

**FACTORS AFFECTING UTILIZATION OF POSTPARTUM CARE SERVICES BY
SOMALI MOTHERS IN KISENYI HEALTH CENTER IV**

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2012-BNS-FT-031

**AN UNDERGRADUATE RESEARCH REPORT SUBMITTED TO THE SCHOOL
OF NURSING IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR
THE AWARD OF A BACHELOR'S DEGREE IN NURSING SCIENCE OF
INTERNATIONAL HEALTH SCIENCES UNIVERSITY**

NOVEMBER 2016

DECLARATION

I hereby declare that to the best of my knowledge, this is my own original research work and has never been submitted for a reward of degree or any qualification to any University or institution.

MAYMUN BASHIR MOHAMUD

Sign.....

Date.....

APPROVAL

This research work has been supervised and approved by;

MRS. WAFULA ELIZABETH

Signature.....

Date.....

DEDICATION

I would like to dedicate this research to my family members especially my father Mr. Bashir Mohamud who always supported me financially and emotionally for my advancement in studies.

ACKNOWLEDGEMENT

I thank the Almighty Allah most gracious most merciful for making me achieve my goal.

I owe gratitude to my supervisor Mrs. Wafula Elizabeth, for her contributions which enabled me to complete this research.

I also acknowledge International Health Sciences University for providing me with an academic atmosphere that enabled me to reach where I am.

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OPERATIONAL DEFINITIONS

- Health : This is the complete physical, mental, and social wellbeing and not merely the absence of disease or infirmity.
- Antenatal care : This is the care received during pregnancy from skilled health personnel.
- Postnatal care : This is the care given to the mother and her newborn baby by skilled health personnel after giving birth.
- Utilization of ANC : This is the uptake of antenatal care services by the pregnant mothers.

LIST OF ACRONYMS

MOH	:	Ministry of Health
WHO	:	World Health Organization
HC IV	:	Health center four
ANC	:	Antenatal care
PNC	:	Postnatal Care
MM	:	Maternal Mortality
MMR	:	Maternal mortality ratio
MCH	:	Maternal and child health
UNICEF	:	United Nations International Children's Emergency Fund
MDG	:	Millennium Development Goal
DHS	:	Demographic and Health Survey
SMI	:	Safe Motherhood Initiative
UBOS	:	Uganda bureau of Statistics

ABSTRACT

Introduction

The purpose of this study was based on determining the factors affecting utilization of postpartum care services by somali mothers in Kisenyi Health Center IV. To determine the factors, the study thus further focussed on the specific objectives of assessing the socio-demographic factors affecting utilization of postpartum care services, identifying the Health facility related factors affecting utilization of postpartum care services and determining the individual factors affecting utilization of postpartum care services.

Methodology

A descriptive cross sectional study design was used. A total of 296 Somali women were selected and analyzed. Self administered questionnaires were used to collect the data. The data was analyzed using Statistical Package for the Social Sciences (SPSS) version 20 software to obtain the uni-variate and Bi-variate analysis of results.

Results

Findings generated by the descriptive analysis of the total 296 respondents revealed that the socio-demographic factors of level of education ($X^2=15.88$, $P=0.002$) and occupation ($X^2=14.68$, $P=0.000$) were significantly associated with PNC utilization. Among the personal factors, parity ($X^2=3.46$, $P=0.006$), and use of ANC ($X^2=22.36$, $P=0.012$) were significantly associated with utilization of PNC services. The health facility factors of Place of delivery ($X^2=5.277$, $P=0.000$), distance to the facility ($X^2=4.605$, $P=0.023$), and availability of health workers ($X^2=21.73$, $P=0.000$) were also significantly associated with utilization of PNC services among the Somali mothers.

Conclusion

The level of the utilization of PNC was high at (60.8%). More qualitative and quantitative study is necessary to explore the factors affecting utilization of postpartum care services by somali mothers in Kisenyi Health Center IV with more emphasis on socio-demographic, individual and health facility factors. Thus increasing maternal education, poverty reduction which involves education and empowerment of women by providing them with skills that can assist them make appropriate livelihood can work as strategies to improve postnatal care utilization in Uganda.

Recommendations

The results from this study suggest that public health policies aimed at reducing maternal and newborn morbidities and mortalities in Uganda should include strategies to improve postnatal care utilization through: increasing maternal education, poverty reduction which involves

education and empowerment of women by providing them with skills that can assist them make appropriate livelihood.

CHAPTER ONE

1.0 Introduction

This part of the report presents the introduction, background to the study, statement of the problem, the purpose of the study, objectives, research questions, significance of the study and the conceptual framework.

1.1 Background of the study

The postpartum period is one of the most vulnerable times in a woman's reproductive life cycle. The postnatal period (the time just after delivery and through the first 6 weeks of life) is especially critical for the newborn and the mothers (Erin et al. 2007). In developing countries, an estimated 70% of women do not receive postpartum care and some 60–80% of maternal deaths occur during this time period (WHO 2003). Approximately 45% of maternal deaths occur within the first 24 hours of delivery and another 23% occur during the first seven days. Care during the puerperium receives less attention than antepartum and intrapartum care in many developing countries, even though it is the period during which most maternal mortality occurs (Fauveau et al. 1989, Goodburn et al. 1995).

The period soon after childbirth is critical to the health and survival of the mother and her new-born infant. Yet the postpartum period receives less attention from health care providers than pregnancy and childbirth. Care in the period following birth is critical not only for survival but also to the future of mothers and new-born babies. Major changes occur during this period that determines their well-being and potential for a healthy future (WHO 2013). Postpartum care is the care given to the mother and her newborn baby immediately after the birth and for the first six weeks of life.

Each year, 287,000 women die from complications related to pregnancy and childbirth, and about 99% of these deaths occur in developing countries. The first hours, days and weeks after childbirth are a dangerous time for both the mother and newborn infant. Between 50% and 71% of maternal deaths happen during postpartum period, particularly in the first few hours. This figure has shown great discrepancy between developed and developing countries. Maternal mortality ratio (MMR) in developing regions is 15 times (240/100,000 live births) higher than in developed regions (16/100,000 live births). Sub-Saharan African countries (SSA) had the highest MMR at 500 maternal deaths per 100,000 live births (UNICEF, 2010).

Newborn health and survival is inextricably linked to the health of the mother. Every year, four million infants die within their first month of life, representing nearly 40 percent of all deaths of children below the age of five. Almost all of these newborn deaths occur in developing countries, with the highest number in south Asia and the highest rates in sub-Saharan Africa (Save the children, 2010). In Ethiopia like many other SSA maternal and child mortality are still high. Recent estimates showed that the country still experiences of maternal, neonatal and infant mortality of 767/100,000, 37/1000, 59 per 1000 live births respectively (Ethiopia Demographic and Health Survey, 2011).

Around 80% of maternal deaths worldwide are brought about by direct causes such as hemorrhage, infection, obstructed labor, unsafe abortion, and high blood pressure. Severe obstetric bleeding is a major cause of death in both developing and developed countries. Postpartum bleeding can kill even a healthy woman within two hours, if unattended. Moreover, preterm birth, asphyxia and severe infections contribute to two thirds of all neonatal deaths if not attended to by skilled provider (WHO, 2010). It is important for both the mother and the child not only to treat complications arising from the delivery, but also to provide the women with important information on how to care for themselves and their babies. It is an opportunity for mothers and newborns to establish and maintain contact with a number of maternal and child health (MCH) services and promotes healthy behaviors such as getting proper nutrition during breastfeeding and using family planning. Moreover, early postnatal care is critical to promote healthy household practices such as exclusive breastfeeding that are key to the health and survival of the new born child (WHO, 2010).

The World Health Organization (WHO) stated that the postnatal period begins immediately after the birth of the baby and extends up to six weeks (42 days) after birth. The principal objectives of PNC services are to support the mother and her family in the transition to a new family constellation, early diagnosis and treatment of complications of the mother and infant, refer the mother and infant for specialist care when necessary, counsel on baby care, support breastfeeding, counsel on maternal nutrition, and supplementation if necessary, counsel and provide contraception service, and immunize the infant. With limited resources, contact with the health care system at least during the first twenty four hours and before the end of the first week would be the most effective strategy (WHO, 2010)

Thus, the care starts when the baby is born from whether hospital or at home, and is classified as follows. The immediate postpartum period consists of the first twenty four hours after delivery. The early postpartum lasts from the second day after birth to the end of the first week. The postpartum period continues until six weeks or even six weeks after birth (Osmany et al, 2007).

Reducing child mortality (improving newborn health) and improving maternal health were of the 8 Millennium Development Goals (MDGs) adopted by the international community in 2000, under MDG 4 and MDG 5 respectively (WHO). These goals were to be achieved by the reinforcement of the existing evidence-based interventions in antenatal care (ANC) and postnatal care (PNC) especially ANC services like syphilis screening, tetanus immunization, Tuberculosis (TB) screening, early detection of maternal HIV, prevention of maternal-child transmission of HIV, malaria prevention, early detection & treatment of anemia, and PNC services like identifying and managing danger signs, counseling and provide family planning services and counseling on maternal nutrition during lactation.

Globally Maternal mortality is unacceptably high where every day in 2015 about 830 women died from pregnancy- or childbirth-related complications around the world (Global Health Observatory (GHO)). In developed countries virtually all women and their infants receive postpartum care, though the nature and frequency of this care varies considerably. In developing countries the need for care and support after birth is less well recognized. Despite its importance, this period is generally the most neglected (WHO Technical Consultation on Postpartum Care).

According to Demographic and Health Survey (DHS) data from 23 African countries, two-thirds of women in Sub-Saharan Africa give birth at home, but only 13 percent of all women receive a postnatal visit within two days. Although attendance at ANC is encouraging, worrying gaps exist in provision, and coverage statistics are usually based on women who have only one ANC visit, whereas four visits are recommended, and ANC quality varies. Much less is known about the utilization of PNC, the importance of which has recently been emphasized.

Most maternal deaths occur during labor, delivery or the first 24 hours postpartum, and most intrapartum complications cannot be reliably predicted or prevented, though most can be successfully treated with prompt and appropriate diagnosis and care. The neonatal period is only 28 days but accounts for 38 percent of all deaths in children younger than 5 year. ANC

and PNC have the potential to contribute to reducing maternal and child morbidity and mortality. The World Health Organization (WHO) has been strongly advocating improvements of maternal health services as part of its Safe Motherhood Initiative (SMI). Regular antenatal care has long been viewed as important for identifying a small minority of women who are at increased risk of adverse pregnancy outcomes and for establishing good relations between the women and their health care providers.

In East Africa, statistics pertaining to MM have stagnated or worsened in past decade. Kenya, Uganda and Tanzania currently all have maternal mortality ratios that hover around at least 500 maternal deaths per 100,000 live births per year. Kenya: 560/100,000 live births. This is far from meeting MDG target goals for MM (Alisha Bjerregaard, Center for Reproductive Rights). In Uganda a report by the new vision reporter Anne Mugisa on 10th April 2013 stated that ‘Maternal mortality rates have risen again to 438 from 430 mothers per 100,000 live births instead of dropping further, making the targeted 131 deaths per 100,000 by 2015 a distant dream’. Thus this implies that there is a let-down in the reinforcement or the acquisition of the evidence-based interventions in postpartum care services in Uganda.

1.2 Problem Statement

Much as postnatal services are available in most of the hospitals and health centres in Uganda, each facility operates according to its own regulations, rules and conditions of services depending on the available resources. Mothers who are expected to go for postnatal services at any hospital of their choice vary by age, socio-economic backgrounds or educational levels. However, there is great concern about the small number who turns up for these services. Uganda's targets do not directly address postpartum care as major component of maternal health, yet there is ample evidence to show that postpartum care use is very low. It is reported that only 23 percent of the mothers who had had live births received postpartum care within the critical first two days after delivery; and overall, 74 percent of the women did not receive postpartum care at all (UBOS, 2007).

This study especially concerns Kisenyi Health Centre IV located at Mwanga II road, Kampala, Uganda. The health centre supports the entire population of Kisenyi and the surrounding which is densely populated by the Somalis who have settled in Uganda for decades. Out of all the mothers in this area, only a smaller proportion utilizes the postpartum care services and those few hardly complete the postpartum care period. The facility

estimates that only 18 percent of Somali women who delivery from the Kisenyi Heath Centre IV attend postpartum care at the facility (health facility report and KCCA health department annual report 2015)

This study therefore aims at establishing the major loopholes in the levels of utilisation of the postpartum care services with the vision to improve their utilisation by the mothers.

1.3 Main Objective

To establish the factors affecting utilization of the PNC services by the Somali mothers in Kisenyi Health Centre IV.

1.4 Specific Objectives

- To assess the socio-demographic factors affecting utilization of postpartum care services by the Somali mothers in Kisenyi health centre IV.
- To identify the Health facility related factors affecting utilization of postpartum care services by the Somali mothers in Kisenyi health centre IV.
- To determine the individual factors affecting utilization of postpartum care services by the Somali mothers in Kisenyi health centre IV

1.5 Research questions

- What are the socio-demographic factors affecting utilization of postpartum care services by the Somali mothers in Kisenyi health centre IV?
- What are the Health facility related factors affecting utilization of postpartum care services by the Somali mothers in Kisenyi health centre IV?
- What are the individual factors affecting utilization of postpartum care services by the Somali mothers in Kisenyi health centre IV?

