statistically significant at 0.05 level of significance.

The respondents who said that they earned more than 75,000 shillings per month were

less likely to deliver at health facilities compared to their counterparts with a pvalue of 0.001 which was found to be statistically significant at 0.05 (95% CI=0.01-0.57).

Table 4.3: The Socio demographic factors influencing mothers’ choice of place delivery in Bumanya Sub County, Kaliro district

Variable	OR (95%CI)	P-value
Age		
15-24 years	1	
25-34 years	1.1 (0.62-1.84)	0.811
35-44 years	2.5 (1.35-4.74)	0.004*
Parity		
≤4 children	1.75 (1.09-2.81)	0.019*
>4 children	1	
Marital status		
Single	1	
Separated/divorce	1.47 (0.46-4.73)	0.515
Married	1.83 (0.85-3.92)	0.121
Educational level		
None	1	
Primary	0.30 (0.13-0.65)	0.003*
Secondary	0.49 (0.16-1.47)	0.202
Tertiary	1.93 (1.09-3.43)	0.025*
Religion		
Christians	1	
Moslems	0.63 (0.20-1.95)	0.423
Others	0.72 (0.42-1.24)	0.240
Occupation		
Peasant	1	
Business	0.14 (0.04-0.47)	0.001*
Housewife	0.85 (0.44-1.67)	0.646
Employed	0.22 (0.50-0.96)	0.044*
Income		
≤75,000	1	
>75,000	0.23 (0.01-0.57)	0.001*

* Significant at 0.05 level of significance.

4.4.2 Health facility factors that contributed to mothers’ choice of place of delivery in Bumanya Sub County

Women who said that they lived more than 5km from health facilities were more likely to deliver at non health care settings than those who stayed nearer with pvalue of <0.001

which was statistically significant at level of significance of 0.05.

Furthermore, mothers who said that medical supplies (gloves, cotton, drugs) were available at health facilities were 11.5 times more likely to deliver at health care settings than their counter parts with $P\text{-value} < 0.001$ which was found to be statistically significant (95% CI=6.15-21.37).

Additionally, the odds of delivering at health facilities was high among women who said had been attended to by health workers during previous delivery with a $p\text{-value} < 0.001$. This was statistically significant at 0.05 level of significance (OR=323.84, 95% CI=116.07-903.44).

The odds (1.75) of giving birth at health care settings among women who reported that they were charged for the delivery was higher compared to those who reported that they were not charged, which was found to be statistically significant at 0.05 level of significance (95% CI=1.07-2.80, $p\text{value} = 0.025$).

Table 4.4: Health facility factors influencing mothers' choice of place of delivery in Bumanya Sub County

Variables	OR (95%CI)	P-value
Accessibility		
≤5KM	1	
>5KM	0.02 (0.02-0.17)	<0.001*
Availability of supplies		
Yes	11.5 (6.15-21.37)	<0.001*
No	1	
Waiting time		
≤30min	1	
>30min	0.73 (0.27-2.01)	0.547
Attitude of health workers		
Good	1	
Poor	0.15 (0.02-1.12)	0.064
Charges		
Yes	1.73 (1.07-2.80)	0.025*
No	1	
You were attended to		
Yes	323.82 (116.07-903.44)	<0.001*
No	1	

***significant at 0.05 level of significance**

4.4.3 Personal/individual factors

Table 4.5 focuses on the personal or individual factors that could have contributed to mothers' choices of place of childbirth.

The respondents who were aware of the importance of giving birth at health facilities were 8.53 times more likely to deliver at health facilities compared to their counterparts, with pvalue<0.001 which was found to be statistically significant (95% CI=2.65-27.45).

Women who were identified as having positive attitude towards delivering at health units had greater odds of giving birth at health facilities than their counter parts. This observed difference was statistically significant at 0.05 level as pvalue>0.001 was

obtained (95% CI=3.62-12.64).

Table 4.5: Personal/individual factors contributing to mothers' choice of place delivery in Bumanya Sub County, Kaliro

Variable	OR (95%CI)	P-value
Awareness		
Yes	8.53 (2.65-27.45)	<0.001*
No	1	
Attitude of mothers		
Yes	6.77 (3.62-12.64)	<0.001*
No	1	
Attended ANC		
Yes	3.63 (0.96-13.80)	0.058
No	1	

* Significant at 0.05 level of significance.

4.5 Multivariate analysis

At the Bivariate level, the factors that were found to be significant were: age between 35-44 years, parity, educational level, occupation, income, accessibility, delivery charges, availability of medical supplies and health workers.

