

**FACTORS THAT INFLUENCE
PREGNANT WOMEN'S CHOICE OF
DELIVERY SITE
IN MUKONO DISTRICT – UGANDA**

by

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DEDICATION

I dedicate this dissertation to:

- My parents Charles and Leonia Lukwago for the continuous encouragement.
- My wife Prossy Kkonde, my children Frank Kiggundu, Henry Lukwago, Peter Ssekitoleko, Harvey Ssentongo and Jude Tamale for being understanding and patient with me when I would not be there for them during moments of intense concentration on the studies.
- The women of Mukono district who participated in the study by contributing the invaluable information for the study.

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DECLARATION

I declare that “**FACTORS THAT INFLUENCE PREGNANT WOMEN’S CHOICE OF DELIVERY SITE IN MUKONO DISTRICT – UGANDA**” is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references and that this work has not been submitted before for any other degree at any other Institution.



DR. KKONDE ANTHONY

MARCH 2010

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FACTORS THAT INFLUENCE PREGNANT WOMEN'S CHOICE OF DELIVERY SITE IN MUKONO DISTRICT – UGANDA

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ABSTRACT

The purpose of this study was to analyse and describe the factors that influence the choice of site of delivery by pregnant women in Mukono district. By employing quantitative, non experimental research methods, 431 women were interviewed by using structured questionnaires. These women had either delivered at; home, TBA, private or public clinic and 72% had been delivered by skilled attendants. Choice of delivery site was influenced by the attitudes of health workers which were rather poor in public sites, proximity of site, attendance of antenatal clinic at a site, availability of supplies and drugs, plus level of care including emergency obstetric care.

Conclusions: Skilled attendance at birth is under reported. Choice of site depended on personal, community, health workers, health facility and health system design.

Key concepts: Safe motherhood; skilled attendant; maternal mortality; delivery site; traditional birth attendant.

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List of abbreviations

ANC:	Antenatal care
HSSP:	Health Sector Strategic Plan
MDGs:	Millennium Development Goals
MMR:	Maternal Mortality Ratio
OPD:	Out Patient Department
PHC:	Primary Health Care
PNFP:	Private Not For Profit
RH:	Reproductive Health
TB:	Tuberculosis
TBA:	Traditional Birth Attendant
TFR:	Total Fertility Rate
UNFPA:	United Nations Population Fund
UNICEF:	United Nations International Children's Emergency Fund
WHO:	World Health Organization

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CHAPTER 1: ORIENTATION TO THE STUDY

1.1 INTRODUCTION

According to United Nations International Children's Emergency Fund (UNICEF), a woman dies from complications of childbirth every minute – about 529,000 each year.

A woman in sub-Saharan Africa has 1 in 16 chance of dying in pregnancy or childbirth, compared to a 1 in 4,000 risk in a developed country (<http://www.unicef.org/mdg/maternal.html>). Further, in September 2001, 147 heads of states collectively endorsed the Millennium Development Goals. Goals 4 and 5 were intended to reduce child mortality rate by 2/3 and maternal mortality ratio by 3/4 between 1990 and 2015 respectively (<http://www.unicef.org/mdg/maternal.html>).

Having a trained provider with midwifery skills present at every birth, availability of transport for referral services and availability of quality emergency obstetric care are the most important interventions for safe motherhood (<http://www.unicef.org/mdg/maternal.html>).

To track changes in maternal mortality levels, the proportion of births attended to by skilled health personnel is one of the indicators to monitor progress towards achievement of the 5th Millennium Development Goal (MDG) which aims to improve maternal health.

Antenatal attendance in Uganda is above 80%. Only 38% of deliveries are nationally attended to by skilled health workers (Ministry of Health 2005a:18).

Since 1988, Maternal Mortality Ratio (MMR) has stagnated at around 500 deaths per 100,000 live births (Ministry of Health 2005b:5). Although Uganda endorsed the Millennium Development Goals in 2001 and targeted to reduce MMR from the current 505 to 408 per 100,000 live births by 2010, this has not been achieved.

It was against the aforementioned, that a study to analyse and describe the factors that influence pregnant women's choice of site of delivery in Mukono district – Uganda was undertaken.

1.2 BACKGROUND TO THE RESEARCH PROBLEM

The average population growth for Sub-Saharan Africa is about 2.1%. Uganda is one of the countries in the world with high annual growth rate of 3.4% and the total fertility rate of 6.9% children per woman of child bearing age. (United Nations Development Programme 2004:3). With total fertility rate (TFR) of 6.9 children per woman in Uganda and annual growth rate of 3.4%, about 1.2 million women become pregnant every year. Of these 180,000 will get complications while 500 per 100,000 live births will actually die (Ministry of Health, 2005b:8).

In 2000, WHO estimated that 529,000 maternal deaths occurred in the world. Of these 251,000 occurred in Africa. In terms of MMR, the world figure stood at 400 per 100,000 live births while by regions, Africa's MMR was 830 per 100,000 live births ([http://www.who.int/reproductive health/global-monitoring](http://www.who.int/reproductive%20health/global-monitoring)).

Causes of maternal morbidity and mortality include; hemorrhage, infections, obstructed or prolonged labour and hypertensive disorders. These categories

conceal the underlying mechanisms of morbidity and mortality like unavailability and inaccessibility to quality health care and logistics problems of providing emergency obstetric care where and when it is needed (Figa-Talamanca, 1996; 1381). Maternal morbidity and mortality is preventable or can be minimized. This is possible by ensuring safe motherhood including breast feeding, pre-natal care, safe delivery and post natal care, information education and counseling on reproductive health and sexuality (Ministry of Health 2001:3).

Bernis (2000:68) asserts that employing the most qualified personnel possible for monitoring labour in health facilities has a great impact on reducing maternal mortality.

The Ugandan National target for Institutional deliveries is 35%. However, since the inception of the health policy in 2000, the trend has been as follows: 1999/2000 – 25%, 2001/01 – 22.6%, 2001/02 – 19%, 2002/03 – 20.3%, 2003/04 – 24.4%, 2004/05 – 25% (Ministry of Health 2005a:23).

In Mukono district, there are five hospitals and four health centre (HC) IVs. Health Centre IVs are health centres which serve as mini hospitals and they are referral site for smaller health units within a county or constituency, with a population of about 100,000 people. They are headed by a medical officer as the overall supervisor while a nursing officer heads the nursing section. Hospitals and HC IVs both have maternity and operating theatre services. Hence, they are in a position to handle obstetric emergencies. In addition to the hospitals and health centre IVs, there are twenty three health centre IIIs with maternity services. Health centre IIIs are health units based at sub-county level.

Normally their service area covers about 30,000 to 50,000 people. These are complimented with several private maternity and domiciliary centres (Mukono District Council 2005a; 24). The above mentioned are the improvements made by the government to promote safe motherhood. However, despite all these improvements for example in terms of infrastructure and personnel both in quantity and quality, institutional deliveries attended to by skilled and trained health workers prevailed at 40%, although 93% of pregnant women attended antenatal (ANC) at least once. The perceived reasons for poor utilisation of maternity services by the health sector are; inadequate access to maternity services, perceived poor quality of services in health facilities and cultural barriers with preference to Traditional Birth Attendants (TBAs) and other alternatives in the society (Ministry of Health 2005a; 9).

1.3 STATEMENT OF THE RESEARCH PROBLEM

Since 2000 to-date, there have been several health sector reforms in Uganda. These include abolition of user fees in Public Health facilities and increasing subsidies from Government to Private not for Profit (PNFPs) health facilities. These reforms led to increased utilisation of health services for example Out-patients Departments (OPDs) as evidenced by several studies and reports. However, utilisation of maternity services still remains low (Institute of Public Health 2005:54).

According to Ministry of Health (2004:37) in 2003/04, 5 out of 56 districts in Uganda achieved the national target of 40% deliveries conducted by skilled health workers, while in 37 districts (66%) recorded deliveries that were as

below as 20%. Mukono was among the 5 districts with 40% institutional deliveries.

Although it is known that attendance to a pregnant woman by trained health personnel in midwifery skills during childbirth significantly decreases maternal morbidity and mortality, there is still low utilisation of skilled attendance for childbirth in Mukono district as highlighted above.

Against this background, it was therefore imperative that a study be conducted to analyse and describe the factors that affect the choice of site delivery by pregnant women.

1.4 AIM OF THE STUDY

The study was carried out with a purpose and had objectives. These are elaborated and clearly explained in the following way.

1.4.1 Purpose of the study

The purpose of the study was to analyze and describe the factors that influence the choice of site of delivery by pregnant women in Mukono district – Uganda. Reasons for low utilisation of maternity services in established health facilities with skilled personnel in midwifery skills were to be ascertained. This will form the basis for RH evidence based service improvement to decrease MMR in a bid to achieve the 5th Millennium Development Goal.

1.4.2 Objectives of the study

The objectives of this study were to:

- Describe the socio-demographic characteristics of women that deliver at various sites in Mukono district.
- Describe the sites where childbirths take place in Mukono district.
- Establish, analyse and describe factors that influence the choice of site delivery by pregnant women.
- Recommend to health planners in the district ways and means of reducing maternal morbidity and mortality based on the evidence.

1.5 SIGNIFICANCE OF THE STUDY

World Health Organization defines the functions of a health system as being that of stewardship, service delivery, resource generation and financing. According to Berman (2000:791), a successful system would be assessed by the level and distributions of health outcomes, level and distribution of financial burden and population satisfaction.

The study will contribute towards maternal health improvement in Mukono district.

The findings would be relevant and useful to the planners of reproductive health services for appropriate and effective interventions. This study will assist in giving inputs to the policies and strategies that would be put in place and would be evidence based. Furthermore, the study will provide more information on efficient

and effective utilisation of the scarce resources available for health to address issues of reducing maternal morbidity and mortality.

1.6 DEFINITION OF TERMS

To guide the study there were key terminologies or concepts. These are defined as below.

- **Skilled attendant:** An accredited health professional – such as a midwife or doctor who has been educated and trained to proficiency in the skills needed to manage normal (uncomplicated) pregnancies, childbirth and immediate postnatal period, and in the identification, management and referral of complications in women and newborns (WHO 2004a:2). For this study a skilled attendant meant a trained nurse, midwife, clinical officer or a doctor.
- **Traditional birth attendant:** Independent (of health system), non-formally trained and community – based providers of care during pregnancy, childbirth and the postnatal period (WHO 2004a:2). This study employed the WHO definition of a traditional birth attendant as its operational definition.
- **Maternal mortality:** The study considered maternal mortality to be death of a woman as a result of; being pregnant, management of labour or postnatal period (ministry of Health 200b:5).
- **Childbirth complications:** These are either maternal or neonatal morbid states that occur as a consequence of the process of childbirth or its management (Childbirth complications 2008).

- **Institutional delivery:** The study upheld the definition of institutional delivery as defined by the Uganda Ministry of Health, that this is childbirth that occurs at recognised birth site where there is a skilled attendant to deliver pregnant women Ministry of Health 2005c:13).

1.7 FOUNDATIONS FOR THE STUDY

The following theoretical framework guided this study.

1.7.1 Millennium Development Goals

A woman dies from complications in childbirth every minute – about 529,000 each year and the vast majority of them being in developing countries. In 2001, 147 world leaders endorsed the Millennium Development Goals (MDGs) whereby goals 4 and 5 were intended to reduce child mortality rate by 2/3 and maternal mortality ratio by 3/4 by 2015 (<http://www.unicef.org/mdg/maternal.html>).

Uganda is a developing country with both high fertility rate and maternal mortality ratio. Considering the low number of childbirths attended to by skilled personnel as depicted above, it is unlikely that Uganda would be able to attain the targets of MDGs. Therefore this study was undertaken to describe where pregnant women deliver from and why they chose to deliver from those sites. The findings are intended to be used as inputs to health planners to design appropriate maternal health strategies towards the attainment of the MDGs.