1.6 Significance of the study

This study will generate information that can be used by decision makers to improve the utilization of postpartum care services and consequently increase utilization of postpartum services. The implementation of the findings of this study will lead to change in decisions at individual, family, county and national level. It can be used at policy and operational levels

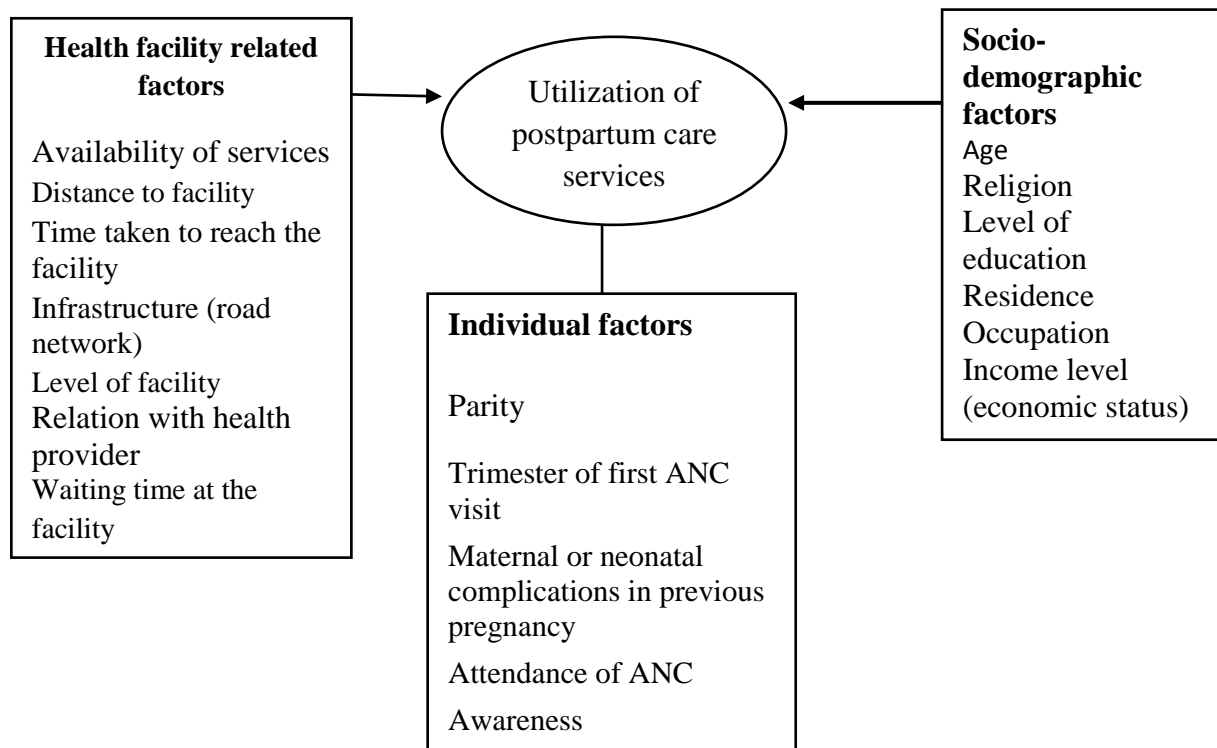
The study will also contribute to the existing literature in Uganda concerning utilization of postpartum services among Somali women in Uganda. This will help to identify the knowledge gaps that will be covered by future researchers for better outcomes.

The study should also be useful source of reference for other researchers and readers in general by providing them more knowledge and literature search.

1.7 Conceptual framework

This conceptual framework contains both the dependent and the independent variables; utilization of the postpartum care services being the dependent variable and the independent variables being factors that affect utilization of postpartum services by mothers such as socio-demographic factors, health facility factors and individual factors. It is conceptualized in a way that the dependent variable is influenced by the independent variables.

Figure 1: Conceptual framework



1.7.1 Narratives

Institutional factors, the institutional factors are essential in achieving utilization of postpartum care. The concept of postpartum care is part of ante-natal care where mothers are taught on postpartum care and the importance its attendance to the mothers and her baby by health care workers. The approach and attitude expressed during the teaching determines to some extent the level of uptake of care. The availability of services also determines whether one will prepare to seek services in that particular facility.

These include factors found within the community that can be social or infrastructural. Infrastructure like road network is essential in having skilled attendance, waiting time, availability of the health workers and the distance of the facility from the resident.

Socio-demographic factors, this includes age, residence, occupation, religion and level of education. An individual or a combination of factors may influence having postpartum care. The level of education may affect decision making while religious affiliation may influence the acceptability of facility services.

Individual factors, Parity, outcome of previous pregnancies and place of birth of the last child may influence uptake of postpartum services.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

Many researches carried out elsewhere have identified factors that affect utilization of postpartum care services. In this chapter, the researcher attempts to review the related literature that has been documented by other researchers in other studies related to factors affecting utilization of postpartum care services among mothers. The information will be obtained from internet, articles and Journals.

2.1 Level of Utilization of Postnatal Services

In a population- based study about ANC and PNC services revealed that the level of ANC and PNC service utilizations is 77.4 % and 37.2% respectively. The predicted probabilities, using logistic regression, showed that women who are literate, have exposure to media, and women with low parity are more likely to use both ANC and PNC services, (Regassa N, 2011). According to (Khanal et.al, 2011), in a study factors associated with the utilization of postnatal care services among the mothers of Nepal , 43.2% reported attending postnatal care within the first six weeks of birth, while 40.9% reported attending immediate postnatal care. Mothers who were from urban areas, from rich families, who were educated, whose partners were educated, who delivered in a health facility, who had attended a four or more antenatal visits, and whose delivery was attended by a skilled attendant were more likely to report attending at least one postnatal care visit. Furthermore, mothers who reported agricultural occupation and whose partners performed the same job as the mothers were less likely to have attended at least one postnatal care visit. Similarly, mothers who were from the urban areas, rich families, educated plus the partners attended four or more antenatal visits, delivered in a health facility and those in presence of a skilled birth attendant were more likely to report attending immediate postnatal care. Mothers who reported agricultural occupation, and whose partners performed same job as the mothers were less likely to attend immediate postnatal care, (Khanal et.al, 2011).

According to the World Health Organization (1998, p. 3), only a small proportion of women indeveloping countries, less than 30%, receive postnatal care. In very poor countries and regions, as few as 5% of women receive such care. For example, according to Dhakal, Chapman, Simkhada, Teiling,Stephen and Raja (2007, p. 7) postnatal care is uncommon in Nepal and where it is available the quality is often poor. The utilisation of postnatal services

is low – only 21% of new mothers receive it. In a demographic health survey conducted in Egypt in 2003 only 42.6% of women in Egypt reported having received postnatal care (UNFPA, 2006).

To illustrate the point, Demographic and Health Surveys (DHS) data from 1990 to 2009 in 38 countries across four regions was split into: 21 countries in sub-Saharan Africa; four countries in North Africa/West Asia/Europe; eight countries in South/Southeast Asia; and five countries in Latin America and the Caribbean. This data set shows the differences in the utilization of postnatal care services. In South Southeast Asia, in four countries (Bangladesh, India, Nepal and Pakistan), up to 72% of mothers who did not give birth at a health facility received postnatal care. Cambodia and the Philippines are no exceptions, with a high proportion of women who did not give the birth at a health facility reporting postnatal care (up to 88% in the Philippines), although these figures do not provide information on the content and providers of services. In three of the four Latin America and Caribbean countries studied (Bolivia, the Dominican Republic and Peru), although more than half of women did not deliver at a healthcare facility, they reported attending postnatal check-ups (Wang et al., 2011). It was found that, 90% or more of women who delivered at a health care facility reported for postnatal check-ups. The results in sub-Saharan Africa were different as it was discovered that very low proportions of women who did not deliver at a health facility had a postnatal check-up, except in Ghana and Madagascar, where little over half of such women had a postnatal check-up during this period (Wang et al., 2011).

A cross-sectional study using a mixed-method approach conducted in Bandarban District in the remote south-eastern part of Bangladesh revealed that 94% of the women did not utilize postnatal care services. From the qualitative results, the non-utilization of postnatal care services among the women was due to large distances to service centres, illiteracy, lack of awareness of health issues and language barriers (Islam and Odland, 2011). Using the 2004 Bangladesh Demographic and Health Survey (BDHS), Rahman(2008) identified different factors affecting postnatal care of mothers in the urban and rural areas. His findings revealed that there is a strong urban-rural differential in the utilization of postnatal care (PNC) among urban and rural mothers. He found that urban illiterate mothers were two times more likely to receive postnatal care from medically trained providers than rural illiterate mothers. On the contrary, receiving PNC from medically trained providers among highly educated mothers was almost same both in the urban and rural area. Using data from the District Level

Household Survey (DLHS-3) conducted in 2007–8, Singh et al., (2008) found that about 44% of the mothers interviewed in the survey received PNC check-up within 48 hours of giving birth and only 45% of the newborns were checked within 24 hours in India. Their findings showed the magnitude of the socio-economic inequalities through the use of PNC services. To illustrate this, Singh found that the use of PNC was three times higher among the rich compared with the poor. The rich were much more likely than the poor to get their babies seen by a healthcare worker within 24 hours of birth. In addition, they were also more likely than the poor to get their newborns examined in a private facility (Singh et al., 2012). A descriptive cross-sectional study looked at 150 rural women in two Village Development Committee areas (VDCs) or 'villages' in the Kathmandu district, Nepal and revealed that the utilization of PNC was 34% within 42 days after delivery and 19% within 48 hours (Dhakal et al., 2007). They concluded that lack of awareness was the main barrier to the utilisation of postnatal care. Another study in Nepal which was a community based cross sectional study conducted from January to February, 2012 among the mothers who were currently having young children aged 6 weeks to 23 months in Kapilvastu district of western Nepal revealed that out of the 223 participants, 25.1% attended any PNC, 13.5% attended early PNC (within 24 hours of delivery) and 19.3% sought PNC service from healthcare workers (Paudel et al., 2013).

A nationally representative sample of 10,023 women was studied using data from the 2006-7 Pakistan Demographic and Health Survey (PDHS) showed that only 24% of mothers received a PNC check-up within six weeks after delivery from their last pregnancy in the same year. This study found that women in Pakistan do not usually attend an institutionalised medical facility for routine PNC consultations, except for serious cases or potentially fatal complications that compels them to go to a hospital (Bibi et al.,2012). The 2006-7 Pakistan Demographic and Health Survey (PDHS), concluded that utilization is still low and socio-economic status remains a major determinant of postnatal care utilization (Yunus et al.,2013). An analytic study using the 2002-3 Indonesia Demographic and Health Survey with a sample size of 15,553 live-born infants revealed that 67% of the infants born within the period received postnatal care and 94% received it in the first week of life (Titaley, Dibley and Roberts, 2009). Hence, in Indonesia, infants who received postnatal care within the first 40 days of life had a significantly lower risk of dying than infants who never received postnatal care services (Titaley et al.,2009) There is also a large gap that exists in postnatal care across 23 African countries. As few as 13% of mothers and infants received postnatal care within

two days of delivery (Warren et al, 2006). Even with a combination of women who delivered in health facility and women who did not, the utilization of PNC was still low in sub-Saharan Africa. This point is supported by the statistics from Uganda (74.1%), Nigeria (55.2%), Zambia (49.8%), Zimbabwe (44.8%) and Ghana (22.5%) (Wang et al.,2011).

A study in Ethiopia revealed that PNC services were low at 37.2%. Using a combination of simple random and multistage sampling techniques, they found that mothers who were educated, exposed to media and women with low parity were more likely to use PNC services (Regassa, 2011). Only 23% of mothers who gave birth outside a health facility received a first postnatal check within the first two days of birth and more than 70% of mothers who gave birth at home did not see any health care provider during the postnatal period (NDHS, 2003). More than one-third of women (38%) received a postnatal check-up within two days of delivery. However, 56% of women did not receive any postnatal care within 41 days of delivery (NDHS, 2008). A study in Nigeria using Data from the 2005 National HIV/AIDS and Reproductive Health Survey found out that at the level of the individual, education, age at the birth of the last child, ethnicity, approval of family planning and family size ideals were the strongest predictors of postnatal care (Babalola and Fatusi, 2009). Another study in Nigeria which aimed at identifying community contextual factors influencing the decisions to seek postnatal care revealed that women from communities with a high level of education were more likely to deliver their baby in a hospital. In the same study, regional variations were observed as women from South West region were 1.3 times more likely to seek postnatal care than those from North-West (Ononokpono et al., 2012).

In a study conducted by Hailerman et al. 2012, titled utilization and associated factors of postnatal care in Adwa Town, Tigray, Ethiopia, showed that 264 (78.3%) mothers had attended postnatal care service while 73 (21.7%) hadn't attended postnatal care. About 265 (78.6%) of the mothers attended ANC service. From those who had attended ANC service 50.7% had attended 4 times and above. Self employed mothers were 9.1 times more likely to have had postnatal care than women who hadn't any job. The utilization of postnatal services in Adwa town is good as compared to other developing countries. According to (Twaha et al ,2007), Uganda has poor indicators of reproductive health (RH) services uptake; 10% postnatal care attendance, 23% contraceptive prevalence, and 38% skilled attendance at delivery. For antenatal attendance, attendance to one visit is 90%.

