FACTORS INFLUENCING WOMEN'S CHOICE OF PLACE OF DELIVERY IN MBOONI WEST DISTRICT, MAKUENI COUNTY

BY

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DECLARATION

This project report is my original work and has not been presented for any award in any other university.

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This research project report has been submitted for examination with my approval as the university supervisor.

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DEDICATION

To my loving husband Dennis Ngao, you have made a major sacrifice to ensure I get the best in life through your love encouragement and financial support. I also dedicate this work to my beloved parents Mr. and Mrs. Daniel Musyimi, Mr. and Mrs. Joshua Kioko who tirelessly prayed for me and have been a great source of inspiration throughout this journey. God bless you.

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ABBREVIATION AND ACRONYMS

ANC: Antenatal Care

EDHS: Ethiopia Demographic Health Survey

GOK: Government of Kenya

KDHS: Kenya Demographic Health Survey

KNBS: Kenya National Bureau of statistics

MDG: Millennium Development Goal

MOH: Ministry Of Health

NACOSTI: National Commission for Science, Technology and Innovation

SBA: Skilled Birth Attendant

TBA: Traditional Birth Attendant

UBOS: Uganda Bureau of Statistics

UNICEF: United Nations Children Fund

WHO: World Health Organization

UNFPA: United Nations Population Fund

ABSTRACT

Although 92% of women receive antenatal care at least once during pregnancy, a suitable place of delivery assists only 44% of mothers during childbirth (KDHS, 2008). Therefore, the purpose of this study was to investigate the factors influencing the choice of place of delivery in Mbooni west district, Makueni County. The study objectives were to determine the influence of demographic factors, socio cultural factors and economic factors on choice of place of delivery among women in Mbooni west district, Makueni County. The study was conducted in May and June, 2015. It adopted a descriptive survey design and the eligible respondents were women of childbearing age. With the help of two research assistants, the researcher managed to visit four locations in Mbooni West District and Cluster sampling method was used to identify participants for the study. A total of 378 women from Mbooni west district were to participate in the study but only 373 participated giving a response rate of 98%. Two focus groups discussion were also conducted for the purpose of the study. Chi square test was used to establish the association between the independent variables and place of delivery. Statistical Package for Social Sciences (SPSS) version 17 was used for data analysis. The study shows that 67% of women delivered at hospital, 27.6% of births occurred at home without the help of a skilled birth attendant and only 4.8% of the women were attended by TBAs during delivery. Other than demographic, social cultural and economic factors that influence choice of place of delivery, other key factors influencing home delivery included less or no antenatal visits and unexpected labour. From the study there has been an increase in hospital deliveries though a significant number of mothers are still giving birth without the assistance of skilled birth attendants. To ensure that hospital deliveries are increased it was therefore recommended that advocacy to all women of child bearing age on the importance of hospital deliveries by the Ministry of Health, Ngo's and community based organizations should be done. Involvement of husbands as key decision makers in the choice of place of delivery during antenatal clinic visits could be one of the best strategies in reduction of home deliveries. During antenatal clinic visits mothers should also be educated on issues like signs of labour and expected dates of delivery as a step to reduce home deliveries. Health workers should also strengthen the concept of focused antenatal care where mothers are sensitized on how to handle the issue of giving birth and also increase the coverage of antenatal care by reaching out to women at the community level through outreach programmes that are geared towards creating awareness that antenatal clinic visits are important for them when they are expectant.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Increasing women's access to quality skilled attendant has become a focus of global efforts to realize the right of every woman to the best possible healthcare during pregnancy and childbirth (UNFPA, 2010). Several authors have postulate that skilled attendants during labour, delivery and in the early postpartum period can prevent up to 75% or more of maternal deaths (Harvey, 2004 et al; Koblinsky, Heichelheim 1999).

Use of a skilled attendant (doctor, nurse, or midwife) at birth is one of the recognized indicators for measuring progress towards the Millennium Development Goal 5, that is, reduction of maternal mortality ratio. Improving women's health is the fifth Millennium Development Goal as adopted by heads of states in September 2000. The agreed target is to reduce, by 2015, maternal mortality in developing countries by 75% of the 1990 figure. (MDG)

Despite various national and international efforts initiated to improve maternal health, more than half a million women worldwide die each year as a result of complications arising from pregnancy and childbirth the majority equally divided between Africa and Asia (Ronsmans, 2006). According to (Kowalewski, 2000) less than 1% of the pregnancy-related deaths occur in the more developed parts of the world, making maternal mortality the health indicator showing the greatest disparity between developing and developed countries. Despite the enhanced focus and awareness over the past decades, the situation in the poorest countries has not improved, and maternal mortality reduction is one of the explicit health millennium development goals.

Since the second half of the 20th century, the majority of births in the western world have taken place in hospital. Medicalisation of childbirth is a central feature in Western societies (Johanson, 2002). The majority of women living in high and middle-income countries have given birth in hospitals since the middle of the 20th century. However, there are regions where home birth is considered part of normal practice. The most cited case is The Netherlands where planned home birth is supported by the official healthcare system. Here, planned home birth is considered an

appropriate choice for a woman of low risk and approximately 30% of all births take place at home (Hendrix 2009).

A significant proportion of mothers in developing countries still deliver at home unattended by skilled health workers (Montagu D, Yamey G, Visconti A, Harding A, Yoong J 2011). In diverse contexts, individual factors including maternal age, parity, education and marital status, household factors including family size, household wealth, and community factors including socioeconomic status, community health infrastructure, region, rural/urban residence, available health facilities, and distance to health facilities determine place of delivery and these factors interacting diverse ways in each context to determine place of delivery. In developing countries, pregnancy and childbirth are the leading causes of disability and death among women of reproductive age.

Indeed, the majority of maternal deaths occur either during or shortly after delivery. According to United Nations Children Fund (UNICEF 2009), pregnancy and childbirth related complications claim lives of at least 585,000 women every year in developing world. Pregnancy related problems include anemia, bleeding, infection, damage of the uterus, obstructed labor and abortion. Nearly all maternal deaths in developing countries occur among the vulnerable and disadvantaged population groups and yet most of these causes are preventable. Although the main causes of maternal mortality are well known and the knowledge as well as appropriate technology to reduce it has been available, maternal health problems are still highly prevalent in most African societies.

Statistics by (WHO 2010) found that 92% of women receive antenatal care from a trained health worker but when it comes to delivery time, most of them do not deliver at health units, but instead deliver elsewhere. It was estimated that about 15% of deliveries have complications that require skilled medical intervention. Yet only 53% of deliveries in developing countries take place with the assistance of a skilled birth attendant compared to 99% in developed countries. In resource-poor settings, home delivery is usually the cheapest option, but is associated with attendant risks of infection and lack of available equipment should complications occur. (Thind A. *et al*, 2008).

According to (Hogan, 2008), Ethiopia is among the top six high burden countries in which half of global maternal deaths occur, with an estimated maternal mortality ratio of 470 per 100, 000 live births. The most recent Ethiopian Demographic and Health Survey (EDHS 2011), very few mothers (34%) make at least one antenatal visit and even less receive delivery care from skilled birth attendants. It reports 28% of births were assisted by a traditional birth attendant (TBA) and 57 percent of births were assisted by a relative, or some other person.

In Kenya, maternal mortality rate has not reduced over recent years, and may even have increased from an estimated 380/100000 live births in 1990 to 530/100000 live births in 2008. Although a number of factors may have contributed to this, including improved identification of maternal deaths, health facility delivery remained low at44% and 42.6% in the early 1990s and in 2008 respectively. Recent evidence on determinants of place of delivery in Kenyan utilizing a nationally representative data and controlling for all factors is lacking, yet understanding the influences on place of delivery in Kenya is crucial to identifying key priority areas for policy and practice to increase the prevalence of skilled assisted deliveries(KDHS 2008).

Statistics by KDHS 2008 indicate that, 43 percent of births in Kenya are delivered in a health facility, while 56 percent of births take place at home. Traditional birth attendants continue to play a vital role in delivery, assisting with 28 percent of births (the same percentage as are assisted by nurses and midwives). Relatives and friends assist with 21 percent of births, and for 7 percent of births, mothers do not receive any form of assistance. Increasing the percentage of babies that are delivered in health facilities is an important factor in reducing the health risks to both the mother and the baby. Proper medical attention and hygienic conditions during delivery can reduce the risks of complications and infection that can cause morbidity and mortality to either the mother or the baby (KDHS 2008).

Home deliveries in Kaloleni and Rabai districts of Kilifi County accounted for 65% of child birth by 2012 and there is not enough information in Kaloleni and Rabai to establish why these mothers still deliver at home despite concerted effort by the government and other stakeholders to encourage mother to deliver in health facilities (Mang'ong'o, 2013).

Makueni County (formely Makueni District) is a county in the former Eastern province. It has a population of 884,527 (KNBS, 2009). The county has 7 district hospitals, 21 health centers, 113 dispensaries and 11 private clinics. Most of the public health institutions lack sufficient drugs, equipment, transport and health personnel. The bed capacity in the county stands at 616 and doctor population ratio is 1:22,712 which is below the accepted standards. This means the population is underserved in terms of health facilities. The average household distance to health facility is six Kilometres which is way below the national recommended distance of four Kilometers (Makueni County Integrated Development Plan, 2013).

Mbooni West District is one of the 9 sub counties in Makueni County. It has one district hospital, one health center, 14 dispensaries and one medical clinic. These institutions lack adequate facilities, personnel and medical supplies are inaccessible. Approximately 50% of the communities in this district live below the poverty line and therefore most of the people cannot afford the services provided by the government and private health institutions (MOH, 2011).

1.2 Statement of the Problem

Basing on the fact that various efforts have been put in place by the Government of Kenya, through free maternity services to increase the percentage of mothers who deliver from the health facility under the assistance of a skilled health worker, the majority of mothers still deliver at home without skilled birth attendants. Statistics by the District Health information System (DHIS) indicate that only 36% of births in Mbooni District are attended by a skilled birth attendant. This is way too far the targets set at the International Conference on Population and Development(ICPD) whose goal is to have more than 80% of deliveries assisted by skilled attendants globally by 2005, 85% by 2010 and 90% by 2015 (UNFPA 2010).

Home deliveries are poorly managed and inadequate care is offered during the critical hours of a woman's life. This exposes the mother and the baby to health risks and complications which include anemia, bleeding, infection and if immediate interventions are not taken this can lead to death or damage of the reproductive organs. It is evident from reports that every day, almost 800 women die in pregnancy or childbirth worldwide. Evidence shows that infants whose mothers die are more likely to die before reaching their second birthday than infants whose mothers

survive. And for every woman who dies, 20 or more experience serious complications (UNFPA 2010).

Maternal health services have been improved upon in all the health centers in Mbooni west District, Makueni County. However, many women do not utilize these facilities and instead seek delivery care from high risk places. Giving birth without the assistance of a skilled birth attendant can pose life threatening situations incase complications occur during the process. This study, therefore, was set to investigate factors that influence women's choice of place of delivery in Mbooni west District, Makueni County.

1.3 Purpose of the Study

The purpose of this study was to investigate factors influencing women's choice of place of delivery in Mbooni west district, Makueni County.