1.8 RESEARCH DESIGN AND METHOD

A quantitative descriptive and contextual research design was used in this study. According to Streuber and Carpenter (1999:18), Burns and Grove (2007:17-18), quantitative research design is an objective and systematic process of statistical analysis of data to generate information about a study topic. There is normally one reality whereby control and prediction can be done. This research therefore used quantitative methods to study the factors that influence pregnant women's choice of delivery site.

1.8.1 Descriptive research design

Descriptive research design was chosen for the study. This descriptive study was used to describe the factors that influence pregnant women's choice of delivery site in Mukono district. It also gave service providers and planners information that will help them to design services and allocate resources more efficiently (Katzellenbogen, Joubert & Karim 2002:66).

1.8.2 Contextual

The study was conducted at Mukono district in Uganda. Data used in the study was collected from the entire district of Mukono.

1.8.3 Methodology

The study targeted women in the reproductive age that is 15 – 45 years. The sample frame consisted of women who had had childbirth in the preceding fiscal year to the study. Those that contributed to the study had had their children vaccinated against Tuberculosis which was evidenced by possession of a Child

Health Card. The sampling scheme used in the research was stratified sampling. To attain equal probability for the sample, simple random sampling of the strata was done (Kirkwood 1988:172).

Data collection was done by six research assistants and the researcher, from the community by administration of structured questionnaires to the subjects. This was done in July 2008.

Questionnaires are less expensive (Kambaza 2005:23). They can be used to collect data from people who may not be easily reachable (Katzellenbogen et al 2002:82) and they also minimize the problem of questionnaire retrieval (Timmereck 1998:360).

With the help of a statistician, the developed instrument was discussed and analysed to be used in data collection. Findings of the study are given and discussed by text and descriptive statistics in chapter four of this study.

1.9 STRUCTURE OF THE DISSERTATION

This dissertation is divided into five chapters and each chapter is described as below

- Chapter 1 : Orientation of the study - overview of the research problem, purpose and significance of the study, objectives of the study, definition of terms, foundation of the study and highlights of the research design and methodology are discussed.
- Chapter 2: Literature review – this gives an in-depth review of the literature related to the research topic.

- Chapter 3: Research design and method – details of the research approach to study the research topic is given in this chapter.
- Chapter 4: Analysis, presentation and description of the research findings.
- Chapter 5: Conclusions and recommendations – these are discussed based on the research outcomes. Limitations of the study are also presented here.

The list of references is appended to the dissertation. Other annexures include clearance certificate from the university of South Africa, letter of approval from Mukono district, consent form, questionnaire that was used in data collection and the map of Mukono district.

1.10 CONCLUSION

Chapter one has given the orientation to the study. This included background to the research problem, the research problem, aim of the study, significance of the study, definition of terms and highlighted the research design and methodology that was used in the study.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

The purpose of reviewing literature for this study was to obtain relevant information that is available about the research topic. Literature review provides essential background knowledge about similarities and differences between the present study and prior research studies done which are relevant to this topic. (Burns & Grove 2007:137). It is also a systematic identification, location, scrutiny and summary of related published works to gain information about the research topic (Burns & Grove 2007:33, Polit & Hungler 1995:69).

2.2 PRIMARY HEALTH CARE ASPECTS OF MATERNAL HEALTH

On 12th September 1978, World Health Organization (WHO) member countries while attending the International Conference in Kazakhstan a former USSR state, formally adopted the Alma-Ata Declaration. This was thought of as the means to provide comprehensive universal, equitable and affordable health care delivery by all governments, and all health and development workers for the world community. Primary Health Care (PHC) strategy was the model to be used to achieve health for all by the year 2000. One of the components of PHC focused on maternal and child health care including family planning. The desired goals of this component included among others, having pregnant women access trained

personnel to attend to them while pregnant and during child birth (Dennill, King & Swanepoel 1999:3).

Health for all by 2000 was not achieved due to several reasons. These included changes in economic philosophy that led to health sector reforms that were recommended by the World Bank in 1993. There was also unsustainable political commitment by several countries (Hall & Taylor 2003:17). However, according to WHO Report (2000:13), inadequate funding, insufficient training of health workers and inadequate equipments at all levels of health care delivery, were the reasons for failure to realise health for all by 2000.

2.3 THE MILLENIUM DEVELOPMENT GOALS AND MATERNAL HEALTH

During 2001, 189 United Nations Member states convened for the United Nations Millennium Summit. Together they adopted eight interlinked Millennium Development Goals (MDGs). These were unprecedented efforts to meet the needs of the world's poor countries towards better health of their people by the year 2015. The fifth goal aimed at improving maternal health, with the objective of reducing by three quarters the ratio of women dying in childbirth by 2015 (<http://www.unicef.org/mdg/maternal/html>).

To monitor the progress towards achievement of this goal, Maternal Mortality Ratio (MMR) as the outcome indicator and the number of births attended to by skilled personnel as the process indicator were the two indicators that were to be assessed (<http://www.int/reproductive-health/MNBH/index.htm>).

The fourth goal focused on reduction of child mortality by two thirds by 2015. These two goals are somehow interrelated since healthy children need healthy mothers.

2.4 GLOBAL PICTURE OF MATERNAL MORBIDITY AND MORTALITY

According to (WHO 2000:13), 529,000 maternal deaths were estimated to have occurred in the world in 2000. Of these 251,000 occurred in Africa. In terms of MMR, the world figure was estimated at 400 per 100,000 live births. By region, Africa's MMR was at 830 per 100,000 live births.

It is estimated that 15% of the World's pregnancies end with complications. It is estimated that somewhere in the world one woman dies every minute during pregnancy or child birth. This adds up to more than 300,000 dead women every year (WHO, UNFPA, UNICEF and World Bank 1999:1). For every woman who dies, there are 20 to 30 others who survive but suffer debilitating injuries like infertility, uterine prolapse, obstetric fistulae, long term psychological and emotional stress resulting in some women even fearing to become pregnant again(Thoraya 2007: 11).

UNICEF further asserts that a woman in Sub-Saharan has 1 in 16 chance of dying while pregnant or during child birth as compared to 1 in 4,000 risk in developed countries. Direct causes of morbidity and mortality are; haemorrhage, infections, obstructed or prolonged labour, unsafe abortions and hypertensive disorders (<http://www.int/reproductive-health/publicationsmaternalmortality>).

2.5 CHILDBIRTH COMPLICATIONS

Childbirth complications are either maternal, baby or both. Global estimates suggest that each year 904,400 newborn babies die in the first few days of life as a consequence of complications in childbirth, and a further 1.02 million babies die during labour. Newborn complications include asphyxia and birth hypoxia, umbilical cord entrapment, brain damage, shoulder nerve damage and stillbirth (<http://www.who.int/bulletin/en/index.html>).

The immediate maternal complications are general tiredness and exhaustion, perineal tears, retained placenta, haemorrhage and death. On the other hand complications can arise in the post partum period. These may be procedural such as caesarian or instrument birth, puerperal infection, mastitis, breast engorgement, depression, psychosis and death. If more resources were invested into care during childbirth, and midwives were equipped to perform newborn resuscitation, then hundreds of babies, and many of their mothers could be saved every year (<http://www.who.int/bulletin/en/index.html>).

2.6 MECHANISMS UNDERLYING MATERNAL CHILDBIRTH COMPLICATIONS

In order for childbirth complications to occur, there are mechanisms underlying their occurrence. Unavailability and inaccessibility of quality care plus logistics

problems affecting provision of emergency obstetric care where and when it is needed is one of the mechanisms.

Maine (1997: 23) summarizes the causes of morbidity and mortality as the three delays. Delay at home to make decisions to seek appropriate care, delay during the journey to reach the health facility from where to get the necessary care and the third delay is by the health facility to offer adequate and appropriate services and treatment. Basing on Maine's three delays, (WHO 2004b:5) Uganda adopted an advocacy tool called the "*Reduce Model*" that was to be used to improve maternal and newborn survival. The Reduce Model is a set of actions or activities that can be done in order to avoid or minimize the mentioned delays at all the three stages of delay as a safe motherhood initiative.

2.7 SKILLED ATTENDANT

According to WHO/UNFPA/UNICEF/World Bank statement (1999:1), the term skilled attendant refers exclusively to people with midwifery skills who have been trained to proficiency in the skills necessary to diagnose and manage normal deliveries or refer when there are complications.

On the other hand midwifery skills are defined as a set of cognitive and practical skills that enable the individual to provide basic health care services throughout the period of the prenatal continuum and also to provide first aid for obstetric complications and emergencies, including life-saving measures when needed.

Skilled attendance encompasses a partnership of skilled attendants and an enabling environment of equipment, supplies, drugs and transport for obstetric referral (Graham, Bell & Bullough 2001:113).

Of all health statistics, those for maternal mortality show the greatest disparity between developing and developed countries. The difference between those who have managed to lower their MMR and those that have not depends on the way in which skilled care was organized (Luc, Della, Carla & Wim 2003:39). Malaysia with long standing tradition of professional midwifery since 1923, reduced its MMR from over 500 per 100,000 births in early 1950s to about 250 per 100,000 births in 1960. Thailand whose MMR was over 400 per 100,000 births in 1960s, substituted TBAs by certified village midwives and within ten years MMR came down to between 200 and 250 (WHO Report 2004b:66).

In Egypt, higher use of skilled care during delivery was achieved through a dual strategy that involved improved quality of care in health facilities coupled with information targeted to decision-making at the household level, which led to an increase in women and families seeking skilled care (Luc et al 2003:41).

According to Zoë (2007:1), the year 2007 marked the 20th anniversary of the Safe Motherhood Movement. However, today only half of the world's women have access to the care of a skilled professional when giving birth. It would require more than 700,000 midwives to provide universal access to skilled care at birth (Thoraya 2007: 11, Kanti & Koblinsky 2007:5).

Antenatal care (ANC) helps a pregnant woman to make a birth plan that is where to go, costs, and transport means in case of a complication, most of the

complications are often unpredictable but treatable. Tackling the problems of safe motherhood today requires scaling up professional skilled care provision in health facilities (Kanti et al. 2007:5).

2.8 ANTENATAL CARE AND SAFE MOTHERHOOD

A new proposed approach to provision of ANC to pregnant women recommends that health providers should help a woman to plan to use skilled attendant, prepare a simple birth kit, know the signs and symptoms of complications, know where to get expert care and how to get there, have transportation plan, have a plan for saving money for an emergency and identify a person to accompany her in an emergency (Gerein 2003:175). ANC is also used to detect early obstetric complications, counsel and motivate women to seek appropriate care (Yuster 1995:60). Bloom (1999:38), examined the relationship of ANC utilisation with the use of safe delivery care in Uttar Pradesh – India. The results of this study showed that ANC utilisation is an important determinant of safe delivery care. Similarly, McDonagh (1996:8) also reaffirms that ANC has the potential to influence women to select a trained birth attendant. ANC does not efficiently or conclusively identify women who will need emergency obstetric care or who will develop complications. In rural Bangladesh, women who had attended ANC were four times more likely to deliver with a midwife than women who had not (Vanneste 2000:8). In Mucessua – Mozambique, women instead of seeking free prenatal care, they hide their pregnancies for fear of being targeted by their jealous neighbours and family for sorcery (Chapman 2003:355).

2.9 THE TRADITIONAL BIRTH ATTENDANT

Luc et al (2003:45), refer to Traditional birth attendants (TBAs) as a heterogeneous group of traditional carers most of whom operating in the informal sector, with considerable variance in their individual competencies, skills, names or titles by which they are commonly referred to, that are specific to country context.

Women normally turn to TBAs because other health workers are not available, are too expensive or because TBAs understand the culture and respect women's needs. Nevertheless, it has been observed that even trained TBAs cannot in most cases save women's lives because they are unable to detect or treat complications and are often unable to refer (Carlough & McCall 2005:200, Luc et al 2003:45).

According to Walraven (1995:131) perinatal mortality due to home birth in Tanzania, was three times higher for home deliveries conducted without a trained attendant than that for hospital or dispensary births conducted with trained attendants. This was as a result of lack of knowledge and skills to manage complications and women delivering in unhygienic environment for home deliveries.