2.2 Socio-demographic factors

There are several factors that promote the utilisation of PNC, which includes the mother's age, educational level, increased income, male involvement in reproductive health, place of delivery, and attendance of antenatal care. The mother's age may sometimes have a positive influence on PNC services because older women have increased reasoning capacity (Chakraborty et al, 2002; Jonazi, 2008). The *Malawi multiple indicator cluster survey*(MICS) report of 2006 (NSO and UNICEF, 2008) reported that education of mothers plays a major role in determining attendance for postnatal PNC. It was reported that women with secondary education or higher are more likely to go for PNC within 42 days after delivery (54.0%), compared to women with no education (29.0%). Women who are working have better financial status and ability to access postnatal services since they are empowered to make decisions on when to go for PNC (Dhakal et al, 2007; Chakraborty et al, 2002; Nankwanga, 2004; Mullany et al, 2006). A study carried out in urban Nepal by Mullany et al (2006), discovered that male involvement in reproductive health decisions and practice, especially during antenatal health education, and increased postpartum care utilisation among women.

A study conducted at Mabuku district hospital and Research Urban clinic in Zambia by Jacobs and ChoolwaNkwemu, (2012), about factors associated with underutilization of PNC services among postpartum women, found out inadequate information education and communication, some traditional beliefs and cultural practices of mothers, poor attitudes of nurses towards the health services were associated with underutilization of PNC services in Mabuku district. Other factors included; age of mothers, level of education, parity and social economic status were contributing factors to underutilization of PNC services in the district. Low levels of education of mothers, lack of knowledge of pregnancy –related complications, distance from health facility, few ANC checkups, use of untrained birth attendants and births outside health facilities were factors associated with underutilization of PNC services, (Christiana R Titaieyi et al., 2008).

Mengistu and James,(2011), in their study about ANC and PNC services utilization in the Arsi zone of centraEthopia found maternal age, parity, lack of time, marital status, and women's economic status to be significant predictors to utilization of PNC services.

2.2.1 Age

A higher level of maternal and neonatal mortality rates have been observed among mothers who deliver at high and low extremes of maternal age (Stephenson & Tsui, 2002; Reynolds et al.,2006). This implies that women who are very young or very old may have higher levels of

maternal mortality rates. This may be as a consequence of their non-use of postnatal care services. This is particularly true of women under 20 years and those over 40, as they are more prone to complications during pregnancy and childbirth that affects both them and their babies. Although, the age of a mother plays an important role in her utilization of postnatal care services, the direction of relationship is different to what may be expected (Burgard, 2004). It was found, that younger women have more knowledge about modern healthcare services than older women (Stephenson & Tsui, 2002). However, many others studies have found the opposite effect of knowledge, as older women know more and are more likely to use PNC services than younger mothers and add that other factors such as decision making power at the house hold level could play a role in holding the younger women back (Glei, Goldman & Rodriguez, 2003; Burgard, 2004; Reynolds et al., 2006). In Bangladesh one in five women (21%) age 15–49 received a postnatal checkup from a trained health service provider within 42 days of delivery, and 90.0% of checkups were received within the first two days (NIPORT 2007). Of mothers who did not deliver at a facility, only 8% received postnatal care from medically trained provider in 2002 (Winch et al. 2005). Both young men and women (aged 15–24 years) constitute one-third of the total population of Bangladesh (43 /129.2 million) (BBS. 2003). This is an important period, as there exists a rapid growth both physically and mentally. This period is characterized by high risk for early and unwanted sexual activity, forced marriage, and early and later pregnancy related events. The overall (national) maternal mortality rate (MMR) in Bangladesh is 4.5 per 1000 live births, but the MMR among young mothers (15–24 years) is 5.8 per 1000 live births (ICDDR 2003). Because women aged 15–24 years are physiologically and socially immature, health risks associated with their pregnancies and childbearing are more pronounced than are those among older women (James-Traore et al. 2001). Young women face increased risks during pregnancy and childbirth because they have less information and access to prenatal, delivery and postpartum care as compared with older women (Ashford 2001). The high incidence of teenage pregnancies has contributed to high maternal mortality in Bangladesh: among adolescent girls under 18, the maternal mortality rate is three to four times higher than among older women (Uddin 1999). Over half a million women encounter complications due to childbirth annually and many die, almost 40% of women experienced complications after delivery and an estimated 15% of these women develop potentially life-threatening problems (Treffers et al. 2001).

Demographic and Health Survey data from 1985 to 2004 demonstrated that young mothers were less likely than women aged 18–34 years to seek prenatal care from a skilled provider in 18 of 26 countries (Alfredo & Mktma, 2006).

2.2.2 Education

Research in developing countries has consistently shown that there is strong relationship between education and the utilization of postnatal care. It has been consistently established by several studies that education affects utilization of postnatal care services, concluding that better educated mothers are more likely to utilize postnatal care services (Dhakal et al., 2007; Rahman et al., 2011; Neupane & Doku, 2013). Other studies in Nigeria have also documented the positive impact of high maternal educational attainment on utilization of postnatal care services in Nigeria (Ononokpono, 2012; Ugboaja et al., 2013). However, there is also evidence indicating that education alone may not be sufficient to improve health-care-seeking behaviour of women. For instance, Kyomuhendo (2003) found that despite a favourable and enabling policy environment, universal primary education and decentralization of health services, there has not been an increase in utilization of health care services by women in Uganda. He explained that this may be because women's care-seeking behaviour was not the result of individual preferences, educational attainment or choice but conditioned by other factors such as community poverty, norms and tradition.

The client's level of education could also influence pregnant women's utilization of the health facilities as well as the understanding of the importance of seeking health care promptly. Low educational status has been identified as a major barrier to the utilization of health care services especially after birth. These women could easily be persuaded by their grandmothers or TBA's not to attend ANC and to deliver their babies at home. (Mottew 1997, cited by Mathole, 2005). Lack of education can also negatively affect the women's comprehension of important information and the ability to make informed decisions including the awareness of their own rights (Matua 2004; Irinoye et al., 2001) These findings imply that pregnant adolescents who may have attained only low level education may not value utilizing PNC services. High educational levels of both husband and wife have been observed to promote positive health seeking behaviors according to Mulholland, Alibarnho, Brew-Graves and Monreal-Pinland (1999) as well as (2004). In Kausani, Kano State, Nigeria, according to Adamu and Salihu (2002), most women deliver at home and a few receive ANC. Elo (1992); Nwakoby (1994); Toan et al., (1996); and Navaneetham & Dharmalingam (2002) carried out survey studies to determine the factors affecting utilisation of maternal health

services respectively in southern India, (southeast Asian), Enugu (rural Nigeria) and Peru district. The findings from these studies agree with some of the findings from Kogan and Leary (1990) & Okafor (1991). The findings from these studies showed that maternal education, lack of access to care, parity, occupation of the mother, religion, occupation of the husband, marital status and previous use of a physician were the most common factors that affected the utilisation of maternal health services. The results also revealed that utilisation of maternal healthcare services was not only associated with a range of factors such as SES, culture and organisational factors as has been revealed by several studies as indicated in the literature, but also included factors such as the state and the type of healthcare services delivered. The interstate differences in the utilisation were thought to have been partly due to variations in implementation of maternal health programme, as well as differences in availability and accessibility of the services in the states. In order to improve on the utilisation of the maternal health services, Okafor (1991) study recommended the introduction of a female literacy program especially in the rural areas of Nigeria to help to educate the women.

2.2.3 Marital Status

The marital status of a mother highlights the difficulty she may face as she might have to rely on her husband to secure access to medical treatment, financially and practically (Rahman, 2000). For instance, she may require her husband's support or permission if she has to travel a long distance for medical consultation. A study focusing on rural Ethiopia found that married women were more likely to use antenatal care than their unmarried counterparts but found no difference in the use of postnatal care services among the two groups (Mekonnen & Mekonnen, 2002).

2.2.4 Occupation

It has been found that employment increases awareness and provides new ideas, behaviour and opportunities through interaction with other people outside the home and community (Riley, 1997). It is assumed that women who are employed will have enough finance to pay for postnatal services which may translate into high decision making power in the home but some researchers have argued that the type of employment a woman is involved in determines her use of these services (Miles-Doan, Brewster, 1998). This has led to mixed results from studies which have aimed to determine the effect of work status on the utilization postnatal care services. Some studies have found that formally women are more likely to

utilize postnatal care services (Kishor&Neitzel, 1997), due to their capacity to be more empowered. Other studies have shown that women employed in the agricultural sector are less likely to utilize postnatal care services (Obermeyer and Potter, 1991 and Addai, 2000). A reason for this could be because majority of mothers who are into agricultural services reside in the rural areas and may only seek modern postnatal care services after they have exhausted resources and expertise in their communities (Addai, 2000). Furuta&Salway (2006), report that women's employment does not translate directly into greater use of maternal healthcare in Nepal. It was found that Nepalese women who work but have no control over the use of their earnings were least likely to receive maternal healthcare. This may be because most of the women who work are from poor households and work for family survival. Hence, working women were no more likely to receive maternal healthcare than women who did not work, even after controlling for socioeconomic status and place of residence. Even though the answer is not clear, working women perhaps experience time constraint that reduces their opportunities for receiving health care (Furuta&Salway, 2006).

2.2.5 Place of Residence

Women residing in rural areas are less likely to utilize postnatal care services than their urban counterparts. This statement is consistent with findings in Ethiopia by Mekonnen & Mekonnen, (2002). Other researchers have explained that urban women have many advantages over their rural counterparts which may influence their postnatal care use. These advantages include; higher levels of knowledge, access to services and health care promotion programs that use urban-focused mass media (Ezeonwu, 2011; Koblinsky et al., 2006; Singh et al., 2011).

2.2.6 Religion

Commonly held beliefs and norms in form of religious practices shape the way women perceive their own health and their response to the health services available. Religion has an important role in the utilization of postnatal care services. Religion helps in shaping beliefs, norms and values (Stephenson et al., 2006). These values or beliefs that women hold may prevent women from utilizing postnatal care services. Religious belief has been found to be a push factor or source of exclusion from maternal health care utilization in India and Africa (Stephenson et al., 2006; Ochako et al., 2011; Rahman et al., 2011). Using logistic regression to adjust for confounding factors, a cross-sectional study conducted in a peri-urban town in Zimbabwe revealed that religion (apostolic faith) was associated with non-utilization of

postnatal care services, because the women believed in faith healing and prefer traditional midwives. It has also been found that non-Catholic women were less likely to use maternal healthcare in Ghana, whilst Catholic women were less likely to utilize maternal healthcare in Kenya when compared to Protestants (Stephenson et al., 2006). This shows that religious affiliation is strong as it is usually a community head belief (Muchabaiwa et al., 2012).

Wealth Status in Nigeria, the lack of finance emerged as the major issue among women who did not fulfill the minimum requirements of four antenatal care services or two postnatal care services within the first month after delivery. This was related to the cost of health services, transportation costs, or both. Also, the limited availability of health services in remote areas was a problem, especially if the village midwife frequently travelled out of the village. In addition to the long distances away from health facilities, the poor condition of the roads was a major concern for pregnant mothers or mothers who had just given birth, particularly for those living in remote areas. Economic status has been consistently shown to have a positive association with utilization of health care service and postnatal care is no exception (Fosu, 1994, Elo, 1992). This is as a result of the high cost of getting to care in sub-Saharan Africa which may include transportation and medications. Women who are poor may not be able to afford these costs and this may discourage them from the use of these services. Thus the non-utilization of postnatal care services among poor households could be due to the low priority assigned to health seeking when compared to other basic daily needs or to the lack of resources for health care expenses, whereas households with funds available could spend a proportion of their earnings on health care (Muldoon et al., 2011). Poor young women are often found to be uneducated, unemployed, and detached/excluded from social networks; thus they are less easily reached by programs that rely on mass media for the diffusion of information regarding the utilization of existing health services (Singh, Rai, & Singh, 2012; Rani & Lule, 2004).

Generally, we found that the determinants of postnatal care non-utilization are not uniform across regions and countries. Despite the several studies that have contributed to the utilization of postnatal care services, there are a few studies that have failed to identify the factors that influence their non-utilization at the national level. The implication of this is that the women who need to be targeted with interventions have been missed and this would delay the achievement of the MDG5. Also, the few studies (Osubor et al., 2006; Babalola & Fatusi, 2009; Rai et al., 2012; Ugboaja, 2013) that exist on postnatal care in Nigeria have focused on

local geographical levels which limits their validity as it cannot be applied to the whole of Nigeria. It is this gap that this study will focus on addressing by using a national database to inform healthcare policy and interventions.

2.3 Individual factors

2.3.1 Parity

Similarly Mwaniki et al. (2002) conducted a cross sectional descriptive study on a sample of 200 mothers to determine the utilization of postpartum care services and maternity service in four rural health centers in Mbeere district, Kenya. The findings of the study revealed that utilization of health facilities was significantly influenced by of children a woman had. The more the number of children a woman had, the less likely she used the services.