1.4 Research Objectives

The purpose of the study was achieved through the following objectives:

i. To determine how demographic factors influence the choice of place of delivery among women in Mbooni West District, Makueni County.
ii. To establish how socio cultural factors influence the choice of place of delivery among women in Mbooni West District, Makueni County.
iii. To examine the influence of economic factors on the choice of place of delivery among women in Mbooni West District, Makueni County.
iv. To establish how Antenatal Clinic attendance influences the choice of place of delivery among women in Mbooni West District, Makueni County.

1.5 Research questions

The study sought to answer the following questions;

i. To what extend do demographic factors influence the choice of place of delivery among women in Mbooni West District, Makueni County?
ii. How do socio cultural factors influence the choice of place of delivery among women in Mbooni West District, Makueni County?

iii. To what extend do economic factors influence the choice of place of delivery among women in Mbooni West District, Makueni County?
iv. To what extend does Antenatal Clinic attendance influence the choice of place of delivery among women in Mbooni West District, Makueni County

1.6 Significance of the study

The findings of this study may have both theoretical and practical implications for the future of suitability of place of delivery in Mbooni West district. Theoretically, the study may contribute to the advancement of knowledge about factors determining the choice of place of delivery in Makueni County specifically Mbooni West district. The study might also have practical significance in that, it may assist in determining the level of utilization of SBAs and TBAs at birth. The findings may be of immediate benefit to the Ministry of Health in the formulation of future public health policies aimed at integrating TBAs in the health system as agents of change to enhance places of delivery. Similarly, results of this study may enlighten the public especially mothers and spouses on the importance of considering a suitable and safe place of delivery. In addition, this can lead to appropriate interventions by non-governmental organizations and other key stakeholders that have established or intend to establish reproductive health programs. The study may also forms a base on which others can develop their studies based on the gaps identified.

1.7 Assumptions of the Study

An assumption is a supposition that a fact is true (Oso &Onen, 2008). This study was guided by the following assumptions; that is, in every homestead visited, there will be a woman of child bearing age. It is also assumed that the respondents will spare their time to fill in the questionnaire and that they will give truthful and honest responses.

1.8 Limitations of the Study

The limitations of the study were; inadequate time to collect data, therefore two research assistants were hired to assist in carrying out the task.

Cases of respondents not cooperating were experienced and even some had to withdraw from the exercise after answering some questions because they were not convinced if the study was done for genuine reasons.

1.9 Delimitations of the study

The study was carried in Mbooni West District, Makueni County leaving out other districts in the county. The findings of the study may not be generalized to an urban setup since majority of mothers with challenges in choice of place of delivery are mainly in rural set up.

The study also focused on women of childbearing age in Mbooni west district only. The findings therefore may not be generalized to the entire women in the county. Future researchers are encouraged to do further research in this area.

1.10 Definition of terms used in the study

Women: This refers to all females of reproductive age that is, 15 years to 49 years of age.

Choice of place of delivery: This is the preferred option by the women who are giving birth; it could either be home, health facility or assisted by traditional birth attendant.

No. of children: This refers to the number of children a woman has at the time of making the choice.

No. of household members: This refers to the number people in a particular household.

Marital status: This refers to whether a person is married, single, divorced or widowed.

Level of education: This refers to the level of schooling a person has reached, that is, primary education, secondary or tertiary education.

Antenatal Care: This entails the care that is given to women who are expectant or pregnant.

Decision maker: This is the person who makes a choice regarding family issues.

Occupation: This is the type of work that a person does.

Level of monthly household income: This refers to the total monthly earnings in a given family.

Transportation means: This refers to what is used to move from one place to another, that is, on foot, motorbike, private or public means.

1.11 Organization of the study

This study is presented in five chapters and is focused towards investigating factors that influence women's choice of place of delivery.

Chapter one covers the background of the study, statement of the study, purpose of the study, research objectives, research questions, significance of the problem, basic assumptions of the study, limitations of the study, delimitation of the study, definitions of significant terms used in the study, and the organization of the study.

The second chapter looks at the literature review of the factors that influence women's choice of place of delivery, theoretical framework, conceptual framework, gaps in the literature reviewed and summary of literature reviewed.

Chapter three covers the methodology used for the study. It contains the research design, target population, sample size and sampling procedures, data collection instruments used, data analysis techniques used and ethical considerations.

Chapter four gives a comprehensive explanation of the tools used for data analysis in this study, presentation and interpretation of the results of the study and the tests that were done to determine associations between independent and dependent variables.

Chapter five provides a summary of the findings, discussions, conclusions and recommendations of the study and contains suggestions for further studies.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter focused on literature related to the factors influencing women's choice of place of delivery. Demographic factors, social and economic factors in determining women's choice of place of delivery will be analyzed. One theory has been presented to support the study. A conceptual framework that diagrammatically links variables (that is, independent, dependent and intervening) illustrated and in depth explanation of the variables is provided. Knowledge gap in the literature reviewed has also been identified.

2.2 Decision Making Process

People make decisions about many things. They make political decisions; personal decisions, including medical choices, romantic decisions, and career decisions; and financial decisions, which may also include some of the other kinds of decisions and judgments. Quite often, the decision making process is fairly specific to the decision being made. Some choices are simple and seem straight forward, while others are complex and require a multistep approach to making the decisions (Dietrich, 2010).

Therefore, choice of place of delivery by women who are expectant could be influenced by so many factors which may include their age, number of children they have, marital status, level of education, traditional beliefs, occupation, means of transport, antenatal care visits, knowledge and attitudes towards quality of care in health facilities among others. These factors may influence their behavior regarding where to give birth, that is, health facility, home or at traditional birth attendant.

2.3 Factors That Influence Decision Making

According to (Dietrich, 2010), demographic variables such as income, education, and marital status, gender, age, and stage of life are important and they influence purchase decisions. Men and women need and buy different products.

In a study by (Asada & Kephart, 2007) in Canada found that the level of education of their respondents influenced their healthcare usage practices. People with higher education were more likely to opt for healthcare services as compared to their less educated counterparts. Hendryx (2002) reported that in the United States of America, people with more years of education are more likely to be sensitive towards their health and are better aware about access to healthcare options. In a study done in Greece, (Lahana, Pappa & Niakas, 2011) found that the level of education not only influence the healthcare usage but also the type of healthcare service provider used by an individual.

The income of an individual plays a crucial part in determining the health care services utilized by an individual. Along with the income and the standard of living of an individual the sensitivity of that individual towards healthy living also rises. The income influences affordability to spend on health care that in turn influences the type of health care service chosen by an individual. It has been found that with a rise in household income of an individual the likelihood of utilizing healthcare services (Regidor, 2008; Asada & Kephart, 2007) and visits to the private practitioners (Lahana, Pappa & Niakas, 2011) are more likely to happen. (Forbes & Janzen, 2004) report that the tendency to use cheaper healthcare services is found more in individuals belonging to the lower income category as they cannot afford the higher priced services available in hospitals.

Household income has also been found as a factor that influences healthcare services utilization. (Vissandjee, Barlow & Fraser ,1997) found out that in rural Gujarat, India, women belonging to higher income households were more likely to utilize healthcare services. (Thind, 2004) reports that in rural Bihar, India, children belonging to households with higher standards of living are more likely to utilize healthcare services. (Amin et al. 2010) reported that women belonging to wealthiest quintile of income in Bangladesh were more likely to use trained healthcare professionals for maternal and child health care.

Marital status has a bearing on the lifestyle of an individual. Especially, for females there might be a change in health care utilization patterns in terms of maternal and child care usage. (Lahana,

Pappa & Niakas, 2011) in their study found that marital status was a possible determinant of health care service utilization. They reported that married females are more likely to utilize healthcare services as compared to the single females. These findings are consistent across developed as well as developing nations.

Age is a significant predictor of consumer behaviors, including people's dining out, watching television, going to bars and dance clubs, playing computer games, and shopping. Culture is often considered the broadest influence on a consumer's behavior. Your culture prescribes the way in which you should live and has a huge effect on the things you purchase. Reference groups are groups (social groups, work groups, family, or close friends) a consumer identifies with and may want to join. They influence consumers' attitudes and behavior

2.4 Demographic Factors and Choice of Place of Delivery

Despite growing attention to women's health needs the world over, the maternal mortality figures due to pregnancy and childbirth have been a cause of concern. One major reason for high level of maternal mortality rate levels is that of lack of medical attention at birth. At present, only one-third of the deliveries in the developing countries take place in a health facility/institution, while the remaining is home deliveries (International Institute for Population Sciences, 2000). In fact, this is part of the problem faced by women in relation to their access to basic and good quality health care services.

The age and parity are determinants for the place of delivery. A study by Boogaard et al. (2008) at Lukulu District in Zambia shows that 55% of women delivery in health facilities is younger and out of that 65% are those having the first baby. Women with 35 years and above with more than five children tend to deliver home because they consider themselves as having experience so they don't need assistance from skilled workers. This is evidenced by study conducted by Mrisho in southern part of Tanzania and study conducted by Bolam in Nepal both documented that women who have many children and older women tend to deliver home than young women. These young women they have no experience in child births and they tend to fear complications related to pregnancy and child birth (Mrisho et al 2007, Bolam et al 1998). Demographic factors

that have been shown to increase the likelihood of health service use are low parities, younger maternal age (Bhatia, Cleland 1995).

Also in other studies, women with higher parity were less likely to deliver in well-equipped health facilities; women aged less than 25 years were the least likely to deliver at health facilities or at the appropriate ones, a finding consistent with a study which found that teenagers in sub-Saharan Africa experience poorer maternal health care than older women with similar characteristics (Magadi, Agwanda, Obare, 2007).

In Sao Paulo, a case-control study was undertaken to investigate maternal and health risk factors associated with a home delivery. It was noted that a significantly higher proportion of mothers of children not born in a hospital were teenagers (less than 20 years old) and had not completed their primary education.

(Fosto, 2009) in a study carried out in Nairobi Korogocho slums noted that the likelihood of delivering at a health facility decreases as parity increases. Women aged less than 25 years were the least likely to deliver at health facilities. In another study in Nigeria by (Envuladu et al, 2013), shows that age is a factor associated with home delivery were, more older women went for home delivery compare to the younger women .

The association between marital status and health, first noted by Farr in the 1850s and Durkeim in the 1890s, has been the subject of a more recent study. It is not just risk of adult mortality that marital status is associated with. Young single women are less likely to attend antenatal care and skilled care at birth than older married women, which has implications not just for their health but also the future health of their unborn babies and has been shown in one study to account for over 30 per cent of variation in foetal growth and subsequent birth weight (Johnson et al., 2000).

In Morocco and Tunisia, a study was carried out by (Obermeyer, 1993) to establish the association between maternal health care utilization and numerous cultural and socio-economic factors. Seventy one percent of survey respondents had given birth in a health facility in Morocco and 62% in Tunisia had some prenatal care. Positively associated with use of maternal

health services were urban residence, higher standard of living, education and exposure to the media; negatively related to prenatal care and a hospital delivery were earlier age at marriage, age at first pregnancy, higher parity, and number of household members.

Young and uneducated women may be less informed about the importance of seeking professional assistance during delivery and yet their pregnancies are of high-risk associated with complicated births. Young women often feel shy about pregnancy and fear to seek medical care and to attend antenatal care due to public opinion about the pregnancy. They often give birth at home or at a TBA's. Therefore, knowledge, attitude as well as perception of such mothers towards seeking delivery care are likely to differ from that of older women.