A study that explored childbirth practices and beliefs in urban and rural Zambia, revealed that TBAs advised laboring women to use traditional medicines. These TBAs relied on traditional beliefs and witchcraft to explain complications. Hence, they lacked the understanding of obstetric complications (Maimbolwa 2003:263).

2.10 THE EFFECTS OF HEALTH SYSTEMS ON THE UTILISATION OF HEALTH SERVICES

Maternal mortality is an indicator of how well a health system functions, as it encapsulates a substantial part of both primary and secondary health care (Zoë 2007:1).

All countries where maternal mortality is high, the size, skills and infrastructure of the workplace are inadequate (Kanti et al 2007:5). The true constraints to improving care in developing countries are with the health systems and health sector reforms. They include lack of human resources, poor infrastructure, inadequate financial protection and non-evidence based medical practices (Hulton 2007:6, Zoë 2007:2). Health sector reforms involve significant and purposive effort to improve the performance of a health-care system. There are five goals of health sector reforms namely: efficiency, quality, equity, client responsiveness and sustainability (Health sector reform and reproductive health 2007).

In a comparative study in 2001-2002 Parkhurst (2005a:127) showed that was conducted to see how the structure and operation of a health system influence maternal health care provision and outcomes in Bangladesh, Russia, South Africa and Uganda, showed that outcomes of pregnancy were linked to health care system structures such as health centre workplace dynamics, national reforms and informal practice by health providers

Fogstad (2007:3) observes that weak governance and ineffective government-donor relationships cause considerable barriers to scaling up services to achieve

universal coverage of maternal health care in developing countries, even with additional external aid.

2.11 BARRIERS TO UTILISATION OF SKILLED ATTENDANCE AT BIRTH

In Uganda, the ministry of Health while reviewing the Health Sector performance in 2005, outlined the perceived reasons for poor utilisation of maternal services as poor attitude of health workers, inadequate access to maternity services, poor quality of services in health facilities and cultural barriers with preference to TBAs and other alternatives in society (Ministry of Health 2005a:9).

2.11.1 Distance

In a study that was undertaken in Rakai district of Uganda, about the utilization of maternity services, it concluded that accessibility to a maternity facility influenced choice of delivery site (Amooti & Nuwaha (2000:203). Similarly Hodgkin (1996:333), while in Kenya also looked at characteristics affecting where pregnant women deliver from. Le Bacq and Rietsema (1997: 357), too conducted a similar study in Zambia. These studies ascertain that distance to a maternity centre was a significant factor that affected the choice of site of delivery and utilisation of hospital maternity services.

2.11.2 Standard of living and level of education

Those that are studying the trends and uses of skilled attendants have noted that the more educated and wealthier women are, the more likely that they will have their births attended to by a professional health practitioner (Luc et al 2003:43).

In India, Pallikadavath, Foss & Stones (2004: 1147) while looking at antenatal care provision observed that women who had higher standard of living and education levels were more likely to visit a health clinic and receive specific care.

While in Nepal, Valley (1999:152) followed delivery patterns of 357 women in a cross-sectional survey. Low maternal education and multi-parity were the significant factors that influenced home delivery by pregnant women.

Negussie and Obare (2004:90), compared 663 teenage and 721 adult mothers on socio-demographic characteristics and pregnancy outcomes in Ethiopia. The study showed that a large percentage of home deliveries was reported among teenage mothers and the majority of them were from rural areas, were poor, less educated and were not married.

Another study was carried out in rural Kano – Nigeria, to find out the barriers to the use of ANC and obstetric care because 88% of pregnant women were not attending ANC and 96% had planned to deliver from home. The study found out that economic and cultural effects were the major barriers associated with seeking care. Hence, it was recommended that poverty eradication and economic empowerment of rural women are prerequisites for any tangible improvement in the utilization of ANC and obstetric delivery services (Adam & Salihu 2002:600).

2.11.3 Failure or delay to recognise illness or complications

Another study that looked at the obstacles to seeking maternity services in Nepal, identified delays in recognising illness and decisions to act rather than geographic, transportation or institutional factors as major obstacles to seeking maternity services (Mesko 2003:3).

Zoë (2005:385) looked at 388 women in India through pregnancy, childbirth and postpartum periods. It was discovered that many women sought care in response to serious morbidities and sometimes after a long delay. In fact only 11% planned to give birth in hospital and out of these, 35% actually did.

According to Musinguzi (2005:21), having a community which understands the danger signs during pregnancy and child birth and with the capacity for emergency preparedness to reduce the maternal mortality.

2.11.4 Payment for health care services

Payment for health care especially for the poor is one of the hindering factors that prevent women from seeking medical attention from skilled personnel. Even where exemptions exist, there are a lot of informal payments in form of cash or in kind to health workers. These payments are sought by health workers who earn meager salaries and intend to survive on these payments (Falkingham 2007:4).

Removing childbirth fees in Ghana was noted to have increased demand for public health services and TBAs reported a drop in client numbers (Witter 2007:2).

2.11.5 Health worker factors

Midwives are in the best position to empower pregnant women by giving them adequate information about all services and choices that are available to them so that they form informed decisions including site of delivery. However, women are not always given enough information to help them make the correct decisions (Madi & Crow 2003:323).

In Bangladesh, social stigma and distrust of doctors' recommendations for caesarian sections and belief that this was not always necessary held back women from delivering from institutions with skilled attendants (Parkhurst 2005a:130, Parkhurst 2005b:1).

In Ghana, managers of health services looked at how midwives behaviour affects pregnant women's choice of health care. Women who participated in the study highlighted serious neglect and abuse by midwives as a serious hindrance. Midwives often shouted at them, they were rude and refused to offer assistance. In some cases they threatened women in labour. Those women who were mistreated therefore looked else where for care next time when they became pregnant. They would also not recommend other women to such midwives (Abbey 2008:1). A similar study that was conducted in Bangladesh noted that midwives' behaviours were often reported to be inappropriate. Some midwives where accused of shouting at and humiliating their patients for screaming in labour, for taking too long to deliver or for refusing to show their genitals. The study recommended that training midwives to show respect towards the women under their care be ensured. It also proposed that community education

programmes on childbirth and the role of the midwife be promoted so that families feel less threatened. (Blum 2007:2).

Nevertheless, for a skilled worker to be effective s/he must have the relevant education, necessary skills, work in an appropriate and enabling environment that depends on political support, effective systems of communication and transport (Maimbolwa 2003:263).

2.11.6 Cultural beliefs and practices

Hoima and Kiboga districts of Uganda, hospital delivery is considered as culturally inappropriate. Health workers are seen to be strangers, who are rude, deliver women in uncomfortable supine position, hasten to do episiotomies and prematurely perform caesarian sections. Therefore women prefer to deliver with TBAs and relatives who are community members and are sensitive to cultural norms of child birth. Hospital delivery is only resorted to in cases of emergencies (Kyomuhendo 2003:16).

2.12 FACTORS THAT PROMOTE UTILISATION OF HEALTH SERVICES

Having looked at factors that negatively affect utilisation of maternity services, the following are factors that promote utilization. These can be illustrated by the evidence provided by earlier studies in several parts of the world.

2.12.1 Level of care

In Enugu, Southern Nigeria, 52.9% women deliver outside health institutions while 47.1% use health units for child birth. Some of the important factors recognised are; promptness of care, competence of health workers, their team work, 24-hour services and affordability. In Orissa India, health seeking behaviour of these rural people was examined with particular attention to their views on the availability and quality of state health services at primary health level. Overall hospitals were the most used for health care provision. The reason was the reputation of health care providers (Alastair & Pepper 2005:76).

2.12.2 Effective staff-patient communication

Women's perception of quality care in Cape Town South Africa greatly influences their health seeking behaviour. It is also observed that improving the quality of health services can be done by improvement of staff-patient communication and making services more patient-oriented (Abrahams 2001:240).

2.12.3 Quality of care

In Nepal a study was carried out to evaluate the relative importance of access and quality of health services. The study suggested that investment in quality health facilities was more important than increasing their number (Acharya & Cleland 2000:223).

During 2004, public and private sectors were compared in health care for female out-patients in South-Central India. It was found that women get better care in

the private health sector. They felt that the quality of care was much better in the private sector both in terms of thoroughness of examination and communication between doctor and patient (Bhatia & Cleland 2004:402). Another study conducted in Sri-lanka looked at the treatment seeking behaviour of two poor urban communities for eight months. The private and public sectors were considered for health care. The study concluded that there was unsatisfactory interpersonal care in the public sector necessitating the residents to seek services of the private providers who at times would be expensive but perceived to be offering superior services with better customer care (Russel 2005:139).

The Ministry of Health in Mali sought to improve the performance of its health workers and a research was undertaken to identify what factors motivated health workers. The study identified performance management strategies as an important factor that motivates staff (Marjolein, Jurrien, Hamadassalia and Martineau 2006:4). Nevertheless in Vietnam health workers reported that recognition from management, colleagues, the community and training were their motivation factors (Marjolein 2003:1).

2.13 MUKONO DISTRICT HEALTH CARE SERVICES

Mukono district in Uganda has five hospitals and four Health centre IVs with operating theatres to handle emergency obstetric surgeries. There are also twenty four Health Centre type III with maternity services (Mukono District Council 2005b:24). Literacy rate is at 58% but worse among the female

population (Mukono District 2003:7). Population and Housing census of 2002 put the district population at 795,393. The projected population for 2006/2007 was 903,311. At a district pregnancy rate of 5.2, at least 45,832 women were expected to be pregnant during this period. According to Ministry of Health staffing norms, the level of staffing for the district is at 78.3% (Mukono district 2005a:13). Compared to other districts, Mukono district has relatively adequate infrastructure in terms of numbers and quality. Despite improvement in infrastructure and staffing levels, institutional deliveries prevail at 40% though 93% of pregnant women attend ANC at least once (Ministry of Health 2005b:9). MMR is 435 maternal deaths per 100,000 live births (Uganda demographic health survey 2006).

2.14 CONCEPTUAL FRAMEWORK

Having looked at what the literature says about the research topic and what other researchers have done and concluded, it is noted that there were several interlinked district, community, individual and health facility factors that are in place and influence pregnant women's choice of delivery site. Figure 1 is the conceptual framework on which the study hinged.