2.3.2 Birth Order

Birth order is an important predictor in explaining the utilization of postnatal care services. Due to the uncertainty and the perception of risk associated with first pregnancies, women are more likely to seek medical attention for first-order births than for subsequent ones. For instance, in Malawi, adolescent women with a high order of birth (birth order 2/3) had lower probability in utilizing postnatal services compared to adolescent women with a first birth order (1) (Singh et al., 2013). This finding correlates with the observation made by studies conducted in Nigeria (Rai, Singh, & Singh, 2012) and Turkey (Celik & Hotchkiss, 2000). This study showed that women are significantly more likely to use maternal healthcare services for their first child. Another reason could be because women are more cautious toward health risks with their first pregnancy are more cautious toward health risks (Raj et al., 2009). However, with each preceding pregnancy, women may tend to believe that modern health care is not necessary and rely more on past experiences provided that they have not had any bad experiences (Mekonnen & Mekonnen, 2002). There is evidence that a higher birth order suggests a greater family size and hence fewer resources are available to access PNC services (Bhatia & Cleland, 1995).

2.3.3 Pregnancy-wantedness

Unwanted fertility increases the probability of under-utilization of maternity healthcare (Gage, 1998). In a cross-sectional study in Namibia and Kenya, It was concluded that unwanted pregnancy and poor timing of pregnancy was associated with low utilization of ANC (Gage, 1998). A study using data from California Maternal and Infant Health

Assessment sought to understand the link between pregnancy-wantedness and postnatal care seeking behaviours. They concluded that women who were happy with their pregnancy were significantly more likely to seek postnatal care-taking services (Libet, 2003). There are results from Indonesia that showed that the opposite can happen. In Indonesia, mothers that intended to become pregnant were actually more likely not to utilize postnatal care services (Titaley, 2009). The reason for this in Indonesia could be as a result of maternal education or household wealth index.

2.3.4 Antenatal Care

Use of antenatal care services has been found to be associated with the use of postnatal care. The utilization of antenatal care services usually ensures the use of skilled medical attendants at birth and postnatal care (Lincetto, 2006). The report from the 2008 NDHS showed that about 55% of the women in Nigeria had less than four antenatal visits and only 16% had their first antenatal visit during the first trimester of the pregnancy. This could result in low use of PNC services in the country. A study in Uttarakhand, India found a positive association between use of antenatal care services and the utilization of postnatal care. They found that women who received partial and full antenatal care were 1.7 and 2.9 times respectively more likely to go for postnatal checkup than women who received no antenatal care (Chimankar and Sahoo, 2011). A study in rural Tanzania also concluded that use of antenatal care promotes the utilization of PNC services (Magoma, 2013). A study focusing on adolescents in Malawi observed that the utilization of postnatal care services by adolescent mothers was significantly influenced by the (at least four) antenatal care visits (Singh et al., 2013). In addition, a study in Nigeria concluded that urban women who received antenatal care in South Eastern Nigeria were more significantly more likely to utilize postnatal care services (Ugboaja, 2013). The association between antenatal care and postnatal care may be partly explained by the existence of contextual factors that affect both phenomena simultaneously (Sepehri et al., 2008; Stephenson et al., 2006) but it has also been documented that women may utilize ANC services and ignore PNC services as they may just want to know the status of the health of the child at that time (Amooti-Kaguna&Nuwaha, 2000). Antenatal care utilization could improve women's awareness and knowledge on the importance and the availability of postnatal care services, which can motivate them to utilize postnatal care services (York, et al., 2000). This link between the two should encourage concentrated efforts by policymakers to motivate mothers in Nigeria to utilize antenatal services and ultimately to use the PNC services.

Kogan & Leary (1990) carried out a study to determine the variables that were associated with returning for postnatal services on a sample of 13,921 registered women. The study identified SES, level of education, parity, age, language, marital status and adequacy of prenatal services as the variables associated with postnatal service utilization. The study found that the more number of children a woman had, the less likely that she returned for postnatal services. Eighty-two percent of the women with first births returned, 77 percent of those with second or third births and only 70 percent of those with fourth or subsequent births did return for postnatal services. This is probably explained by the experience, knowledge and confidence gained as one produces more and more children. The study also found that the higher the level of education of a mother, the greater the likelihood of returning for postnatal services after delivery. Strategies such as reaching the women as early as possible in their pregnancies, ensuring continuous care and elimination of financial barriers were recommended to increase the chances of women to return for postnatal services. Among other strategies, education of women, follow-up to ensure comprehension, media use and outreach campaigns through religious leaders, business and broad based groups were recommended to help women to access healthcare.

2.3.5 Awareness

According to study conducted at Mulago and Mengo hospitals in Kampala Uganda by (Nankwanga Annet, 2004), lack of awareness about PNC services, level of education, unemployment, lack of decision making power by mothers, distance from the healthcare facility, transport cost and lack of time to go back for the services were found to influence the utilization of PNC services at these hospitals.

Lack of knowledge about the dangers of not seeking health care in pregnancy and delivery were major barriers to seeking health care among pregnant women in Uganda (Matua 2004). Behavior is expected to change if pregnant women are aware of the implications of not attending ANC and if they are convinced of the benefits of practicing preventive care. Perceived benefits of utilizing ANC services provide a platform for interacting with the pregnant women, identifying needs or problems and jointly arriving at possible solutions to these needs. The pregnant women need to know the benefits of attending PNC as well as the implications of not attending PNC.

Lack of knowledge about the PNC services could be a major barrier to women's utilization of postpartum services. Due to lack of knowledge pregnant women are likely to have limited knowledge and experiences in seeking health care. Matua (2004) and Jewkes et al (1998)

cited lack of adequate knowledge and information about pregnancy, laboratory tests results and dangers of late bookings or not attending ANC at all, as contributors to the poor utilization of PNC services.

It is essential for health workers to provide information to women about PNC services as in regards to what it is, why it is important and the services offered. Full information regarding PNC will enable women to make informed decisions about utilizing the MCH services. The Adelaide conference in Australia on public health policy for the promotion of women's health, recommended that, women should have access to information network and funds to enable them to effectively participate in issues concerning their health. All women have the right to self-determination about their health and should be partners in the formulation of public health policy so that it is culturally relevant and acceptable (WHO, 1991) Sulochana et al. (2007), in their study titled utilization of postnatal care among rural women in Nepal revealed that, out of the 150 women who had delivered, 66% had no knowledge or were not aware of postnatal services and this did not make use of the services which could have helped improve on their health. Only 34% of the mothers had knowledge or aware and thus made use of the facility. Findings from the study conducted at Mengo and Mulago hospitals in Uganda, (Nankwanga,2004), showed that most women lacked awareness about postnatal services and those who knew about these services only knew about immunization and family planning services. The majority of the mothers did not know about other services, such as physiotherapy, counseling, growth monitoring, and physical examination.

Lack of awareness is an important factor underlying maternal healthcare utilization. This is because women and their families lack understanding of the danger signs or gravity of the condition, or because they do not know where to go to seek help. Lack of information affects women's capabilities to make their own decisions about seeking healthcare and constrains their ability to exercise their reproductive rights as well. Ladfors et al. (2001) argued that informed consent (i.e. the process by which a fully informed woman can participate in decisions about her healthcare) is mandatory. The authors further contended that the procedure requires women to have knowledge and that the healthcare provider should inform the women in an appropriate way so that the women can understand why they need to use the services. This denotes that it is imperative for women to be knowledgeable of postnatal services in order for them to utilize the services.

Several studies have investigated mothers' knowledge about antenatal and postnatal services with varying results. For instance, Soltani et al. (1999) conducted a study to evaluate mothers' knowledge about preventive care in Tunisia. The results indicated that a large number of women, (95%), knew the importance of antenatal examination but 5% did not know. The study did not report on the extent of the availability and utilization of antenatal services. Earlier, Collinson and Cowley (1998) conducted a study to identify the reasons why women access health services. They questioned the women about their perceptions of the value of services and how they thought the services could be improved. The findings indicated that clients' knowledge was related to utilization of the services. The extent to which the service meets expectations of clients appeared to influence the value which women placed on health visits and the subsequent use of services. But much earlier, in Pakistan, Agrawal et al. (1994) had conducted a study to assess the delivery patterns of maternal and child health services at Varanasi in Uttar Pradesh. The findings indicated that 26.2% of the beneficiaries knew about maternal and child health centres and 25% had used them. That study indicates that probably all the beneficiaries who knew about health services used them. Livingstone (1990) posited some objectives for carrying out postnatal physiotherapy. They include: assisting the physical recovery of the mother following pregnancy and the child birth process; addressing any specific individual needs relating to the physical changes in the postnatal period; helping the mother adjust emotionally to her new role; and preventing after birth complication such as muscle imbalances. However, the mothers need to know supporting reasons why they should attend postnatal physiotherapy services in order for them to appreciate the services.

2.4 Health facility related factors

This may be measured by distance, travel time, means of transportation and any other physical barriers that could keep the client from receiving ANC and PNC services. Nearly 80% of rural women live in more than 5km from the nearest hospital. Long distances to health services are often seen impact health service utilization (Ikamari, 2004).

It is cited in several studies as a reason why women deliver at home rather than at a health facility (Amooti&Nuwaha 2000, and parkhurst&Ssengooba, 2005).the impact of distance across income groups is believed to be different with the poor usually having inferior transport and distance on its own may not impact on use of health service. Parkhurst and Ssengoba (2005) found that some women can travel to the most popular health facilities or those regarded to be of better quality irrespective of the distance.

Similarly Mwaniki et al. (2002) conducted a cross sectional descriptive study on a sample of 200 mothers to determine the utilization of postpartum care services and maternity service in four rural health centers in Mbeere district, Kenya. The findings of the study revealed that utilization of health facilities was significantly influenced by the distance to the health facilities. In addition the mothers who were living in a distance less than 5 kilometers to the health facilities utilized the services better than those who lived in a distance 5 kilometers away and beyond. Other reasons for not utilizing the services, which were mentioned in the study include, lack of satisfaction with the quality of the services, lack of cleanliness in the health facilities, poor quality of catering services, lack of money for transport and hospital fee.

Dhakal et al (2007) reported that place of delivery influenced utilisation of PNC like private hospitals, which offer individualised care to clients and inform them on danger signs for their own and the babies before discharge. Several studies have found a strong association between attendance of antenatal care and utilisation of PNC (Nankwanga, 2004; Dhakal et al, 2007; Iqbal Anwar et al, 2004). The authors reported that the level of prenatal care is indicative of levels of PNC women seek for themselves and their children in the first year after delivery. Lack of awareness of PNC among mothers, distance and lack of transport are some important factor contributing to low utilisation of PNC (Nabukera et al, 2006; Nankwanga, 2004; Jonazi, 2008; Lagro et al, 2006; Dhakal et al, 2007). In addition, the authors reported that lack of knowledge affects women's capabilities to make their own decisions about seeking health care and constrains their ability to exercise their reproductive rights as well. Abu-El-Haija et al (2005) conducted a cross-sectional study in two semi-urban areas in northern Jordan where they investigated the pattern and determinants of PNC utilisation. Results showed that utilisation of PNC was positively related to home delivery, delivery by a traditional birth attendant, advice to women by provider to seek PNC, and presence of postnatal health problems. Studies done by Dhakal et al (2007), Nankwanga (2004), Bryant et al (2006), El-Gilany and Hammad (2008), Titaley et al (2009), Moore et al (2002), and Mrisho et al (2009) contended that many women do not utilise PNC because of poor roads, lack of bridges, poor communication, poverty, or lack of money.

2.4.1 Accessibility

Access here implies all the factors that will directly restrict the utilization of the health facilities and these include geographical ,economical socio-cultural organization have

identified the importance of the characteristics of health services such as well as the quality of care in influencing decision of seeking care (Nirula BB1994) however since health care is a consistent choice of individuals, the factors that change women's perception of the available services and their motivations of seeking care need to be understand properly.

According to Chaibva C. N., (2008), a woman's age might influence her decision to initiate ANC late or not to attend ANC at all. She claimed that pregnant adolescents might tend to hide their pregnancies because they might be unmarried, attending school, afraid of or prejudicial against health care providers or they might be simply too young and ignorant to appreciate the value of ANC (Chaibva C. N., 2008). Antenatal care services should be accessible to all pregnant women irrespective of social status, age, race or level of education and HIV status, and should provide an environment of trust and confidentiality (Kluge, 2006).

According to Kathyryn (1997) and Llongo (2004), the following factors contribute to perceived inaccessibility of ANC services.

- Stigma and beliefs about social rejection
- Lack of confidentiality
- Cultural beliefs and perceptions about ANC
- Expensive health care services
- Previous health care experiences

The distance to health facility is either a push or pull factor that also plays an important role in utilization of postnatal care services. It makes sense that healthcare personnel and facilities must be easily accessible to where patients, in this case, mothers live and work. This enables mothers to have the means and knowledge of getting to those services which encourages the utilization of these vital medical services. The ease of access to postnatal care services may be facilitated or hindered by the location and physical distance of the service from the client. In other words, the effectiveness of the PNC service, through its utilization may be hindered by the lack of access or the other way round. Distance may impede or enhance utilization of a healthcare service. A number of studies in developing countries have documented strong evidence that the physical proximity of health care service can play an important role in the utilization of health services (Buor, 2003 and Feikin et al., 2009). In contrast, in a developing country like Nepal, a study found that access which was measured by: visiting health care worker, when mothers listened to the radio broadcasts and were exposed to information via the mass media found that there is a positive association between accessibility and postnatal

care utilization (Sharma, Sawangdee&Sirirassamee, 2007). The cost of services which could be transport or drugs can reduce women's use of postnatal care services. From economics, price is negatively related to demand.