2.5 Socio cultural Factors and Choice of Place of Delivery

Mother's literacy level is also important determinant of place of delivery as those with non-formal education tend to deliver at home, and those educated tend to give births in health facilities. Study conducted in Nepal show that there is relationship between education and place of deliver as those with poor education are more like to deliver at home compared to educated women who tends to deliver at health facilities (Bolam et al 1998).Another study from Cambodia noted that women who attend at least seven years of school are six times more likely to deliver in health facilities compared to those who did not attended (Yanagasawa et al 2006).

Several literatures shows that level of education of mothers were strongly associated with delivery in health facility where by more educated women tend to deliver in health facility compared to non-educated, therefore increased enrollment of girls to secondary education and above could help to improve delivery in health facility.(Raghupathy 1996, Celik and Hotchkiss 2000, Caldwell 1981)

(Bhatia and Cleland 1995; Addai 1998; Nuwaha and Amootikaguna 1999) in their studies at south India and Ghana found that the most consistently found determinant of use of reproductive health services has been a woman's level of education. (Obermeyer 1991) believes that increased education influences service use by increasing female decision making power, increasing

awareness of health services, changing marriage patterns, and creating shifts in household dynamics.

According to (Schultz, 1984), education serves as a proxy for information, cognitive skills, and values; education exerts effect on health-seeking behavior through a number of pathways in other words, education exposes women to health information of the dangers of pregnancy and childbirth thus making a woman to make fast decisions concerning her health and seek for help. Whereas, mothers with no education are unwilling to seek maternal services and have limited knowledge about danger signs of pregnancy and the readily available maternal services provided in health units. Moreover, education may impart feelings of self-worth and confidence as well as reduce the power differential between service providers and clients, thereby reducing the reluctance to seek care (Chanana, 1996; Starrs, 1998).

(Rutenberg and Watkins, 1997) state that community beliefs and norms relating to health behaviors are a strong influence on the health care decisions made by individuals. These community beliefs and norms are reflected in a person's health decisions. This is evident in a study conducted in India by (Basu 1990). The study indicates that traditional beliefs about childbirth, coupled with misconceptions and fears of medical institutions, have led many women to maintain reliance on home births thus leading to failure to have skilled attendants at birth.

As (Addai, 2000) pointed out, SBAs and TBAs services coexist in most African communities, particularly in rural areas, and women may have to choose between the two options. Some previous studies had reported that many Nigerian women, particularly those in rural areas, rate the services of the traditional birth attendants (TBAs) as being of higher quality than that of medical healthcare practitioners, particularly with regards to interpersonal communications and relationships (Fatusi 1998; 2000). TBAs have been reported to be more considerate and to provide more compassionate care.

An exploration of the socio-cultural and environmental factors impacting maternal health care access among rural Ugandan women established that the context in which rural Ugandan mothers lived in greatly impacted their maternal health accessing behaviors. The community

assessment revealed that socio-cultural factors such as taking herbs during labor, retaining placenta after birth, birthing in various positions and maintaining privacy during birth are some of the critical cultural traditions that can serve as barriers to women accessing formal skilled deliveries. According to the women, grandmothers, mothers, sisters, aunties, elders and other women in their community make up the social support network that is an essential part of a woman's pregnancy and birth process. This is however an aspect not available in institutional deliveries, hence their preference for home deliveries (Sharma, 2007). However, a number of other studies have clearly demonstrated that women's autonomy has a strong and consistent effect on reproductive health outcomes, (Bloom, Wpij 2001) demonstrated that women's autonomy was a major determinant of maternal health care utilization among urban poor to middle-income women in a North Indian city.

The safe motherhood demonstration project by population council in Western Kenya established that some cultural beliefs which influenced seeking of skilled care at birth was the kindness and "caring" care provided by TBAs in stark contrast to the perceived poor attitudes and behaviors of skilled providers. This overwhelmingly motivated women to continue delivering with TBAs. Some women and families did not seek skilled care first because they believed it will not solve certain problems (Onunga 2012).

Additionally, traditional birth attendants are culturally acceptable and trusted source of service providers, who apparently do not have formal linkages with the modern health care and no incentives for early referral and communication. This is in agreement with other studies which reported traditional birth attendants as preferred service providers in rural areas because of their cultural sensitivity, easy availability and cheaper services (Warren, 2010; Sharma, 2007; Weeks, 1999).

In particular, women in some cultures may avoid health facility delivery due to cultural requirements of seclusion in the household during this time of uncleanness or because of specific requirements around delivery position, warmth, and handling of the placenta. According (Thaddeus, 1994), some cultures in Africa believe that obstructed labour is due to infidelity and this discourages women to seek services of skilled birth attendants. (Kyomuhendo, 2003) in

another study in Uganda also reports that people believe that birth is a test of endurance, and going to a health facility to give birth is a sign of weakness may be another reason for delivering alone in some circumstances.

It is also notable that strong cultural beliefs and attachment are an important factor among mothers who believe in TBA. Mothers like TBAs because they had trust in them since they are from the same community and at times had blood relationship. Many women also prefer to rely on TBA because health workers are rude and unsympathetic. Many cultures cannot accurately tell the length of the gestation period. The Wan tribe in Ivory Coast believes that infants are born at 10 months, 12 months or even 18 months (Linkages, 1998). These beliefs significantly affect any discussions about expected delivery dates and have a substantial impact on provision of antenatal care, especially during the first trimester. Some cultural norms dictate that women are secluded in their homes or their mobility limited during certain times, such as menstruation, pregnancy, or the first 40 days after giving birth. This severely limits women's access to health care services, because they must get their husband's permission and be accompanied.

Another factor that influences choice of place of delivery is decision maker in the family. A study conducted in Nepal mentioned that women have little or no power in their marital home and are almost entirely at the mercy of their mother in law's perception of their pregnancy and delivery care needs (Simkhada et al 2010).A study by Seljeskog, Sundby and Chimango (2006) in Mangochi District, Malawi indicate that home deliveries were associated with influence from other members of the family which include mothers, grandmothers, mothers-in-law, and also the husband. These people were mentioned as decision-makers in the family. When it came to those influenced by family to deliver at home, reasons revealed were that the family needed to observe the labour and to be in charge. If someone from the family did not witness the delivery, they might reject the child. This is a clear indication that level of education, cultural practices and the people who make decision in a family influence a lot where mothers deliver their babies.

2.6 Economic Factors and Choice of Place of Delivery

A woman's occupation determines her wealth status that has a direct relationship with the place she delivers her baby. Birth to women in the highest quintile of the wealth index are more likely to be delivered in a health facility, while those in the lowest quintile are most likely delivered at home since they cannot afford health unit services. Wealthier women are likely to attend antenatal care services and receive information on services available and thus deliver in a health unit. Mothers who attend antenatal care four or more times are more likely to deliver at a health facility than their counterparts who do not attend antenatal care (UBOS, 2000).

A number of studies state that formally employed women are more likely to give birth in health facilities (Nwako, 1994; Onah, 2006) while others indicate that farming women are less likely to have skilled attendance at delivery than women in other occupations (Nwako, 1994; Addai, 2000; Obermeyer, 1991). This may be as a result of limited financial resources and health services in rural areas.

Moreover, the cost of arranging emergency transportation can be very expensive. These costs include the price of hiring a private vehicle and fuel expenses. The opportunity cost, or loss of productive time of the person accompanying the sick woman, can also pose an obstacle. Bittencont (1995) found that it was mainly economic disparities that influenced choice of place of delivery. He noted that mothers deliver at home because they are not able to pay the fees charged at health units. In a Nigerian study, 41% of the mothers who did not deliver in hospital explained that they could not afford the hospital bill, and 31% said they had inadequate transportation possibilities (Liberatos, Link and Kelsey1998).

According to Botting (1997), utilization of SBAs in families where fathers are in unskilled jobs is lower compared with those whose fathers are in professional occupations. In Kenya, there has been commendable progress in improving uptake of antenatal care, and in equipping health facilities to provide skilled birth attendance. However, the very low utilization of these services, especially by poor women, is a major impediment to meeting Millennium Development Goal (MDG) in both urban and rural parts of Kenya. The official MDG-5 target of 143 deaths/100,000

live births by 2015 can only be achieved by overcoming socioeconomic inequalities which prohibit utilization of SBAs for the vast majority of Kenyan women (MOH, 2008).

Mothers who reside in urban area are three times more likely than mothers in rural areas to receive antenatal care and the chances that they will deliver from a health unit are very high. The proportion of birth delivered in a health facility was much higher in urban areas (79%) than in rural areas (31%), (UBOS, 2002). This was due to close proximity to a health center, level of awareness of the existence of service, literacy rate and affordability of the health services. Similarly, socio-economic factors such as education and occupation influences place of delivery. (Nuwaha, 1999; Kavitha, 1997; Addai 1998) in their studies found that cost has often been shown to be a barrier to service use and also influences the source from which care is sought. Socioeconomic indicators such as urban residence, household living conditions, household income, and occupational status have also proven to be strong predictors of a woman's likelihood of using reproductive health services. Therefore women who are professionals are more likely to use the services of skilled birth attendants as compared to non professionals.

2.7 Antenatal Clinic Attendance and Choice of Place of Delivery

World Health Organization recommends that a woman without complications should make at least four antenatal care visits, the first of which should be during the first trimester of pregnancy (WHO, 2012). According to (Gabrysch and Campbell, 2009) Antenatal care (ANC) services can provide opportunities for health workers to promote a specific place of delivery or give women information on the status of their pregnancy, which in turn informs their decisions on where to deliver. A study by (Gage and Guirlene, 2006) in Haiti states that the presence of a health worker providing ANC in the community can also increase use of skilled attendance.

A study by (Yanagisawa and Wakai, 2006) show that women who attend ANC are also more likely to seek skilled delivery care. Statistics by (WHO 2003) indicate that 20% of all women who attend ANC four times or more in sub-Saharan Africa, do not seek skilled delivery attendance. In a study in Uganda by (Tann, Kizza & Morison, *et al*. 2007), ANC attendance was found to be as high as 94%, though this was not reflected in utilization of skilled care at delivery, with about 25% of women being assisted by a relative or friend during labour.

2.8 Theoretical Framework

The researcher adopted choice theory which represents how women can make proper judgment on the appropriate place of delivery.

Choice theory was developed by William Glasser, 1998. A central aspect of this theory is the belief that no behavior is caused by any situation or person outside of the individual. Dr. William Glasser, a psychiatrist explained human behaviour based on internal motivation. (Glasser, 1998) explains that all of our behaviour is chosen as we continually attempt to meet one or more of the five basic needs that are part of our genetic structure.

An understanding of these needs as well as the other major components of Choice Theory (the Basic Needs, the Quality World, the Perceived World, the Comparing Place, and the Total Behavior System) can help us build and maintain better relationships with the important people in our lives and lead happier, more satisfying lives.

Choice Theory teaches that people are always motivated by what they want at that moment. It emphasizes the importance of building and maintaining positive relationships with others to create a shared vision. People who develop shared “quality world pictures” are motivated to pursue common goals and are more likely to work collaboratively.