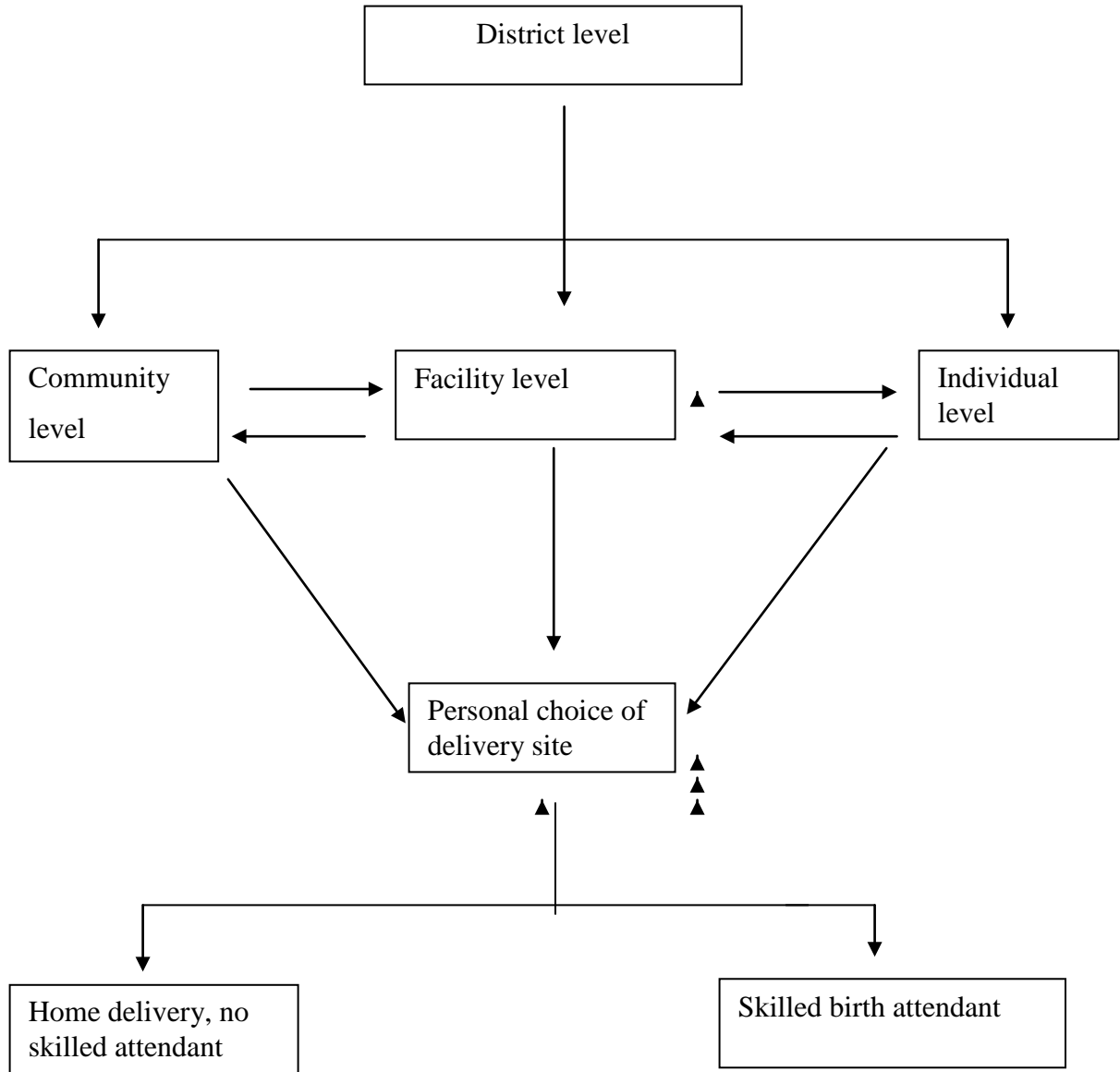


FIGURE 2.1 *Factors influencing choice of delivery site in Mukono district*

2.15 CONCLUSION

This chapter reviewed literature that is related to this study. Literature that was reviewed formed a better understanding of the study topic. It also formed a basis upon which the study findings were compared in order to ensure validity and reliability of the research findings.

CHAPTER 3: RESEARCH DESIGN AND METHOD

3.1. INTRODUCTION

Chapter two focused on literature relevant to this study and previous studies related to the topic under discussion. In this chapter research design and method will be described in detail. This study was a health system research study. A health system is a set of components that function together to support and improve the health of the population. Health system research aims at supporting decision making process at all levels of health system by providing relevant information (Katzellenbogen et al 2002:147). Such a study also focuses on organized response to health and disease with the purpose of improving the functioning and quality of the health system which in turn will lead to the improvement of the health of the population (Randa 2007:4)

3.2 STUDY DESIGN

A quantitative descriptive non-experimental study design was used in this study.

3.2.1 Quantitative design

Quantitative design is objective. There is normally one reality whereby control and prediction can be done. It is context free, participants are referred to as subjects while the researcher is not part of the research process. A report generated by this study consists of statistical analyses (Streuber and Carpenter

1999:18). The quantitative approach was justified for this study since the study had elements of measuring and analysing different variables, with the intent of using the findings and applying the knowledge gained in improving service provision (Streuber and Carpenter 1999:1).

3.2.2 Descriptive design

This is a study design in which there is observation, description and documentation of a situation as it naturally occurs in terms of frequency of occurrence (Polit and Hunger 1995:195, Brink and Wood 1998:289). The main use of descriptive studies is to give service providers and planners information that will help them design services and allocate resources efficiently (Katzellenbogen 2002:66). These studies also generate precise measurements of phenomena being studied that can be explained by the accumulation of statistical data (Burns and Grove 2007:34). Hence, the study design was chosen as it was found to be appropriate since the study had the intent to describe factors that influence pregnant women's choice of places of child birth, the extent of complications associated with the chosen birth place, and the characteristics of pregnant women who deliver from the respective sites.

3.3 RESEARCH METHOD

3.3.1 Study Site

Mukono district in Uganda was the chosen area from which the study was conducted. It is one of the old districts in Uganda and has relatively been stable. Further more the district has a diversity of demographic features. The district is located in South East of Uganda. Administratively, it has four counties, seven constituencies, twenty four sub-counties and four town councils. Five of the sub-counties are island sub-counties on Lake Victoria. There are 1119 villages. The projected district population for 2006/07 was 867,300. Annual population growth is 2.7% and pregnancy rate is 5.2%. This implies that 45,100 women were expected to have been pregnant in that period. Literacy rate stands at 58% and it is worst among the reproductive female population in the age bracket 15 – 49 years (Mukono district development plan 2003:13).

Majority of the people live in the rural areas and their socio-economic status is predominantly peasant farming where they engage in subsistence agriculture. The minority who dwell in the urban or peri-urban areas are mainly civil servants, traders and those in other forms of formal employment. Another minority group that lives in the islands depends on fishing for a livelihood.

On the side of health infrastructure, the district has five hospitals. Three of the hospitals are faith based, one is public and the fifth is private. There are four health centre IVs while health centre IIIs are twenty three. Health centre VIs is mini-hospitals in constituencies that do not have a hospital while health centre

ILIs are health facilities at a sub-county or town council level. All these facilities offer maternity services with the capacity to handle emergency obstetric care.

3.3.2 Study population

The study population were women aged 15 – 49 years. The chosen age group represents women in the reproductive age bracket. This is considered to be the age range when a female could become pregnant. Age group 15 -18 years though considered under age, was included in the study because of existence of teenage pregnancies that contribute to maternal mortality.

3.3.2.1 Sample Frame

The sample frame was all women of reproductive age who had childbirth between July 2007 and June 2008. The period that was studied coincided with the previous fiscal year to the study. Fiscal years in Uganda are used for planning, monitoring and evaluation of government programmes. Women had to have a Child Health card (Road-to Health card) as evidence that their children had received the first vaccination for Tuberculosis. The period was considered to be ideal as it would minimize memory decay effect of the participants (Mouton 2002:152). During the period under the study, 44,671 deliveries were expected to occur in the district. Of these, 18,097 (41%) were recorded to have taken place with assistance of skilled health workers. In the same period, 41,522 children below one year received their first vaccination (Mukono district Health

Management Information System Annual Report 2008:6). This implies that although the majority of children are not born in the established health facilities, their mothers still take them to these facilities to receive their vaccination as required.

3.3.2.2 Sample size

The level of confidence for the study was 95%, with 5% as the tolerable error. The sample size for the study was determined by using the sample estimation formula below (George 2000:311, Kirkwood 1998:192);

$$n = p \times q \times \frac{(Z_{\alpha/2})^2}{e^2} \quad \text{or} \quad n = \frac{Z_{\alpha/2}^2 \times p \times (1-p)}{e^2}$$

where:

n = sample size

p = number delivered in health facilities in Mukono district = 37% = 0.37

q = number delivered out of established facilities in Mukono district = 63% = 0.63

e = standard error = 5% = 0.05

$Z_{\alpha/2}$ = Z value of 95% confidence = 1.96 from the Z-table

Substituting the values into the formula: $n = 0.37 \times 0.63 \times \frac{(1.96)^2}{0.05^2} = 358$

Therefore at least 358 participants were required to participate in the study.

3.3.2.3 Sampling procedure

Since the population of the district is heterogeneous, stratified random sampling was used to minimize bias of the study and increase reliability of the findings. Stratified random sampling is one in which the population is first divided into

relevant strata (subgroups) (Beth & Robert 2001:71). The seven health sub-districts were designated as strata since they differ with respect of topography and socioeconomic perspectives (Kirkwood 1998:169). Subjects per stratum were randomly selected and the number per stratum was determined by the percentage contribution of each health sub-district to the district population in general and to the expected number of deliveries in particular as follows in table 3.1. It was also ensured that only one woman was picked from the 1,114 villages in Mukono district.

Table 3.1 Expected deliveries for health sub-districts

Name of Health Sub-district	Expected number of deliveries	Number of mothers to be selected
Mukono North	7,521 (17%)	61
Mukono South	6,035 (14%)	50
Nakifuma	9,404 (21%)	75
Buvuma	2,247 (5%)	18
Buikwe North	5,953 (13%)	47
Buikwe South	6,614 (15%)	54
Buikwe West	6,897 (15%)	54
Total	44,671 (100%)	359

3.3.3 Data collection

Though there are several methods of data collection while conducting research, structured questionnaires were employed to collect data for this study.

3.3.3.1 Structured Questionnaires

A structured questionnaire is a data collection instrument that comprises of a set of questions or items in which wording of both the question and response alternatives are predetermined. The respondents either complete the instrument

themselves in a paper-and-pencil format or an interviewer asks questions orally but relies on the respondents to answer others in writing (Polit & Hunger 1997:334).

Katzellenbogen et al (2002:82), views a questionnaire as a list of questions which are answered by a respondent, and which give indirect measures of the variables under investigations. According to Talbot (1995:293), if a researcher wants to obtain information about attitudes, feelings, beliefs or any other information that cannot be observed, then the most appropriate way is to ask questions and receive answers from respondents. Questionnaires have the disadvantage of being time consuming, expensive, with interpersonal dynamics that may interfere with data collection and interviewer variation that may affect reliability.

They have the advantage that they are less expensive to administer and respondents feel free to express their views and answer questions at their pace after considering each point carefully (Kambaza 2005:23). Katzellenbogen et al (2002:82), gives three other advantages of individual interviews. First, person to person contact or interviews can facilitate response and quality of information given. They minimize the problem of questionnaire retrieval (Timmreck 1998:360). Secondly, they can be administered when the respondent has low literacy and can not fill in self administered forms. Thirdly, they can collect data from people who are otherwise not reachable for example informal areas.

Basing on the information gathered from literature review and putting into consideration the aforementioned about questionnaires, a research instrument

was developed for this study. Research assistants then individually administered the structured questionnaires to the respondents.

The questionnaires administered to the respondents for data collection were structured in six sections as follows:

- Section A: Demographic information
- Section B: Accessibility to health services
- Section C: Antenatal history
- Section D: Delivery information
- Section E: Rating of public and private clinics
- Section F: Pregnancy risks and recommendations for safer pregnancy

The principal investigator then routinely cross checked the filled questionnaires for completeness and accuracy. The questionnaire that was used in this study is annexed as D.

3.3.3.2 Pre –test / Pilot study

In order to minimize errors in the questionnaire, a pilot study by pre-testing it is an important activity during a research process (Neuman 1997:233, Mouton 2002:103). Piloting and pre-testing was done in Kangulumira health sub-district which is in Kayunga district. Kayunga district is a neighbouring district to Mukono. Hence, the social and demographic characteristics of both districts are almost similar. The pilot study helped in removing ambiguous, vague items or words that had been undefined, too vague or those that assumed too much

about the respondents. Specific rather than general words or items were thus used to make the questionnaire a better tool during the data collection exercise.

3.3.3.3. Research Assistants

Research assistants were used to administer the structured questionnaires to the respondents. To minimize interviewer bias like research distortion and research expectancy effect (Mouton 2002:103), midwives were not used. Instead, six social workers were recruited to participate in the study as research assistants. Their selection was based on their interest to participate in the exercise after an announcement had been made, past exposure to health related work, and ability to speak the local language fluently. Eight had expressed interest in the assignment, only six were chosen. Their verbal consent was then sought and they all accepted.

Training of interviewers is a precondition for any research. The training improves the reliability of the research by counteracting researcher effects like inaccurate noting of responses, coding errors and classification errors (Mouton 2002:159). Prior to commencement of data collection exercise, the research assistants were trained on the research protocol. Their verbal consent was sought and they all had no hesitations in taking part in the study. They were facilitated to carry out the exercise and the facilitation was in form of transport, meals and out of pocket allowance.