Several studies that investigated the common barriers to utilization of healthcare services have shown barriers such as: lack of finance (Kalmuss&Fennely, 1990); knowledge (Soltani et al., 1999); Social-economic status (Dunlop et al., 2000); cultural influences (Sibanda et al., 2001); lack of transport (Kaufmann, 2002); lack of access to health services (Chakraborty et al., 2002) among others. Chakraborty et al. (2002) examined factors associated with the utilization of healthcare services during the postnatal period in Bangladesh and found that the mother's age at marriage and the husband's occupation positively affect healthcare utilization and the number of pregnancies and desired pregnancies were significantly associated with the utilization of postnatal healthcare. Some of the results were, however, inconclusive on maternal education, antenatal visits, and access to health facilities

Hove et al. (1999) conducted a cross-sectional survey in Zimbabwe, to determine the prevalence and associated factors for non-utilization of postnatal services on a convenience sample of mothers of infants aged six weeks to twenty-three. The findings indicated 10.1% prevalence of non-utilization among the respondents. Religion and non-medical birth attendance were found to influence postnatal service utilization. The author recommended more training of the birth attendants on the need for their clients to attend postnatal care clinics. In a cross sectional study conducted in the same country, Sibanda et al. (2001) investigated factors that determine attendance, and use of traditional or cultural practices that relate to postnatal care and found that 60% of the women attended postnatal care. Sibanda and colleagues concluded that postnatal care participation was greater than usually reported. According to Chou et al. (2002) barriers to utilization of healthcare and social services like service accessibility, appointments schedule and continuity of care are not unique to new bearing mothers but are experienced by neurotic patients as well.

Fatmi&Avan (2002) studied the factors affecting utilization of antenatal care services by women from a rural area in Sindh in Pakistan. Their findings pointed out that SES of women was a major determinant of utilization of services. The authors recommended the increase and improvement of SES of women for the utilization of prenatal services to be realized. Kaufmann (2002) reported an analysis of transport to Benedictine hospital, Nongoma,

KwaZulu-Natal in Zululand health district and emphasized its importance for access to health services. Kaufmann linked availability of transport to health service utilization. He further argued that transport consumes a major part of personal budgetary costs. A similar report was made by Gulliford et al. (2001) who found that distance from a service is inversely associated with its utilization.

2.4.2 Place of Delivery

The place where mothers give birth usually indicates whether or not the birth was attended to by skilled birth attendants. More than one half of Nigerian babies die at home. According to the 2008 NDHS, at least 62% of births occur at home, while only 35% take place in a health care facility and there had been no significant increase in facility births over the five years preceding the survey. Health care facility delivery and assistance of delivery by healthcare workers are two of the factors that have been found to be associated with the increased utilization of postnatal care services (Anwar et al., 2008; Mrisho et al., 2009). For instance, a nationally representative study in Nepal found that place of delivery was independently associated with postnatal check-up within 2 months of delivery (Neupane and Doku, 2013). Another study in Nepal which was community-based also discovered that mothers who had delivery assisted by healthcare workers and had their delivery at a health care facility were more likely to utilize early PNC services than their counterparts who did not (Paudel et al., 2013).

2.4.3 Location of facility

Accessing a health service may be facilitated by the location and distance of the facility. If the locality of the facility is near the residence of clients and if there is efficient transport to the health facility may enhance the utilization of health services (Kaufman, 2002).

Myriad studies in Uganda and elsewhere in Sub-Saharan Africa (SSA) have identified physical or geographical access to health care as major factor for women not to seek delivery services from formal hospitals specifically (Kasolo et al.; 2000).

2.4.4 Availability and affordability

Studies in Hoima and Moyo districts of Uganda found that the use of primary health units and referral hospitals access of ANC and PNC including reporting any complications was considered only as a last resort (Onama 2001, kyomuhendo, 2003). Accordingly, some of the reasons for this would be lack of skilled staff at primary health care level, abuses, neglect and

poor treatment in hospitals, poor hygiene in the labor wards, lack of privacy and poorly understood reasons for procedures such as caesarean sections and frequent assessment of labor by several providers which may be in conflict with cultural norms plus health workers views that women were ignorant (Kyomuhendo, 2003). These concerns are further compounded by the limited number of health providers available to pregnant women that have no ability to exercise their choice of which provider they would like to see (Onama).

CHAPTER THREE: RESEARCH METHODOLOGY

3.0 Introduction

This chapter describes the methods that were employed to carry out the study. It highlights the research design, study area, study population, sample size determination and sampling technique, the data collection tools, data management and analysis procedure, as well as steps that were taken to ensure validity and reliability during the study.

3.1 Research design

In this study, the researcher used a cross sectional research design. This research design was selected because it permitted the researcher to analyze the variables under study from one given point in time to another. In addition, the research applied quantitative research approach. Quantitative research design involved the collection of numerical data which gave facts on given study variables.

3.2 Study area

The study area was Kisenyi Health Centre IV located at Mwanga II road Rubaga division, Kampala Uganda. Kisenyi HC IV is one of the Health Centre IV's in Kampala with Kawempe and Kiruddu. It offers surgical, medical and maternal services among other services. The facility receives about 20 Somalis every day.

3.3 Study population

3.3.1 Target population

This consisted of Somali mothers in Kisenyi Health Center IV

3.3.2 Accessible population

All Somali mothers in Kisenyi Health center IV who were available during the period of data collection.

3.3.3 Study population

The target population for this study were the Somali mothers in Kisenyi Health Centre IV. According to the KCCA, about 10 Somali women attend PNC services in Kisenyi Health Centre IV daily that voluntarily consented and met the eligibility criteria below:

3.3.3.1 Inclusion criteria

All Somali women who attended PNC services in Kisenyi HC IV who consented to participate in the study

3.3.3.2 Exclusion criteria

Somali women who attended PNC in Kisenyi Health Centre IV who did not consent to participate in the study

Somali women who attended PNC in Kisenyi Health Centre IV and were very sick

3.4 Sample Size Determination

From the accessible population, the researcher selected a sample size of 296 respondents. This number was derived using Kish and Leslie (1965) for sample size calculation, at 95% level of significance, considering a standard of error (e), of 5% as indicated below;

$$N = \frac{z^2 p (1-p)}{d^2}$$

Where;

N = the number of participants required (sample size).

P = the proportion of the target population estimated to have the characteristic. In this case the percentage was the estimated magnitude of the population who used family planning services estimated at 26%.

$$q = 1-p = 1-0.26 = 0.74$$

Z = the standard normal deviation (1.96) at 95% of confidence.

d = degree of accuracy desired in this case was 0.05

$$N = \frac{z^2 p (1-p)}{d^2}$$

$$N = \frac{1.96^2 \times 0.26(1-0.26)}{0.05^2} = \frac{3.8416 \times 0.26 \times 0.74}{0.0025}$$

$$= \frac{0.73912384}{0.0025} = 295.649536$$

$$N = 296$$

3.5 Sampling Technique

The study used a convenience sampling method to select the participants where any Somali woman got at the PNC clinic and consented was taken

3.6 Data collection procedure

In this study, a questionnaire was used to collect data. The questionnaire was designed according to the research objectives and in line with the conceptual framework of the study variables. The interviewer administered questionnaire method was used because it was easy to administer and convenient for respondents as they can be filled depending on the respondents capability. In addition, the questionnaire also preserved respondents' confidentiality, thus encouraged participants to freely express their opinions about the study variables.

3.7 Data collection tool

A well-structured questionnaire was made in such a way that they adequately addressed the research questions. The structured self-administered questionnaire consisted of three sections. Section A covered questions on the socio-demographics of the respondents, section B covered questions to determine the individual factors of the respondents on postpartum care, while section C contained questions to determine the health facility related factors of postpartum care among Somali mothers. Structured questionnaires were used because the format is familiar to most respondents, they were straight forward to analyze, simple to administer and filled in at the respondents' convenient time. The purpose of the study was well explained to the respondents so that they could give accurate information during interviewing.

3.8 Data sources

3.8.1 Primary data sources

The study involved primary data which was gathered with the use of structured self-administered questionnaires from the respondents.

3.8.2 Secondary data sources

The information was got from textbooks, periodicals, internet, postpartum care related articles and news coupled with postpartum care and among other sources.

3.9 Study Variables

3.9.1 Dependent Variables

The dependent variable in this study was utilization of postpartum care.

3.9.2 Independent Variables

The independent variables included; socio-demographic, health facility factors and individual factors affecting postpartum care among Somali women

3.10 Plan for data Management

The completed questionnaires were checked for any data discrepancies and corrected. The questionnaires were pre-tested before data collection which ensured that all the research related questions were adequately covered by the questionnaires. The self-administered structured questionnaires were cross checked at the end of each day which ensured correctness and completeness of the data and coding made for each questionnaire.

3.11 Plan for Data Analysis

After data collection it was stored and a backup made. Data was first entered in Epiinfo then further analyzed using Statistical Package for the Social Sciences (SPSS) version 20 software, which provided a detailed analysis and then cleaned to minimize errors. Descriptive statistics were then used to summarize the data whereby it was presented by mean of frequencies, percentages, pie charts and bar graphs. Uni-variate and bi-variate analysis were done to have different statistical methods of interpretation that helped in coming up with better recommendations and conclusion from the study.

3.12 Quality control measures

A pilot study was carried to assess whether the questionnaire collects the intended data and whether the questions asked can easily be understood by the participants.

A convenience sample of 20 participants was considered as a convenience sample to carry out the pilot study. Respondents with similar characteristics to the study population were interviewed.

The questionnaire was also self-administered by the researcher and research assistants who understand the language used in the area, this solved problems of language barrier.

We also ensured that all questions of each questionnaire were fully answered before leaving a participant. Research assistants were trained on the data collection procedure and ethics so that the data collected was reliable.

3.13 Ethical considerations

The researcher observed ethics in data collection. An introductory letter from IHSU was obtained. Permission was sought from the University' Research and Ethics Committee, the administration of Kisenyi HC IV as well as from the respondents with explanations on how the research will contribute towards a healthy population of Somali mothers and their babies. Privacy, confidentiality and dignity of the respondents were considered during the research. Codes were used in the questionnaires. A study informed consent form was signed by each respondent which ensure voluntarism and acceptability to participate in the study. No compensation either financially or materially was given to the respondents for their participation in the study.

3.14 Dissemination of findings

The findings of this study were presented to International Health Sciences University, as a partial fulfillment for the award of the degree in nursing science. The report was also disseminated to KCCA health department, Kisenyi HC IV.

3.15 Limitations of the study

The researcher faced the following limitations;

The researcher anticipated that time may not be in adequate. This was because the researcher had roles and responsibilities, yet she also needed to complete her research in the prescribed period. The researcher developed a work plan for the different items and the time needed to complete each item to avoid delays in completion of the different tasks.

Furthermore, the research faced financial constraints since there were various activities undertaken including buying stationery, transport costs during data collection, welfare facilitation, as well as printing and photocopying. The researcher overcame this limitation by getting a specific budget which facilitated the different activities in the research project.

CHAPTER FOUR: PRESENTATION OF RESULTS

4.0 Introduction

A total of 296 PNC mothers were interviewed during the period of data collection. The results of the study are presented according to the study objectives. Results from Uni-variate, and Bi-variate are presented in text and tables and figures. For most findings tables have been used in the presentation of the gathered information.

4.1 Demographic factors

Table 1: The demographic factors of the respondents

Variables	Frequency	Percentage
Age		
15-24	115	38.9
25-34	120	40.5
35- 44	40	13.5
45+	21	7.1
Marital status		
Single	114	38.5
Married	124	41.9
Separated/divorced	39	13.2
Widowed	19	6.4
Level of Education?		
No Education	113	38.2
Primary	125	42.2
Secondary	38	12.8
College/University	20	6.8
Religion		
Moslem	296	100.0
Place of Residence		
Urban	296	100.0
Occupation		
Employed	108	36.5
House wife	123	41.6
Business	44	14.9
Self-employed	21	7.1
Income level		
Poor	52	15.9
Middle	205	69.3
Rich	44	14.9

The table 1 above shows that most of the respondents 120 (40.5%) were in the age group of 25-34 years. Majority of the respondents 124 (41.9%) were married. On religion, all the respondents were Muslims and all the respondents were from urban settings. Regarding

occupation, 123 (41.6%) of the respondents were housewives and most of the respondents were from middle income level family.