According to (Edwards, 2000, 2005; Walsh, 2007) , informed choice is not a level playing field on which women can state their wishes and, if necessary, have recourse to rights to enforce these wishes. Choices are limited first and foremost by health workers and hospitals. Classic examples are restrictions on the number of people women may have with them during labor; restrictions on eating, drinking, and walking; and the unavailability of equipments used during birth. Other limitations may restrict women's access to choices that are available. For instance, women's choice of care provider and place of delivery are determined by medical cover, geographical distance from their place of residence to the health facility, and the availability of midwives. Choice is further limited by the withholding of information or providing information to women that is consistent with benefits of health facility delivery.

Levy's (1999) research describes how the framing of information shapes choice intensely. She describes ''gently steering'' to capture the dynamic of how midwives coax women to choices that the midwife is comfortable with. Women are coerced, steered, or manipulated to choose what others want and expect them to choose.

It is notable that the safety issue underlies and powerfully influences women's choices and decision-making. In the current system, the experts hold the keys to safety and ultimately to choice. Despite the lip service we pay to choice, there is still an assumption that obstetrics knows best and that, if women have the right information, they would make the "right" choices. If the right choices are explained well enough, women would listen to the experts' advice. It is extremely hard to resist obstetric coercion, as Edwards (2005) reports in her study of Scottish women who planned home birth. In the current maternity care environment, choice is a myth. That being the case, our focus on choice just might be missing the more important point. Edwards (2005) believes that "the rhetoric of choice has been grafted onto the restrictions on autonomy". People need to step back, as Edwards' research findings suggest, and focus on autonomy and the relationships of autonomy and choice and decision-making. Therefore, without choice there is no autonomy, and without autonomy there can be no informed decision-making.

2.9 Conceptual Framework

The conceptual framework explains the relationship between the independent variable, intervening variables and dependent variable. Independent variables include demographic variables socio-cultural and economic factors. Knowledge and attitudes are the intervening variable. The dependent variable is choice of place of delivery. Independent variables affect dependent variable directly or through the intervening variable.

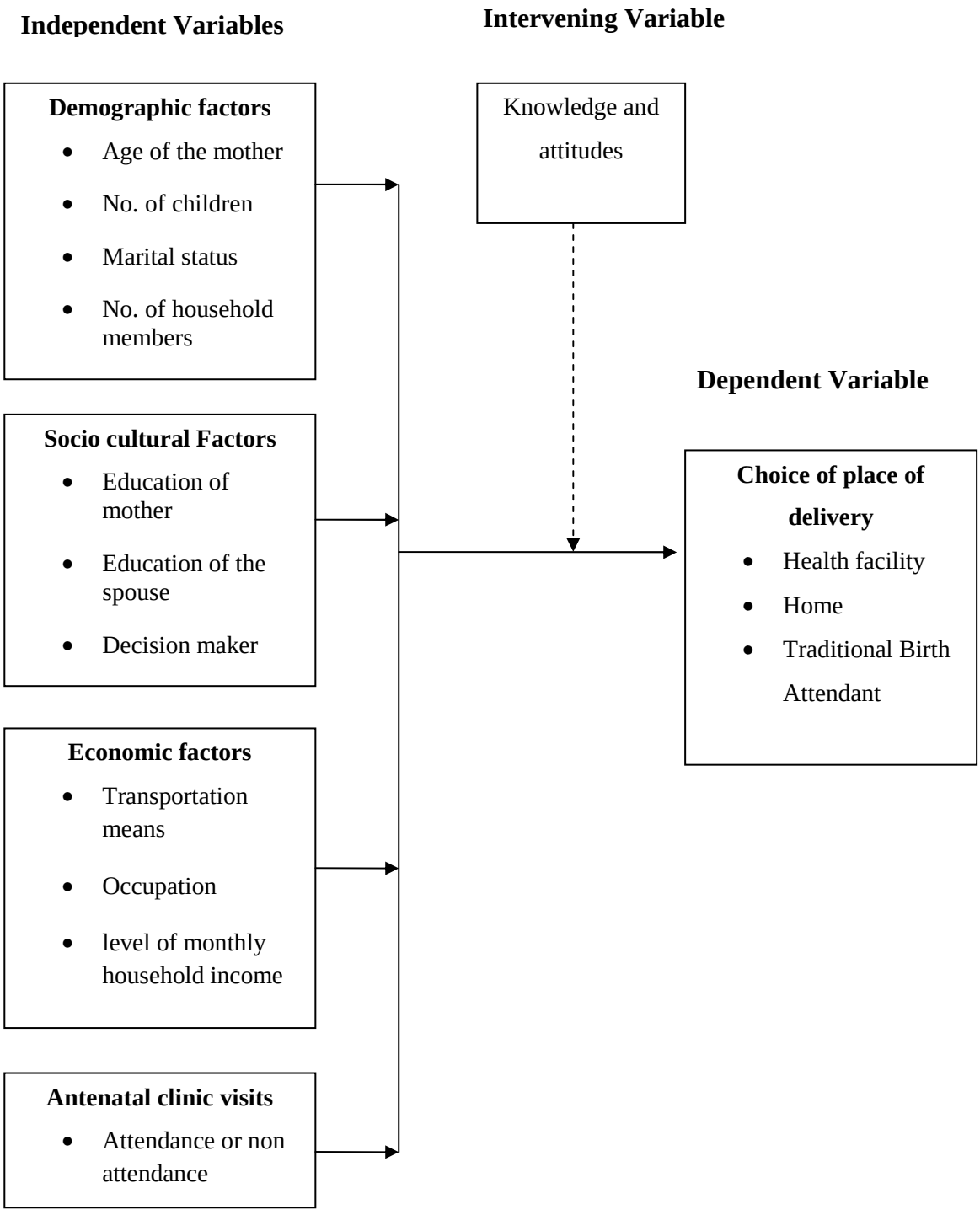

Figure 1: Conceptual framework

2.10 Explanation of the Variables

The variables in this study are independent variables which include demographic factors (age of a mother, number of children, number of household members and marital status), socio cultural factors (education of the mother, husband's education and decision maker in the family) and economic factors (accessibility to health services, employment status, level of monthly household income). Dependent variable is choice of place of delivery which could be home delivery, health facility delivery or by TBA's. Intervening variables include knowledge and attitudes.

From the conceptual framework, accessibility to health services i.e. the means of transport to a health facility could be a major challenge for the women of Mbooni west district. This is due to the fact that majority of the population are peasant farmers and even owning a bicycle is rare. So, most of the women are forced to walk to the health facilities and this could lead to unwillingness to travel and opt to deliver at home.

Influence from spouse, relatives and friends could also be a factor for women's choice of place of delivery. In most African communities, a husband has the last say. If he decides that the wife shall give birth at home or TBA, then the woman will have no choice other than to do so. Also, a mother in law can influence a home or TBA delivery.

The age and number of children one has are determinants for the place of delivery. Most women who are elderly believe that they are experienced and they don't see the need for skilled attendants during delivery so they may end up giving birth at home or choosing a TBA to assist them.

Accessibility to health information e.g. emergency phone contacts for heath facility ambulance, perceived conduct of healthcare workers, number of ANC attendance and age of a mother at first pregnancy may influence on place of delivery when age is taken as proxy for knowledge.

2.11 Gaps in the Literature Reviewed

From the1 literature reviewed, it is evident that most of the works done by researchers in the field of women's choice of delivery has tended to concentrate on age, parity, education, accessibility of health facilities, cultural beliefs, occupation and place of residence.

Year	Author	Research work	Findings	Knowledge Gap
2013	Mang'ong'o	Factors Influencing Deliveries under Traditional Birth Attendants in Kaloleni and Rabai Districts of the Kilifi County, Kenya	Level of monthly income is associated with the place of delivery	Did not focus on Antenatal care clinic visits
2009	Fosto	Maternal Health in Resource-Poor Urban Settings: how does women's autonomy influence the utilization of obstetric care services?	Demographic factors are associated with the place of delivery	No focus on Antenatal care clinic visits
1998	Bolam	Factors Affecting Home Delivery in the Kathmandu Valley, Nepal	Age and number of children is associated with the place of delivery	No focus on means of transport
2013	Envuladu et al.	Factors determining the choice of a place of delivery among pregnant women in Russia village of Jos North, Nigeria	Economic factors influence the place of delivery	No focus on means of transport
2000	Addai	Determinants of use of Maternal-Child Health Services in Rural Ghana**.**	Socio cultural factors are associated with the place of delivery	No focus on Antenatal care clinic visits

2.12 Summary of Literature Review

From the literature review, it is evident that women's choice of delivery is influenced by a number of factors. Women's access to a safe place of delivery is often governed by their age, education, earning, occupational status, and role in the family, coupled with the cost of health care services. Positively associated with use of maternal health services were urban residence, higher standard of living, education and exposure to the media; negatively related to prenatal care and a hospital delivery were earlier age at marriage, age at first pregnancy, higher parity, and number of household members. Mothers who reside in urban area are three times more likely than mothers in rural areas to receive antenatal care and the chances that they will deliver from a health unit are very high.

Strong cultural beliefs and attachment were found to be an important factor among mothers who believed in TBA. Mothers liked TBAs because they had trust in them since they were from the same community and at times had blood relationship. Many women also say they prefer to rely on TBA because health workers are rude and unsympathetic.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter shall discuss the various methods and procedure that was be used to conduct the research. It is organized as follows: research design, target population, sample size and sampling procedures, data collection methods and procedures, data analysis techniques, ethical issues and operational definition of variables.

3.2 Research Design

Orodho (2005) postulates that a research design refers to all the procedures selected by a researcher for studying a particular set of questions or hypothesis. In this study, descriptive survey design was adopted to investigate factors influencing women's choice of place of delivery in Mbooni west district, Makueni County. Both Quantitative and qualitative data was for the study. A descriptive study determines the frequency with which something occurs and investigates the relationship between two or more variables (Cooper and Schindler, 2003). The design was suitable for this study because it is economical, simple, and clear. It also helped in understanding the entire population from the selected part of it.

3.3 Target Population

A population is defined as the total collection for elements about which we wish to make some inferences (Cooper and Schindler, 2003). The study population will be women of childbearing age in Mbooni west district only. Mbooni West district is administratively divided into 2 divisions which include Mbooni Division and Tulimani Division. The target population for this study consists of 24,245women of childbearing age, that is, 15-49 years in Mbooni West District, Makueni County (source: District Health Information System, 2014).

3.4 Sample Size and Sampling Procedures

Sample size is defined as the number of items or unit under analysis whereas Sampling is the process of selecting a number of individuals for a study in such a way that the individual selected represents the large group from which they are selected (Mugenda & Mugenda, 2003).

3.4.1 Sample Size

The approach used to determine the sample size from the women of childbearing age population was adopted from Krejcie & Morgan (1970) table in appendix 3. An estimated target population of 24,245 women was used to calculate the sample size for the study.

The following formula has been used to calculate the sample size.

$$n = \frac{X^2 * N * P(1-P)}{(ME^2 * (N-1) + (X^2 * P * (1-P))}$$

Where:

n = sample size

X^2 =Chi- square for the specified confidence level at degree of freedom

N= Population size

P=population proportion(.50)

ME= desired Margin of Error (expressed as a proportion)

Therefore, the sample size was calculated as follows :

$$n = \frac{1.96^2 \times 24{,}245 \times 0.5\ (1-0.5)}{0.05^2\ (24{,}245-1) + 1.96^2 \times 0.5(1-0.5)}$$

$$n = \frac{23284.898}{61.5704}$$

n = 378.1833154

n = 378

Hence, the ideal sample size for this study was 378.