However, at multivariate logistic regression analysis the following factors were statistically significant : secondary educational level (OR=1026.64, 95% CI=7.15-0.15, pvalue=0.006), business women (OR=0.005, 95% CI=0.00-0.12, pvalue =0.001, distance to health facilities (OR=0.02, 95% CI=0.00-0.48, pvalue=0.016), availability of supplies (OR=15.90 95% CI=3.28-77.22, pvalue=0.001), availability of health workers (OR=3674.11, 95% CI=246.80-546.96, pvalue<0.001) and attitude of mothers (OR=0.1, 95% CI=0.00-0.30, pvalue=0.008).

Table 4.6: Multivariate analysis

Variables	OR (95%CI)	P-value
Educational level		
None	1	
Secondary	1026.64 (7.15-0.15)	0.006*
Occupation		
Peasant	1	
Business	0.005 (0.00-0.12)	0.001*
Accessibility		
≤5KM	1	
>5KM	0.02 (0.00-0.48)	0.016*
Availability of supplies		
Yes	15.90 (3.28-77.22)	0.001*
No	1	
You were attended to		
Yes	3674.11 (246.80-54696)	<0.001*
No	1	
Attitude of health mothers		
Good	1	
Poor	0.1 (0.00-0.30)	0.008*

*Significant at 0.05 level of significance.

CHAPTER FIVE: DISCUSSION OF STUDY RESULTS

5.1 Introduction

The study aimed at determining the factors that could be contributing to a mother's choice of place of delivery as it determines the quality of care mothers receive during childbirth. The health facility births are one of the measures of the progress of MDG five as health facilities are assumedly run by trained staff and have equipment for diagnosis and management of complications during labor. This chapter highlights the discussion of the factors that contributed to the mothers' choice of place of delivery.

5.2 Place of delivery

This study found that 74% of the respondents delivered at the health care settings of which 46.8% occurred at the government institutions and 26.7% in the private facilities (figure 4.1 and 4.2). These study findings are contrarily to the Uganda's national and Kaliro districts health facility births of 38% and 19% respectively (AHSPR, 2010). This difference may have been attributed to the inclusion of private facility births (drug shops) in the study which perhaps were not captured in national report, as these are not authorized to conduct deliveries. Furthermore, there is no system in place to track the births conducted at these places. Yet in Bumanya Sub County there is only one registered PNFP facility which offers delivery services and the rest are drug shops (Kaliro district drug inspector office, unpublished).

5.3 Socio demographic factors.

Older women as illustrated in Table 4.3 were more likely to deliver at a health facility which was in line with studies done in the slums of Nairobi and India (Fotso *et al.*, 2009;

Ngigi, 2009; Thind, 2007) where older mothers also had higher chance of giving birth at health facilities. This may be explained by the fact that elderly mothers are at increased risk of pregnancy complications so health workers probably emphasize to them to deliver at health institutions. Furthermore, age is an indicator of accumulated ability in making independent decisions. On the contrary, findings in UDHS (2006) revealed that institutional births were more among the young mothers. This could be attributed to the supposedly accumulated experience with age, hence increased tendency to deliver at homes.

Mothers with higher parity as indicated in the results had a higher likelihood of delivering at non health care settings which was in accordance with the findings of Wanjira *et al*, (2011) in Kenya where majority of mothers with high parity delivered at home. This high parity could be linked to poor access to family planning, hence suffice to say that poor access to delivery services (only one government and one registered PNFP facility in the entire Sub County) may be the factor contributing to poor choices of place of delivery.

Additionally, low usage of health facilities for child birth may be due to poverty which is usually associated to large families (53.9% of the respondents had above four children) and low earnings (82.9% of the respondents earned less than 75,000 Uganda shillings per month). Therefore mothers may neither afford the requirements for child birth nor the transport costs. However, in a study conducted in Botswana (Letamo *et al*, 2003), it was the mothers with few children who had a higher likelihood of delivering at home. And this is linked to poor health seeking behaviors associated to teenage mothers who

comprised largely of the low parity group.

The study also established that education level attained by the women also predicted their choice of place of delivery, with health facility births increasing with increasing education level. This is because education supposedly increases women's opportunities to access information, employment and independence in making decisions, health decisions inclusive. This may partly address one of the delays associated to maternal deaths of delaying to make decision to seek care. These findings are consistent with studies done by Bbaale (2011), Idris *et al.*, (2006) and Moore *et al.*, (2011) where the educated women had higher preference for health facility childbirths. However, in this study (table 4.3), some educated women delivered at non health care settings which was in line with Babalola and Fatusi (2009) in Nigeria. This may be attributed to the inadequate health services in the Sub County with only one government and one level II PNFP facility and no registered private facility except the drug shops which are unauthorized to offer delivery services.