3.3.3.4 Data collection process

Data for this study was collected by use of questionnaires by the research assistants who were supervised by the leader of the study. The women who were interviewed were met in their respective homes which were randomly selected. Interviewers were given a copy of the approval letter from the district authorities which they presented to the village authorities in order not to be mistaken for dubious persons. Every evening the filled questionnaires would be viewed for correctness by the leader of the team and then filled to await analysis of data at completion of the data collection exercise.

3.3.3.5 Ethical considerations

Polit and Beck (2004:717), define ethics as a system of moral values concerned with the degree to which research procedures adhere to professional, legal and social obligations concerns of the participants. The research proposal and the questionnaire for this study were submitted to UNISA for clearance. A clearance certificate was issued by the Health Studies Research and Ethics Committee College of Human Sciences. A clearance certificate was then granted for this project number: 34708383 (annexure A). This clearance certificate was presented to Mukono district authorities and approval to conduct the study was granted (annexure B).

Prior to commencement of the interview process, interviewers would establish rapport. This is a strong interpersonal relationship between researcher and participant and it neutralises the initial distrust (Mouton 2002:158). A verbal consent was obtained from each of the respondents before conducting the

interview. For those that preferred to endorse on the consent form so as to confirm their consent were allowed to do so. Consent form is annexed (annexure C). Informed consent means that participants have adequate information regarding the research: are capable of comprehending the information and have the power of free choice, enabling them to consent voluntarily to participate in the research or decline participation (Polit & Beck 2004:145). Thus, the principles of autonomy and respect for persons were upheld.

To ensure anonymity, respondents were assured that they were not required to write their names on the questionnaires. This would ensure that the respondents are anonymous.

Anonymity occurs when even the researcher cannot link a participant with the data for that person (Polit & Hungler 1997:137).

3.4 DATA ANALYSIS

Data analysis was handled by a statistician who used Microsoft Excel and Statistical package for Social Scientists (SPSS) computer programs to process and analyse the data that was collected in this study (George 2000:30). Inferential and descriptive statistics was used. Results for this study are presented in text form, tables, bar graphs and pie charts.

3.5 MEASURES TO ENSURE VALIDITY

Validity as a term, refers to how well an instrument or a measurement procedure measures what it purports to measure (Beth & Robert 2001:321, Timmreck 1998:360, Streubert & Carpenter 1999:333). In order to ensure validity of the study scientific methods of research were employed. To control for representativeness of the sample, stratified as well as random sampling techniques were used. This minimised bias of the study. Questionnaires were pre-tested from a sub-county outside the district but with similar or close demographic and physical features to those of Mukono district. This measure was performed to improve the validity and reliability of the tool by reducing its measurement error and enhancing face and content validity. During the data collection period, filled questionnaires were routinely checked to ensure correctness and completeness. Nevertheless, data analysis was handled by a statistician while utilising appropriate techniques and computer programmes. In this case Statistical Package for Social Scientists (SPSS) and Excel computer programs were used.

3.6 RELIABILITY

Reliability refers to the ability of a test to be used repeatedly (Streubert & Carpenter 1999:332, Timmreck 1998:360). It is the degree of the information obtained when the measurement is repeated on the same subject or the same group (Katzellenbogen et al 2002:90). For this study, reliability was ensured by standardising the questionnaire through pre-testing it. Training the interviewers prior to commencement of data collection ensured and enhanced reliability of

data collection. Supervision and periodic checks plus selection of research assistants along similar criteria controlled for observer variation.

3.7 CONCLUSION

This chapter described the research design and methodology that was used in the study. It highlighted aspects of sampling, data collection tools, data collection process, and ethical issues and data management.

CHAPTER 4: DATA ANALYSIS

4.1 INTRODUCTION

Chapter 3 described the research design and method followed in a descriptive non-experimental study on factors that influence pregnant women's choice of a delivery site and its relatedness to childbirth complications. In this chapter, analysis, presentation and description of the research findings will be discussed.

4.2 REALISATION OF THE RESEARCH METHOD

According to Polit and Hungler (1995:195), a descriptive study observes, describes and documents a situation as it naturally occurs in terms of frequency and occurrence. The purpose of this study was to analyse and describe the factors that influence pregnant women's choice of place of delivery and its relatedness to childbirth complications. In order to achieve this, quantitative research methods were employed in the study.

Data was collected by use of pre-tested structured questionnaires that were administered to the respondents in their homes by six trained research assistants who were social workers. All the data collection was done during the month of February 2008.

4.3 DATA MANAGEMENT AND ANALYSIS

Data from all the questionnaires was coded on summary sheets by the stastician, lead researcher and the research assistants. With the help of a biostatistician, and while using the Statistical package for Social Scientists and Microsoft Excel computer programs, the data was analysed and interpreted. The study findings were then presented in tables and diagrams to illustrate the relationships of the different findings.

4.4 SAMPLE SIZE REALISATION

The expected number of births in the district during the study period was 44,671 live births. The minimum required sample size was 358 women. However, in order to cater for possible response drop out and to ensure quality and reliability of the data, a total of 450 questionnaires were sent out administered to the respondents. The response and consent to participate in the study was 431 respondents contributed to the study. The women that responded to the questionnaires were randomly selected from the seven health sub-districts that comprise Mukono district. Selection was based on the percentage contribution of each health sub-district to the district population and expected number of births in a year

4.5 RESEARCH RESULTS

The following is the presentation of the research results.

4.5.1 Sample and demographic characteristics (N = 431)

The sample frame for the study consisted of women who had had childbirth in the previous twelve months that preceded the study and had their children vaccinated against Tuberculosis (TB). TB vaccination for infants in Mukono district is over 95%. This vaccination is the first vaccination given in the first few days after birth. Since most women take their children for this vaccination, it implies that they are aware of where health services are and could chose which service to seek for, although a significant number of women do not use institutional delivery by skilled health workers. This was the reason why those selected had to have a vaccinated child in order to contribute more effectively to this study.

4.5.1.1 Age

The mode for their age range was 18-28 years n = 250 (58%). Table 4.1 shows the details of their age categories. Adolescent pregnancies (<18 years) and grand parity (>35 years) contribute to 12 % of pregnancies in Mukono district. This is a significant percentage since these age categories are associated with more pregnancy risks than the other categories.

Table 4.1 Age of women delivered in Mukono district

Age bracket	Result	Percentage
Below 18 years	18	4%
18 – 28 years	248	58%
29 – 35% years	132	30%
Over 35 years	33	8%
Total	431	100%

4.5.1.2 Parity

Majority of women who participated in the study were para 2- 4, 211 (49%). Figure 4.1 below shows the details of the parity of all the women. The findings reveal that women in Mukono have high fertility rate since 81% of all the women had two or more children. This is in conformity with earlier observations by Ministry of Health that estimated that total fertility rate for Ugandan women was 6.9 children (Ministry of Health 2005b:6).

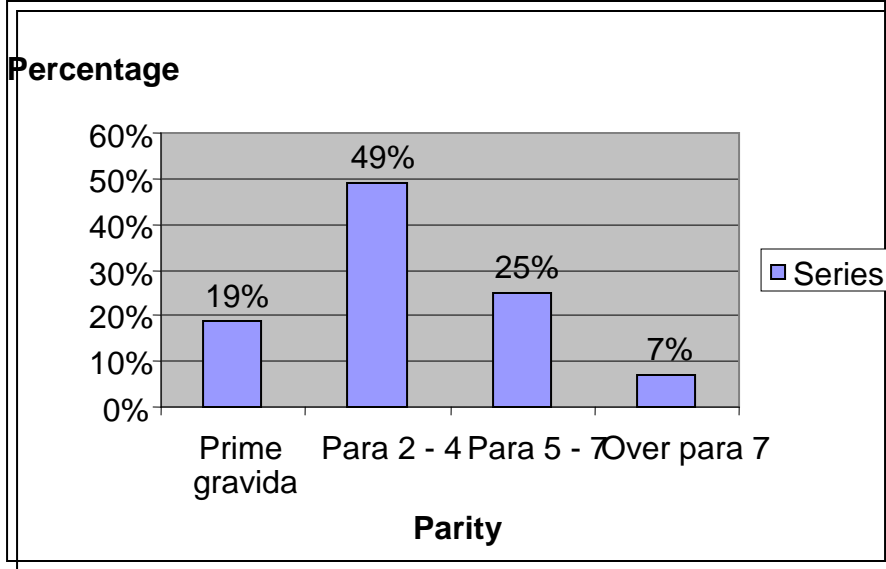


FIGURE 4.1 *Histogram on parity of women in Mukono district*

4.5.1.3 Religious affiliation

The Catholic was the dominant religion to which the majority 160 (37%) of women belonged. Figure 4.2 clearly shows the distribution within the other major religious groups in the district. These findings concur with the findings of 2001 population and housing census which put Catholics at 37%, Anglican at 31%, Muslims at 21%, Pentecostal at 7% (Mukono district 2007:3).

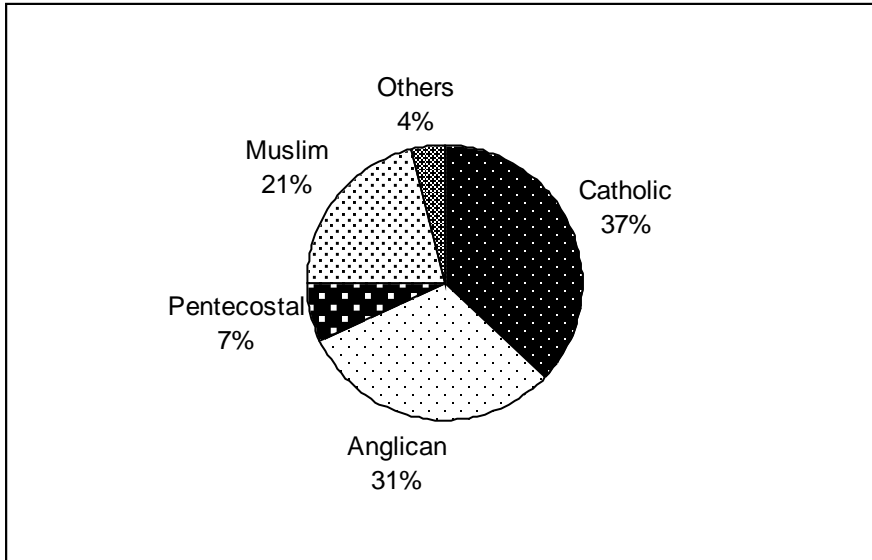


FIGURE 4.2 *Pie graph on religious affiliations of women in Mukono district*

4.5.1.4 Marital status

In Uganda, marriage is treasured by most women. A husband is looked at as the head of the household. In most of the cultures, he is also called upon for decision making. Therefore inquiry into the marital status of the women was made during the study.

The findings are shown in table 4.2. Significantly, 327 (76%) were married. The study considered a married woman to be a woman staying with her husband. Being single meant that the woman was staying alone and providing for her welfare. A widow on the other hand was a woman whose husband had died by the time of the interview.

Table 4.2 Marital status of women in Mukono district

Marital status	Result	Percentage
Single	60	14%
Married	329	76%
Separated	30	7%
Widowed	12	3%
Total	431	100%

4.5.1.5 Education level

Figure 4.3 shows the education attainment of the women as compared to that of their husbands. In contrast to the 2001 population and housing census, whereby female and male literacy was 82% and 76% respectively, the study findings put women at 91% and men at 93%. However, the study equated literacy with primary education. Inquiry whether they had completed their different standards of education was not done.