3.4.2 Sampling procedures

A sample size of 378 women was drawn using cluster sampling technique. Cluster sampling is a sampling technique used when "natural" but relatively homogeneous groupings are evident in a statistical population. The principle of cluster sampling selection procedure assigns each individual in the sample the same chance of selection. In this technique, the total population is divided into clusters and a simple random sample of the groups is selected (Williams, 1998).

Mbooni west District consists of Tulimani and Mbooni divisions. The divisions were further divided into locations. Two locations were selected from each division for the study. A total of four locations were the clusters and equal numbers of questionnaires were distributed. The respondents were drawn randomly from every homestead visited. The 378 women are inclusive of two focus group discussions.

Table 3.1 Sampling of the respondents

Target group	**No. of Respondents**
Mbooni Division (Mbooni & Nzeveni Locations)	189
Tulimani Division (Kalawani & Yandue Locations)	189
Total No. of respondents	**378**

3.5 Data Collection Instrument

This research used primary and secondary data. Primary data was collected through semi-structured questionnaires. The questionnaire was the most appropriate method of data collection for this study as it allows access to large datasets and the use of advanced statistical techniques (Saunders et al., 2009). The questionnaires contained both open ended and closed ended questions and were administered to the respondents in the selected study area. The close-ended questions provide more structured responses to facilitate tangible recommendations. The open-ended questions provide additional information that might not have been captured in the close-ended questions. Focus group discussion was also employed as a tool to probe for more information from the women and two focus groups were conducted.

3.5.1 Pilot testing of the instruments

A pilot study can be used as a small scale version or trial run in preparation for a major study (Polit, Beck, &Hungler, 2001). Baker (1994) noted that a pilot study is often to pre-test or try out a research instrument. 10 participants (who were not part of the sample size) from the target population were be considered for the pilot.

The 10 were enrolled from Tulimani division of Mbooni West District. The researcher administered the questionnaires to 10 women of child bearing age to establish whether they had difficulty understanding any items. The researcher took note of the questions that posed a problem to the respondents and later made the necessary changes. The purpose of pre-testing the research instruments was to check for validity and reliability in order to ensure quality of the data collected.

3.5.2 Validity of the instrument

Validity addresses the problem of whether a measure measures what it is supposed to measure (Zimund, 2000). According to Thietart (2001), the main concerns with the validity are whether the measured data is relevant and precise, and the second is the extent to which we can generalize from those results. Validity is also synonymous with accuracy and correctness (Churchill and Lacobucci, 2002). In this study, validity was achieved through triangulation. The research used two instruments in data collection that is, questionnaires and focus group discussions. The questions were proper and went well with the research's objectives and purpose. Thus, the key aspect of desired information was provided by the respondents.

3.5.3 Reliability of the Instrument

According to Berg and Gall (1989) reliability is a measure of how consistent a research method is. Silverman (1993) outlined a number of ways that reliability can be achieved in qualitative research: pre-testing interview protocols and questions; using fixed-choice responses; and systematically collecting, transcribing and reporting field notes and transcripts for others to review as necessary. In this study reliability was achieved through the test-retest method. The clarity of the instrument items to the respondents was necessary so as to enhance the instrument's reliability. Any inconsistencies arising from the instruments were corrected, and this was done to

ensure that they measure what was intended in the study. The pilot study allowed for test-retesting of the research instruments for reliability. The 10 participants who were in pilot study were given the same instrument (questionnaire) after a period of two weeks. A reliability coefficient was then calculated to indicate the relationship between the two sets of scores obtained.

3.6 Data Collection Procedures

Sekaran (2010) defines data collection as a means by which information is obtained from the selected subjects of an investigation. The primary research data was collected from women of childbearing age in Mbooni west district, Makueni County by administering questionnaires. Two focus group discussions were also conducted to collect qualitative data.

Following the approval of the research proposal by the University academic panel and after seeking permission from the district health management team at Mbooni West District, the data collection process commenced and the exercise was done during the month of May 2015. To ensure that the data collection exercise was carried within the planned timeframe, the researcher hired two research assistants. One day training for the research assistants was conducted to ensure that they have a common understanding of the questions in the tools. They were also taught on how to introduce themselves to a respondent, take them through the introductory letter and make them aware of the purpose of the study. After training, they made field visits and administered questionnaires to the women of child bearing age. The questionnaires consisted of closed ended questions which restricted the respondents to choose from a range of predetermined responses and open ended questions that required the respondents to construct answer using their own words. The respondents were given enough time to fill in questionnaires and those who were not able to read and write were assisted by the research assistants by translating the questions to the language they could understand. The researcher also supervised the assistants and held feedback meetings to collect completed data and ensure the data collection process was on course. Data was stored appropriately after each day's collection to safeguard any loss or interference.

The researcher also conducted Focus group discussions with women to probe more into the factors influencing the place of delivery. The focus group sessions were conducted in Kamba language because this was the language the participants were comfortable with. During the interactive sessions, the participants were asked questions by the researcher and answers were recorded by the research assistants through note taking. The written notes were then afterwards keyed in a computer for the purposes of analysis.

3.7 Data Analysis Techniques

The collected data was analyzed using both quantitative and qualitative data analysis methods. The results were presented in tables and prose for qualitative data. Descriptive analysis such as frequencies and percentages was used to present quantitative data in form of tables. For categorical variables such as age, marital status, level of education, occupation, transportation means, decision maker in the family and household monthly income, frequencies and percentages were computed and presented in frequency tables. To test for the association between independent variables (demographic, socio cultural, economic factors, antenatal attendance visits) and dependent variable (place of delivery), chi-square test was used. Associations between the variables were calculated at 95% confidence interval at p-value 0.05. Data from questionnaire was coded and logged in the computer using Statistical Package for Social Science (SPSS V 17.0). This involves coding both open and closed ended items in order to run simple descriptive analyses to get reports on data status. Data collected through the open ended questions was analyzed qualitatively through content analysis.

3.8 Ethical Considerations

In accordance with the principles governing research involving human participants, the researcher undertook the following steps to uphold respondents' ethical rights as well as attain approval to conduct the study.

A research approval was obtained from the University of Nairobi, National Commission for Science, Technology and Innovation (NACOSTI), and the District health management committee before undertaking the research. All participants were required to give informed consent prior to participating in the study. Those who were unwilling to participate were excused

from the study. To achieve anonymity from data gathered, the participants' names were not included in any of the forms or any other document.

3.9 Operational Definition of variables

The operational definition of variables describes what the variables are and how they will be measured within the context of this study. The following table shows the operational definition of variables for this study, indicators, measurement, and the data collection methods that will be used.

Table 3.2 Operational definition of variables

Objective	Variables	Indicators	Measurement scale	Data collection method	Tools of analysis
To determine how demographic factors influence choice of place of delivery among women in Mbooni West District, Makueni County.	**Independent variable** Demographic factors	Age of the woman Number of children Marital status Number of household members	Nominal Ordinal Nominal Ordinal	Questionnaire	Descriptive Means Frequencies Percentages Chi square test
To establish how socio cultural factors influence choice of place of delivery among women in Mbooni West District, Makueni County.	**Independent variable** Socio cultural factors	Education of the mother Education of the spouse Decision maker	Nominal Nominal Nominal	Questionnaire Focus Group discussion	
To examine how economic factors influence choice of place of delivery among women in Mbooni West District, Makueni County.	**Independent variable** Economic factors	Occupation Monthly household income Transport means to health facility	Nominal Nominal Nominal	Questionnaire	
To establish how Antenatal clinic attendance influences the choice of place of delivery among women in Mbooni West District, Makueni County.	**Independent variable** ANC attendance	ANC attendance	Nominal	Questionnaire	
	Dependent variable Choice of Place of delivery	Health facility Home TBA	Nominal	Questionnaire	

CHAPTER FOUR

DATA ANALYSIS, PRESENTATIONS, AND INTERPRETATIONS

4.1 Introduction

This chapter focuses on presenting the data that was collected during the study. The independent variables for this study were demographic factors, socio cultural factors and economic factors. The dependent variable was place of delivery. The analyzed data was presented in tables and in prose as per the objectives of the study. The data analysis was done using SPSS V.17 and association between independent variables and choice of place of delivery were established. Women of childbearing age were interviewed and two focus group discussions were conducted.

4.2 Response Rate

A total of 378 women were recruited during the study and 373were able to respond to the questions and return the questionnaires yielding a questionnaire return rate of 98% of the required sample size. The characteristics of the participants are summarized in the following section. Two Focus group discussions were also conducted and each group consisted of 8 members which was the set number for the groups thus, 100% response rate for the FGD's was achieved.

Table 4.1 Response Rate

Respondents	Target number	Actual respondents	Response (%)
Mothers & 2 FGD with women	378	373	98

4.3 Demographic Characteristics

The demographic factors that were used in this study to investigate the factors influencing women's choice of place of delivery were age, marital status, number of children and the number of household members.

4.3.1 Distribution of Respondents by Age

The researcher used age as one of the variables to determine if it has an association with the women's choice of delivery. The following were the results as shown in the Table 4.2 below.

Table 4.2: Age of the Women

Age	Frequency (n)	Percent (%)
15-24 years	50	13.4
25-34 years	146	39.1
35-49 years	177	47.5
Total	**373**	**100%**

The mean age of the women recruited was 34.1 (SD = 8.2). Table 4.2 shows that most women who participated in the study 177 (47.5%) were aged between 35 and 49 years, one hundred and forty six (39.1%) mothers were between the ages of 25 and 34 years, the rest fifty (13.4%) were between the ages of 15 and 24 years.

4.3.2 Number of Children

The number of children a mother has was another variable that was used by the researcher to determine if it has any association with the choice of place of delivery. The following results were obtained from the study as shown in the Table 4.3 below.

Table 4.3 Number of Children

Number of Children	Frequency (n)	Percent (%)
1	55	14.8
2	73	19.6
3	85	22.8
4	66	17.6
5 or more	94	25.2
Total	**373**	**100%**

A higher percentage, that is, 94 (25.2%) of the women reported that they had five or more children, 66 (17.6%) women had four children, 85 (22.8%) women reported that they had three children, 73 (19.6%) women had two children and 55(14.8%) women had 1 child. The median number of children per woman was 3 with a range between 1 and 11.

4.3.3 Marital status

Another variable that was use by the researcher was marital status. The following were the results as shown in the Table 4.4 below.

Table 4.4: Marital status of women

Marital status	Frequency (n)	Percent (%)
Married	333	89.3
Single	23	6.2
Divorce	5	1.3
Widow	12	3.2
Total	**373**	**100%**

Majority 333(89.3%) of the participants were married as shown in Table 4.4. The remaining participants were single and never been married 23 (6.2%) or single following divorce 5 (1.3%) or death of a spouse 12 (3.2%).

4.3.4 Number of Household Members

The distribution of number of household members of women who participated in the survey is presented in the Table 4.5 below.