Table 2: The demographic factors of the respondents and PNC utilization

Variables	Utilized PNC		X ²	P-value
	Yes (%)	No (%)		
Age			15.88	0.002
15-24	47(40.9%)	68(37.6%)		
25-34	42(36.5%)	78(43.1%)		
35- 44	18(15.7%)	22(12.2%)		
45+	8(7.0%)	13(7.2%)		
Marital status			1.030	.794
Single	42(36.5%)	72(39.8%)		
Married	50(43.5%)	74(40.9%)		
Separated/divorced	14(12.2%)	25(13.8%)		
Widowed	9(7.8%)	10(5.5%)		
Level of Education?			11.938	.008
No Education	48(41.7%)	65(35.9%)		
Primary	39(33.9%)	86(47.5%)		
Secondary	14(12.2%)	24(13.3%)		
College/University	14(12.2%)	6(3.3%)		
Occupation			14.68	.000
House wife	45(39.1%)	63(34.8%)		
Employed	44(38.3%)	79(43.6%)		
Business	19(16.5%)	25(13.8%)		
Self-employed	7(6.1%)	14(7.7%)		
Income level			1.078	.782
Poor	17(14.8%)	28(15.5%)		
Middle	77(67.0%)	128(70.7%)		
Rich	20(17.4%)	24(13.3%)		

The results in table 2 indicate that at bi-variate analysis age ($X^2=15.88$, $P=0.002$), level of education ($X^2=15.88$, $P=0.002$), and occupation ($X^2=14.68$, $P=0.000$) were significantly associated with PNC utilization

4.2 Personal factor

Table 3: The personal factors of the respondents

Variables	Frequency	Percentage
Parity		
Prime gravida	125	42.2
Multi-gravida	171	57.8
Birth Order		
1-2	147	49.7
3-4	145	49.0
5+	4	1.4
Birth weight/Size		
Average	108	36.5
Larger than Average	140	47.3
Smaller than Average	48	16.2
Complication at birth to the mother or the baby		
Yes	68	23.0
No	228	77.0
ANC Use		
No ANC	54	18.2
Received ANC	242	81.8
Trimester at first ANC visit		
First trimester	113	38.2
Second trimester	118	39.9
Third trimester	42	14.2
Not attended	23	7.8

The results in table 3 show that the majority of the respondents 171 (57%) were multi-gravida, most of the respondents 147 (49.7%) had the birth order of 1-2. Regarding birth size, 140 (47.3%) had baby larger than the average. 242 (81.8%) of the respondents attended ANC visit in the last pregnancy and 118 (39.9%) of the respondents started their last ANC visit when they were in the second trimester.

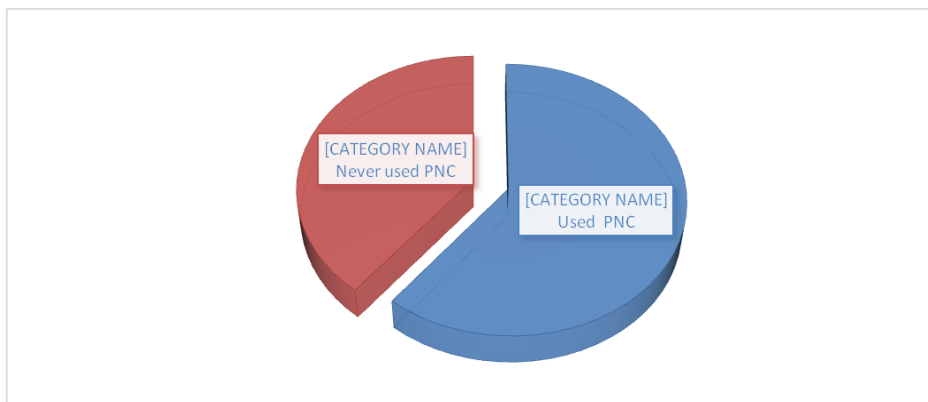
Table 4: Personal factors of the respondents and PNC services utilization

Variables	Utilized PNC		X ²	p-value
	Yes (%)	No (%)		
Parity			3.46	.006
Prime gravida	51(44.3%)	74(40.9%)		
Multi-gravida	64(55.7%)	107(59.1%)		
Birth Order			4.080	.130
1-2	63(54.8%)	84(46.4%)		
3-4	52(45.2%)	93(51.4%)		
5+	0(.0%)	4(2.2%)		
Birth weight/Size			1.875	.392
Average	47(40.9%)	61(33.7%)		
Larger than Average	49(42.6%)	91(50.3%)		
Smaller than Average	19(16.5%)	29(16.0%)		
Complication at birth to the mother or the baby			.535	.464
Yes	29(25.2%)	39(21.5%)		
No	86(74.8%)	142(78.5%)		
ANC Use			2.364	.012
No ANC	16(13.9%)	38(21.0%)		
Received ANC	99(86.1%)	143(79.0%)		
Trimester at first ANC visit			5.719	.126
First trimester	43(37.4%)	70(38.7%)		
Second trimester	42(36.5%)	76(42.0%)		
Third trimester	23(20.0%)	19(10.5%)		
Not attended	7(6.1%)	16(8.8%)		

The results in table 4 indicate that at the bi-variate analysis, parity ($X^2=3.46$, $P=0.006$), and use of ANC ($X^2=22.36$, $P=0.012$) were significantly associated with utilization of PNC services as noted in table 4 above.

4.3 Health factors

Figure 2: Utilization of PNC among the respondents



The figure above shows the level of utilization of the post natal care was 179 (60.8%) compared to the 117 (39.2%) who never utilized the services as shown in figure 1 above.

Table 5: The health facility delivery of the respondents

Variables	Frequency	Percentage
Place of Delivery		
Health Facility	242	81.8
Non-health Facility	33	11.1
Traditional Birth Attendant	21	7.1
How much distance do you cover to reach the PNC services (Km)?		
Less than 5 km		
5-10km	116	39.2
11-15km	116	39.2
More than 15km	42	14.2
	22	7.4
How long does it take you to reach the facility?		
Less than 30 minutes	53	17.9
More than 30 minutes	243	82.1
What mean of transport do you use while going to the facility		
Foot	128	43.2
Public mean	124	41.9
Other	44	14.9
How much money do you spend on transport at every visit?		
Less than 5,000 Ugx	124	41.9
5,000-10,000	160	54.1
Over 10,000	12	4.1
How much time do you usually wait at the PNC clinic before being attended??		
Less than 30 minutes	24	8.1
30-60 minutes	124	41.9
More than 60 minutes	148	50.0
On your visit for PNC service at the clinic, what would you say about the availability of services there?		
Always available	115	38.9%
Not always available	181	61.1%
In the facility, are there counseling services offered to PNC mothers		
Yes	182	61.5
No	114	38.5
How would you rate the attitude of staff who attended you at the health facility?		
Very friendly	138	46.6
Friendly	121	40.9
Not friendly	37	12.5
Are the health workers always available?		
Yes	146	49.3
No	150	50.7
What do you say about the PNC clinic days?		
Convenient	139	47.0
Not convenient	157	53.0

The results in table 5 indicate that most of the respondents 242 (81.8%) delivered from the health facility. Majority of the respondents 116 (39.2%) were living less than 5 km and 5-10 km to the health facility. Majority of the respondents 243 (82.1%) spent more than 30 minutes to reach the facility and 128 (43.2%) of the respondents use foot as a mean of transport. Regarding money spent on transport, 160 (54.1%) spent 5,000-10,000. Most of the respondents 148 (50%) reported that waiting time of 60 minutes. Regarding counseling

services offered to PNC mothers, 181 (61.5%) of the respondents reported that PNC counseling. Furthermore, 138 (46.6%) of the respondents said the health workers were very friendly, 150 (50.7%) of the respondents said the health workers were not always available and 157 (53%) of the respondents reported that the PC clinic day is not convenient.

Table 6: Health system and PNC utilization among the respondents

Variables	Utilized PNC		X ²	p-value
	Yes (%)	No (%)		
Place of Delivery			5.277	.017
Health Facility	98(85.2%)	144(79.6%)		
Non-health Facility	7(6.1%)	26(14.4%)		
Traditional Birth Attendant	10(8.7%)	11(6.1%)		
How much distance do you cover to reach the PNC services (Km)?			4.605	.023
Less than 5 km	52(45.2%)	64(35.4%)		
5-10km	39(33.9%)	77(42.5%)		
11-15km	18(15.7%)	24(13.3%)		
More than 15km	6(5.2%)	16(8.8%)		
How long does it take you to reach the facility?			2.039	.153
Less than 30 minutes	16(13.9%)	37(20.4%)		
More than 30 minutes	99(86.1%)	144(79.6%)		
What mean of transport do you use while going to the facility			3.562	.168
Foot				
Public mean	42(36.5%)	86(47.5%)		
Other	53(46.1%)	71(39.2%)		
	20(17.4%)	24(13.3%)		
How much money do you spend on transport at every visit?			2.417	.299
Less than 5,000 Ugx				
5,000-10,000	53(46.1%)	71(39.2%)		
Over 10,000	56(48.7%)	104(57.5%)		
	6(5.2%)	6(3.3%)		
How much time do you usually wait at the PNC clinic before being attended??			3.261	.196
Less than 30 minutes	10(8.7%)	14(7.7%)		
30-60 minutes	55(47.8%)	69(38.1%)		
More than 60 minutes	50(43.5%)	98(54.1%)		
In the facility, are there counseling services offered to PNC mothers			0.100	.752
Yes	72(62.6%)	110(60.8%)		
No	43(37.4%)	71(39.2%)		
How would you rate the attitude of staff who attended you at the health facility?			1.503	.472
Very friendly	56(48.7%)	82(45.3%)		
Friendly	48(41.7%)	73(40.3%)		
Not friendly	11(9.6%)	26(14.4%)		
Are the health workers always available?			21.73	.000
Yes	62(53.9%)	84(46.4%)		
No	53(46.1%)	97(53.6%)		
What do you say about the PNC clinic days?			.515	.473
Convenient	51(44.3%)	88(48.6%)		
Not convenient	64(55.7%)	93(51.4%)		

The results in table 6 show that at bi-variate analysis, Place of delivery ($X^2=5.277$, $P=0.000$), distance to the facility($X^2=4.605$, $P=0.023$), and availability of health workers ($X^2=21.73$, $P=0.000$) were significantly associated with utilization of PNC services.

CHAPTER FIVE: DISCUSSION

5.0 Introduction

This chapter discusses the research findings in relation to the problem statement, literature review of studies conducted elsewhere with and in line with the specific study objectives. It also explains the obtained results from the study.

5.1 Utilization of PNC

The study found that 179 (60.8%) of the Somali women utilized PNC services. This could be most of the Somali women were aware of the importance of PNC. This is in line with Regassa, (2011) which found that 219 (77.4%) of the mother utilized PNC. However, Khanal et.al, (2011) in their study found that only 60 (43.2%) reported attending postnatal care within the first six weeks of birth, while 49 (40.9%) reported attending immediate postnatal care. Conversely, Raja (2007) which stated that utilization of postnatal services is low – only 90 (21%) of new mothers receive it. The difference could be because of the different in study whereas this study was in urban setting; those other studies were in rural and urban setting.

5.2 Demographic factors

The study found that age ($P=0.002$) was significantly associated with PNC utilization. This could be because older women knew the importance of PNC especially to the children compared to the younger women. This is in line with Chakraborty et al, 2002; Jonazi, (2008) which stated that The mother's age may sometimes have a positive influence on PNC services because older women have increased reasoning capacity. Similarly, Stephenson & Tsui, 2002; Reynolds et al., (2006) which shown that the age of a mother plays an important role in her utilization of postnatal care services, the direction of relationship is different to what may be expected.

The study found that level of education ($XP=0.002$) was statistically associated with PNC utilization. This could be because high levels of education have knowledge and that influence the way they make their decision on important issues such as PNC attendance. This is in line with Neupane & Doku, (2013) which found that shown that there is strong relationship between education and the utilization of postnatal care. Similarly, Ugboaja et al., (2013) which reported that positive impact of high maternal educational attainment on utilization of postnatal care services in Nigeria. This implies that women's care-seeking behavior was not

the result of individual preferences, educational attainment or choice but conditioned by other factors such as community poverty, norms and tradition.

This study found that occupation ($P=0.000$) were significant associated with PNC utilization. This could be because mothers who were employed have limited time to attend to PNC services. This is in line with Kishor & Neitzel, 1997) which found that formally women are more likely to utilize postnatal care services. Similarly, women employed in the agricultural sector are less likely to utilize postnatal care services (Obermeyer and Potter, 1991 and Addai, 2000). This may be because most of the women who work are from poor households and work for family survival. Hence, working women were no more likely to receive maternal health care than women who did not work, even after controlling for socioeconomic status and place of residence

The study found no association between marital status and PNC utilization. This is not in line with (Rahman, 2000) which reported that marital status of a mother highlights the difficulty she may face as she might have to rely on her husband to secure access to medical treatment, financially and practically. For instance, she may require her husband's support or permission if she has to travel a long distance for medical consultation. A study focusing on rural Ethiopia found that married women were more likely to use antenatal care than their unmarried counterparts but found no difference in the use of postnatal care services among the two groups (Mekonnen & Mekonnen, 2002). The difference could be because this study was done among predominantly Muslims community compared to others study which was done among the difference religious community.

The study found that level of income was not associated with PNC utilization. This is not in line with Fatmi &Avan (2002) which found that pointed out that SES of women was a major determinant of utilization of services. This implies that the increase and improvement of SES of women for the utilization of prenatal services to be realized.

5.3 Personal factors

The study found that Parity ($P=0.006$) was significantly associated with PNC utilization. This could be because more parity means that the mothers have more experience on maternal issues related such as PNC attendance. This is not in line with Mwaniki et al. (2002) which found that findings of the study revealed that utilization of health facilities was significantly influenced by the number of children a woman had and the distance to the health facilities. The more the number of children a woman had, the less likely she used the services.