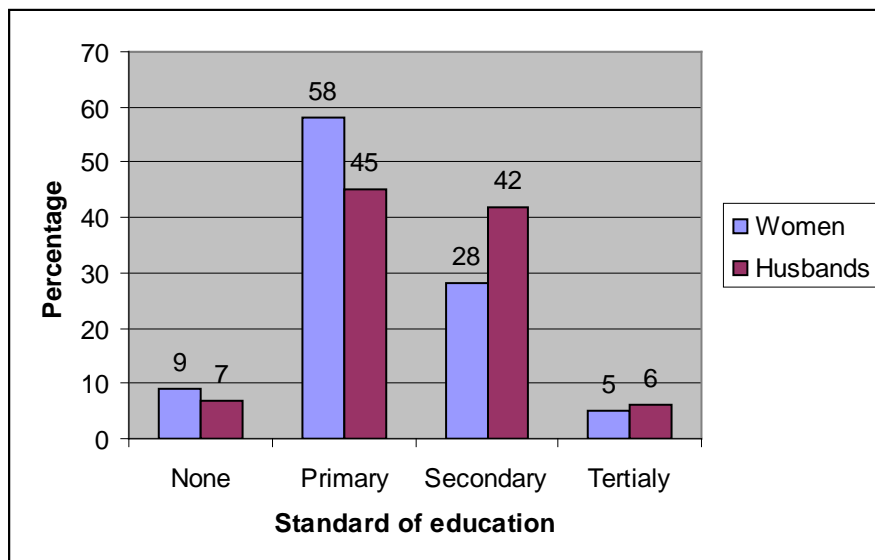


FIGURE 4.3 Bar graph on education level of women compared to that of their husbands

4.5.1.6 Economic activity

The economic activities of the women who were interviewed were analysed in relation to the major broad economic activities namely; peasant farming or subsistence farming, business which included all forms of self employment other than peasant farming and formal employment implying salaried job. Comparison was made between the women and their husbands and the results are shown in table 4. 3.

Table 4.3 Economic activity of women and husbands in Mukono district

	Economic activity	Result (n)	Percentage
Women	None	86	20%
	Peasant	254	59%
	Business	52	12%
	Formal employment	39	9%
	Total	431	100%
Husbands	None	26	6%
	Peasant	202	47%
	Business	142	33%
	Formal employment	61	14%
	Total	431	100%

The table also shows that the average use of peasant farming as an economic activity by both women and men was 53% while in 2002 during the population and housing census the average was 56% hence, a slight improvement in the economic aspects of the households. Improvement in household income would be expected to translate into better education and improved health seeking behaviour (Pallikadavath et al 2004:1147).

4.5.2 Accessibility to health services

According to the Uganda Health Sector Strategic Plan II (HSSP II 2006 – 2011), it is recommended that all Ugandans should be able to access a minimum health care package within a radius of five kilometers which is considered to be a walkable distance. Theme two of the package considers activities that target

reduction in maternal morbidity and mortality plus child survival interventions. Accessibility to health services is linked to utilization of the health facility (Amooti & Nuwaha 2000:203, Hodgkin 1996:333, Lebacqz & Rietsema 1997: 357). Thus, accessibility in terms of distance to the nearest health facility was assessed and the findings are illustrated in figure 4.4.

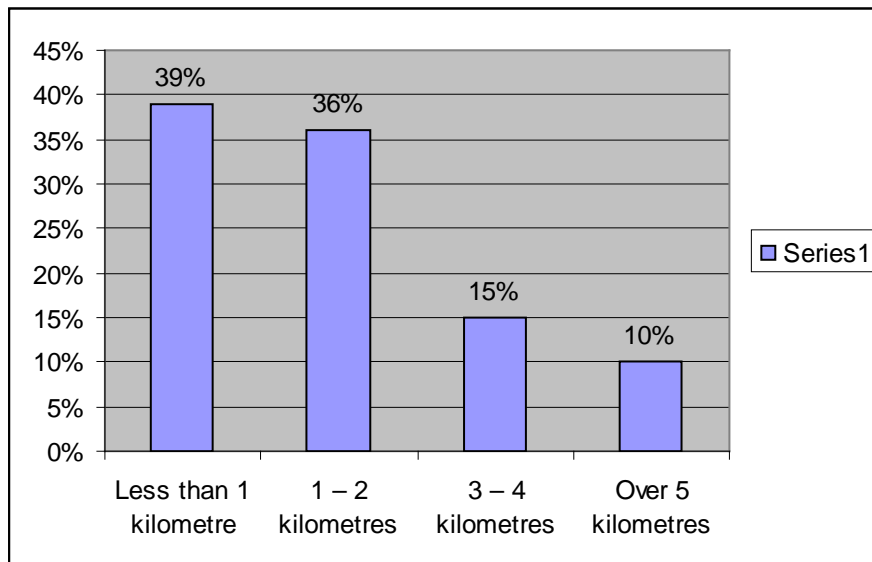


FIGURE 4.4 Histogram on distribution of women by access to the nearest health facility

The findings suggest that Mukono district has so far attained above average in the above goal or theme of the health sector strategic plan. Mukono district had moved several strides in making health services more accessible, compared to 2002 when 30% of the households stayed in a distance of over 5 kilometres (Mukono district 2007:23).

4.5.3 Antenatal history

As inclusion in the study was based on a woman having had child birth in the previous twelve months and has a child health card. Inquiry was made about the antenatal history of the previous pregnancy. It was observed that 409 (95%) of the women had attended antenatal clinics while only 22 (5%) had not. These results were close to the Ministry of Health's earlier findings about antenatal attendance in Uganda which was at 93% for first visit (Ministry of Health 2005:9). Though it is recommended by safe mother initiative for pregnant women to attain at least four antenatal visits, 208 (48%) of the women had achieved this. Others had had varying attendances that included; once 17 (4%), twice 62 (14%), thrice 144 (34%) four times 105 (24%) and over five times 103 (24%). Places where they had sought antenatal services included, TBA, private clinic, public clinic, or a mixture of both private and public facilities. Table 4.4 below shows the frequency of utilisation of the different antenatal sites.

Table 4.4 Antenatal sites and frequency of their utilization.

Site	Utilization	Frequency (percentage)
TBA	17	4%
Private	103	24%
Public	259	60%
Private & Public	52	12%
Total	431	100%

These findings suggested that more women 259 (60%) used public facilities for antenatal services. This also compares well with the accessibility information above where 67% of the health facilities are public.

4.5.4 Delivery site

Having looked at the antenatal history, inquiry was made about the sites where the women had delivered from. Institutional delivery under a skilled health worker with midwifery skills prevails at 40% (Ministry of Health 2005:9). During the 5th National Health Assembly that was held in October 2007, it was resolved that in order to improve maternal health stakeholders should encourage using skilled attendants for deliveries (Ministry of Health 2007:5). Figure 4.5 shows where the women who participated in the study had delivered from.

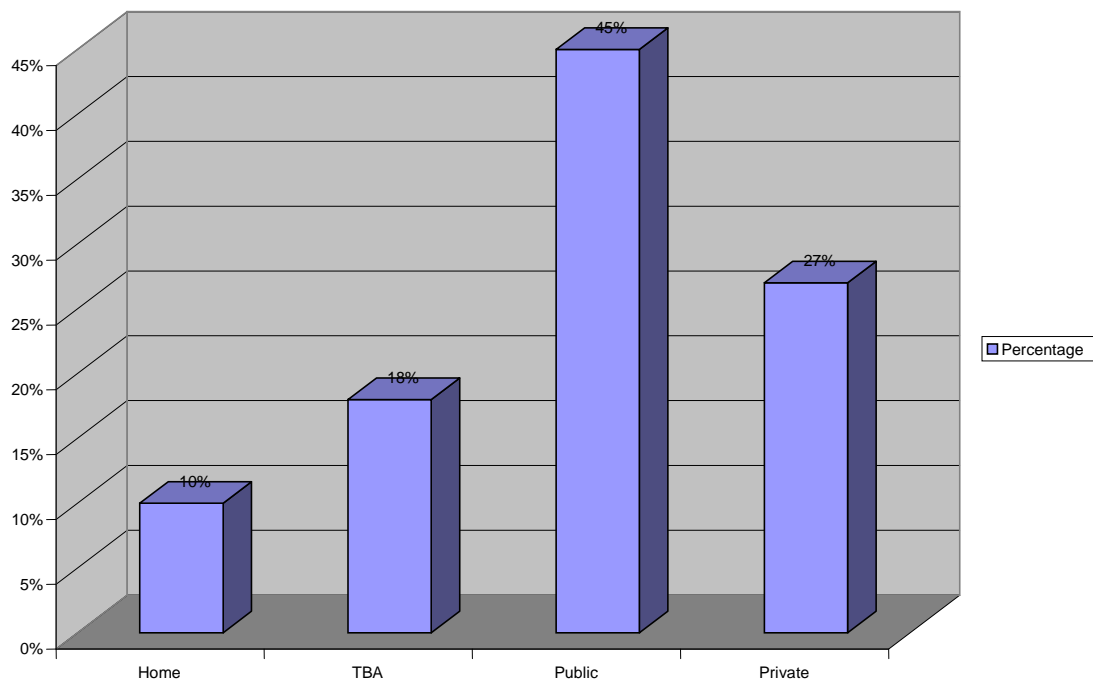


FIGURE 4.5 Bar graph on delivery sites in Mukono district

The results suggest that 72% of women deliver under supervision of a skilled attendant in Mukono district. Those that delivered from the public health facilities were 45% a figure close to 40% that was reported by the Ministry of Health. This could imply that the number of women captured and reported by the health information management system of the Ministry of Health is only those that deliver from the public sites. Yet a significant number, 27% is delivering from the private sites. On the other hand, home delivery in Uganda is normally referred to as delivery without skilled attendant as it is uncommon for midwives to deliver women from their homes.

4.5.5 Reasons associated with choice of delivery site

The reasons that were identified as significant by the study and had had an influence on the women's choice of a delivery site were the following; antenatal attendance at the site 155 (36%), site being near home 142 (33%), site offering friendly services 95 (22%) and site having affordable services 34 (8%). Although the study observed that over 90% of the women had attended ANC at least once, ANC attendance that is expected to help pregnant women to make appropriate birth plans does not necessarily attract them to come to have childbirth in the same sites as it would be expected.

Kyomuhendo (2003:16) from a study conducted in Kiboga district of Uganda, noted that there was a strong relationship between cultural beliefs and home or TBA deliveries. For 33% of women the reason for choice of delivery site was, site being near home. In fact 28% had actually delivered from home or at a TBA's.

4.5.6 Decision making at onset of labour

One of the causes of maternal mortality is the delay at home to make a decision on where to go for delivery (Maine 1997:23). Madi and Crow (2003:323), assert that midwives are in the best position to empower pregnant women by giving them adequate information about all services and choices that are available so that they make informed decisions. However, women are not always given enough information to help them make reasonable decisions. Women who testified that health workers had a role in their decision making were 47 (11%). Husbands' influence was reported by 108 (25%) while self decision making was done by the majority of women 246 (57%). Others 30 (7%), decision on site of delivery was determined by the situation that prevailed at the time. Mesko (2003:3), says that some of the obstacles to seeking maternity services in Nepal were delays in recognizing illness and decisions to act rather than geographic, transportation or institutional factors. For any woman to make an informed decision about choice of delivery site and also to be able to recognize complications or illness, she needs adequate information which is normally given by the health worker. The low health worker influence in women's decision making could possibly be the reason why there is under utilisation of health facilities for delivery.

4.5.7 Transport used and time taken to reach delivery site

Distance and the means of transport to a maternity centre is a significant factor that affects the choice of delivery site and utilisation of maternity services (Amooti and Nuwaha 2000:203, Hodgkin 1996:333, Lebacq & Rietsema 1997:357). This study found out that 251 (58%) of the women had reached their delivery sites in less than one hour. This group includes those that had delivered at home. Those that reached sites within 1-2 hours were 116 (27%) while it took 3-4 hours for 47

(11%) and over 5 hours for 17 (4%) of women to reach their delivery destinations.

Most of the women 182 (42%) just walked to sites where they delivered from. This group included those that delivered within their home premises. Those that used a bicycle were 51 (12%) and a motorcycle was used by 142 (33%). Transport by vehicle was used by 56 (13%). Although 58% had reached their delivery destination within less than one hour, it was evident that the means available for transport were inappropriate for a pregnant woman. According to Maine (1997: 23-25), of the three delays that lead to maternal morbidity and mortality is delay during the journey to reach a health facility. In this study, regarding the aforementioned findings, this delay is not significant.