Table 4.5 Number of Household Members

No. of Household Members	Frequency (n)	Percent (%)
2	16	4.3
3	46	12.3
4	69	18.5
5	86	23.1
6	66	17.7
7or more	90	24.1
Total	**373**	**100%**

The median family size was 5 persons, range 2 to 13. Ninety (24.1%) women had family sizes of 7 or more persons, 66(17.7%) had 6 persons, 86 (23.1%) had 5 persons, 69 (18.5%) had 4 persons, 46(12.3%) had 3 persons and 16(4.3%) had 2 persons.

4.4 Socio cultural characteristics

The socio cultural factors that were used in this study were women's level of education, spousal level of education and decision maker in the household or family.

4.4.1 Level of Education

Education of the participants is another key variable that the research used for the study. The formal education qualifications of the women are presented in Table 4.6 below.

Table 4.6: Level education level of women

Participants' level of education	Frequency (n)	Percent (%)
Primary	209	56
Secondary	134	35.9
Tertiary	29	7.8
None	1	0.3
Total	**373**	**100%**

4.4.2 Husband's level of education

The formal education qualifications of the women's spouses were also used in this study and the results are presented in Table 4.7.

Table 4.7: Level of education of spouse

Spousal level of education	Frequency (n)	Percent (%)
Primary	120	36.1
Secondary	146	43.8
Tertiary	58	17.4
None	9	2.7
Total	**333**	**100%**

Among the spouses of the respondents, it was reported that 120 (36.1%) had primary level education, 146 (43.8%) had attained secondary level education, 58 (17.4%) had tertiary level education and the smallest percentage 9 (2.7) had no formal education.

4.4.3 Decision Making in Household

Table 4.8 shows the person who made decision concerning the place of delivery at the time the participants were giving birth.

Table 4.8: Decision Maker in Household

Decision Maker in Household	Frequency (n)	Percent (%)
Self	251	67.3
Husband	66	17.7
Mother in law	4	1.1
Others	52	13.9
Total	**373**	**100%**

The results show that majority 251 (67.3%) of the women are able to make decision regarding the place to give birth. 66 (17.7%) of the women reported that their husbands are the decision makers, while another 52 (13.9) women said their decisions were influenced by other people which include their friends, mothers and health workers. Only 4 (1.1%) of mothers reported that mother in law influenced the decisions made concerning place of delivery.

4.5 Economic Characteristics

The economic factors that were used for the purpose of this study were; participant's occupation, participants household monthly income and accessibility of health facilities.

4.5.1 Occupation of participants

Occupation of the respondents was another variable that was used in this study. The results were presented in Table 4.9.

Table 4.9: Occupation of participants

Occupation	Frequency (n)	Percent (%)
Civil servant	27	7.2
Farmer	91	24.4
Trader	151	40.5
Housewife	104	27.9
Total	373	100%

The results show that majority of the respondents 151(40.5%) were traders, 104(27.9%) were housewives, 91(24.4%) of the participants were farmers and only 27 (7.2%) were civil servants.

4.5.2 Household Monthly income

Monthly income was another variable that was used in this study to establish if it influences the place of delivery among women in Mbooni west District. Table 4.10 shows the household monthly income.

Table 4.10: Household Monthly income

Monthly Income	Frequency (n)	Percent (%)
5000-10000	286	76.6
11000-20000	65	17.4
21000-30000	9	2.4
>30000	13	3.4
Total	373	100%

It was reported that majority 286 (76.6%) of the participants had household monthly income of between 5000 and 10000 shillings, 65 (17.4%) had a monthly income that ranged between 11,000 and 20,000 shillings, 9 (2.4) of the participants reported a monthly income of between 21,000 and 30,000 shillings and only 13(3.4) had a household monthly income of more than 30,000 shillings.

4.5.3 Mode of Transportation

Accessibility of health services was also used in this study as a variable to find out if it influences women's choice of place of delivery.

Table 4.11: Mode of Transportation

Mode of transportation	Frequency (n)	Percent (%)
On foot	113	30.3
Motorbike	176	47.2
Private	6	1.6
Public	78	20.9
Total	373	100%

The results show that a significant number 113 (30.3) of participants were able to access health services without incurring any cost because they walked to the health facility. The 176 (47.2%) who used motorbike as a means of transport reported that it was cheap and affordable same to the 6 (1.6%) who used private means and 78 (20.9%) who used public means.

4.6 ANC Attendance

Prior to giving birth, pregnant mothers attend ANC which gives them information on the safe place to give birth. ANC attendance was included in this study to determine if it affects the decision women make regarding the place of delivery. The results are presented in the table 4.12 below.

Table 4.12: ANC Attendance

ANC Attendance	Frequency (n)	Percent (%)
Yes	370	99.2
No	3	0.8
Total	**373**	**100%**

Results from the table show that almost all the participants 370(99.2) attended ANC which is a clear indication that they are aware of the importance of antenatal care and services given by health providers. Only a small number 3(0.8%) of the participants were not able to attend ANC.

4.7 Place of delivery

The place of delivery is the dependent variable in this study. The researcher wanted to establish the factors that influence women to deliver either at a health facility, home or assisted by a traditional birth attendant.

4.7.1 Distribution of Respondents by Place of Delivery

Table 4.13 shows the place of delivery among women in Mbooni West District, Makueni County.

Table 4.13: Place of Delivery of women

Place of Delivery	Frequency (n)	Percent (%)
Health facility	252	67.6
Home	103	27.6
TBA	18	4.8
Total	**373**	**100%**

Approximately two-third of deliveries 252 (67.6%) were health facility births. Eighteen (4.8%) were attended by TBAs during delivery and 103 (27.6%) of births occurred at home without the help of a skilled birth attendant.

4.7.2 Reason for failure to access facility

In this study, the researcher wanted to establish further the reasons that made a significant number of mothers to give birth at home or at TBA's. For the mothers who reported barriers in accessing health facility during the time of delivery and delivered either at home or TBA, the reasons they reported for preferring home delivery are also shown in Table 4.14.

Table 4.14: Reason for failure to access facility

	TBA	Home
Reason for failure to access facility		
Cost of hospital bill	7(38.9)	11(61.1)
Unfriendly attitude of healthcare workers	1(33.3)	2(66.7)
Unexpected labour	21(28.0)	54(72.0)
Distance of healthcare centre	1(16.7)	5(83.3)
No reason	2(10.5)	17(89.5)
Total	32	89

As shown in table 4.14, seventy-two percent of mothers who had unexpected labour delivered at home and 16 (21.3%) of mothers with unexpected labour delivered at home with the assistance of TBAs. Most women who reported barriers to accessing health care facilities were likely to deliver at home including 61.1% of women who thought hospital bills were costly, 66.7% of women reporting that healthcare workers had unfriendly attitudes, and 83.3% of women who indicated that distance to health centre was a barrier to access health facility.

4.8 Influence of demographic factors on choice of place of delivery

The factors which were used by the researcher in this study included age of women, marital status, number of children of the participants and number of household members. These variables were used to establish if there is any association between demographic factors and women's choice of place of delivery.

4.8.1 Age of women and choice of delivery

Table 4.15 summarizes the association between women's age and choice of place of delivery.

Table 4.15: Age of women and choice of place of delivery

Age of mothers	Hospital	Home	TBA	P value
15-24 years	37(74.0)	13(26.0)	0(0.0)	0.221
25-34 years	119(81.5)	25(17.1)	2(1.4)	<0.001
35-49 years	96(54.2)	65(36.7)	16(9.0)	<0.001
Total	**252**	**103**	**18**	

There was a significant association between age of mothers and choice of place of delivery. Most mothers aged between 25 and 34 years (81.5%) delivered in a hospital or health facility ($p<0.001$) compared to mothers aged 15-24 years (74%) or 35-49 years (54.2%) delivering in hospital or health facilities.

4.8.2 Marital status and choice of place of delivery

Table 4.16 summarizes the association between marital status and choice of place of delivery.

Table 4.16: Marital Status of women and choice of place of delivery

Marital status	Hospital	Home	TBA	P value
Married	222(66.7)	94(28.2)	17(5.1)	0.655
Single	20(87.0)	3(13.0)	0(0.0)	0.129
Divorce	3(60.0)	2(40.0)	0(0.0)	0.711
Widow	7(58.3)	4(33.3)	1(8.3)	0.467
Total	**252**	**103**	**18**	

The results indicate that there was no statistical significance ($p> 0.05$) between marital status and choice of place of delivery of all the mothers who participated in the study.

4.8.3 Number of children and choice of place of delivery

Table 4.17 summarizes the statistical significance between the number of children a woman has and her choice of place of delivery.

Table 4.17: No. of Children and choice of place of delivery in Mbooni

No. of children	Hospital	Home	TBA	P value
1	49(89.1)	6(10.9)	0(0.0)	<0.001
2	66(90.4)	7(9.6)	0(0.0)	<0.001
3	55(64.7)	27(31.8)	3(3.5)	0.555
4	45(68.2)	18(27.3)	3(4.5)	0.987
5 or more	36(38.7)	45(48.4)	12(12.9)	<0.001
Total	**251**	**103**	**18**	

The number of children a woman has was significantly associated with choice of place of delivery as shown in the table 4.16. Hospital deliveries were more common in women with fewer children ($p< 0.05$), women with one child ($p<0.001$), women with two children ($p<0.001$) compared to those with more children. Only 36(38.7%) of women with more than 5 children ($p<0.001$) delivered in hospitals as compared to women with 4 or fewer children where majority of them were likely to deliver in hospitals.

4.8.4 Number of Household members and choice of delivery

Table 4.18 shows the association between the participant's number of household members and where the place of delivery, and how they influence her choice of place of delivery.

Table 4.18: No. of household members and choice of place of delivery

No. of household members	Hospital	Home	TBA	P value
2	13(81.3)	3(18.8)	0(0.0)	<0.001
3	43(93.5)	3(6.5)	0(0.0)	<0.001
4	61(88.4)	8(11.6)	0(0.0)	0.698
5	57(66.3)	26(30.2)	3(3.5)	0.969
6	44(66.7)	19(28.8)	3(4.5)	<0.001
7 or more	34(37.8)	44(48.9)	12(13.3)	<0.001
Total	**252**	**103**	**18**	

Number of household members was significantly associated with choice of place of delivery as shown in the table 4.17. Hospital deliveries were more common in women of smaller family sizes ($p<0.001$) compared to those of larger family sizes. Only 34 (37.8%) of those with family sizes of 7 persons ($p<0.001$) or more delivered in hospitals as compared to 66.3% to 93.5% of women with families of 6 or fewer persons delivered in hospitals.

4.9 Influence of social factors on choice of place of delivery

The factors which were used by the researcher in this study included education of the participant, spouse level of education and the decision maker in the family. These variables were used to establish if there is any association between social factors and women's choice of place of delivery.

4.9.1 Level of education of women and choice of place of delivery

Table 4.19 summarizes the association between level of education of a woman and the choice of place of delivery.

Table 4.19: Level of education of women and choice of place of delivery

Level of education of mothers	Hospital	Home	TBA	P value
Primary	122(58.4)	72(34.4)	15(7.2)	<0.001
Secondary	102(76.1)	29(21.6)	3(2.2)	0.019
Tertiary	28(96.6)	1(3.4)	0(0.0)	0.001
None	0(0.0)	1(100.0)	0(0.0)	0.324
Total	**252**	**103**	**18**	

Regarding level of education there was a consistent increase in the percentages of mothers delivering in hospitals with increasing level of education: 58.4% of mothers with primary education delivered in a hospital ($p<0.001$), compared to 76.1% of mothers with secondary education ($p = 0.019$) and 96.6% of mothers with tertiary education ($p = 0.001$).