Occupation of the mothers is one of the predictors of place of delivery with business women having lower likelihood of delivering at health facility. Yet mothers who work and earn can assumedly afford health services. However, these study findings were contrarily to the expected perhaps due to the patriarchal settings, where some women are either not paid for the work or their earnings are controlled by their husbands. Furthermore, their businesses may be too petty for them to obtain money that can meet the health service costs or these women may be having the ability to hire trained birth attendants

at their homes. In contrast, Hazemba and Siziya (2009) in Zambia found that most institutional births were among the employed and the business women which were also similar to findings of Tuladhar (2009) in Nepal.

5.4 Health facility factors

Generally, health facility births decreased with increasing distance to the health facility as depicted in table 4.4. Mothers who lived far away had less likelihood of giving birth at health facility and this may be attributed to the poor road infrastructure and lack of transport means. This was in line with studies conducted in Zambia, Burkina Faso, Tanzania, Uganda and Nigeria (Gabrysch *et al.*, 2011; Some *et al.*, 2011) where mothers who lived far had less likelihood of delivering at health facilities. On the other hand, Kesterlon *et al.*, (2011) in India discovered that even among those who lived in close proximity of the facility, preferred home births meaning other factors like cultural beliefs could be contributing to place of childbirth preference.

Availability of medical supplies and presence of health workers at health facilities were highly predictive of the respondents' choice of place of delivery, as women who reported that medical supplies and health workers were available had higher likelihood of giving birth at health centers. This attract even those who may not have afford the costs to access delivery services for example, facilities which offer free mama kits tend to register more deliveries. This is consistent with Moore *et al.*, (2011) findings in Nigeria where government facility deliveries were low perhaps due to the frequent stock outs of essential supplies as mothers see no relevance of going to deliver at health facility with no supplies.

Surprisingly, births were 1.73 times more likely to occur in places where services were paid for than places with free services as free services are usually associated with poor quality. Nevertheless, one to get quality services reportedly paid these staff to motivate them, especially those in the public facilities.

5.5 Personal/individual factors

ANC attendance increased the likelihood of mothers delivering at health facilities (table 4.5) which is attributable to the availability of health workers who may be educating mothers on relevance of choosing health facility for childbirth. This result was in accordance with studies conducted by Doctor *et al.*, (2011) on Northern Nigeria Maternal, Newborn and Child Health Programme. This was in contrast to the survey done by UDHS (2006) where health facility births were low despite higher ANC attendance (94%). This reflects that the content and quality of the ANC package at health facilities is perhaps poor or it's not so persuasive to attract mothers to health facilities for childbirth services.

Similarly, level of awareness on importance of health facility births strongly predicted the choice of place of delivery as awareness supposedly improves on the health seeking behavior. This is because individuals may be in position to identify any childbirth related complications and importance of delivering at health facilities. Also they will have knowledge on the available services. This was in line with the study done by Titanley (2010) in Indonesia on why women still prefer traditional birth attendants and home delivery.

Furthermore, attitude of mothers towards the different places of child birth greatly impacted on mothers' choices of place of delivery, with those having positive attitude having higher likelihood to deliver at health facilities. This may be attributed to the individual knowledge, socio cultural practices and client to health worker relationship.

5.7 Limitations of the study

- In this study, a cross sectional study design was used which limited researcher from drawing inferences about direct associations as follow up of respondents was not done.
- Health workers helped in data collecting so possibility of mothers being timid to respond to some questions was likely.
- Furthermore, data was collected from mothers who had given birth two years prior to the study; therefore, recall bias was highly likely thus inaccurate information.
- Lastly, the definition of private health facility was quite challenging as many of births occurred in drug shops which are unauthorized to carry out delivery services.

CHAPTER SIX: CONCLUSIONS AND RECOMMENDATION

This chapter highlights the conclusions and recommendations that were derived from the study findings and are:

The research established that 74% of births occurred at health care settings; with many occurring at non accredited health facilities like drug shops and non health care settings which perhaps increase risk of women during delivery. The government should therefore , see to it that the unaccredited places should not offer delivery services through enforcement of the policies which are already in place; this can be achieved by working hand in hand with community, National drug authority, district drug inspector and police. However, it should also work towards increasing access and quality of services in the existing facilities in the sub county as people do travel longer distances to access care if they are assured of quality services.