The study found that Use on ANC ($P=0.012$) were significantly associated with utilization of PNC services. This is because most of the mothers who attend ANC are taught on PNC hence making them to attend PNC. This is in line with Nankwanga, 2004; Dhakal et al, 2007; Iqbal Anwar et al, 2004) which found that found a strong association between attendance of antenatal care and utilization of PNC. Level of prenatal care is indicative of levels of PNC women seek for themselves and their children in the first year after delivery. Similarly, Dhakal et al (2007) authors reported that lack of knowledge affects women's capabilities to make their own decisions about seeking health care and constrains their ability to exercise their reproductive rights as well. Abu-El-Haija et al (2005) conducted a cross-sectional study in two semi-urban areas in northern Jordan where they investigated the pattern and determinants of PNC utilization. Results showed that utilization of PNC was positively related to home delivery, delivery by a traditional birth attendant, advice to women by provider to seek PNC, and presence of postnatal health problems.

5.4 Health system factors

The study found that Place of delivery ($P=0.000$) was significantly associated with PNC utilization. This is in line with Dhakal et al (2007) which reported that place of delivery influenced utilization of PNC like private hospitals, which offer individualised care to clients and inform them on danger signs for their own and the babies before discharge. Similarly, Anwar et al., 2008; Mrisho et al., 2009) found that Health care facility delivery and assistance of delivery by health care workers are two of the factors that have been found to be associated with the increased utilization of postnatal care services.

The study found that distance to the facility ($P=0.023$) was significantly associated with PNC utilization. This because distance from the facility determines the way people are influence to utilize a services as it affect people in term of money for transport. This is in line with Mwaniki et al. (2002) which found that mothers who were living in a distance less than 5 kilometres to the health facilities utilized the services better than those who lived in a distance 5 kilometres away and beyond. A similar report was made by Gulliford et al. (2001) who found that distance from a service is inversely associated with its utilization.

This study found that availability of health workers ($P=0.000$) were significantly associated with utilization of PNC services. This could be because the service providers have to be there for the services to be provided. This is in line with Mwaniki et al. (2002) who reported that

lack of satisfaction with the quality of the services, lack o cleanliness in the health facilities, poor quality of catering services, and lack of money for transport and hospital fee. Similarly, Parkhurst and Ssengoba (2005) found that some women can travel to the most popular health facilities or those regarded to be of better quality irrespective of the distance

CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS

6.0 Introduction

This chapter deals with the brief summary of the steps taken in the study, conclusions, study findings and implications to District management and recommendations.

6.1 Conclusion

The level of the utilization of PNC was high at (60.8%).

The demographic factors that were significantly associated with PNC utilization were age, level of education, and occupation

Parity and use of ANC were the personal factors that were significantly associated with PNC utilization

The health facility factors of Place of delivery distance to the facility and availability of health workers were significantly associated with utilization of PNC services.

6.2 Recommendations

From the findings of the study, we therefore recommend the following;

The results from this study suggest that public health policies aimed at reducing maternal and newborn morbidities and mortalities in Uganda should include strategies to improve postnatal care utilization through: increasing maternal education, poverty reduction which involves education and empowerment of women by providing them with skills that can assist them make appropriate livelihood. Improving accessibility to postnatal care services should also be a priority in Uganda Community based efforts should ensure availability of services which should be offered within a reasonable distance from where mothers live.

Health education about postnatal care for women on a regular basis is very important. Health education about the importance of postnatal care can be done during antenatal care sessions in clinics by the nurses. This can be made routine in all health facilities providing antenatal and postnatal care

Community participation is one of the important ways to bring community members closer to health services. The community can offer a lot of opportunities for the improvement of health services

In order to improve access to maternal health services, government should locate health services as close as possible to the community where the people live. This could be done by training more midwives who serve as the critical link between communities, TBAs and

clinical resources in Uganda, and post them to the community level. Training more TBAs and equipping them with appropriate tools and responsibilities to teach the women about the importance of postnatal services can also improve accessibility.

The ministry of health has to make a comprehensive plan to overcome informational barriers by increasing the women's understanding and awareness of the need to go for, and availability of postnatal care services. In addition, women should also be educated about the risks they face, signs of danger and their right and the need to have decision-making powers over their own health.

The ministry of health should ensure that all health facilities offer affordable and high quality services. This requires health systems to have an adequate trained staff, a regular supply of drugs, equipment, and other supplies. Functioning referral systems and transport are also necessary to ensure that women in need of higher-level care get it quickly. Besides the ministry of health should enforce standards and protocols for service delivery, management, and supervision and use them along with feedback from clients to monitor and evaluate service quality.

REFERENCES

AbouZahr, C. & Bere, M. (1999). *When Pregnancy is Over: Preventing Post-Partum Deaths and Morbidity, in Safe Motherhood Initiatives: Critical Issues. Reproductive Health Matters*. Berer, M. and TK Sundari Ravindran, eds. Blackwell Science Ltd. Oxford U.K., 1999.

AbouZahr, C. & Wardlaw, T. (2001). Maternal mortality at the end of a decade: signs of progress? *Bulletin of the World Health Organisation*. 79:561–568.

Adegoke A. A., & Van den Broek, N. (2009): *Skilled birth attendance-lessons learnt. BJOG* 2009, 116 Suppl 1:33-40.

Ajayi, A.D., Garba, S.N., Ngoran, G.B., and Djo, A.A. 2004. *Early marriage and its implications among women in Samaru, Zaria, Nigeria*. African Journal of Nursing.

Anderson, R., Newman, J.F. (1973). Societal and Individual Determinants of Medical Care
Amin, R., Shah, N. M., & Becker, S. (2010). *Socioeconomic factors differentiating maternal and child health-seeking behavior in rural Bangladesh: A cross-sectional analysis*. International Journal for Equity in Health, 9, 9.

Amooti-Kaguna, B., & Nuwaha, F. (2000). *Factors Influencing Choice of Delivery Sites in Rakai District of Uganda*. Social Science & Medicine, 50, 203-213.

Anwar, I., Sami, M., Akhtar, N., Chowdhury, M.E., Salma, U., Rahman, M. Koblinsky, M., (2008). *Inequity in maternal health-care services: evidence from home-based skilled-birth attendant programmes in Bangladesh*. doi: 10.2471/BLT.07.042754

Aremu, O., Lawoko, S., Dalal, K. (2011). *Neighbourhood socioeconomic disadvantage, individual wealth status and patterns of delivery care utilization in Nigeria: A multilevel discrete choice analysis*. Int J Womens Health. 3:167–74.

Bantebya-kyomuhando B and Nuwaha F. 2000. *factors influencing choice of delivery sites in Rakai District of Uganda*. *social science and medicine*, 50[2], 203-213

Babalola, S., Fatusi, A. (2009). Determinants of use of maternal health services in Nigeria – Looking beyond individual and household factors. *BMC Pregnancy Childbirth.*; 12:43. doi: 10.1186/1471-2393-9-43.

Baqui, A. H, El-Arifteen, S., Darmstadt, G. L. (2008). Effect of community-based newborn-care intervention package implemented through two service-delivery strategies in Sylhet district, Bangladesh: a cluster-randomised controlled trial *Lancet*, 371 , pp. 1936–1944

Barriers to postnatal care and exclusive breastfeeding among urban women in southeastern Nigeria. *Journal of the Nigeria Medical Association*; 54(1):45-50.

Bawa, S. B., Umar, U. S., Onadeko, M. (2004). Utilization of obstetric care services in a rural community in Southwestern Nigeria. *Afr J Med. Med Sci*; 33:239-44.

Bhatia, J. C., & Cleland, J. (1995). Determinants of maternal care in a region of South India. *Health Transition Review*, 5(2), 127–142.

Bibi, S., S. Ghaffar, S. Memon and S. Memon, (2012). Severe acute maternal morbidity (SAMM) in postpartum period requiring tertiary Hospital care. *Iran J. Reprod. Med.*, 10(2): 87-92.

Bishari, D., Suzuki E., Mc Question, M., Chakraborty, J., Koenig, M (2002). The role of public health programmes in reducing socio-economic inequalities in childhood immunization coverage. *Health Policy and Planning*, 17 (4), 412–419

Bolaji, M., Fapohunda, Nosakhare G. Orobato (2013). When Women Deliver with No One Present in Nigeria: Who, What, Where and So What? *PLOS ONE*: published 25 Jul 2013

Buor, D. (2003), Analysing the primacy of distance in the utilization of health services in the Ahafo-Ano South district, Ghana. *Int. J. Health Plann. Mgmt.*, 18: 293–311.

Brown, C. A., Sohani, S. B., Khan, K., Lilford, R. and Mukhwana, W., (2008). Antenatal care and perinatal outcomes in Kwale district, Kenya, *BMC Pregnancy and Childbirth*, vol. 8, article

Central Statistical Agency. *Ethiopia Demographic and Health Survey: Addis Ababa: Central statistical agency; 2011.*

Caldwell, J. (1979). Education as a factor in mortality decline: an examination of Nigerian data. *Population Studies*, 395-413.

Celik, Y., & Hotchkiss, D. R. (2000). The socioeconomic determinants of maternal health care utilization in Turkey. *Social Science and Medicine*, 50(12), 1797–1806.

Cleland, J. G, Van Ginneken JK: Maternal education and child survival in developing countries: the search for pathways of influence. *SocSci Med* 1988, 27(12):1357-1368.

Department of making pregnancy safer; Switzerland; World Health Organization; 2008: Available at: http://whqlibdoc.who.int/hq/2010/WHO_MPS_10.03_eng.pdf

Darmstadt, G. L., Bhutta Z. A., Cousens S.; *Lancet Neonatal Survival Steering Team*. Evidencebased, cost-effective interventions: how many newborn babies can we save? *Lancet* 2005;365:977–88.

Doctor, H.V., Bairagi, R., Findley, S.E., Hellinginger, S., Dahiru, T. (2011). Northern Nigeria Maternal, Newborn and Child Health Programme: selected analyses from population-based baseline survey *Open Demography Journal*, (4) 11–21.

Dhakal, S. Chapman, G. N. Simkhada, P. P. van Teijlingen E. R., Stephens, J. Raja A. E. (2007) Utilisation of postnatal care among rural women in Nepal. *BMC Pregnancy and Childbirth*, 7:19.

Elo, I.T. (1992). Utilization of maternal health-care services in Peru: the role of women's education. *Health Transit Rev*, 2:49-69.

Feikin, D. R., Nguyen L. M., Adazu K., Ombok M., Audi A., Slutsker L., Lindblade K. A. (2009). The impact of distance of residence from a peripheral health facility on pediatric health utilisation in rural western Kenya. *Trop Med Int Health*, 14:54-61.

Fosu, G. B. (1994) *Childhood morbidity and health services utilization: cross-national comparisons of user-related factors from DHS data*. *Social Science and Medicine*, 38, 1209–1220

Fort, A. L., Kothari, M. T., Abderrahim, N. (2006). DHS Comparative Reports No 15. Calverton, Maryland USA: Macro International Inc.; *Postpartum Care: Levels and Determinants in Developing Countries?*

Fotso, J. C. (2007). *Urban-rural differentials in child malnutrition: Trends and socioeconomic correlates in sub-Saharan Africa*. *Health and Place*, 13, 205–217.

Gage, A. J. (1998). Premarital childbearing, unwanted fertility and maternity care in Kenya and Namibia. *Population Studies*, 52(1), 21–34.

Hove, I., Siziya, S., Katito, C., Tshimanga, M., (1999). Prevalence and Associated Factors for Non-Utilisation of Postnatal Care Services: Population-Based Study in Kuwadzana Peri-Urban Area, Zvimba District of Mashonaland West Province, Zimbabwe. *African Journal of Reproductive Health / La Revue Africaine de la Santé Reproductive* , Vol. 3, No. 2, pp. 25-32

Islam, M. R., and Odland, O.D. (2011). Determinants of antenatal and postnatal care visits among Indigenous people in Bangladesh: A study of the Mru community. *Rural Remote Health J* 11:1672.

Ikaman, L.D.E. 2004. Maternal health care utilization in Teso District, Kenya. *African Journal of Health sciences* (11): 21-32. Irinoye, O.O., Adeyemo, A., Elujoba,

Jahangir, E., Irazola V., Rubinstein A. (2012), Need, Enabling, Predisposing, and Behavioural Determinants of Access to Preventative Care in Argentina: Analysis of the National Survey of Risk Factors. *PLoS ONE* 7(9)

Jejeebhoy, S. J. (2002). Convergence and divergence in spouses' perspectives on women's autonomy in rural India. *Studies in Family Planning* 33(4): 299–308.

Kinney, M. V., Kerber K. J., Black R. E., Cohen B., Nkrumah F (2010). Sub-Saharan Africa's Mothers, Newborns, and Children: Where and Why Do They Die? *PLoS Med*7(6):

Koblinsky, M., Anwar, I., Mridha, M.K., Chowdhury, M.E., Botlero, R. (2008). Reducing Maternal Mortality and Improving Maternal Health: Bangladesh and MDG 5 *J Health PopulNutr.* 26(3): 280–294.

Koch E, Thorp J, Bravo M, Gatica S, Romero CX, (2012) *Women's Education Level, Maternal Health Facilities, Abortion Legislation and Maternal Deaths: A Natural Experiment in Chile from 1957 to 2007.*

Lawn, J.E., Cousens, S., Bhutta, Z.A., Darmstadt G.L, Martines J., Paul V., Knippenberg R., Fogstad H., Shetty P., Horton R., (2004): Why are 4 million new borns dying each year? *Lancet* 362:399-401.

Lawn, J. E., Cousens S., Zupan J. (2005). *4 million neonatal deaths: When? Where? Why?* *TheLancet* 365:891-900.