4.9.2 Spouse level of education and choice of place of delivery

Table 4.20 shows that the level of spouse level of education was significantly associated with choice of place of delivery.

Table 4.20: Spouse level of education and women's choice of place of delivery

Spouse level of education	Hospital	Home	TBA	P value
Primary	63(52.5)	48(40.0)	9(7.5)	<0.001
Secondary	113(72.4)	38(24.4)	5(3.2)	0.095
Tertiary	50(86.2)	6(10.3)	2(3.4)	0.001
None	3(33.3)	5(55.6)	1(11.1)	0.05
Total	**229**	**62**	**17**	

Women whose spouses had tertiary education ($p=0.001$) were significantly more likely to deliver in a hospital or facility (72.4%) compared to 72.4% of women with spouses who had secondary education and 52.5% of those whose spouses had primary level education.

4.9.3 Decision making within household and choice of place of delivery

The primary decision maker within the household had a significant influence on the choice of place of delivery as shown in Table 4.21.

Table 4.21: Association between household decision maker and choice of place of delivery

Decision maker	Hospital	Home	TBA	P value
Self	148(59.0)	85(33.9)	18(7.2)	<0.001
Husband	58(87.9)	8(12.1)	0(0.0)	<0.001
Mother in law	2(50.0)	2(50.0)	0(0.0)	0.677
Total	**208**	**95**	**18**	

Women from households within which the husband was primary decision maker (p <0.001) were more likely to deliver in hospital (87.9%) compared to households with female decision makers (59% for household in which the participating woman was the decision maker and 50% in household in which mother-in-law was decision maker). The results show that there is significant association between decision maker and choice of delivery.

4.10 Influence of economic factors on choice of place of delivery

The factors which were used by the researcher in this study included occupation of the participant, household monthly income and transportation to health facility. These variables were used to establish if there is any association between economic factors and women's choice of place of delivery.

4.10.1 Occupation and choice of place of delivery

Table 4.22 summarizes the influence of occupation as a factor on the choice of place of delivery.

Table 4.22: Occupation and choice of place of delivery in Mbooni

Occupation	Hospital	Home	TBA	P value
Civil servant	25(92.6)	1(3.7)	1(3.7)	0.004
Farmer	46(50.5)	41(45.1)	4(4.4)	<0.001
Trader	107(70.0)	36(24.3)	8(5.7)	0.481
Housewife	74(71.2)	25(24.0)	5(4.8)	0.624
Total	**252**	**103**	**18**	

The women's occupation was significantly associated with choice of place of delivery. Civil servants were likely to deliver in hospitals (92.5%) p = 0.004, while farmers were more likely to report that they delivered at home (45%) compared to the women in the remaining occupations.

4.10.2 Household monthly income and choice of place of delivery

Table 4.23 summarizes the association between monthly income as a factor and the choice of place of delivery.

Table 4.23: Monthly income and choice of place of delivery in Mbooni

Monthly income	Hospital	Home	TBA	P value
5000-10000	184(64.3)	86(30.1)	16(5.6)	0.055
11000-20000	48(73.8)	15(23.1)	2(3.1)	0.553
21000-30000	8(88.9)	1(11.1)	0(0.0)	0.654
>30000	11(91.7)	1(8.3)	0(0.0)	0.270
Total	**251**	**103**	**18**	

From the summary, household monthly income (p>0.05) did not influence choice of place of delivery with most mothers in different income levels reporting that they delivered in hospitals, and a significant percentage (8.3% to 30.1%) indicating that they delivered at home.

4.10.3 Transportation to health facility and choice of place of delivery

Table 4.24 summarizes influence of monthly income as a factor on the choice of place of delivery.

Table 4.24: Transportation to health facility and choice of place of delivery

Transportation to health facility	Hospital	Home	TBA	P value
On foot	68(60.2)	40(35.4)	5(4.4)	0.085
Motorbike	129(73.3)	40(22.7)	7(4.0)	0.082
Private	6(100.0)	0(0.0)	0(0.0)	0.397
Public	48(62.3)	23(29.9)	6(7.8)	0.31
Total	**251**	**103**	**18**	

From the results, mode of transportation ($p>0.05$) was not associated with the choice of place of delivery with most mothers who used different mode of transportation reporting that they delivered in hospitals, and a significant percentage (29.9% to 35.4%) indicating that they delivered at home.

4.11 Influence of Antenatal clinic attendance on choice of place of delivery

Antenatal care (ANC) services can provide opportunities for health workers to promote a specific place of delivery or give women information on the status of their pregnancy, which in turn informs their decisions on where to deliver.

Table 4.25: ANC attendance and the choice of place of delivery

	Hospital	**Home**	**TBA**	**P value**
ANC attendance				
Yes	252(68.1)	100(27.0)	18(4.9)	0.038
No	0(0.0)	3(100.0)	0(0.0)	0.038
Total	**252**	**103**	**18**	

As shown in Table 4.25, there was a significant association between ANC attendance and choice of place of delivery and also between difficulties in accessing facility and choice of place of delivery. Failure to attend ANC was strongly associated with home delivery with all three women who did not attend ANC delivering at home, compared to 27% of mothers who attended ANC and delivered at home ($p = 0.038$).

A participant from the focus group discussion reported that fear of having being operated was mentioned as a reason for not going for a hospital delivery. It was said to be dangerous and not suitable for mothers. Another said that another challenge of delivering at the hospital is the young health workers who are almost their children's age and they are not comfortable being assisted by them. Hence, some mothers still think that it is a taboo for older women to be attended by younger health workers.

From the focus group discussions some participants said that they prefer to deliver their children in a health facility because the traditional birth attendants do not wear gloves and they may not as well use clean equipments. In contrast, health care providers wear gloves, use clean equipments and medications for delivery.

CHAPTER FIVE

SUMMARY OF THE FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter covers a summary of the study findings, conclusions and recommendations in line with the objectives of the study. The study was aimed at investigating factors influencing women's choice of place of delivery in Mbooni West District, Makueni County. These factors included demographic factors, socio cultural and economic factors.

5.2 Summary of Findings

There was a high response rate of 98% (n=373) women participated. This was a high response rate which provided a guarantee that the findings were a representation of the population. The variables that were used for this study were age, number of children, marital status, decision maker, ANC attendance, education of the mother, income and affordability of health facilities.

Most mothers aged between 25 and 34 years (81.5%) delivered in a hospital or health facility compared to mothers aged 15-24 years (74%) or 35-49 years (54.2%) delivering in hospital or health facilities. Marital status was however, not associated significantly with choice of place of delivery. Hospital deliveries were more common in women with fewer children and smaller family sizes compared to those with more children and larger family sizes. 38.7% of women with more than 5 children and 34.8% of those with family sizes of 7 persons or more delivered in hospitals. Between 64.7 and 90.4% of women with 4 or fewer children delivered in hospitals and 66.3% to 93.5% of women with families of 6 or fewer persons delivered in hospitals.

Regarding level of education there was a consistent increase in the percentages of mothers delivering in hospitals with increasing level of education: 58.4% of mothers with primary education delivered in a hospital ($p<0.001$), compared to 76.1% of mothers with secondary

education (p = 0.019) and 96.6% of mothers with tertiary level education (p = 0.001). The level of spousal occupation was significantly associated with choice of place of birth. Women whose spouses had tertiary education were significantly more likely to deliver in a hospital or facility (86.2%) compared to 72.4% of women with spouses who had secondary education and 52.5% of those whose spouses had primary level education. The primary decision maker within the household had a significant influence on the choice of place of delivery as shown in Table 4.5. Women from households within which the husband was primary decision maker were more likely to deliver in hospital (87.9%), p <0.001 compared to households with female decision makers (59% for household in which the participating woman was the decision maker and 50% in household in which mother-in-law was decision maker).

The women's occupation influenced choice of place of delivery, while income and common mode of transportation to facility did not influence choice of place of delivery. Civil servant were likely to deliver in hospitals (92.5%) p = 0.004, while farmers were more likely to report that they delivered at home (45%) compared to the women in the remaining occupations. Mode of transportation and income did not influence the choice of place of delivery with most mothers in different income levels and those who used different mode of transportation reporting that they delivered in hospitals, and a significant percentage (11.1% to 35.4%) indicating that they delivered at home.

There was a significant association between ANC attendance and choice of place of delivery and also between difficulties in accessing facility and choice of place of delivery. Failure to attend ANC was strongly associated with home delivery with all three women who did not attend ANC delivering at home, compared to 27% of mothers who attended ANC and delivered at home (p = 0.038).

Seventy-one percent of mothers who had unexpected labour delivered at home and 16 (21.3%) of mothers with unexpected labour delivered at home with the assistance of TBAs. Most women who reported barriers to accessing health care facilities were likely to deliver at home including: 50% of women who thought hospital bills were costly, 66.7% of women reporting that healthcare

workers had unfriendly attitudes, and 83.3% of women who indicated that distance to health centre was a barrier to access.

5.3 Discussion of findings

This study documented an increase in hospital deliveries in Mbooni West District, Makueni County from 39% to 67.6%. This could be attributed to free maternity services and the beyond zero campaign which is being implemented by the government of Kenya. Although this is a positive change there is still alot to be done because it is below the set targets at the International Conference on Population and Development(ICPD) whose goal is to have more than 80% of deliveries assisted by skilled attendants globally by 2005, 85% by 2010 and 90% by 2015 (UNFPA). Likewise other study conducted in Maharastra, India stated that percentage of institutional delivery had increased in different time period (Pardeshi et al, 2011). This might be due to the various programs along with safe motherhood and free services for institutional delivery. Safe Delivery Incentive Program (SDIP) and establishment of birthing centres in rural areas play a vital role to increase institutional delivery.

5.3.1 Demographic factors

The findings of this study showed that there was a strong association between age of women, number of children they have and the number of household members. This is in agreement with observations in other studies for they showed that healthcare services utilization had a strong statistical association with the age of women, number of children they have and the number of household members. Studies in developing countries have shown that demographic factors such as age, number of children, are associated with the use of the health care services (Sharma *et al,* 2007; Wong *et al.,* 1987; Obermeyer, 1993). It was well recognized that age plays an important role in women's utilization of maternal health services. Since older and younger women have different experience; and influence, their behaviour on seeking healthcare also vary, younger women might have enhanced their knowledge of modern medicine and are more likely to utilize modern health facilities than older women. They are likely to have greater exposure and more access to education.

Although marital status has been found to determine place of delivery in other contexts (Say, 2007) and (Stephenson *et al*.2006) also found marital status, to be important determinants of place of delivery in Kenya, the findings of this study indicate that marital status is not significantly associated with place of delivery.

5.3.2 Socio cultural factors

In this study, level of education of women, spouse's level of education and the decision maker in the family were strongly associated with the place of delivery which is also the case in other studies. The result of the study that was conducted in Enugu, Nigeria also found factors like mothers educational level among other social characteristics to be highly associated with place of delivery. Social factors that were found from this study to be associated with hospital delivery were not different from what was found in other studies and they were factors like level of education, spousal level of education and the decision maker in the family. The women with higher education in this study chose health facility delivery more than the less educated women. Studies by (Katung, 2001) and (Ikeako et al 2006) in developing countries have shown that the decision to deliver at home is strongly associated with related to lower educational status. According to these authors, maternal education increases women's perceived seriousness about maternal health issues.