Additionally, health facility management should liaise with VHT's so that they integrate the information on maternal health to their routine services with special emphasis on health facility deliveries. This will empower mothers in making informed choices. However, research on socio cultural practices and their influence on choice of place of delivery need to be conducted so that appropriate IEC materials may be designed to suit the different cultural sects.

The study also established that majority of the mothers had attained primary level of education and few had reached tertiary level indicating that retention of children at schools and completion of primary level is low. Yet education level is among the key predictors of choice of place delivery as it increases on women's' autonomy and access to

information. The researcher recommends that strict measures to ensure retention of girl children in school should be devised like imprisonment of parents whose children are not at school or those using house helpers of under age. This is because the higher one is educated the higher the likelihood of utilizing the health services, delivery services inclusive. Nevertheless, further studies should also be conducted in determining the appropriate means of retaining children at school.

The study also established that poverty levels are still high among the mothers as over 80% earned less than 75,000 shillings per month which is less than a dollar per day. The government should therefore encourage initiation of income generating activities through formation of economic women groups so that they supplement their incomes got in subsistence farming. These women should also be trained on how to manage these activities to ensure sustainability.

The study also revealed that health related factors were corner stone in determining use of delivery services particularly availability of supplies, medicines and trained staff. The Health workers should therefore link up with specialists in ministry of health and community members in Bumanya Sub County to advocate for community based health insurance scheme such that funds collected can be used to supplement funds got from the central government for the two health facilities. This will improve on availability of supplies as resources will be adequate. Furthermore, all health workers should also be trained in customer care skills to improve on their communication skills and emphasis on the ethics to reduce on their negligence to patients. However, study on practical ways of

attracting and retaining the health workers should also be carried out.

In respect to personal factors, level of knowledge on importance of health facility delivery and attitude of mothers towards the utilization of health services, greatly influenced their choice. The researcher, therefore, recommends that IEC materials should be designed in a way that targets the different categories of mothers (high parity, low educated and low earners). Generally, social demographic, health facility and individual factors all contribute to the mothers choices of place of delivery. Therefore, a multi disciplinary approach should be used to address factors that discourage mothers from delivering at health facilities.

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APPENDICES

APPENDIX I: THE TIME FRAME

This shows the period when the different research activities will be carried out.

Activities	Time in months,2012					
	January	February	March	April	May	June
Proposal writing						
Administration approval						
Train research assistants						
Pre-test tool						
Collect data						
Data entry						
Data management and analysis						
Report writing						
Dissemination of results						

APPENDIX II: BUDGET ESTIMATE FOR RESEARCH

Activity/item	Description	Unit cost /person	Quantity	Total costs (Shs)	Source

Printing	Copies of draft proposals.	8,000	5	40,000	Self
	Final proposals	10,000	3	30,000	Self
	Questionnaires		380	79,800	Self
	Research report drafts	10,000	2	20,000	Self
	Final research report	250,000	4	100,000	Self
Collection of data.	Transport fare.	10,000	$2*3=6$	60,000	Self
	Stationary(eraser, pencils)	250	2	500	self
	Lunch	5,000	$2*3=6$	30,000	Self
Data management	Data entry	100,000	1	100,000	Self
	Data analysis	300,000	1	300,000	Self
Total				760,300	

APPENDIX III: CONSENT FORM

Dear respondent, you are invited to participate in the study of determining factors that influence choice of place of delivery among mothers aged 15 to 49 years in Bumanya sub-county, Kaliro district. This is being conducted by Nabirye Susan a student in International Health Sciences University, Kampala. I am requesting you to respond to the questions attached to this consent form that will aid the study. Your individual responses will strictly be confidential and will be used for this study only.

There are no risks or material/financial incentives involved. However, these responses will help us understand the situation and contribute to the measures of ensuring safe childbirth. It will take not more than 10 minutes to complete. However, you are not forced to answer any question and you can withdraw at any time during the process.

Would you be willing to participate? (Tick as appropriate)

YES NO

If no, thank and stop here.

If yes, proceed and sign below as a gesture to show that you have agreed to participate without being compelled.

Respondent's signature or fingerprint/date.

...../.....

Name of person administering the consent and questionnaire / Signature

.....

APPENDIX IV: QUESTIONNAIRE

Questionnaire number.....

Village name and number..... /.....