Lawn, J., Kerber K. (2006).*Opportunity for Africa Newborns: Practical data, policy and programmatic support for newborn care in Africa.* eds. *PMNCH*, Cape Town.

Lawn, J.E., Gravett, M.G., Nunes, T.M., Rubens, C.E., Stanton, C. (2010). *Global report on preterm birth and stillbirth (1 of 7): definitions, description of the burden and opportunities to improve data.* *BMC Pregnancy Childbirth*, 10(1):S1.

Li, X.F., Fortney, J.A., Kotelchuck, M., Glover, L.H. (1996). The postpartum period: the key to maternal mortality. *International Journal of Gynecology and Obstetrics*, 1996, 54:1–10.

Lincetto, O et al., Antenatal Care, In: Lawn J. and Kerber K., (eds.), *Opportunities for Africa's Newborns: Practical Data, Policy and Programmatic Support for Newborn Care in Africa*, Cape Town, South Africa; WHO, 2006, pp. 51-62.

Magadi, M., Rodrigues, R. and Madise, N., 1999, 'Variations in Antenatal Care between Women of Different Communities in Kenya', *APHRC Working Papers*, Series No. 14 accessed on line at [http://:pop.pdf](http://pop.pdf) on 11 November 2013.

Maternal mortality estimation interagency Group (MMEIG) 2007. Trends in maternal mortality 1990 to 2010: WHO, UNICEF, Save the children. Postnatal Care: A Critical Opportunity to Save Mothers and Newborns. Washington, DC; population reference bureau:

World Bank estimates: Switzerland; World Health Organization; (2010). Utilization in the United States. *MilparkMem Fund Q Health Soc.*; 51: 95-124.

McDonagh, M. (1996). Is antenatal care effective in De Bernis, L. Sherratt, D. R., AbouZahr, C. Van Lerberghe, W. (2003). Skilled attendants for pregnancy, childbirth and postnatal care. *British Medical Bulletin* **67**, (1) 39–57.

Onama V 2001. Access barriers to maternal health services in Moyo hospital Uganda and their association with obstetric emergencies.

Parkhurst J.O and Ssenogooba F 2005. Access to and utilization of professional child delivery services in Uganda and Bangladesh. *Health systems development programme, Uganda country report.*

Rosenstock, I. M., (1990). The health belief model: explaining health behavior through expectancies. In: Glanz, K., Lewis, F. M., Rimer, B. K., (eds). *Health Behavior and Health Education: Theory, Research, and Practice*. San Francisco, CA: Jossey-Bass; 1990:39-62.

Sepehri, A., Sarma, S., Simpson, W., & Moshiri, S. (2008). *How important are Individual, Household and Commune Characteristics in Explaining Utilization of Maternal health services in Vietnam?* *Social Science & Medicine*, 67, 1009-1017

Singh, S. et al., (2009). *Adding it up: The Costs and Benefits of Investing in Family Planning and Maternal and Newborn Health*, New York: Guttmacher Institute and UNFPA.

Singh, L., Rai, R. K., & Singh, P. K. (2011). *Assessing the utilization of maternal and child health care among married adolescent women: Evidence from India*. Journal of Biosocial Sciences.

Singh, S., Darroch, J. E., and Ashford L. S. (2013). *Adding It Up: The Need for and Cost of Maternal and Newborn Care—Estimates for 2012*, New York: Guttmacher Institute, 2013, <<http://www.guttmacher.org/pubs/AIUMNH-2012-estimates.pdf>>.

Singh, A., Padmadas, S. S., Mishra, U. S., Pallikadavath, S., Johnson, F. A., (2012) Socio-Economic Inequalities in the Use of Postnatal Care in India. *PLoS ONE* 7(5):

Stock, R. (1983), Distance and Utilisation of Health Facilities in Rural Nigeria. *Social Science and Medicine*, 17, 63–570.

Shaikh Tayyaba KRA, Dr. Khairkar VP. Utilization of Maternal and Child Health Care Services among Muslims in India on the basis of report of RCH-(2002), District level household survey (DLHS-2) 2002-2004 and Facility Survey under Reproductive and Child Health Project 2002-2003.

Sharma, S. K., Sawangdee, Y., and Sirirassamee, B. (2007). Access to Health: Women's Status and Utilization of Maternal Health Services in Nepal. *Journal of Biosocial Science*, 39, pp671-692. doi:10.1017/S0021932007001952.

Stephenson, R., Baschieri, A., Clements, S., Hennink, M., Madise, N. (2006). Contextual Influences on the Use of Health Facilities for Childbirth in *Africa Am J Public Health*.

Sines, E., Syed, U., Wall, S., Worley, H. (2007). *Postnatal care: a critical opportunity to save mothers and newborns*. In Policy Perspectives on Newborn Health – Saving Newborns Lives. Save the Children and Population Reference Bureau:1-8.2002. Antenatal Utilization, Family Planning and Fertility preference in Tar. Van

Titaley, C., Dibley, M., Agho, K., Roberts, C., Hall, J(2008): *Determinants of neonatal mortality in Indonesia*. BMC Public Health 2008, 8(1):232

Titaley, C. R., Dibley, M. J., Roberts, C. L., (2009). *Factors associated with non-utilisation of postnatal care services in Indonesia*. *Journal of Epidemiology and Community Health*. 2009: 827–31.

UNFPA, et al., (2012). *Trends in Maternal Mortality: 1990-2010*, 2012:WHO UNFPA, (2003). *Achieving the millennium development goals. Population and reproductive health as critical determinants, Population and Development Strategies Series*, vol. 10, pp. 4–13, 2003.

UNICEF. (2012). *Levels & Trends in Child Mortality. Report 2012. Estimates Developed by the UN Inter-agency Group for Child Mortality Estimation*. New York: UNICEF; 2012:32.

Wairagala, W. (2013). Nigeria aims to boost fight against maternal mortality. *Lancet* Vol.381, Issue 9879,

Vail, J. Regassa, N. (2011). Antenatal and postnatal care service utilization in southern Ethiopia a population based study. *Afr Health Sci*. 2011;12(3):390–397

World Health Organization. 2001. *Advancing Safe Motherhood through Human Rights*.

E., Anyanwu, Ebere C. (2003): *The Scientific World Journal* Vol. 3 Pp 1081 – 1092. Ziyani, I.S., King, L., Ehlers, V.J. 2004. Using triangulation of research methods to investigate family planning practices in Swaziland. *Africa Journal of Nursing and Midwifery* 6(1): 12-1

World health organizations. *Technical Consultation on Postpartum and Postnatal Care*:

Wang, W., Soumya, A., Shanxiao, W., and Alfredo, F. (2011). *Levels and Trends in the Use of Maternal Health Services in Developing Countries. DHS Comparative Reports No. 26*. Calverton, Maryland, USA: ICF Macro.

Warren, C., Daly, P., Toure, L. & Mongi, P. (2006) Postnatal care. In: *Opportunities for Africa's Newborns* (eds. J Lawn & K Kerber). PMNCH, Cape Town.

Wong, E. L., Popkin, B. M., Guilkey, D. K., (1987). Accessibility, quality of care and pre-natal care use in the Philippines. *Soc Sei Med* 1987;24:927-44. World Health Organization.

(1994). *Mother Baby Package: Implementing Safe Motherhood in Countries. Maternal Health and Safe Motherhood Program*, WHO/FHE/MSM/94.11, WHO.Geneva, 1994.

World Health Organisation (1998). *Postpartum care of the mother and newborn: A practical guide*. Maternal and Newborn Health/Safe Motherhood Unit, Division of Reproductive Health (Technical Support), Geneva, Switzerland.

World Health Organization (WHO) (2003). *Maternal mortality in 2000: estimates developed by WHO, UNICEF and UNFPA*. WHO, Geneva. 2003.

World Health Organization (WHO) (2006). *Mortality Country Fact Sheet*. World Health Statistics. 2006.

WHO, UNICEF, USAID, Children St. WHO-UNICEF (2009). *Joint Statement on home visits for the newborn child: a strategy to improve survival*. Geneva: World Health Organization; 2009.

Yamin, A. E., Boulanger, V. M., Falb, K. L., Shuma, J., Leaning, J. (2013). *Costs of Inaction on Maternal Mortality: Qualitative Evidence of the Impacts of Maternal Deaths on Living Children in Tanzania*. *PLoS ONE* 8(8):

York, R., Tulman, L., Brown, K., (2000). Postnatal care in low-income urban African American women: relationship to level of prenatal care sought. *J Perinatol*. Jan-Feb;20(1):

APPENDIX I: CONSENT FORM

TOPIC: Factors affecting utilization of the PNC services by the Somali mothers in Kisenyi health Centre IV

Dear respondents

My name is **MAYMUN BASHIR MOHAMUD** a finalist student at International Health Sciences University, pursuing a Bachelor of Nursing Science. I would like to request you to kindly take part in the above mentioned study by responding to the questions that I am going to ask you. This research is a basic requirement for study purposes. The participation in this study is free and voluntary, the information you will provide will be confidential, and will serve the purpose of this study. Taking part and responding to these questions will take you the minimum of ten and a maximum of fifteen minutes. Taking part in this study by giving your information will be a proof that you took part in the study.

Statement of consent

This is to certify that to the best of my knowledge, I have read and understood the above information. I agree to take part in this study willingly and freely, and that there are no risks or materials/financial incentives involved.

Respondent signature or thumb print.....

Date.....

APPENDIX II: QUESTIONNAIRE

Section A: Socio-demographic factors

1. Age

15-24 [] 25-34 [] 35- 44 [] 45+ []

2. Marital status

Single []

Married []

Separated/divorced []

Widowed []

3. Level of Education?

No Education [] primary []

Secondary [] College/University []

4. Religion

Catholics [] Moslem [] Born again []

Protestant [] Others Specify []

5. Place of Residence

Urban []

Rural []

6. Occupation

House wife []

Employed []

Business []

Self-employed []

7. Income level

Poor []

Middle []

Rich []

Section B: Personal factors

1. Parity

Prime gravida [] Multi-gravida []

2. Birth Order

1-2 []

3-4 []

5+ []

3. Birth weight/Size

Average []

Larger than Average []

Smaller than Average []

4. Complication at birth to the mother or the baby

Yes []

No []

5. ANC Use

No ANC []

Received ANC []

6. Trimester at first ANC visit

First trimester [] Second trimester []
Third trimester [] Not attended []

Section C: Health facility related factors

1. Place of Delivery

Health Facility [] Non-health Facility []
Traditional Birth Attendant []

2. How much distance do you cover to reach the PNC services (Km)?

Less than 5 km [] 5-10km []
11-15km [] More than 15km []

3. How long does it take you to reach the facility?

Less than 30 minutes [] More than 30 minutes []

4. What mean of transport do you use while going to the facility

Foot [] Public mean [] other []

5. How much money do you spend on transport at every visit?

Less than 5,000 Ugx [] 5,000-10,000 [] Over 10,000 []

6. How much time do you usually wait at the PNC clinic before being attended??

Less than 30 minutes [] 30-60 minutes []
More than 60 minutes []

7. On your visit for PNC service at the clinic, what would you say about the availability of services there??

Always available [] Not always available []

8. In the facility, are there counseling services offered to PNC mothers

Yes [] No []

9. How would you rate the attitude of staff who attended you at the health facility??

Very friendly [] Friendly []
Not friendly []

10. Are the health workers always available?

Yes [] No []

11. What do you say about the PNC clinic days?

Convenient [] Not convenient []

APPENDIX III: INTRODUCTORY LETTER



making a difference in health care

Office of the Dean, School of Nursing

Kampala, 14th July 2016

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

Dear Sir/Madam,

RE: ASSISTANCE FOR RESEARCH

Greetings from International Health Sciences University.


This is to introduce to you **Maymun Bashir Mohamud** Reg. No. **2012-BNS-FT-031** who is a student of our University. As part of the requirements for the award of a Bachelors degree in Nursing of our University, the student is required to carry out research in partial fulfillment of her award.

- Her topic of research is: **Factors affecting the utilization of Postpartum care services by Somali mothers in Kisenyi Health Center IV.**

This therefore is to kindly request you to render the student assistance as may be necessary for her research.

I, and indeed the entire University are grateful in advance for all assistance that will be accorded to our student.

Sincerely Yours,


Ms. Agwang Agnes
Ag. Dean, School of Nursing



The International Health Sciences University
P.O. Box 7782 Kampala – Uganda
(+256) 0312 307400 email: aagwang@ihsu.ac.ug
web: www.ihsu.ac.ug

APPENDIX IV: CORRESPONDENCE LETTER

KISENYI HEALTH CENTRE IV

P.O. BOX 7010

KAMPALA, UGANDA

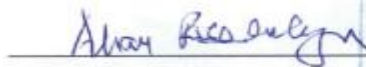
INTERNATIONAL HEALTH SCIENCE UNIVERSITY

P.O BOX 7782

KAMPALA, UGANDA

RE: PERMISSION FOR DATA COLLECTION AT KISENYI HEALTH CENTRE IV

I have allowed Maymun Bashir Mohamud, **registration number 2012-BNS-FT-031** to collect data at this health facility on the research topic entitled **FACTORS AFFECTING THE UTILISATION OF POSTPARTUM CARE SERVICES BY SOMALI MOTHERS IN KISENYI HEALTH CENTRE IV** from 21st July to 21st August 2016.



IN-CHARGE, KISENYI HEALTH CENTRE IV.