5.4.3 Economic factors

The results of this study show that occupation is positively associated with choice of delivery. Studies elsewhere have also documented positive relationship between economic status and choice of place of delivery.A number of studies find that formally employed women are more likely to use delivery services (Nwako1994, Onah 2006) while others find that farming women are less likely to have skilled attendance at delivery than women in other occupations (Nwako1994, Addai 2000, Obermeyer,1991). The findings of this study show that there is no positive association between level of monthly income and place of delivery which disagrees with a study by (Mang'ong'o 2013) in Rabai and Kilifi districts which indicated that mothers from low income households are more likely to deliver at home.

5.4.4 Antenatal clinic attendance

A study conducted in Russia village Nigeria showed that despite the high number of pregnant women who attended ANC, a lot still preferred home delivery, 74% were attending ANC and yet up to 39% chose home delivery in the index pregnancy. (Envuladu et al 2013). In Kenya, about 53% of deliveries take place outside health facilities despite more than 93% of pregnant women having at least one ANC visit during pregnancy. The results of this study indicate that ANC attendance is strongly associated with the place of delivery. Mothers who never attended ANC were more likely to deliver at home compared to those who attended ANC and this could be attributed to familiarity with services and encouragement by health workers.

5.4 Conclusions

While in some developed countries, it is possible for women to decide to give birth safely at home (Davis, 2000) in developing countries; conditions are not safe enough to encourage women especially those living in rural and remote areas to deliver at home.

This study concludes that hospital delivery is increasing with time in Mbooni west District, Makueni County. This is a clear indication that today women are more aware of the need for safe and secure place of delivery where skilled birth attendants are available and incase of emergencies, medical intervention is offered in good time. This could be attributed to free maternity services as this came out clear from the focus group discussions.

From this study, age of mothers, number of children a woman has and the number of household members is strongly associated with the choice of place of delivery. The elderly mothers were more likely to deliver at home compared to the young women.

In this study, level of education and decision maker in the family, were factors that influenced a lot where the mother will deliver their babies. It came out clearly that the higher the level of education the more the hospital delivery was likely to happen. Husbands, older female relatives and the traditional birth attendants all have an influence on place of child delivery.

Poor accessibility to health facilities has been is a major factor that is associated with lack of health facility utilization during the time of delivery for mothers in Mbooni west District.

Occupation plays a major role as to where a woman will deliver her baby. Professionals are most likely to give birth in hospitals.

The study also showed that antenatal attendance influences hospital delivery a lot. Mothers who never attended antenatal clinics are most likely to deliver at home compared to mothers who attended antenatal clinics.

5.5 Recommendations

The following recommendations may help women in Mbooni West District and Kenya at large to make a better choice when the time to give birth reaches.

1.Demographic factors

Advocacy to all women of child bearing age on importance of hospital deliveries, this can be done by the Ministry of Health, Ngo's and community based organizations. Mothers should be made aware that each pregnancy has its own challenges having delivered before does not put them out of risk.

2.Social factors

Involvement of husbands as key decision makers in the choice of place of delivery during antenatal clinic visits could be one of the best strategies in reduction of home deliveries.

3.Economic factors

The government should focus more on women empowerment through creating entrepreneurship opportunities for them as a measure to make them financially stable and this could of a positive impact on the choices they make during delivery.

4.Antenatal clinic attendance

During antenatal clinic visits health workers should emphasize more on issues like early signs of labour, birth preparedness and expected dates of delivery as a step to reduce home deliveries. They should also encourage mothers to be accompanied by their husbands during these visits.

Health workers should increase the coverage of antenatal care by reaching out to women at the community level through outreach programmes that are geared towards creating awareness that antenatal clinic visits are important for them when they are expectant.

5.6 Suggestions for Further Studies

i. Further research needs to be done to establish if monthly household income could be a factor for women when making a choice regarding the place of delivery.
ii. A more validated measure could be used to determine the actual monthly income.

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APPENDICES

Appendix 1: Letter of Transmittal

Mwanza Jackbet Nduku
University of Nairobi
P.O. BOX 30197-00100
Nairobi
Cell: 0724139028

To whom it may concern,

REF: PERMISSION TO CONDUCT RESEARCH

My name is Mwanza Jackbet Nduku, a Master of Art in Project Planning and Management student at the University of Nairobi. I am conducting a research on Factors influencing women's choice of place of delivery in Mbooni West District, Makueni County.

I hereby invite you to participate in the research by answering the questions provided in the attached questionnaire which will help me gather relevant data regarding the research title.
The aim of the research is to help improve maternal health at the rural areas in Kenya.

I want to assure you that the information provided is purely for academic purposes and will be treated with utmost confidentiality. Thank you for your willingness to participate.

Yours faithfully,

Mwanza Jackbet Nduku.
REG. NO: L50/72091/2011

Appendix 2: Letter of Introduction

UNIVERSITY OF NAIROBI
COLLEGE OF EDUCATION AND EXTERNAL STUDIES
SCHOOL OF CONTINUING AND DISTANCE EDUCATION
DEPARTMENT OF EXTRA-MURAL STUDIES
NAIROBI EXTRA-MURAL CENTRE

Your Ref:

Our Ref:

Telephone: 318262 Ext. 120

Main Campus
Gandhi Wing, Ground Floor
P.O. Box 30197
NAIROBI

2nd February 2015

REF: UON/CEES//NEMC/20/246

TO WHOM IT MAY CONCERN

RE: MWANZA JACKBET NDUKU – REG. NO L50/72091/2011

This is to confirm that the above named is a student at the University of Nairobi College of Education and External Studies, School of Continuing and Distance Education, Department of Extra- Mural Studies pursuing Masters in Project Planning and Management.

She is proceeding for research entitled "**factors influencing women's choice of place of delivery in Mbooni West District, Makueni County**".

Any assistance given to her will be highly appreciated.

UNIVERSITY OF NAIROBI CEES P O Box 30197 03 FEB 2015 NAIROBI NAIROBI EXTRA MURAL CENTRE

CAREN AWILLY
CENTRE ORGANIZER
NAIROBI EXTRA MURAL CENTRE

Appendix 3: Questionnaire

Instructions

Please tick (√) in the appropriate box or fill in the empty spaces. Kindly respond to all questions freely and honestly.

Do not write your names.

Section A: Demographic details

1. What is your age?

15-24 years [ ]

25-34 years [ ]

35-49 years [ ]

2. Have you delivered before?

Yes [ ]

No [ ]

3. If yes, what is the number of children? _____

4. What is your marital status?

Married [ ]

Single [ ]

Divorce [ ]

Widow [ ]

5. What is the number of your household members?

_____

Section B: Socio cultural characteristics

6. What is your education level?

Primary [ ]
Secondary [ ]
Tertiary [ ]
None [ ]

7. If married what is your husband's education level?

Primary [ ]
Secondary [ ]
Tertiary [ ]
None [ ]

8. Who made decision regarding the place of delivering your previous baby?

Self [ ]
Husband [ ]
Mother in law [ ]
Other (specify) _____

Section C: Economic details

9. What is your occupation?

Civil servant [ ]
Farmer [ ]
Trader [ ]
House wife [ ]
Other (specify)_____

10. What is the level of monthly household income?

5,000-10,000	[ ]
11,000-20,000	[ ]
21,000-30,000	[ ]
>30,000	[ ]

11. What is the means of transport used to access a health facility?

On foot	[ ]
Motorbike	[ ]
Private	[ ]
Public	[ ]

12. How much does it cost you to access the nearest health facility? _____

13. In your opinion, is it affordable? Explain_____

_____

Section D: Antenatal Attendance

15. Did you attend ANC clinic during your previous pregnancy?

Yes	[ ]
No	[ ]

16. If yes where you accompanied to the clinic?

Yes	[ ]
No	[ ]

17. Who is the person who accompanied you during the ANC clinic visits?

_____

18. Which one of the following was your place of delivering your previous baby?

Health facility	[ ]
Home	[ ]
TBA	[ ]

If Home or TBA what were your reasons?

Cost of hospital bill	[ ]
Unfriendly attitude of health care workers	[ ]
Unexpected labour	[ ]
Distance of health care centre	[ ]
Failure to attend ANC	[ ]
No reason	[ ]

Thank you for your participation

Appendix 4: Focus Group Discussion for Women Groups

Questions

1. In your opinion, where do women generally give birth and why?
2. Why do pregnant women still prefer to deliver at home or at TBA's and there is free maternity services offered at health facilities?
3. In your opinion, does the age of a woman determine where she will deliver her baby? If so, Give reasons?
4. Does education play a major role regarding the choice of place of delivery in this community?
5. Who are the key decision makers in your families and do you think they always make the correct decision concerning place of delivery?
6. What are the benefits of giving birth at a health facility?
7. What are the dangers of home delivery?
8. What types of problems do women have during and after birth?
9. Is there any outreach programmes by health workers to the community members on maternal health?
10. Does the level of monthly income influence the decision that women make on the place of delivery?

Appendix 5: Table 1 Determing Sample Size

	Confidence= 95%				Confidence=99%			
Population size	**Margin error**				**Margin error**			
	5.0%	3.5%	2.5%	1.0%	5.0%	3.5%	2.5%	1.0%
10	10	10	10	10	10	10	10	10
20	19	20	20	20	19	20	20	20
30	28	29	29	30	29	29	30	30
50	44	47	48	50	47	48	49	50
75	63	69	72	75	67	71	73	75
100	80	89	94	99	87	93	96	99
150	108	126	137	148	122	135	142	149
200	132	160	177	196	154	174	186	198
250	152	190	215	244	182	211	229	246
300	169	217	251	291	207	246	270	295
400	196	265	318	384	250	309	348	391
500	217	306	377	475	285	365	421	485
600	234	340	432	565	315	416	490	579
700	248	370	481	653	341	462	554	672
800	260	396	526	739	363	503	615	763
1000	278	440	606	906	399	575	727	943
1200	291	474	674	1067	427	636	827	1119
1500	306	515	759	1297	460	712	959	1376
2000	322	563	869	1655	498	808	1141	1785
2500	333	597	952	1984	524	879	1288	2173
3500	346	641	1068	2565	558	977	1510	2890
5000	357	678	1176	3288	586	1066	1734	3842
7500	365	710	1275	4211	610	1147	1960	5165
10000	370	727	1332	4899	622	1193	2098	6239
25000	378	760	1448	6939	646	1285	2399	9972
50000	381	772	1491	8056	655	1318	2520	12455
75000	382	776	1506	8514	658	1330	2563	13583
100000	383	778	1513	8762	659	1336	2585	14227
250000	384	782	1527	9248	662	1347	2626	15555
500000	384	783	1532	9423	663	1350	2640	16055
1000000	384	783	1534	9512	663	1352	2647	16317
2500000	384	784	1536	9567	663	1353	2651	16478
10000000	384	784	1536	9594	663	1354	2653	16560
100000000	384	784	1537	9603	663	1354	2654	16584
300000000	384	784	1537	9603	663	1354	2654	16586

Source: The Research Advisers (2006)