Introduction

Dear respondent,

I amgoing to ask you the questions below on this questionnaire as agreed before and these are as follows:

SECTION I:

Socio-demographic factors

- | | | | |
|----------------------------|--------------------------|------------------------|--------------------------|
| 1. Age | <input type="checkbox"/> | | |
| 2. Marital status | | | |
| 1. Single mothers | <input type="checkbox"/> | 2. Separated/divorce | <input type="checkbox"/> |
| 3. Married | <input type="checkbox"/> | 3. Widow | <input type="checkbox"/> |
| 3. Educational level | | | |
| 1. Primary | <input type="checkbox"/> | 2. Secondary | <input type="checkbox"/> |
| 3. Tertiary | <input type="checkbox"/> | 4. None | <input type="checkbox"/> |
| 4. Religion | | | |
| 1. Christians | <input type="checkbox"/> | 2. Others, specify | <input type="checkbox"/> |
| 3. Moslems | <input type="checkbox"/> | | |
| 5. Occupation | | | |
| 1. Peasant | <input type="checkbox"/> | 2. House wife | <input type="checkbox"/> |
| 3. Business | <input type="checkbox"/> | 4. Salaried employment | <input type="checkbox"/> |
| 6. Income per month | | | |
| 1. Less or equal to 75,000 | <input type="checkbox"/> | 2. Greater than 75,000 | <input type="checkbox"/> |

Section II: Choice of place of delivery

7. Where did you deliver your last child?

- | | | | |
|------------|--------------------------|---------|--------------------------|
| 1. Private | <input type="checkbox"/> | 2. TBA | <input type="checkbox"/> |
| 3. Public | <input type="checkbox"/> | 4. Home | <input type="checkbox"/> |

8. Why did you choose to deliver from there?

-
- a) Health care setting b) Non health care setting

SECTION II: Health system factors

If health care setting,

9. a) How far is the health facility from your home?

- | | | | |
|-------------------|--------------------------|----------|--------------------------|
| 1. < or equal 5km | <input type="checkbox"/> | 2. > 5km | <input type="checkbox"/> |
|-------------------|--------------------------|----------|--------------------------|

b) Were you given supplies and sundries e.g. gloves, cotton, mama kits

- | | | | |
|--------|--------------------------|-------|--------------------------|
| 1. Yes | <input type="checkbox"/> | 2. No | <input type="checkbox"/> |
|--------|--------------------------|-------|--------------------------|

c) Who attended to you?

- | | | | |
|------------------|--------------------------|----------------------|--------------------------|
| 1. Health worker | <input type="checkbox"/> | 2. Non health worker | <input type="checkbox"/> |
|------------------|--------------------------|----------------------|--------------------------|

d) How long did it take you to see a health worker?

- | | | | |
|--------------------------------|--------------------------|------------------------|--------------------------|
| 1. Less or equal to 30 minutes | <input type="checkbox"/> | 2. Greater than 30mins | <input type="checkbox"/> |
|--------------------------------|--------------------------|------------------------|--------------------------|

Attitude of health worker

e) How did the health worker treat you?

- | | | | |
|-------------------------|--------------------------|------------------------------|--------------------------|
| 1. Positive | | 2. Negative | |
| a. Explained procedures | <input type="checkbox"/> | a. Rude | <input type="checkbox"/> |
| b. Gave treatment | <input type="checkbox"/> | b. Did not explain procedure | <input type="checkbox"/> |
| c. Caring | <input type="checkbox"/> | c. Not caring | <input type="checkbox"/> |

d) Were you charged for any service?

- | | | |
|--------------------------|----|--------------------------|
| <input type="checkbox"/> | 54 | <input type="checkbox"/> |
|--------------------------|----|--------------------------|

1. Yes

2. No

If Non health care setting

a) How far is it from home?

1. 0KM 2. < Or equal 5KM 3. > 5KM

b) Were you given sundries and supplies?

1. Yes 2. No

c) Who attended to you?

1. Health worker 2. Non health worker

d) How long did it take you to see the person who conducted the delivery?

1. Less or equal to 30 minutes 2. Greater than 30 minutes

Attitude of health worker/birth attendant

e) How did the birth attendant treat you?

1. Positive

2. Negative

a. Explained procedures

a. Rude

b. Gave treatment

b. Did not explain procedure

c. Caring

c. Not caring

f) Were you charged for any service?

1. Yes 2. No

Section IV: Personal characteristics

11 a) How many children do you have?

b) During your previous pregnancy did you attend ANC?

1. Yes 2. No

c) Are you aware that all deliveries are supposed to be conducted in health care setting?

1. Yes 2. No

d) What is your opinion about delivering in health care setting?

1. Positive

2. Negative

THANK YOU