Women were also asked whether they had set aside money for transport in preparation for time of delivery. A significant number 311 (72%) had money saved for transport while 120 (28%) did not. Despite the fact that only 43% of the women had used motorized means of transport which involved spending money, it is vivid that majority actually prepared themselves for delivery time since the majority (72%) had put aside money for transport. Gerein (2003:175) and Kanti et al (2007:5) assert that ANC helps pregnant women to make birth plan including transport in case of complications. This study showed that women are aware that childbirth is risky and should any eventualities arise necessitating quick transfer then this could be done.

4.5.8 Service provider preference

If all factors were constant and favourable and women had a choice to choose a service provider or site at the time of delivery, 288 (67%) would have opted for a public site while 112 (26%) their choice would be a private site. However, 22 (5%) would opt for home delivery and 9 (2%) would have chosen to be delivered by a TBA.

This shows that most women 400 (93%) actually want to deliver with the assistance of a skilled attendant. May be that is why 409 (95%) of the women had at least one antenatal attendance. Since 310 (72%) had actually delivered with a skilled attendant, it was thought that although some of those who failed to get to a skilled attendant had the will, prevailing circumstances led to the hindrances or limitations that prevented them to get assistance of a skilled health worker. For example, 121 (28%) did not have money for transport at delivery time. Surprisingly, the number of women who had delivered at home and with TBAs were actually 121 (28%) of women who were interviewed.

Regarding the qualities they would look for from a site/provider, majority 237 (55%) felt hospitality would be the main quality or motivator they would seek for. Hospitality was also noted by earlier studies, for example it was observed in Cape Town, South Africa (Abrahams 2001:240) that improvement of staff-patient communication and making services more patient oriented improves the quality of health services.

Infrastructure was the second factor that was mentioned by 91 (21%) as their priority quality. Similarly, in Nepal, when the relative importance of access and quality of health services was evaluated, it was suggested that investment in quality of health facilities was more important than increasing their number (Acharya & Cleland 2000:223). Thirdly, affordability of services was a preferred quality mentioned by 60 (14%). Fourthly convenient distance and travel to a site/provider was a reason that would prompt 43 (10%) women to go to a site/provider.

4.5.9 Rating of public and private service providers

Since most of the women had attended antenatal care and had delivered from either public or private delivery sites, they were requested to rate the health system inputs in these facilities. The inputs included personnel, infrastructure, medicines and supplies plus the overall quality of care. The rating was based on some simple and common indicators or aspects that should be available or provided by a service provider or a health facility. A total of 402 women responded to this question and the responses are summarised and presented in table 4.5 below.

Table 4.5 Rating of public and private delivery sites by women in Mukono district

Input	Indicator	Rating	
		Public	Private
1. Health workers (personnel)	Rudeness	80 (20%)	44 (11%)
	Sympathy	20 (5%)	64 (16%)
	Caring	165 (41%)	265 (66%)
	Skilled	137 (34%)	29 (7%)
Total		402 (100%)	402 (100%)
2. Infrastructure	Excellent	56 (14%)	32 (8%)
	Good	233 (58%)	153 (38%)
	Fair	101 (25%)	161 (40%)
	Poor	12 (3%)	56 (14%)
Total		402 (100%)	402 (100%)
3. Availability of medicines and supplies	Available	133 (33%)	281 (70%)
	Not available	269 (67%)	121 (30%)
Total		402 (100%)	402 (100%)
4. Quality of services	Excellent	56 (14%)	96 (24%)
	Good	213 (53%)	173 (43%)
	Fair	109 (27%)	117 (29%)
	Poor	24 (6%)	16 (4%)
Total		402 (100%)	402 (100%)

It is important to note that the findings suggest that there was perceived difference in the quality of care offered by the public and the private sectors. The private sites were considered to be offering better services. These findings conform to findings from a study in South-Central India where women stated that they got better care from the private sector both in terms of thoroughness of examination and communication between doctor and patient (Bhatia & Cleland 2004:402).

In terms of skills, women thought that health workers in the public facilities were more skilled than in the private sites. This finding was similar to one study done

in Nigeria and another done in Orissa India that looked at state health services at primary health level were competence of health workers, their team work and reputation of health care providers prompted women to use hospitals for health care provision (Alastair & Pepper 2005:76). Nevertheless, this study also confirmed that health workers in the public sites are generally considered to be rude. This attribute was an issue of concern that had earlier been observed and was noted in the health sector performance review as a contributing factor to poor utilization of maternity services (Ministry of Health 2005:9).

Health workers in the private sector were considered to be more caring compared to their counterparts in the public sector. Truly this is one of the reasons why women would prefer to seek care from a private provider. No wonder hospitality was stated as the main cherished motivator that would prompt women to visit one site in preference to another, as alluded to by Bhatia and Cleland (2004:402) and Russel (2005:139) in South-Central India and Sri-Lanka respectively.

Infrastructure in public health units was considered to be good compared to the private health units. Possibly this reason coupled with the skills of health workers in the public sector prompted more women (45%) to actually deliver from public sites. Medicines and supplies were more available in the private facilities than in the public facilities. Since this is one of the major inputs for any health care system, it is evident that it greatly contributes to inadequacy in the health care

system (Uganda National NGO Forum 2005:18). This is counted as one of the barriers to seeking care in the public health facilities.

Summarily hospitality, health worker skills, good infrastructure and availability of drugs and supplies are key inputs that must be present to motivate women to utilize a health facility. On the other hand, while rudeness, poor health worker skills, poor infrastructures and availability of drugs and supplies contribute to making women shun away from utilizing health facilities.

4.5.10 Risk perceptions about pregnancy

Being pregnant was perceived to be risky by 408 (95%) of the women who responded to this question (n=429). Only 21 (5%) felt it was a normal physiological function of a woman. The risks that were mentioned as being associated with pregnancy included the following; vaginal bleeding 133 (31%), high grade fever 99 (23%), abnormal presentation of the baby in the uterus 64 (15%), sexually transmitted infections 26 (6%), abdominal and back pain 26 (6%), previous surgical delivery 21 (5%), high blood pressure 17 (4%), absence of a health worker 17 (4%), HIV/AIDS 13 (3%) and prolonged labour 13 (3%). These findings are similar to the already known risks of pregnancy as observed by UNFPA (<http://www.unfpa.dg/mothers/factorshtm>) and by WHO (WHO Report 2005:63). This showed that women in Mukono actually know that pregnancy is associated with morbidity risks. This is possibly the reason why majority of them (72%) had set aside money for transport as one of the precautions or obligations to prepare for delivery.

4.5.11 Recommendations for making pregnancy safer

Having appreciated that pregnancy was a risk to complications and death, women suggested interventions that they thought could make pregnancy safer. There were three notable interventions that were significant and related to other study findings. The first and second proposed interventions were health worker related. That is stepping up health education together with sensitisation of the mothers on maternal health issues 112 (26%), and health workers improving on their attitude towards their clients 69 (16%). The third proposed intervention was provision of adequate stocks of drugs and supplies in clinics 64 (15%). This aspect was clearly highlighted above as one of the health system in-puts that were stated to be grossly inadequate in the public sites by 67% of women. Other proposed interventions were as follows; providing maternity services nearer to homes 43 (10%), greater male involvement in the reproductive health issues 34 (8%), infrastructure improvement 26 (6%), provision of ambulance services when and where such services are needed 26 (6%), minimising financial charges or not charging at all in public health facilities 21 (5%), increasing the number of health workers 21 (5%) and health workers carrying out home visiting and follow up of the pregnant women 3 (3%).

4.6 CONCLUSION

This chapter has addressed how the data was analysed and processed during the study. It has also presented the study findings in detail. The findings have also been related to other findings by other studies that were alluded to in the literature review.

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

Chapter four discussed and presented data analysis and interpretation of research findings. This chapter summarises the study, gives the conclusions, limitations and recommendations of the research findings.

5.2 SUMMARY OF THE STUDY

The purpose of the study was to analyse and describe the factors that influence the choice of site of delivery by pregnant women in Mukono district and its relatedness to childbirth complications.

The researcher conducted an extensive literature review to gain information on previous related studies done to get an in depth understanding of the research topic. Together with trained research assistants they set out to interview women in their communities. The objectives of the study were:

- To describe the socio-demographic characteristics of women that deliver at various sites in Mukono district.
- To describe the sites where childbirths take place in Mukono district.
- To establish, analyze and describe factors that influence the choice of site delivery by pregnant women.
- To recommend to health planners in the district ways and means of reducing maternal morbidity and mortality based on the evidence.

5.3 SUMMARY AND INTERPRETATION OF THE RESEARCH FINDINGS

The research findings were several. However, they were either similar or different from earlier studies as evidenced by literature that relates to the study. Nevertheless, the findings are summarised and interpreted in the further discussion.

5.3.1 Demographic information

Age is very important in decision making on reproductive health issues. The majority of women 380 (88%) were of age range 18 – 35 which is ideal for pregnancy, 51 (12%) were either below 18 years or above 35 years. This group is a high risk group whose number was significant. Those that are below 18 years face risks of being adolescent mothers while those above have risks associated with grand parity or multi-parity as they are most likely to be so.

As regards parity, women had high fertility. For example those that had had five or more deliveries were 138 (32%). High fertility could be associated with religious affiliations. Overall Christians are dominant in Mukono with a 75% representation. Although pregnancy is a risk for maternal or infant morbidity and mortality, it is common knowledge that many Christians have reservations or negative consideration for family planning. The situation was also made worse by generally the low education of women and poverty that was depicted by lack of gainful employment. Yet multi-parity predisposes women to risks that are associated with pregnancy.

5.3.2 Delivery sites in Mukono district

Four delivery sites were identified during the study and the frequency of their use by pregnant women was as follows; public site 45%, private clinic 27%, home 10% and TBA 18%. On the other hand, if women had had hustle free choice for a delivery site, their preference would have been: 67% public site, 26% private clinic, 5% home and 2% TBA. Deliveries by the private providers for example domiciliary - midwives and clinics are considered to be deliveries conducted by skilled attendants. This showed that 93% of women would wish to be delivered by a skilled attendant and in fact 72% actually fulfilled their wish. However, deliveries by the private providers are normally not captured by the district health information management system. Hence, the true district picture is under reported.

5.3.3 Reasons and factors that influence choice of site for childbirth

The study observed that attending antenatal clinic at a site contributed 36% to influencing pregnant women's choice to choose that site for delivery. A site being nearer to a woman's home contributed to 33%, while friendly services offered by the site influenced 22% of the women. Women who were attracted to a delivery site because of its affordable services were 8%. Other significant factors were hospitality of a site, appropriate infrastructure, availability of drugs and supplies and distance to a site.

Though health workers are expected to give all the necessary information to pregnant women to help them make informed and meaningful decisions on site

of delivery, their role was realized for only 11% of the women. Most of the women 57% decided on their own without other people's influence.

5.3.4 Childbirth complications

The majority of them (95%) testified that pregnancy carried risks that would lead to a morbid state or mortality as the extreme risk. Some of the complications that were mentioned by women included vaginal bleeding, fever, abnormal foetal presentation, high blood pressure, to mention but a few.

Women suggested that in order to make pregnancy and childbirth safer, health workers need to educate them more on maternal health issues. They also recommended that health workers should strive to improve on their attitudes towards them. Finally they proposed that the government and the district should ensure that there are enough drugs and medical supplies in the health units.

5.4 CONCLUSIONS OF THE STUDY

The following were the conclusions that were drawn from the study and are listed as below;

- There was under reporting of women who are delivered by skilled attendants due to inability of the health information system to capture data from the private service providers. Thus, giving a picture of poor utilisation yet majority of women were delivered by skilled health workers.

- Choice of site of delivery by women is mainly a personal decision and preference which is significantly influenced by, accessibility, antenatal care, health workers conduct, availability of drugs and supplies, infrastructure and affordability of services.
- Health workers' professional conduct contributes tremendously towards attraction or discouragement of women to choose a delivery site. For example unprofessional behaviour of health workers discouraged women from choosing a delivery site while caring and empathetic personnel encouraged women to their sites.
- Though there was evidence that the health system was trying to address issues of accessibility to health service, it is still inadequate in providing quality and desired services to the intended users.
- There is insufficient interaction or poor relationship between the community and the health workers such that the role of health workers in adequately addressing reproductive health issues of the women is not sufficiently felt by women.

5.5 RECOMMENDATIONS

The following recommendations are intended to form a basis for future studies and also a platform for informed evidence based planning for health system improvement by Mukono district planners as well as the Ministry of Health as the overall policy formulation centre. It is recommended that:

- Due to low literacy rates prevailing in the district, there is need to develop reproductive health programs that lead to closer and more community engagements with the health workers in order to sensitize the community and give correct information and messages to guide women in decision making processes.
- A study should be conducted to evaluate the causes of unethical and unprofessional behaviours of trained health workers in public health facilities, in order to suggest appropriate ways and means of effectively dealing with these unethical and unprofessional behaviours.
- Efforts should be made to improve the image of health workers in the eyes of the public by initiating or promoting programs that continuously monitor the health workers' professional conduct, with mechanisms to address identified inefficiencies.
- The district planners for health services should focus on ensuring that drugs and supplies that are required for pregnant women to deliver well are always sufficiently stocked. The necessary infrastructure is improved to meet the expectations of women.
- The health information management system should be reviewed and revised in order to capture data from the private health service providers. This would give a true picture of service delivery and strengthen the public-private partnership.

5.7 LIMITATIONS OF THE STUDY

Though the study was successfully conducted and concluded, there were some limitations that were encountered during the study period. These limitations therefore limit the generalisability of the research findings. They included the following;

- Although data was collected from the seven health sub-districts of Mukono, one of the health sub-districts is an island with different topography. The overall findings could show a different picture if the study had been conducted in the island health sub-district alone.
- The topic of study was a sensitive topic as it was linked to women's reproductive life. This could have led some women to give biased information since reproductive health issues are considered to be confidential with strong cultural attachments.
- In order to minimize bias in data collection social workers were used instead of health workers. However, since the questions were in English and needed to be translated in the local language, it is possible interviewers could have missed out or misunderstood or mal-phrased some questions since they were not well conversant with the medical issues or terminologies. Thus, also causing some bias.

5.8 CONCLUDING REMARKS

Despite the study shortcomings, the study contributed to generating new district information of the status of deliveries by skilled attendants. It highlighted the key

areas that need to be addressed while planning in order to improve service delivery as far as reproductive health is concerned and in particular deliveries by trained health workers. The findings of this study can be used by others for research purposes and health system improvement. Comparison of the research outcome with the situation in other districts in Uganda or areas else where will enhance and improve the understanding of the phenomenon of choice site of delivery by pregnant women.

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**ANNEXURE A: CLEARANCE CERTIFICATE FROM UNIVERSITY
OF SOUTH AFRICA**



**UNIVERSITY OF SOUTH AFRICA
Health Studies Research & Ethics Committee
(HSREC)
College of Human Sciences
CLEARANCE CERTIFICATE**

Date of meeting: **2 October 2006** Project No: **34708383**

Project Title: **Factors that influence pregnant women's choice of delivery site
in Mukono District – Uganda and its relatedness to
childbirth complications.**

Researcher: **Dr A Kkonde**

Supervisor/Promoter: **Dr BL Dolamo**

Joint Supervisor/Joint Promoter:

Department: **Health Studies**

Degree: **MPH**

DECISION OF COMMITTEE

Approved

Conditionally Approved

23 October 2006
Date:

**Prof TR Mavundia
RESEARCH COORDINATOR: DEPARTMENT OF HEALTH STUDIES**

**Prof SM Mogotlane
ACADEMIC CHAIRPERSON: DEPARTMENT OF HEALTH STUDIES**

PLEASE QUOTE THE PROJECT NUMBER IN ALL ENQUIRES

ANNEXURE B: APPROVAL FROM MUKONO DISTRICT AUTHORITY



THE REPUBLIC OF UGANDA

**OFFICE OF THE RESIDENT DISTRICT COMMISSIONER
MUKONO DISTRICT
P.O. BOX 110, MUKONO**

Your Ref:.....

27th March 2007

Our Ref:

Date.....

To Whom It May Concern

APPROVAL TO CARRY OUT RESEARCH

Dr. Anthony Kkonde is a student at the University of South Africa, on a Master of Public Health Programme.

He has been cleared by the Health Studies Research and Ethics Committee and issued with a Clearance Certificate by the College of Human Sciences.

The title of his research project is "Factors that influence pregnant women's choice of delivery site in Mukono district and its relatedness to childbirth complications".

His research work has been unconditionally approved by the district. All assistance extended to him to have successful completion of the study will be appreciated with gratitude.

Yours,


Commissioner
Mukono

**RTD. MAJOR MATOVU DAVID
RESIDENT DISTRICT COMMISSIONER / MUKONO**

ANNEXURE C: CONSENT FORM

Pregnancy is the leading cause of maternal deaths in Uganda. Many deaths would be avoided by pregnant mothers being attended to by qualified personnel in both private and public health facilities. This is during antenatal care, at the time of delivery and postnatal period.

However, many pregnant women are not attended to by skilled health workers and there is low utilisation of health facilities and the reasons are not known. A study is therefore being conducted in Mukono district by Dr Kkonde Anthony in collaboration with University of South Africa, to establish the factors that influence the choice of site of delivery by pregnant women and its relatedness to childbirth complications. This information will help the district to plan adequately for reproductive health services provision.

The information you will give us will be kept confidential. You are not required to give us your names, so your identity remains anonymous. You are therefore unconditionally requested to participate in the study by responding to the questions that are going to be asked, to the best of your knowledge.

Interviewer.....

Interviewee.....

ANNEXURE D: QUESTIONNAIRE

INSTITUTE : UNIVERSITY OF SOUTH AFRICA (UNISA)

COURSE OF STUDY : MASTERS OF PUBLIC HEALTH

TOPIC : FACTORS THAT INFLUENCE PREGNANT WOMEN'S CHOICE OF DELIVERY SITE IN MUKONO DISTRICT-UGANDA

This study is going to be carried out by Dr. Kkonde Anthony, a post graduate student from UNISA.

The primary objective of this study is to analyse and describe the factors that influence the choice of site of delivery by pregnant women in Mukono district – Uganda.

The findings of the study will help district health planners to plan adequately for Reproductive health services in the district.

All information provided by the respondent during the study will strictly be handled as confidential information.

Individual Mother's Questionnaire Number:

--	--	--	--	--

Date of Interview: _____

SECTION A: DEMOGRAPHIC INFORMATION

Qn.1. Village: _____

Qn. 2. Parish: _____

Qn. 3. Sub-county: _____

Qn.4 a. Age

--	--

4 b. Parity: _____

Qn.5. Tribe: _____

Qn.6. Religion: _____

WRITE YOUR CHOSEN OPTIONOUR IN THE BOX

Qn.7. Marital status 1. Single 3. Separated
2. Married 4. Widowed

Qn.8. Level of Education 1. None 3. Secondary
2. Primary 4. Tertiary

Qn.9. Education of Husband 1. None 3. Secondary
2. Primary 4. Tertiary

Qn.10. Occupation of respondent
1. None 3. Peasant
2. Business 4. Formally employed

Qn.11. Occupation of husband
1. None 3. Peasant
2. Business 4. formally employed

SECTION B: ACCESSIBILITY INFORMATION TO HEALTH SERVICES

Qn.12. How far is the nearest health facility from your home?

- | | | |
|--------------------------|----------------------|--------------------------|
| 1. Less than 1 kilometre | 3. 3 – 4 kilometres | <input type="checkbox"/> |
| 2. 1 – 2 kilometres | 4. Over 5 kilometres | |

Qn.13. What type is it? 1. Public 2. Private

Qn.14. Has it got maternity services? 1. Yes 2. No

Qn.15. If no, how far is the nearest health facility that offers maternity services?

- | | |
|-------------------------|----------------------|
| 1. Less than 1Kilometer | 3. 3 – 4 Kilometres |
| 2. 1 – 2 Kilometres | 4. Over 5 Kilometres |

Qn.16. What means of transport do you use to reach the health facility?

- | | |
|------------|---------------|
| 1. On foot | 3. Motorcycle |
| 2. Bicycle | 4. Vehicle |

Qn.17. How long would it take you to reach the health facility?

- | | |
|---------------------|-----------------|
| 1. Less than 1 hour | 3. 3 – 4 hours |
| 2. 1 – 2 hours | 4. Over 5 hours |

SECTION C: ANTENATAL INFORMATION

Qn.18. Did you attend antenatal clinic during your previous pregnancy?

1. Yes 2. No

Qn.19. If yes, where did you attend Antenatal care?

- | | |
|-------------------|----------------------------|
| 1. TBA | 3. Public Clinic |
| 2. Private clinic | 4. Both private and Public |
| 5. Not applicable | |

Qn.20. How many times did you visit the clinic?

- | | | |
|----------|---------------|-------------------|
| 1. Once | 3. Thrice | 5. Over 4 times |
| 2. Twice | 4. Four times | 6. Not applicable |

SECTION D: DELIVERY INFORMATION

Qn.21. Where did you deliver from during your previous pregnancy?

- | | |
|------------------|-------------------|
| 1. At home | 3. At a TBA |
| 2. Public Clinic | 4. Private Clinic |

Qn.22. How far was it from your home?

- | | |
|-------------------------|----------------------|
| 1. Less than 1Kilometer | 3. 3 – 4 Kilometres |
| 2. 1 – 2 Kilometres | 4. Over 5 Kilometres |

Qn.23. How long did it take you to reach the clinic when labour started?

- | | |
|---------------------|-----------------|
| 1. Less than 1 hour | 3. 3 – 4 hours |
| 2. 1 – 2 hours | 4. Over 5 hours |

Qn.24. What means of transport did you use?

- | | |
|------------|---------------|
| 1. Footed | 3. Motorcycle |
| 2. Bicycle | 4. Vehicle |

- Qn.25. Did you have money for transport when labour started?
1. Yes 2. No
- Qn.26. Why did you deliver from where you delivered from?
1. Attended ANC from there 3. It is near home
2. Friendly services 4. Fair Cost
5. Good infrastructure
- Qn.27. Who determined the site where you delivered from?
1. Self 3. Health worker
2. Husband 4. Found self there

SECTION E: RATING PUBLIC AND PRIVATE CLINICS

- Qn.28. If all factors were favourable, where would you have preferred to deliver from?
1. At home 3. Private Clinic
2. TBA 4. Public Clinic
- Qn.29. Why?
1. Distance 3. Hospitality
2. Costs 4. Good infrastructure
- Qn.30. How do you rate the health workers in private clinics?
1. Rude 3. Caring
2. Sympathetic 4. Skilled
- Qn.31. How do you rate health workers in Public clinics?
1. Rude 3. Caring
2. Sympathetic 4. Skilled

Qn.32. How do you rate the services in Public clinics?

1. Excellent 3. Fair
2. Good 4. Poor

Qn.33. How do you rate the services in Private clinics?

1. Excellent 3. Fair
2. Good 4. Poor

Qn.34. How do you rate the infrastructure in Public clinics?

1. Excellent 3. Fair
2. Good 4. Poor

Qn.35. How do you rate the infrastructure in Private clinics?

1. Excellent 3. Fair
2. Good 4. Poor

Qn.36. Are supplies and medicines always available in Public Clinics?

1. Yes 2. No

Qn.37. Are supplies and medicines always available in Private Clinics?

1. Yes 2. No

SECTION F: RISK PERCEPTIONS AND RECOMMENDATIONS FOR SAFE MOTHERHOOD

Qn.38 Do you think being pregnant is a risk of death?

1. Yes 2. No

Qn.39 Mention any five conditions/ problems that you consider to be risks of pregnancy and would prompt you to seek care from a hospital.

1. _____

2. _____

3. _____

4. _____

5. _____

Qn.40. Suggest ways that could be adopted to improve the attitude of pregnant women to use health facilities for delivery.

----- THANK YOU FOR YOUR TIME AND CO-OPERATION -----

ANNEXURE E: MAP OF MUKONO DISTRICT

